Planning Commission Meeting Agenda

ASHLAND PLANNING COMMISSION

REGULAR MEETING AGENDA

Tuesday, May 13, 2025

Note: Anyone wishing to speak at any Planning Commission meeting is encouraged to do so. If you wish to speak, please rise and, after you have been recognized by the Chair, give your name and complete address for the record. You will then be allowed to speak. Please note the public testimony may be limited by the Chair.

I. CALL TO ORDER

7:00 p.m., Civic Center Council Chambers, 1175 E. Main Street

II. ANNOUNCEMENTS

1. Staff Announcements
2. Advisory Committee Liaison Reports

III. CONSENT AGENDA

1. Approval of Minutes
   a. April 22, 2025 Study Session
   b. April 22, 2025 Special Meeting

IV. PUBLIC FORUM

Note: To speak to an agenda item in person you must fill out a speaker request form at the meeting and will then be recognized by the Chair to provide your public testimony. Written testimony can be submitted in advance or in person at the meeting. If you wish to discuss an agenda item electronically, please contact PC-public-testimony@ashland.or.us by May 13, 2025 to register to participate via Zoom. If you are interested in watching the meeting via Zoom, please utilize the following link: https://zoom.us/j/96672253968

V. TYPE III PUBLIC HEARINGS

PLANNING ACTION: PA-T3-2024-00011
SUBJECT PROPERTY: 1511 Highway 99 North
APPLICANT/OWNER: Casita Developments, LLC
Kendrick Enterprises LLC (Robert Kendrick)
Linda Zare, Property Owner

DESCRIPTION: A request for the **Annexation** of 8.62 acres located at 1511 Highway 99 North into the City of Ashland, along with 6.6 acres of adjacent Oregon Department of Transportation state highway right-of-way and 7.68 acres of California Oregon & Pacific/Gennesse-Wyoming Railroad Company railroad property. The property is currently located in Jackson County and zoned Rural Residential (RR-5); with **Annexation** the property would be brought into the City as Low Density, Multi-Family Residential (R-2). Concurrent with Annexation, the application also requests: a **Property Line Adjustment** to adjust the boundary between Lots 1700 and #1702 (only Tax Lot #1702 is proposed to be annexed); **Outline & Final Plan** subdivision approval to create nine lots; **Site Design Review** to construct 210 apartments in ten buildings including at 24 affordable units; an **Exception to the Site Development and Design Standards**; an **Exception to the Street Design Standards**; and **Tree Removal Permits** to remove two trees greater than six-inches in diameter at breast height.
COMPREHENSIVE PLAN DESIGNATION: Multi-Family Residential; **ZONING: Existing** – County RR-5 Rural Residential**, Proposed –** City R-2 Low Density Multi-Family Residential; **ASSESSOR'S MAP:** 38 1E 32; **TAX LOT #'s:** 1702 (boundary adjusted with 1700)

VI. OPEN DISCUSSION

VII. ADJOURNMENT

Next Meeting Date: May 27, 2025

If you need special assistance to participate in this meeting, please contact Derek Severson at planning@ashlandoregon.gov or 541.488.5305 (TTY phone number 1.800.735.2900). Notification at least three business days before the meeting will enable the City to make reasonable arrangements to ensure accessibility to the meeting in compliance with the Americans with Disabilities Act.

Planning Commission Minutes

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February 25, 2025
Planning Commission & City Council Joint Study Session
***DRAFT* Minutes**

I. CALL TO ORDER:

Chair Verner called the joint meeting to order at 7:01 p.m. at the Civic Center Council Chambers, 1175 E. Main Street. Commissioner Perkinson attended the meeting via Zoom.

Commissioners Present:
Lisa Verner
Eric Herron
Gregory Perkinson
Russell Phillips
Susan MacCracken Jain
Kerry KenCairn
John Maher

Councilors Present:
Tonya Graham
Eric Hansen
Gina DuQuenne
Bob Kaplan
Jeff Dahle

Absent Commissioners:
None

Absent Councilors:
Dylan Bloom

Council Liaison:
None

Staff Present:
Brandon Goldman, Community Development Director
Sabrina Cotta, City Manager
Derek Severson, Planning Manager
Veronica Allen, Associate Planner
Michael Sullivan, Executive Assistant

II. ANNOUNCEMENTS

1. Staff Announcements:

Community Development Director Brandon Goldman made the following announcements:

- He reminded the Commission that it will have a Special Meeting on April 29, 2025 to review the upcoming Climate Friendly Areas (CFA) zoning and code updates.
- The Commission will review an application for the annexation of 1511 Highway 99 North and its proposed 210-unit development on May 13, 2025.

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please email planning@ashland.or.us. Notification 72 hours prior to the meeting will enable the City to make reasonable arrangements to ensure accessibility to the meeting (28 CFR 35.102-35.104 ADA Title 1).

- The City has begun developing a Transportation System Plan (TSP) update.
- Terms for Planning Commissioners and Advisory Committee members now expire on December 31, previously April 30.
- Councilor Doug Knauer resigned from the Council on April 15, 2025, leaving the Council Liaison position on the Commission vacant. The Council will appoint a new liaison at a future meeting.
- May 3rd is Hazardous Waste Day for the City, with Green Debris Day on May 4th, and Spring Clean Day on May 14th.

2. **Advisory Committee Liaison Reports** – None

IV. PUBLIC FORUM – None

V. DISCUSSION ITEMS

1. Economic Opportunity Analysis – CAI Consultant Presentation

Mr. Goldman stated that the EOA was being initiated in compliance with Statewide Planning Goal 9 and forecasts future employment and economic growth for the City and would help inform decisions going forward. It is a result of regional and local collaboration with the consultant group Community Attributes Inc (CAI) conducting an analysis with Medford to align data to predict the next 20 years of growth. The EOA's next steps will include City staff input and public outreach, including meetings with focus groups and a Public Hearing with the Commission on May 27th and another with the Council on June 3rd.

Consultant Presentation

Elliot Weiss and Kourtney Cena of CAI described an EOA as a technical study that compares projected demand for land for industrial and other employment uses to the existing supply of such land, while assisting communities in implementing their local economic development objectives and forms the basis for industrial and other employment development policies in the Comprehensive Plan.

Mr. Weiss detailed how CAI reviewed the City's Buildable Land Inventory (BLI), and found that the City had a total of 542 acres of employment land and 630 net buildable acres within the Urban growth Boundary (UGB). The consultant team described the City's population as growing at a .6% annual rate, with the demographics tending towards older, more educated, and less diverse than that of the region's average. Mr. Weiss concluded by describing the various opportunities, threats, strengths, weaknesses the City has, such as a workforce that largely works outside the City, but that the City has access to regional attractions and outdoor recreation (see attachment #1).

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Better Together

Discussion

The Commission and Council discussed a number of topics related to CAI's findings, including:

- The data used to create this 20-year forecast.
- Land that is partially developed and could accommodate new developments or redevelopment.
- The decline of IT jobs within the City as it relates to the rest of the region.
- Which sectors the City can focus on to improve growth, such as childhood development.
- Whether there are any pitfalls of conducting a joint study with Medford versus other cities of a comparable size to Ashland.
- The number of residents who commute to jobs outside the City or are retired from the workforce.
- How the City's relative homogeny and large population of senior residents effects things like homeownership.
- The need to encourage more opportunity for people to live and work in the City.
- The large number of renters who are cost-burdened.
- The perceived difficulty of developing in the City and the high cost of building materials.

2. Southern Oregon University Masterplan "Light Update"

Planning Manager Derek Severson explained that state law requires the City to work with universities to develop their Masterplans and outlined the timeline of this project going forward.

Alan Harper and Robert Patridge introduced themselves as representatives of SOU and outlined the difficulties the university has faced in recent years, including decreases in enrollment, student housing, and the number of students seeking parking permits. They spoke about facilities with inadequate living standards, such as the Greensprings Housing complex which has unusable piping and is not ADA compliant, and also the recently demolished Cascade building. Mr. Harper related how SOU is requesting that the City allow for buildings of up to 70ft within the SOU district.

They emphasized the importance of connectivity between the various SOU facilities, stating that many residents are unaware that the Pavilion and the Farm by Science-Works are part of SOU. Mr. Harper stated that connectivity and open-space will help build culture and character for SOU, and that there is also a strong emphasis on sustainability in the new Masterplan. He stated that SOU owns various unused parcels that it has begun to sell near campus which could be turned into needed housing for the City, and that developing mixed-use buildings on campus could help retain students.

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Discussion

The Commission and Council discussed various aspects of the SOU Masterplan, including:

- The potential for an increased building height of 70ft on campus and how this could potentially lead to greater student retention. It was suggested that SOU should seek private funding for such a project.
- Encouraging and incentivizing alternative modes of transportation to campus, such as public transit and cycling.
- The proposed Cascade project oriented towards housing more senior residents, as well as the importance of seeking and retaining a more youthful student body too. Mr. Patridge emphasized that senior students would be fully integrated into the SOU community as full-time students and that there will be a series of public hearings as SOU selects a partner to develop this plan.
- The concern about the strain that future developments could put on City facilities, such as Parks and the Fire and Police Departments, particularly since SOU does not pay property tax to offset the potential new demand for services.
- The increase of proposed and aspirational solar facilities provided that there is adequate utility capacity.

VI. ADJOURNMENT

Joint Meeting with City Council adjourned at 9:27 *p.m.*

Submitted by,
Michael Sullivan, Executive Assistant

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Planning Commission Minutes

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April 22, 2025
Special Meeting
***DRAFT* Minutes**

I. CALL TO ORDER:

Chair Verner called the Special Meeting to order at 9:27 p.m. at the Civic Center Council Chambers, 1175 E. Main Street. Commissioner Perkinson attended the meeting via Zoom.

Commissioners Present:
Lisa Verner
Eric Herron
Gregory Perkinson
Russell Phillips
Susan MacCracken Jain
John Maher

Staff Present:
Brandon Goldman, Community Development Director
Derek Severson, Planning Manager
Michael Sullivan, Executive Assistant

Absent Members:
Kerry KenCairn

Council Liaison:
None

II. CONSENT AGENDA

1. Approval of Minutes
   a. February 25, 2025 Special Meeting
   b. April 8, 2025 Regular Meeting

Commissioners Perkinson/Phillips m/s to approve the Consent Agenda as presented. Voice Vote: All AYES. Motion passed 6-0.

III. PUBLIC FORUM – None

IV. UNFINISHED BUSINESS

1. Approval of Findings for PA-T2-2024-00053, 231 Granite Street

Ex Parte Contact

No ex parte contact was disclosed.

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Deliberation and Decision

Mr. Goldman stated that several small revisions had been made to the Findings, including: the removal of the term "small" in reference to the proposed pool; various instances of correcting references to "Exceptions" to the singular "Exception"; on page 250 of the packet, Section 2.4, Line 6: "The applicant concludes that the Exception..." should instead be "The Planning Commission finds that the applicant has demonstrated that the Exception allows..."; to remove the redundancy of both Conditions 10 and 11 referring to the fire suppression or fire sprinkler system.

Commissioner MacCracken Jain suggested that the Madrone tree mentioned on page 8 of the Findings be specified as also being partially on an adjacent property.

Commissioner Maher asked if there are any circumstances under which this project would come back to the Commission for review. Mr. Goldman responded that amendments to an approved plan can result in a project going back to the Commission for further review and approval.

Commissioners MacCracken Jain/Perkinson m/s to approve the Findings as amended by staff and including the amendment from Commissioner MacCracken Jain that the Madrone tree mentioned on page 8 of the Findings be specified as also being partially on an adjacent property. Roll Call Vote: All AYES. Motion passed 6-0.

V. **OPEN DISCUSSION** – None

VI. **ADJOURNMENT**

Meeting adjourned at 9:38 *p.m.*

Submitted by,
Michael Sullivan, Executive Assistant

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ATTENTION

**For attachments to the April 22, 2025 Minutes,
please use the link below:**

https://ashlandor.portal.civicclerk.com/event/476/files/attachment/1399

TYPE III PUBLIC HEARING

1511 Hwy 99 N,
PA-T3-2024-00011

Planning Department, 51 Winburn Way, Ashland, Oregon 97520
541-488-5305 Fax: 541-552-2050 www.ashland.or.us TTY: 1-800-735-2900

CITY OF ASHLAND

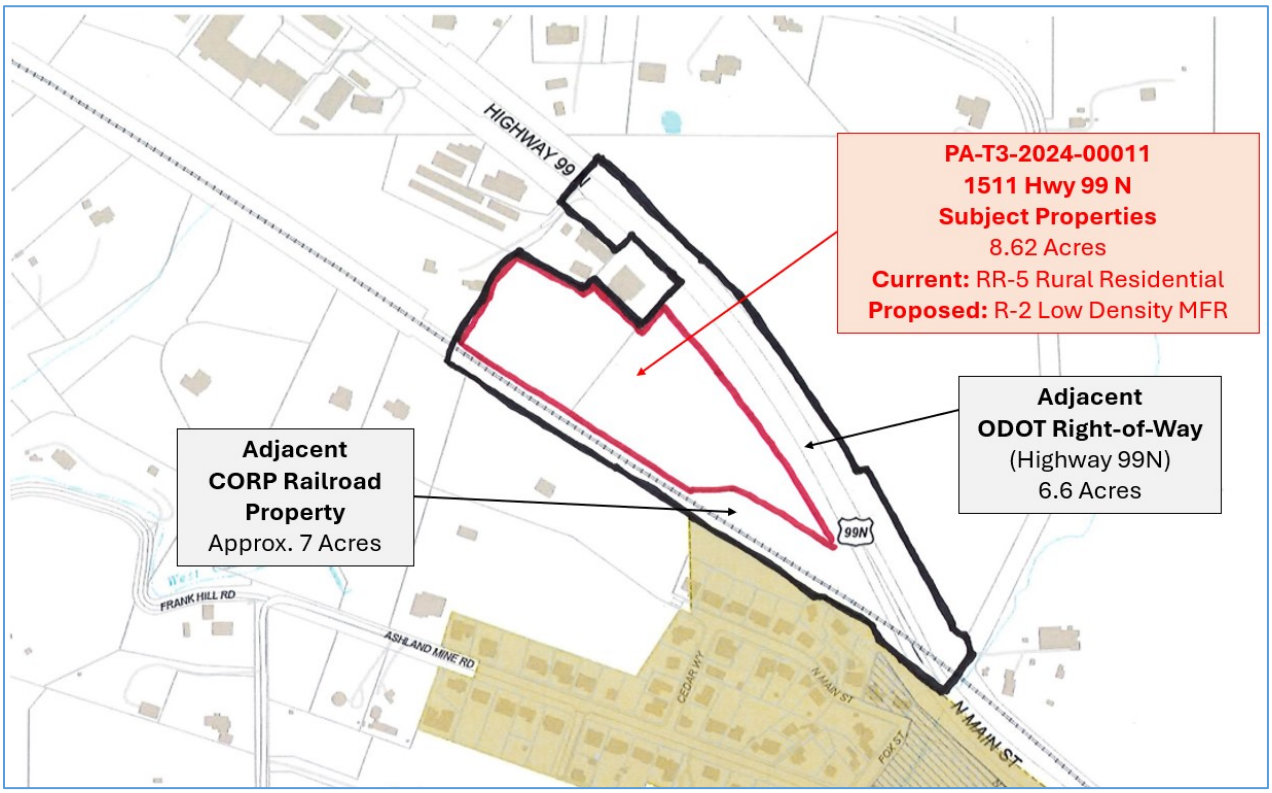
NOTICE OF PUBLIC HEARING

PLANNING ACTION: PA-T3-2024-00011
SUBJECT PROPERTY: 1511 Highway 99 North
APPLICANT/OWNER: Casita Developments, LLC
Kendrick Enterprises LLC (Robert Kendrick)
Linda Zare, Property Owner

DESCRIPTION: A request for the **Annexation** of 8.62 acres located at 1511 Highway 99 North into the City of Ashland, along with 6.6 acres of adjacent Oregon Department of Transportation state highway right-of-way and 7.68 acres of California Oregon & Pacific/Gennesse-Wyoming Railroad Company railroad property. The property is currently located in Jackson County and zoned Rural Residential (RR-5); with **Annexation** the property would be brought into the City as Low Density, Multi-Family Residential (R-2). Concurrent with Annexation, the application also requests: a **Property Line Adjustment** to adjust the boundary between Lots 1700 and #1702 (only Tax Lot #1702 is proposed to be annexed); **Outline & Final Plan** subdivision approval to create nine lots; **Site Design Review** to construct 210 apartments in ten buildings including at 24 affordable units; an **Exception to the Site Development and Design Standards**; an **Exception to the Street Design Standards**; and **Tree Removal Permits** to remove two trees greater than six-inches in diameter at breast height.

COMPREHENSIVE PLAN DESIGNATION: Multi-Family Residential; **ZONING: Existing** – County RR-5 Rural Residential**, Proposed –** City R-2 Low Density Multi-Family Residential; **ASSESSOR'S MAP:** 38 1E 32; **TAX LOT #'s:** 1702 (boundary adjusted with 1700)

PLANNING COMMISSION HEARING: *May 13, 2025 at 7:00 p.m.*
ASHLAND CITY COUNCIL CHAMBERS, 1175 EAST MAIN STREET, ASHLAND OR 97520



PLANNING COMMISSION HEARING

Notice is hereby given that a PUBLIC HEARING on the following request with respect to the ASHLAND LAND USE ORDINANCE will be held before the ASHLAND PLANNING COMMISSION on meeting date shown above. The meeting will be at the ASHLAND CIVIC CENTER, 1175 East Main Street, Ashland, Oregon. You can watch the meeting on local channel 9, on Charter Communications channels 180 & 181, or you can stream the meeting via the internet by going to https://rvtv.sou.edu and selecting 'RVTV Civic.' Join the Zoom meeting at: https://zoom.us/j/96672253968

All application materials are available on-line and written comments will be accepted via e-mail to PC-public-testimony@ashlandoregon.gov or can be provided in person or via Zoom during the public hearing. A copy of the application, including all documents, evidence and applicable criteria will be available on-line at "What's Happening in my City" at https://gis.ashland.or.us/developmentproposals/ no less than 20 days prior to the meeting date shown above. A copy of the staff report will be available on-line in the Commission packet at: https://ashlandor.portal.civicclerk.com/?category_id=30 seven days prior to the meeting date shown above. Copies of application materials will be provided at reasonable cost, if requested. Application materials may be requested to be reviewed in-person during business hours at the Ashland Community Development & Engineering Services Building, 51 Winburn Way, via a pre-arranged appointment by calling (541) 488-5305 or emailing planning@ashlandoregon.gov .

The ordinance criteria applicable to this application are attached to this notice. Oregon law states that failure to raise an objection concerning this application, either in person or by letter, or failure to provide sufficient specificity to afford the decision maker an opportunity to respond to the issue, precludes your right of appeal to the Land Use Board of Appeals (LUBA) on that issue. Failure to specify which ordinance criterion the objection is based on also precludes your right of appeal to LUBA on that criterion. Failure of the applicant to raise constitutional or other issues relating to proposed conditions of approval with sufficient specificity to allow this Commission to respond to the issue precludes an action for damages in circuit court.

Anyone wishing to submit comments can do so by sending an e-mail to PC-public-testimony@ashlandoregon.gov with the subject line "May 13 PC Hearing Testimony" by 10:00 a.m. on Monday, May 12, 2025. If the applicant wishes to provide a rebuttal to the testimony, they can submit the rebuttal via e-mail to PC-public-testimony@ashlandoregon.gov with the subject line "May 13 PC Hearing Testimony" by 10:00 a.m. on Tuesday, May 13, 2025. Written testimony received by these deadlines will be available for Planning Commissioners to review before the hearing and will be included in the meeting minutes.

Oral testimony will be taken both in person and via Zoom during the public hearing. If you wish to provide oral testimony via Zoom, please send an email to PC-public-testimony@ashlandoregon.gov by 10:00 a.m. on Monday, May 12, 2025. In order to provide testimony at the public hearing, please provide the following information: 1) make the subject line of the email "May 13 PC Speaker Request", 2) include your name, 3) the agenda item on which you wish to speak on, 4) specify if you will be participating by computer or telephone, and 5) the name you will use if participating by computer or the telephone number you will use if participating by telephone. Join the Zoom meeting at: https://zoom.us/j/96672253968

During the Public Hearing, the Chair shall allow testimony from the applicant and those in attendance concerning this request. The Chair shall have the right to limit the length of testimony and require that comments be restricted to the applicable criteria. Unless there is a continuance, if a participant so requests before the conclusion of the hearing, the record shall remain open for at least seven days after the hearing.

If you have questions or comments concerning this request, please feel free to contact Planning Manager Derek Severson, the staff planner assigned to this project, at 541-552-2040 or via e-mail to: derek.severson@ashlandoregon.gov.

In compliance with the American with Disabilities Act, if you need special assistance to participate in this meeting, please contact the City Administrator's office at 541-488-6002 (TTY phone number 1-800-735-2900). Notification 72 hours prior to the meeting will enable the City to make reasonable arrangements to ensure accessibility to the meeting. (28 CFR 35.102.-35.104 ADA Title I).

AMC 18.5.8.050 Annexation Approval Criteria & Standards

An application for an annexation may be approved if the proposal meets the applicable criteria in subsections A through H below. The approval authority may, in approving the application, impose conditions of approval consistent with the applicable criteria and standards, and grant exceptions and variances to the criteria and standards in this section in accordance with subsection I.

A. *The annexed area is within the City's Urban Growth Boundary.*

B. *The annexation proposal is consistent with the Comprehensive Plan designations applicable to the annexed area, including any applicable adopted neighborhood, master, or area plan, and is an allowed use within the proposed zoning.*

C. *The annexed area is contiguous with the City limits.*

D. *Adequate City facilities for the provision of water to the annexed area as determined by the Public Works Department; the transport of sewage from the annexed area to an approved waste water treatment facility as determined by the Public Works Department; the provision of electricity to the annexed area as determined by the Electric Department; urban storm drainage as determined by the Public Works Department can and will be provided from the annexed area. Unless the City has declared a moratorium based upon a shortage of water, sewer, or electricity, it is recognized that adequate capacity exists system-wide for these facilities. All required public facility improvements shall be constructed and installed in accordance with subsection 18.4.6.030.A.*

E. *Adequate transportation can and will be provided to serve the annexed area. For the purposes of this section, "adequate transportation" for annexations consists of vehicular, bicycle, pedestrian, and transit transportation meeting the following standards:*

1. For vehicular transportation a minimum 22-foot-wide paved access exists, or can and will be constructed, providing access to the annexed area from the nearest fully improved collector or arterial street. All streets bordering on the annexed area shall be improved, at a minimum, to an applicable City half-street standard. The approval authority may, after assessing the impact of the development, require the full improvement of streets bordering on the annexed area. All streets located within annexed areas shall be fully improved to City standards unless exception criteria apply. Where future street dedications are indicated on the Street Dedication Map or required by the City, provisions shall be made for the dedication and improvement of these streets and included with the application for annexation.

2. For bicycle transportation, safe and accessible bicycle facilities according to the safety analysis and standards of the governing jurisdiction of the facility or street (e.g., City of Ashland, Jackson County, Oregon Department of Transportation) exist, or can and will be constructed. Should the annexed area border an arterial street, bike lanes shall be constructed along the arterial street frontage of the annexed area. Likely bicycle destinations within a quarter of a mile from the annexed area shall be determined and the approval authority may require the construction of bicycle lanes or multiuse paths connecting the annexed area to the likely bicycle destinations after assessing the impact of the development proposed concurrently with the annexation.

3. For pedestrian transportation, safe and accessible pedestrian facilities according to the safety analysis and standards of the governing jurisdiction of the facility or street (e.g., City of Ashland, Jackson County, Oregon Department of Transportation) exist, or can and will be constructed. Full sidewalk improvements shall be provided on one side of all streets bordering on the proposed annexed area. Sidewalks shall be provided as required by ordinance on all streets within the annexed area. Where the annexed area is within a quarter of a mile of an existing sidewalk system or a location with demonstrated significant pedestrian activity, the approval authority may require sidewalks, walkways or multiuse paths to be constructed and connect to either or both the existing system and locations with significant pedestrian activity.

4. For transit transportation, should transit service be available to the annexed area, or be likely to be extended to the annexed area in the future based on information from the local public transit provider, the approval authority may require construction of transit facilities, such as bus shelters and bus turnout lanes.

5. Timing of Transportation Improvements. All required transportation improvements shall be constructed and installed in accordance with subsection 18.4.6.030.A.

F. *For all residential annexations, a plan shall be provided demonstrating that the development of the annexed area will ultimately occur at a minimum density of 90 percent of the base density for the zone, unless reductions in the total number of units are necessary to accommodate significant natural features, topography, access limitations, or similar physical constraints. The owner or owners of the annexed area shall sign an agreement, to be recorded with the County Clerk after approval of the annexation, ensuring that future development will occur in accord with the*

minimum density indicated in the development plan. For purposes of computing maximum density, portions of the annexed area containing unbuildable lots, parcels, or portions of the annexed area such as existing streets and associated rights-of-way, railroad facilities and property, wetlands, floodplain corridor lands, slopes greater than 35 percent, or land area dedicated as a public park, shall not be included.

G. *Except as provided in subsection 18.5.8.050.G.7, below, annexations with a density or potential density of four residential units or greater and involving residential zoned lands, or commercial, employment or industrial lands with a Residential Overlay (R-Overlay) shall meet the following requirements:*

1. The total number of affordable units provided to qualifying buyers, or to qualifying renters, shall be equal to or exceed 25 percent of the base density as calculated using the unit equivalency values set forth herein. The base density of the annexed area for the purpose of calculating the total number of affordable units in this section shall exclude any unbuildable lots, parcels, or portions of the annexed area such as existing streets and associated rights-of-way, railroad facilities and property, wetlands, floodplain corridor lands, water resource areas, slopes greater than 35 percent, or land area dedicated as a public park.

a. Ownership units restricted to households earning at or below 120 percent of the area median income shall have an equivalency value of 0.75 unit.

b. Ownership units restricted to households earning at or below 100 percent of the area median income shall have an equivalency value of 1.0 unit.

c. Ownership or rental units restricted to households earning at or below 80 percent of the area median income shall have an equivalency value of 1.25 unit.

2. As an alternative to providing affordable units per section 18.5.8.050.G.1, above, the applicant may provide title to a sufficient amount of buildable land for development complying with subsection 18.5.8.050.G.1.b, above, through transfer to a non-profit (IRC 501(3)(c)) affordable housing developer or public corporation created under ORS 456.055 to 456.235.

a. The land to be transferred shall be located within the project meeting the standards set forth in sections 18.5.8.050.G.5 and 18.5.8.050.G.6.

b. All needed public facilities shall be extended to the area or areas proposed for transfer.

c. Prior to commencement of the project, title to the land shall be transferred to the City, an affordable housing developer which must either be a unit of government, a non-profit 501(c)(3) organization, or a public corporation created under ORS 456.055 to 456.235.

d. The land to be transferred shall be deed restricted to comply with Ashland's affordable housing program requirements.

e. Transfer of title of buildable land in accordance with this subsection shall exempt the project from the development schedule requirements set forth in subsection 18.5.8.050.G.4.

3. The affordable units shall be comparable in bedroom mix with the market rate units in the development.

a. The number of bedrooms per dwelling unit in the affordable units within the residential development shall be in equal proportion to the number of bedrooms per dwelling unit in the market rate units within the residential development. This provision is not intended to require the same floor area in affordable units as compared to market rate units. The minimum square footage of each affordable unit shall comply with the minimum required floor area based as set forth in Table 18.5.8.050.G.3, or as established by the U.S. Department of Housing and Urban Development (HUD) for dwelling units developed under the HOME program.

Table 18.5.8.050.G.3. Minimum Required Floor Area for Affordable Units

Unit Type	***Minimum Required Unit Floor Area (Square Feet)***
Studio	*350*
1 bedroom	*500*

Unit Type	*Minimum Required Unit Floor Area (Square Feet)*
2 bedroom	*800*
3 bedroom	*1,000*
4 bedroom	*1,250*

4. A development schedule shall be provided that demonstrates that the affordable housing units per subsection 18.5.8.050.G shall be developed, and made available for occupancy, as follows:

a. That 50 percent of the affordable units shall have been issued building permits prior to issuance of a certificate of occupancy for the last of the first 50 percent of the market rate units.

b. Prior to issuance of a building permit for the final ten percent of the market rate units, the final 50 percent of the affordable units shall have been issued certificates of occupancy.

5. That affordable housing units shall be constructed using comparable building materials and include equivalent amenities as the market rate units.

a. The exterior appearance of the affordable units in any residential development shall be visually compatible with the market rate units in the development. External building materials and finishes shall be substantially the same in type and quality for affordable units as for market rate units.

b. Affordable units may differ from market rate units with regard to floor area, interior finishes and materials, and housing type; provided, that the affordable housing units are provided with comparable features to the market rate units, and shall have generally comparable improvements related to energy efficiency, including plumbing, insulation, windows, appliances, and heating and cooling systems.

6. Exceptions to the requirements of subsections 18.5.8.050.G.2through 18.5.8.050.G.5, above, may be approved by the City Council upon consideration of one or more of the following:

a. That an alternative land dedication as proposed would accomplish additional benefits for the City, consistent with the purposes of this chapter, than would development meeting the on-site dedication requirement of subsection 18.5.8.050.G.2.

b. That the alternative phasing proposal not meeting subsection 18.5.8.050.G.4 provided by the applicant provides adequate assurance that the affordable housing units will be provided in a timely fashion.

c. That the materials and amenities applied to the affordable units within the development, that are not equivalent to the market rate units per subsection 18.5.8.050.G.5, are necessary due to local, state, or federal affordable housing standards or financing limitations.

7. The total number of affordable units described in this subsection shall be determined by rounding up fractional answers to the nearest whole unit. A deed restriction or similar legal instrument shall be used to guarantee compliance with affordable criteria for a period of not less than 60 years for units qualified as affordable rental housing, or 30 years for units qualified as affordable for-purchase housing.

***H.** One or more of the following standards are met:*

1. The annexation proposal shall meet the requirements of subsection 18.5.8.050.B, above.

2. A current or probable danger to public health exists within the proposed area for annexation due to lack of full City sanitary sewer or water services in accordance with the criteria in ORS chapter 222 or successor state statute.

3. Existing development in the proposed area for annexation has inadequate water or sanitary sewer service, or the service will become inadequate within one year.

4. The proposed area for annexation has existing City water or sanitary sewer service extended, connected, and in use, and a signed consent to annexation agreement has been filed and accepted by the City.

5. *The proposed area for annexation is an island surrounded by lands within the City limits.*

I. Exceptions and Variances to the Annexation Approval Criteria and Standards. *The approval authority may approve exceptions to and variances from the approval criteria and standards in this section using the criteria in section 18.4.6.020.B.1, Exceptions to the Street Design Standards, or chapter 18.5.5, Variances. (Ord. 3204 § 3, amended, 12/21/2021)*

AMC 18.3.9.040.A.3 Performance Standards Options Subdivision/Outline Plan Approval Criteria & Standards

Approval Criteria for Outline Plan. The Planning Commission shall approve the outline plan when it finds all of the following criteria have been met.

a. *The development meets all applicable ordinance requirements of the City.*
b. *Adequate key City facilities can be provided including water, sewer, paved access to and through the development, electricity, urban storm drainage, police and fire protection, and adequate transportation; and that the development will not cause a City facility to operate beyond capacity.*
c. *The existing and natural features of the land; such as wetlands, floodplain corridors, ponds, large trees, rock outcroppings, etc., have been identified in the plan of the development and significant features have been included in the open space, common areas, and unbuildable areas.*
d. *The development of the land will not prevent adjacent land from being developed for the uses shown in the Comprehensive Plan.*
e. *There are adequate provisions for the maintenance of open space and common areas, if required or provided, and that if developments are done in phases that the early phases have the same or higher ratio of amenities as proposed in the entire project.*
f. *The proposed density meets the base and bonus density standards established under this chapter.*
g. *The development complies with the Street Standards.*
h. *The proposed development meets the common open space standards established under section 18.4.4.070. Common open space requirements may be satisfied by public open space in accordance with section 18.4.4.070 if approved by the City of Ashland.*

AMC 18.3.9.040.B.5 Performance Standards Options Subdivision/Final Plan Approval Criteria & Standards

Final Plan approval shall be granted upon finding of substantial conformance with the Outline Plan. This substantial conformance provision is intended solely to facilitate the minor modifications from one planning step to another. Substantial conformance shall exist when comparison of the outline plan with the final plan meets all of the following criteria.

a. *The number of dwelling units vary no more than ten percent of those shown on the approved outline plan, but in no case shall the number of units exceed those permitted in the outline plan.*
b. *The yard depths and distances between main buildings vary no more than ten percent of those shown on the approved outline plan, but in no case shall these distances be reduced below the minimum established within this Ordinance.*
c. *The open spaces vary no more than ten percent of that provided on the outline plan.*
d. *The building size does not exceed the building size shown on the outline plan by more than ten percent.*
e. *The building elevations and exterior materials are in conformance with the purpose and intent of this ordinance and the approved outline plan.*
f. *That the additional standards which resulted in the awarding of bonus points in the outline plan approval have been included in the final plan with substantial detail to ensure that the performance level committed to in the outline plan will be achieved.*
g. *The development complies with the Street Standards.*
h. *Nothing in this section shall limit reduction in the number of dwelling units or increased open space provided that, if this is done for one phase, the number of dwelling units shall not be transferred to another phase, nor the open space reduced below that permitted in the outline plan.*

AMC 18.5.2.050 Site Design Review Approval Criteria & Standards

The following criteria shall be used to approve or deny an application:

A. ***Underlying Zone:*** *The proposal complies with all of the applicable provisions of the underlying zone (part 18.2), including but not limited to: building and yard setbacks, lot area and dimensions, density and floor area, lot coverage, building height, building orientation, architecture, and other applicable standards.*
B. ***Overlay Zones:*** *The proposal complies with applicable overlay zone requirements (part 18.3).*
C. ***Site Development and Design Standards:*** *The proposal complies with the applicable Site Development and Design Standards of part 18.4, except as provided by subsection E, below.*
D. ***City Facilities:*** *The proposal complies with the applicable standards in section 18.4.6 Public Facilities and that adequate capacity of City facilities for water, sewer, electricity, urban storm drainage, paved access to and throughout the property and adequate transportation can and will be provided to the subject property.*
E. ***Exception to the Site Development and Design Standards:*** *The approval authority may approve exceptions to the Site Development and Design Standards of part 18.4 if the circumstances in either subsection 1 or 2, below, are found to exist.*

1. *There is a demonstrable difficulty meeting the specific requirements of the Site Development and Design Standards due to a unique or unusual aspect of an existing structure or the proposed use of a site; and approval of the exception will not substantially negatively impact adjacent properties; and approval of the exception is consistent with the stated purpose of the Site Development and Design; and the exception requested is the minimum which would alleviate the difficulty.; or*
2. *There is no demonstrable difficulty in meeting the specific requirements, but granting the exception will result in a design that equally or better achieves the stated purpose of the Site Development and Design Standards.*

AMC 18.4.6.020.B.1 Exception to the Street Design Standards

Exception to the Street Design Standards. *The approval authority may approve exceptions to the standards section in 18.4.6.040 Street Design Standards if all of the following circumstances are found to exist.*

a. There is demonstrable difficulty in meeting the specific requirements of this chapter due to a unique or unusual aspect of the site or proposed use of the site.
b. The exception will result in equal or superior transportation facilities and connectivity considering the following factors where applicable.
  i. For transit facilities and related improvements, access, wait time, and ride experience.
  ii. For bicycle facilities, feeling of safety, quality of experience (i.e., comfort level of bicycling along the roadway), and frequency of conflicts with vehicle cross traffic.
  iii. For pedestrian facilities, feeling of safety, quality of experience (i.e., comfort level of walking along roadway), and ability to safety and efficiency crossing roadway.
c. The exception is the minimum necessary to alleviate the difficulty.
d. The exception is consistent with the Purpose and Intent of the Street Standards in subsection 18.4.6.040.A.

AMC 18.5.7.040.B Tree Removal Permit Approval Criteria & Standards

1. ***Hazard Tree.*** *A Hazard Tree Removal Permit shall be granted if the approval authority finds that the application meets all of the following criteria, or can be made to conform through the imposition of conditions.*

  a. The applicant must demonstrate that the condition or location of the tree presents a clear public safety hazard (i.e., likely to fall and injure persons or property) or a foreseeable danger of property damage to an existing structure or facility, and such hazard or danger cannot reasonably be alleviated by treatment, relocation, or pruning. See definition of hazard tree in part 18.6.
  b. The City may require the applicant to mitigate for the removal of each hazard tree pursuant to section 18.5.7.050. Such mitigation requirements shall be a condition of approval of the permit.

2. ***Tree That is Not a Hazard.*** *A Tree Removal Permit for a tree that is not a hazard shall be granted if the approval authority finds that the application meets all of the following criteria, or can be made to conform through the imposition of conditions.*

  a. The tree is proposed for removal in order to permit the application to be consistent with other applicable Land Use Ordinance requirements and standards, including but not limited to applicable Site Development and Design Standards in part 18.4 and Physical and Environmental Constraints in part 18.10.
  b. Removal of the tree will not have a significant negative impact on erosion, soil stability, flow of surface waters, protection of adjacent trees, or existing windbreaks.
  c. Removal of the tree will not have a significant negative impact on the tree densities, sizes, canopies, and species diversity within 200 feet of the subject property. The City shall grant an exception to this criterion when alternatives to the tree removal have been considered and no reasonable alternative exists to allow the property to be used as permitted in the zone.
  d. Nothing in this section shall require that the residential density to be reduced below the permitted density allowed by the zone. In making this determination, the City may consider alternative site plans or placement of structures of alternate landscaping designs that would lessen the impact on trees, so long as the alternatives continue to comply with the other provisions of this ordinance.
  e. The City shall require the applicant to mitigate for the removal of each tree granted approval pursuant to section 18.5.7.050. Such mitigation requirements shall be a condition of approval of the permit.

AMC 18.5.3.120.B Property Line Adjustment Approval Criteria & Standards

The Staff Advisor shall approve or deny a request for a property line adjustment in writing based on all of the following criteria.

1. ***Parcel Creation.*** *No additional parcel or lot is created by the lot line adjustment.*
2. ***Lot Standards.*** *Except as allowed for nonconforming lots, pursuant to chapter 18.1.4, or as required by an overlay zone in part 18.3, all lots and parcels conform to the lot standards of the applicable zoning district, including lot area, dimensions, setbacks, and coverage, per part 18.2. If a lot does not conform to the lots standards of the applicable zoning district, it shall not be made less conforming by the property line adjustment. As applicable, all lots and parcels shall identify a buildable area free of building restrictions for physical constraints (i.e., flood plain, greater than 35 percent slope, water resource protection zones).*
3. ***Access Standards.*** *All lots and parcels conform to the standards in section 18.4.3.080 Vehicle Area Design. Lots and parcels that do not conform to the access standards shall not be made less conforming by the property line adjustment.*

Staff Report

ASHLAND PLANNING DEPARTMENT
STAFF REPORT

Before the Planning Commission – May 13, 2025

PLANNING ACTION:	PA-T3-2024-00011
OWNER:	Linda Zare
APPLICANT:	Kendrick Enterprise LLC & Casita Developments LLC
LOCATION:	1151 Highway 99 N 38-1E-32 Tax Lot 1700 & 1702
ZONE DESIGNATION:	County RR-5 (R-2 requested)
COMP. PLAN DESIGNATION:	Multi-Family Residential

ORDINANCE REFERENCES:		
	18.2.2	Zoning Regulations and General Provisions
	18.2.4	General Regulations for Base Zones
	18.2.5	Standards for Residential Zones
	18.3.9	Performance Standards Overlay
	18.3.11	Water Resource Protection Zones
	18.4.2	Building Placement, Orientation, and Design
	18.4.3	Parking, Access, and Circulation
	18.4.4	Landscaping, Lighting, and Screening
	18.4.6	Public Facilities
	18.5.1	General Review Procedures
	18.5.2	Site Design Review
	18.5.3	Land Divisions & Property Line Adjustments
	18.5.8	Annexations
	18.5.9	Comp Plan, Zoning & LUO Amendments
	18.6.1	Definitions

APPLICATION DATE:	October 4, 2024	
APPLICATION COMPLETE:	April 1, 2025	
DLCD NOTICE:	April 7, 2025	*36 days in advance*
PUBLIC MEETING NOTICE:	April 22, 2025	*21 days in advance*
MEETING DATE:	May 13, 2025	

120-DAY DEADLINE: (*Type III applications are not subject to 120-day limits)

PROPOSAL: A request for annexation of 8.53-acres of land for the property located at 1511 Highway 99 North, along with the adjacent Rights-of-Way (ROW) and railroad property. The application also includes a request for concurrent outline plan and final plan approval for a Performance Standards Option (PSO) subdivision consisting of nine lots for residential apartment buildings, and one common open space area. The Ashland Municipal Code (AMC) requires a two-step process for subdivision: first outline plan followed by final plan. For developments of fewer than ten lots, the outline plan may be filed concurrently with the final plan, which is the case in the present application.

The application also includes a request for a Site Design Review approval for ten apartment buildings and associated site improvements. Each building is proposed to have 21 one-bedroom apartments across three floors for 210 apartments in total. Annexations require that at least 25-percent of the base density be affordable housing. In the present application there are 24 proposed affordable housing units proposed at 80-percent area median income (AMI) to meet this requirement. This is discussed in great detail below in the seventh approval criterion of annexation. The affordable housing units are proposed to be spread throughout the development and will be constructed using identical materials and have an identical bedroom mix as the market rates units (all units are proposed to be one-bedroom).

I. Introduction

1) Background

In December of 2020, the City Council approved PA-T3-2019-00001 which was a request for annexation of 16.87 acres of land (Ord. 3194 12/15/2020). The application did not include Site Design Review or a subdivision proposal and instead included a conceptual future development plan. The approval of the annexation was appealed to the Land Use Board of Appeals (LUBA) where they sustained the first assignment of error and reversed the city's decision Rogue Advocates v. City of Ashland, __ Or LUBA __ (LUBA No. 2021-009, May 12, 2021)(*Casita I*).

In the *Casita I* final opinion LUBA held that "the city's decision improperly construed the relevant provisions of the AMC, and that the city may not rely on the exception standards to approve an annexation application that fails to comply with the applicable approval criteria." Because LUBA held that the city's decision was prohibited as a matter of law, they did not resolve the second and third assignments of error. In response to this holding the City Council amended the Land Use Ordinance (LUO) to specifically allow variances and exceptions with an annexation (Ord. 3204 § 3, amended, 12/21/2021).

Following the amendment of the LUO another application was submitted. This application was PA-T3-2022-00004 and was a request for annexation of the same land but this time included a request for outline plan approval for a Performance Standard Option (PSO) Subdivision and Site Design Review for 230 apartments in ten buildings with a mix of studio and one bedroom units. The application received final city approval in December of 2022 (Ord. 3215 12/20/2022). Following the City's approval, the application was again appealed to LUBA where it was remanded back to the City. Rogue Advocates v. City of Ashland, __ Or LUBA __ (LUBA No. 2023-007, May 9, 2023) (*Casita II*).

In the *Casita II* final opinion LUBA found in favor of the city on the second and third assignments of error. The second assignment of error of addressed the improvements proposed along the Highway 99 N frontage and if the application provided "safe and accessible bicycle and pedestrian facilities." and if the findings were supported by substantial evidence. The third assignment of error raised concerns with the feasibility of installing the proposed frontage improvements. LUBA found that there was substantial evidence in the record to support the findings and denied the second and third assignments of error. However, LUBA sustained the second sub assignment of the first assignment of error, agreeing that the City's interpretation of

its provisions for allowing exceptions to on-street parking was inconsistent with the express language of the code[*]. LUBA also sustained the second sub assignment of the fourth assignment of error, which had to do with arguments regarding compliance with AMC 18.5.8.050(G)(3) which are the affordable housing standards for bedroom mix between the affordable and market rate housing and required minimum square footage[†].

Following proper public notice on October 3, 2023, the City Council held a remand hearing to address the issues that were sustained on appeal. Because the application was subject to the 'goal post' rule (which has since been amended by SB5703) the applicant considered it impossible to proceed with remand proceedings as the application needed substantial modification. As a result, at the start of the hearing the applicant stated that based on legal advice from his attorney he requested to withdraw the application.

As it relates to the LUO and the regulations governing annexation, it should be noted that since the *Casita II* remand the Ordinance has again been amended to be compliant with Oregon's Climate-Friendly and Equitable Communities (CFEC)[‡] regulations which, among other things, removed the requirements for off street parking requirements city wide, and removed the requirement of on-street parking for Streets outside the City of Ashland's jurisdiction, such as those overseen by the State of Oregon Department of Transportation (ODOT)(Ord. 3229 § 7, amended, 12/19/2023).

2) Present Application

The present application is for annexation of 8.53 acres of land and includes concurrent outline and final plan approval for a PSO Subdivision and Site Design Review for ten identical apartment buildings. Despite the fact that this application is for substantially less acreage to annex, fewer apartments, different bedroom mix, and includes final plan approval the applicant states that the application is "*the same as the ones approved before except for updating to the new Climate Friendly Act of the State of Oregon.*"[§]

While the specific details of the planning action are clearly different, it is true that a substantial portion of the project is identical or nearly identical in terms of street frontage and civil improvements as it relates to required capacity and the provisioning of "adequate transportation" for bicycle, pedestrian, and transit transportation. Because these have already been litigated in *Casita II* where LUBA held that the previous findings support the conclusion that "safe and

[*] At issue was that 18.4.6.020.B only authorizes exceptions to standards only within 18.4.6.040 et. seq., and the standard that the exception was being granted was within the PSO chapter at 18.3.9 which required on-street parking. The code has since been amended allowing exceptions to this standard.

[†] LUBA "agree[ed] with petitioner that the city council's interpretation of AMC 18.5.8.050(G)(3) as being satisfied where the proposed square footages are "comparable" or "similar" to those set forth in AMC Table 18.5.8.050(G)(3) is inconsistent with the express language of AMC 18.5.8.050(G)(3), which provides that the proposed square footages "shall" comply with those set forth in AMC Table 18.5.8.050(G)(3)."

[‡] the Climate-Friendly and Equitable Communities (CFEC) rules were developed by the Land Conservation and Development Commission (LCDC) in response to the March 2020 executive Order 20-04 directing state agencies to reduce greenhouse gas emissions. These were litigated and in March of 2024 the Oregon Court of appeals upheld 87 of the 89 rules. This was subsequently appealed to the Oregon Supreme Court where they denied review without explanation leaving the lower court's decision in place.

[§] Staff understand this to be a reference to the CFEC rules.

accessible bicycle and pedestrian facilities" could be provided and that those findings were supported by substantial evidence many portions from the previous findings will be repeated here.

The application was received on October 4, 2024. Because of the previous planning applications, the applicant included a request for an application fee waiver, which requires City Council approval. This essentially put the application on hold at the applicant's request until the fee waiver could be put on the City Council agenda. In addition to the application fee upon review of the application materials it was determined there were other missing items as well. A formal notification was sent to the applicant on December 24, 2024, detailing the missing items and other deficiencies.

On February 4, 2025, the City Council reviewed the request for a fee waiver and partially approved the waiver of most of the application fees. Following the City Council meeting the applicant returned the 'statement of completeness' indicating that all of the missing information had now been provided, including the outstanding fees.

The application includes 83 pages of written findings and a number of additional exhibits including civil, landscaping, and architectural plans, and by their reference are incorporated herein as if set out in full. Also included with the application is a 'tabulation spreadsheet' addressing density, density bonuses, and affordable housing requirements. The application also includes:

- Surveys of both the proposed property line adjustment and subdivision plat
- Traffic Impact analysis and engineering memos.
- Letters regarding service capacity for all utilities
- Proposed CC&R's for the Grand Terrace HOA
- Consent to annexation forms

All of these materials are on file in the office of Community Development and by their reference are incorporated herein.

3) Property Description

The subject properties are Tax lot #1700 & 1702 of Assessor Map 38-1E-32 and is addressed as 1151 Highway 99 North. The two lots combined are 16.86 acres; however, the application indicates that a Property Line Adjustment (PLA) has been proposed to increase the size of tax lot #1702 and that tax lot 1700 will not be part of the application (It is presumed that the PLA will be processed separately with Jackson County, because the properties are outside of the City of Ashland, we would be unable to approve such an application). With the approval of the PLA the proposed annexation would be for 8.53 acres not including the ROW. Staff have advised the applicant that if it is their intent to plat the subdivision and PLA concurrently, they should be sure to coordinate closely with Jackson County.

The subject property is located in Jackson County within the city's Urban Growth Boundary (UGB). The current zoning within the County is RR-5 (Rural Residential, with a five-acre minimum lot size) and the city Comprehensive Plan designation is Multi-Family Residential.

The applicant proposes to annex the properties as R-2, a Low-Density Multi-Family Residential zoning which allows for a base density of 13.5 dwelling units per acre.

The property is situated between Highway 99 to the north and the Central Oregon & Pacific Railroad to the south. The property has approximately 900 feet of frontage along the highway. The property slopes to the north at roughly 6-percent dropping approximately 35-feet from the railroad down to the highway. The property is mostly vacant with the exception of a small residence that the County Assessor indicates was built in 1948. The residence is listed as 1,182 square feet and is indicated to be in poor condition. Following the completion of the proposed PLA the residence will remain in Jackson County.

In terms of natural features on the site the application materials explain that there is a delineated wetland that is approximately 0.1 acres. The application includes a detailed wetland delineation from 2018 and a 2021 update as well however these have not received concurrence from the Department of State Lands (DSL) which will be required as a condition of approval. The landscape and civil engineering plans show a 20' buffer around the wetland and no construction is proposed to encroach in the buffered area.

4) Details of the Proposed Development

The application is a proposal for annexation and concurrent outline and final plan for a Performance Standard Option (PSO) subdivision. The subdivision includes a total of nine-lots for residential development and a tenth lot of common area space. Because the proposal is an annexation there is also a requirement for affordable housing which is discussed further below. The application also includes Site Design Review for ten apartment buildings.

Each of the proposed apartment buildings has 21 apartments. The three apartments on the first floor are 587 square feet and are numbered units #1 - 3. The second and third floor each have nine apartments with units #4 – 12 on the second floor, and units #13 – 21 on the third floor. All units on the second and third floors are proposed to be 499 square feet with the exception of units #5 & #14 which are proposed to be greater than 500 square feet. While the notes are specific of which units are to be greater than 500 square feet, rather than show the actual location of the walls and where they would offset there is a dimensional notation in each porch area that says: '**5'-10" or 6'-0"**' and references a table called the "owner building unit number list" for the contractor to understand which units are meant to be slightly larger.

> **Note:** The description above is with regard to the architectural plans originally submitted with the application. In review of the application Staff determined that with either of the proposed entry depths of either 5'-10" or 6'-0" result in apartments that are less than 500 square feet. Staff believe that this is the result of a rounding error: i.e. 5.833 ~ 5.8, 4.333 ~ 4.3; 5.8 x 4.3 = 24.94; 525 - 24.94 = 500.06 square feet, when in fact the measurement is 499.72 square feet when using three significant digits.
>
> On May 6th, as the staff report was being prepared for the packet deadline, the applicant responded to correspondence from staff and

provided, among other things, revised architectural drawings for buildings #1 and #5 (it is presumed that the other eight buildings are still proposed to be identical). These plans no longer include the owners building list or the variable dimensional notation, and instead shows unit #8 & 17 with an entry porch of 5'-8" (making them over the 500 square feet), and the remaining units with an entry porch of 5'-10" (which makes them just under 500 square feet). These drawings are included at the end of the application materials.

5) Residential Density

While the project is for 210 apartments for the sake of density with regard to the LUO the calculated density is less because of the size of the apartments. As stated above AMC 18.2.5.080.B.2 allows for units *less than 500 square feet* are counted as 0.75 dwellings units for the purposes of density calculations.

Within each apartment building five apartments are proposed to be greater than 500 square feet and therefore count as a whole dwelling. The other 16 apartments are to be less than 500 square feet and therefore count as 0.75 dwellings. When accounting for all ten buildings, there is a total of 50 units greater than 500 square feet, and 160 that are less than 500 square feet. This calculates to a density of 170 dwellings (50 + (160 * 0.75) = 170).

The proposed zoning for the property is R-2, which allows for a density of 13.5 dwelling unit per acre. The subject property is 8.53 acres and therefore has a calculated base density of 115.15 dwelling units (8.53 x 13.5 = 115.15). The proposed density of 170 exceeds the base density but this is allowed through a leveraging of density bonuses as discussed in detail below in the first and sixth approval criteria for outline plan approval below.

6) Affordable Housing

As mentioned at the outset all annexations with a density of four residential units or greater are required to provide at least 25-percent of the base density as affordable housing. Affordable housing units are required to have a equal proportion to the number of bedrooms per dwelling unit in the market rate units and provides a table for the minimum square footage based on bedrooms. For one-bedroom units (as are all of the proposed units in this proposal) the affordable units *must be at least 500 square feet*.

As discussed above, the base density is 115.15. Therefore, the calculations are as follows: 115.15 x 0.25 = 28.8. Next, affordable units that that are restricted to households earning at or below 80 percent of the area median income have an equivalency value of 1.25 unit. Here the applicant is proposing to restrict the affordable housing to 80-percent AMI, therefore the affordable housing requirement calculates as follows (28.8 / 1.25 = 23.02 ~ 24). Therefore, the calculated 29 affordable unit requirement is satisfied by the provision of 24 units targeted to households earing 80-percent AMI or less.

Affordable housing is also required to be provided in accordance with the following phasing schedule. AMC 18.5.8.030.G4 requires that the applicant to provide a development schedule that

demonstrates that the affordable housing units shall be developed, and made available for occupancy, as follows:

a. That 50 percent of the affordable units shall have been issued building permits prior to issuance of a certificate of occupancy for the last of the first 50 percent of the market rate units

b. Prior to issuance of a building permit for the final ten percent of the market rate units, the final 50 percent of the affordable units shall have been issued certificates of occupancy.

Because the applicant intends to have at least two affordable units in each building the standard that requires all affordable units to have C of O prior to the issuance of the last 10-percent of market rate an exception to this standard is required and is addressed further below.

7) The 500-square foot threshold

Based on the discussion above regarding residential density and affordable housing it should be clear that the exact details of the apartments size[*] is very important for those two reasons:

1. AMC 18.2.5.080.B.2 provides that "*Units less than 500 square feet of gross habitable area shall count as 0.75 units for the purposes of density calculations.*"

2. AMC 18.5.8.050(G)(3) requires that "*the minimum square footage of each affordable unit shall comply with the minimum required floor area based as set forth in Table 18.5.8.050.G.3, or as established by the U.S. Department of Housing and Urban Development (HUD) for dwelling units developed under the HOME program.*" The table at 18.5.8.050.G.3 requires at least 500 square feet for one-bedroom units.

Based on the revised architectural drawings unit #8 & #17 are now shown to have a decreased entry porch to 5'-8" which calculates to a square footage of 500.44 which would then meet the standard at AMC 18.5.8.050.G.3 to be utilized as affordable housing.

With the apartments on the first floor exceeding 500 square feet this means that each of the identical buildings will contain five apartments that qualify for affordable housing, for a total of 50 units within the development.

II. Project Proposal – Annexation and PSO Subdivision

1) Annexation

The Purpose of the Annexations chapter is set out at AMC 18.5.8.010 and states: "*The purpose of this chapter is to establish procedures and approval criteria for the annexation of land to provide for the orderly expansion of the City and public facilities and services, consistent with the*

[*] AMC 18.6.1.030 provides the following definition for "Floor Area" – The area of an enclosed floor measured from the exterior faces of exterior walls or from the center line of walls separating two buildings.

provisions of the Oregon Revised Statutes (ORS) including ORS chapter 222 *or successor state statute.*"

AMC 18.5.8.030 provides that: "*all annexations shall be processed under the Type III procedure.*" A type III planning action is a legislative decision by definition. Legislative requests are not subject to the 120-day review period under subsection 18.5.1.090.B (ORS 227.178). Type III actions are reviewed by the Planning Commission, which makes a recommendation to the City Council. The Council makes final decisions on legislative proposals through the enactment of an ordinance.

The approval criteria for annexation can be summarized as follows:

A. That the annexed area is within the City's Urban Growth Boundary (UGB).

B. That the annexation proposal is consistent with the Comprehensive Plan designations.

C. That the annexed area is contiguous with the city limits.

D. That adequate City facilities are available as determined by Public Works.

E. That adequate transportation can and will be provided to serve the annexed area.

F. That the development of the annexed area will ultimately occur at a minimum density of 90 percent of the base density for the zone.

G. The total number of affordable units shall be equal to or exceed 25 percent of the base density as calculated and meet all the other requirements for affordable units.

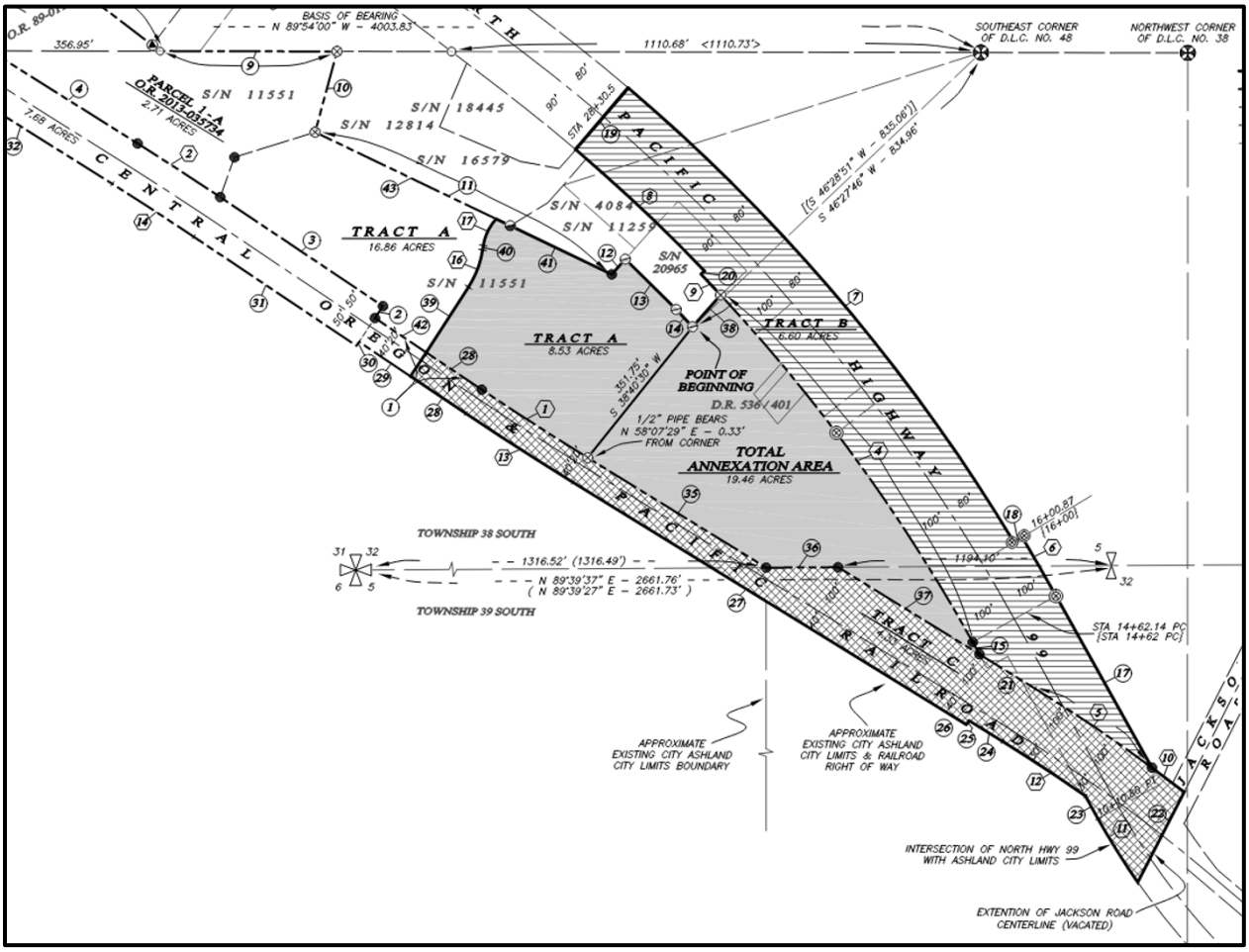
H. This is a provision to allow certain properties to annex even if their development is not consistent with the Comprehensive Plan. (*Not applicable in the present case as the application is consistent with the Comprehensive Plan.*)

I. Exceptions and Variances to the Annexation Approval Criteria and Standards

The first criteria of approval for annexation are that the "*That the annexed area is within the City's Urban Growth Boundary (UGB).*" The property is within the UGB as shown in the City geographic information system (GIS) and shown on the following page. The UGB runs along the North side of Highway 99 North and also along the western side of the subject properties demonstrating that the property is entirely within the UGB. This satisfies the first approval criteria.

The second criteria of approval for annexation are that the "*proposal is consistent with the Comprehensive Plan designations.*" As mentioned above, the comprehensive plan designation of the property is multifamily residential, and the property does not yet have an assigned zone. The application requests a zone change to R-2 which would be appropriate for the comprehensive plan designation of multifamily. AMC 18.3.9.050 which provides the residential density for a PSO subdivision. For the R-2 zone it specifies a residential density of 13.5 dwelling unit per acre which provides a base density of 115.15 dwelling units (8.53 x 13.5 = 115.15). The present proposal leverages affordable housing, Earth Advantage, and open space density bonuses which are discussed further below, to exceed the base density for a total of 210 dwellings. Based on the allowed density bonus findings can be made that the proposed density of residential development, including the proposed affordable housing, is consistent with the Comprehensive Plan Designation. Staff conclude that based on the proposed number of dwellings, the size of the

property, and the requested zoning, that findings can be made that this approval criterion will be met.



The third approval criteria requires that "*the annexed area is contiguous with the city limits.*" In the present application it is proposed that the adjacent Rights-of-way along both the railroad and Highway 99 be included. With these rights-of-way included the annexed area is contiguous with the present city limits as shown on the previous page. The application submission requirements for annexation requires that it includes a "*Boundary description and map prepared in accordance with ORS 308.225. Such description and map shall be prepared by a registered land surveyor…*" (AMC 18.5.8.02). The application includes preliminary maps of both the property line adjustment and the subdivision as well as an ALTA / ACSM land title survey, however there is no map specifically of the land to be annexed along with the associated rights of way. Additionally, there is no explanation of the proposed platting process with the county, and if it is the intent to plat the subdivision and PLA concurrently or as separate actions, nor is there any mention of the land use approval for the PLA. Conditions of approval have been included below addressing these issues to be addressed prior to hearings before the City Council as the Ordinance would be incomplete without the map and legal description of the land to be annexed. Staff conclude that with the inclusion of the condition of approval below that findings can be made that this approval criterion will be met.

The fourth approval criterion for annexation is that "*Adequate City facilities as determined by the Public Works Department.*" The Public Works Department has confirmed that there are no concerns regarding the capacity of any City facilities. Additionally, both ODOT and RVSS have provided letters indicating that there are no concerns with regard to capacity. While there are outstanding items that need to be resolved for final engineering between the applicant and ODOT these are addressed through conditions of approval to ensure that those items are addressed.

What follows are lightly edited portions of the findings that were adopted by the City Council in *Casita II*.

Water: The Water Division has noted that the property is not currently served by a water main, and a new main will need to be installed to connect to the existing city water system. The nearest point of connection is near the intersection of North Main Street and Highway 99 North. The civil engineering plans show a proposed 12" water main is to be installed. The water main terminates at a master water meter and PRV assembly. The plans show that the water main extends through the property connecting to each building and to each fire hydrant. The Water Division of the Public Works Department has indicated that with extension of a new main, and other proposed facilities there will be an adequate supply of potable water available to the site.

Sanitary Sewer & Storm Drainage: City code requirements typically necessitate that all utilities transition to city services with annexation, however in this instance the property is well outside and downhill of the city's sanitary and storm sewer systems, and a significant extension of new services would be needed and all sewage and stormwater would need to be pumped. However, there is a "Cooperative Agreement/Urban Services Agreement" in place between the City of Ashland, Jackson County and the Bear Creek Valley Sanitary Authority - now Rogue Valley Sewer Service (RVSS) - which dates to November 8, 1995 and which provided that with annexation, the sewer district *shall* continue to provide an urban level of sanitary sewer and/or storm water services that it has historically provided to territory within the district's existing limits and that the City and the sewer district may agree to joint provision of service to areas within the City or its UGB by contract, mutual agreement or other method. As proposed by the applicant here, RVSS will continue to provide these services to the subject properties after annexation, per the 1995 agreement.

RVSS has indicated that their sanitary sewer system has adequate capacity for the proposed development, and there is an eight-inch main in the right-of-way due north of the project site. On-site storm water drains to a roadside ditch that is within the state highway right-of-way and maintained by the Oregon Department of Transportation (ODOT). The proposed development's physical improvements have been engineered to comply with the RVSS Stormwater Quality Design Manual, which is used by the City of Ashland, Jackson County and RVSS. The project Civil Engineer has determined the sizes and locations for on-site detention and treatment facilities.

Electric: The application explains that the property is currently served by Pacific Power, but that with the development the property will be served by the City of Ashland Electric Department with the installation of new electrical infrastructure by the applicant. The application explains that there is presently low-voltage city electric service in place to power street and landscape lighting in and around the central median at the railroad trestle overpass. With the proposal,

electric facilities are to be provided in or adjacent to the highway right-of-way to provide adequate infrastructure to the proposed development and future development in the vicinity, and an electric service plan has been provided with the application materials.

Staff conclude that based on the proposed facilities, the civil engineering drawings, and communication with both ODOT and RVSS that findings can be made that this approval criterion will be met.

The fifth approval criterion for annexation is that "*Adequate transportation can and will be provided to serve the annexed area*" for "*vehicular, bicycle, pedestrian, and transit transportation*." As discussed above in Casita II the second and third assignment of error addressed the improvements proposed along the Highway 99 N frontage and if the application provided "safe and accessible bicycle and pedestrian facilities" and the feasibility to install them. LUBA held that the findings were supported by substantial evidence. As this has already been litigated what follows are lightly edited portions of the findings that were adopted by the City Council in *Casita II* regarding this approval criterion.

The application materials explain that the subject properties abut Highway 99 N, which is under the jurisdiction of Oregon Department of Transportation (ODOT). Highway 99 N is designated by ODOT as an 'Urban Fringe Highway' and ODOT's specific standards call for an eight-foot curbside sidewalk and a six-foot bike lane. City of Ashland Street Standards call for a six-foot bike lane, seven to eight-foot landscaped park row planting strip with irrigated street tress and a six-foot sidewalk. ODOT accepts the sidewalk buffered by a park row as required by the city standards as an alternative which exceeds the ODOT-standard eight-foot curbside sidewalk minimum standard. In addition to a Traffic Impact Analysis the application materials also include a "Technical Memo, Grand Terrace Development – Access Safety Evaluation" which provides detailed safety findings from the project's Transportation Engineer.

The application explains that a 22-foot-wide paved access exists along the full frontage of the project site to the nearest fully improved collector or arterial street. The full improvement of the highway frontage adjacent to the development and in the annexed area is proposed to be improved to ODOT and city standards. The full frontage of the project site is proposed to be improved with bike lane, curb, gutter, seven-and-a-half-foot park row and a six-foot sidewalk, except for the portion of the frontage where the bus pull out and transit-oriented plaza are to be installed.

There are some areas where Exceptions to the Street Standards are requested due to topographical difficulties, utility encroachments, and physical encumbrances in the form of the railroad trestle, a drainage ditch, private driveway approaches and other private property encroachments. The proposal seeks Exceptions to the Street Design Standards for the sidewalk and bike lane under the overpass of the railroad trestle where a shared sidewalk will be installed, and where city standard sidewalks are not possible due to physical constraints, ODOT-compliant frontage improvements are proposed. In addition, on-street parking is not proposed.

The ODOT does not permit on-street parking on Highway-99 N, and as such none is proposed, nor is it is a requirement as AMC 18.3.9.060.A.2 specifically exempts the requirements for on-

street parking on Streets outside the City of Ashland's jurisdiction as is the case here. Therefore, no exception to on-street parking is necessary as was the case in *Casita II*.

With regard to bicycle transportation, the application materials explain that Highway 99N which is an arterial street and state highway, currently has bicycle lanes buffered by striping along the frontage of the property, with bicycle lanes on both sides of the highway extending north of Valley View Road and south into downtown Ashland. The bike lanes are of typical width and the striped buffer along the frontage provides an additional measure of safety. The proposal maintains these bicycle lanes in accordance with City standards along the frontage with two multi-use path connections into the site. A crossing will be installed on Highway 99N at Schofield Street with pedestrian- or cyclist-activated rectangular rapid flash beacons (RRFBs) to support crossing Highway 99N near RVTD's northbound flag stop. The bicycle facilities that exist or will be provided as part of the annexation comply with the design and safety criteria for ODOT as the governing jurisdiction, and the applicant thus asserts that this criterion is satisfied.

In responding to the safe and accessible pedestrian facilities criterion, the applicant explains that there are currently no sidewalks along Highway 99N on either side of the street between the subject properties' frontage and Schofield Street to the south which limits pedestrian access and safety for north Ashland residents. The applicant proposes street frontage improvements including sidewalk improvements which comply with the design and safety criteria of ODOT as the governing jurisdiction, and as such asserts that this criterion is satisfied.

There are no interior streets proposed within the development; however, the site circulation system includes pedestrian connections between the public sidewalks along the highway, the apartments, parking areas and other areas of the site. These include two ADA-compliant multi-use paths through the landscape open spaces into the site from the north and the south along the highway frontage for pedestrians and bicycles, including the main entrance driveway with adjacent sidewalks that are also ADA-compliant.

To the south of the project, towards Ashland, the width of the highway is restricted to the single travel lane, bike lane and shoulder by the railroad overpass. The railroad overpass currently lacks any sidewalk or lighting, but a shared bicycle and pedestrian path with overhead lighting are proposed with final designs to be approved by ODOT. As an extra measure of caution, a vertical barrier will be provided at the curb has been proposed (although this is not a city requirement). This will provide a safer, well-lit area, increasing the comfort and safety over what currently exists. The applicant continues to work with ODOT Engineering staff on the details of the pedestrian crossing, and a condition of approval has been included to ensure that all improvements meet ODOT safety standards.

The application materials further explain that the applicant will be providing a high-visibility crosswalk across Highway 99N with Rectangular Rapid Flashing Beacons (RRFBs). The application further notes that mid-block crosswalks are dangerous, and RRFBs increase the safety of pedestrians and cyclists crossing when compared to a traffic signal. The application materials go on to indicate that studies have shown that RRFBs increase motorist yielding rates because the lights are controlled by the pedestrian's presence and will not go off until they are safely out of the crosswalk. The proposed RRFB crossing is to be placed between North Main

Street at Schofield Street, between the north- and south-bound bus stops. The RRFB crossing will provide a safe pedestrian and bicyclist crossing for all the residents in north Ashland where none existed before, both to access to Grand Terrace and to cross the highway to access these bus stops safely. The applicant notes that local ODOT authorities have given preliminary approval to install a crossing with RRFBs in this location, and that final approval will be subject to review of the final engineered designs by the regional office in Salem. The developer will be responsible for the design, cost and installation of the crosswalk and RRFBs.

Since the previous approval the applicant has done additional updates to the traffic analysis. The applicant has provided a letter dated December 11, 2024, from Sandow Engineering which states that "the year 2024 traffic volumes at this intersection are approximately 20% lower during the AM peak hour and 8% lower during the PM peak hour than the year 2019 volumes." The letter concludes that since the traffic volumes have not increased there is no need for additional traffic analysis.

Staff have been in contact with ODOT and understand that there are outstanding items as it relates to storm drain calculations, the technical details of the RRFB, and the proposed vertical barrier underneath the railroad crossing. A condition of approval has been included below that requires the applicant to receive ODOT approval and permits prior to any work being done in their right-of-way.

Staff conclude that based on the previous approved findings, proposed facilities, letters from RVSS and ODOT, the civil engineering drawings, and the conditions of approval included below, that findings can be made that this approval criterion will be met.

The sixth approval criteria for annexation is that "*the development of the annexed area will ultimately occur at a minimum density of 90 percent of the base density for the zone.*" As was discussed above, the application requests a zoning as R-2 multi-family. For the R-2 zone it specifies a residential density of 13.5 dwelling unit per acre. The proposed annexation is for 8.53 acres for a base density of 115.155. To ensure that the development occurs at least 90-percent the calculations are as follows: 8.53 x 13.5 = 115.155 * 0.9 ~ 103.6 dwelling units. The application is for 210 apartments, which as discussed above, based on the number of units that are less than 500 square feet, the proposal is for a calculated density of 170. The density of 170 is greater than the requirement of 104. Therefore, Staff conclude that based on these calculations that findings can be made that this approval criterion will be met.

The seventh approval criteria for annexation is that "*The total number of affordable units shall be equal to or exceed 25 percent of the base density as calculated.*" Here the applicant has proposed to provide 24 apartments deed restricted to households earning at or below 80-percent of the area median income. The calculations are as follows: As discussed above the base density is 115.155. That calculates as follows: 115.15 x 0.25 = 28.8 ~ 29. The application materials propose 24 units targeted to households earning 80-percent area median income (AMI) or less. Affordable units at 80-percent AMI units have an 'equivalent value' of 1.25. To determine how many 80-percent AMI units are required to meet the calculated number of affordable units you take the calculated value, in this case 28.8 dwelling units, and divide by 1.25 which is the 'equivalent value' for units restricted to 80-percent AMI. The quotient provides the number of 80-percent AMI units required to meet that value which is then rounded up (28.8 affordable units / 1.25 the 80-percent

equivalent value = 23.02 ~ 24). Therefore, a total of 24 - 80-percent AMI units satisfy the 29 affordable units required.

Affordable units are required to be comparable in the mix of the number of bedrooms with the market rate units in the development. In the proposed application all 210 units are one bedroom satisfying this requirement. Affordable units are also required to meet the minimum required floor area based as set forth in Table 18.5.8.050.G.3 which requires a minimum square footage of 500 square feet for one-bedroom units. The only units that exceed 500 square feet are the ground floor units (30) and 2 other units in each building (20) for a total of 50 units that are large enough for affordable housing. The applicant is providing 24 affordable units, but it is unclear which specific units. A condition of approval has been added that the applicant will clarify exactly what units are to be utilities and deed restricted as affordable housing so that findings can be made clearly detailing which of the 24 units will be affordable.

The application states that there are no requested exceptions to the affordable housing standards, however based on the applicants intent to spread the affordable housing units throughout each of the ten buildings it is clear that the phasing standard are unable to be easily met and staff has determined that an exception to this standard will be required. Affordable units are required to be constructed so that "*Prior to issuance of a building permit for the final ten percent of the market rate units, the final 50 percent of the affordable units shall have been issued certificates of occupancy.*"

The phasing standard above did not contemplate the development of apartment buildings that contain both market rate and affordable housing units. Because the applicant proposes to have the 24 affordable units spread throughout each of the ten buildings making compliance with this phasing requirement unworkable, and instead an exception will be required. AMC 18.5.8.050.G.6 provides that "*Exceptions to the requirements of subsections 18.5.8.050.G.2 through 18.5.8.050.G.5, above, may be approved by the City Council upon consideration*" of three different situations. The second of those is that "*That the alternative phasing proposal not meeting subsection 18.5.8.050.G.4 provided by the applicant provides adequate assurance that the affordable housing units will be provided in a timely fashion.*" Staff contend that the benefit of allowing construction of all buildings simultaneously is sufficient justification for the exception and also acknowledges that this allows having the affordable housing spread throughout the development.

Finally, there is a requirement that affordable housing units shall be constructed using comparable building materials and include equivalent amenities as the market rate units. The proposal indicates that both market rate and affordable housing units will all be constructed using the same materials as it relates to the construction of the buildings and related furnishing.

Staff conclude based on the above that findings can be made that this approval criterion will be met.

The eighth approval criterion for annexation is a provision to allow properties to annex even if their development is not consistent with the Comprehensive Plan in particular circumstances and requires at least one of five standards to be met. The first of these is that "*The annexation*

proposal shall meet the requirements of subsection 18.5.8.050.B, above." [*] The citation to AMC 18.5.8.050.B is the second approval criterion. As discussed above, the second approval criterion provides that the "*proposal is consistent with the Comprehensive Plan designations.*" Since the second criterion of approval was satisfied above then it follows that this eighth approval criterion is also satisfied.

The ninth and final approval criterion for annexation relates to requested exceptions. The present application includes certain exceptions to street standards that are discussed in detail below. If the exceptions are found to meet the relevant approval criteria and are approved, as is anticipated, then staff conclude that findings can be made that this approval criterion will be met.

Finally, the LUO requires that "*the applicant for the annexation shall also declare which procedure under ORS chapter 222 the applicant proposes that the Council use, and supply evidence that the approval through this procedure is likely*" (AMC 18.5.8.070). The application states that the annexation procedure outlined in ORS 222.125 should be utilized for the annexation and goes on to say that "*This procedure allows for annexation without the need for an election when all landowners in the proposed territory, as well as a majority of the electors, consent in writing. The applicant is the sole owner and can provide written consent within the annexation territory*." Based on the fact that there is a single property being proposed to annex Staff conclude that findings can be made that this standard is met.

2) Performance Standards Option (PSO) Subdivision – Outline & final plan Approval

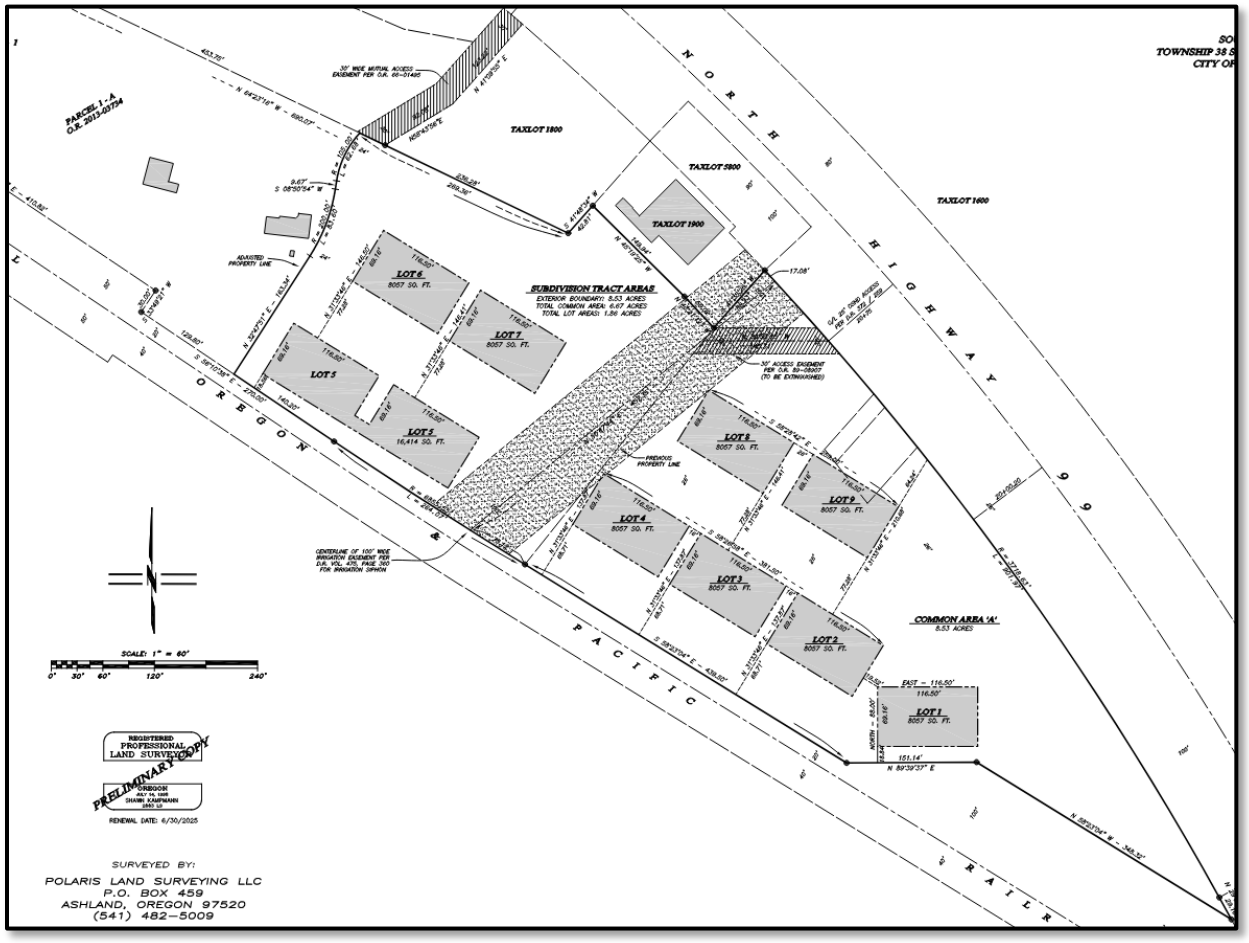
The Purpose of the Performance Standards Option is set out at AMC 18.3.9.010 and states: "*The purpose of this chapter is to allow an option for more flexible design than is permissible under the conventional zoning codes. The design should stress energy efficiency, architectural creativity, and innovation; use the natural features of the landscape to their greatest advantage; provide a quality of life equal to or greater than that provided in developments built under the standard zoning codes; be aesthetically pleasing; provide for more efficient land use; and reduce the impact of development on the natural environment and neighborhood*."

The property is not within the PSO overlay however the code provides at AMC 18.3.9.030.D four situations where the use of the Performance standard are allowed. The first of these is that the property is greater than 2 acres and also greater than 200' in average width. The subject property meets both of these requirements to utilize the PSO standards outside of the overlay.

[*] The other four options are for the situations where the annexation would be allowed even if the development is not consistent with the Comprehensive plan:

2. A current or probable danger to public health exists within the proposed area for annexation due to lack of full City sanitary sewer or water services in accordance with the criteria in ORS chapter 222 or successor state statute.
3. Existing development in the proposed area for annexation has inadequate water or sanitary sewer service, or the service will become inadequate within one year.
4. The proposed area for annexation has existing City water or sanitary sewer service extended, connected, and in use, and a signed consent to annexation agreement has been filed and accepted by the City.
5. The proposed area for annexation is an island surrounded by lands within the City limits.

The proposal includes nine lots for the proposed apartment buildings (one lot has two buildings) and a common open space area. The preliminary subdivision plat is shown below:



The approval criteria for outline plan include eight items which are summarized as follows:

1) The development meets all applicable ordinance requirements of the city.
2) Adequate key City facilities can be provided including water, sewer, paved access, electricity, storm drainage, police & fire protection, and adequate transportation
3) The natural features, such as wetlands, floodplain corridors, ponds, large trees, are included in unbuildable areas.
4) The development of the land will not prevent adjacent land from being developed.
5) There are adequate provisions for the maintenance of common open space.
6) The proposed density meets the base and bonus density standards.
7) The development complies with the street standards.
8) The proposed development meets the common open space standards.

Next, we briefly address each of the approval criteria, and any needed conditions of approval to demonstrate compliance with the applicable standards.

The first approval criterion is that "*the development meets all applicable ordinance requirements of the city.*" This is an all-encompassing criterion that allows the Planning Commission to make findings that it has considered which City Ordinances are applicable and how their requirements have been met. The application materials explain that the proposal utilizes the Performance Standards Option Chapter 18.3.9, and that the development demonstrates compliance with the standards from AMC 18.3.9.050 – 18.3.9.070. The Staff notes that as a Performance Standards Options proposal, the application is not required to meet the minimum lot size, lot width, lot depth or setback standards of part 18.2.

First, we address AMC 18.3.9.050 which provides the base density and density bonuses for a PSO subdivision. This is also covered below in the sixth approval criterion but is repeated here as well. The R-2 zone has a density of 13.5 dwelling unit per acre, and the subject property is 8.53 acres for a base density of 115 (8.53 x 13.5 = 115.155). The standards at AMC 18.3.9.050.B allow for density bonuses up to 60-percent. The bonuses can be earned for Conservation Housing (15-percent), additional common open space (10-percent), and for affordable housing (up to 35-percent).

The affordable housing shall receive a density bonus of two units for each affordable housing unit provided but not to exceed the maximum of 35-percent. In the present application there are 24 affordable units which in theory allows for 48 units of density bonus, however that would exceed the 35-percent allowed which calculates to 40 dwelling units (115.16 x 0.35 = 40.3). The conservation housing shall receive a maximum 15 percent bonus is allowed. As is the present case one hundred percent of the homes or residential units approved are proposed to be certified as an Earth Advantage home, as approved by the Ashland Conservation Division under the City's Earth Advantage program as adopted by Resolution 2006-06. This allows for 17 additional dwelling units in terms of bonus density (115.16 x 0.15 = 17.3).

As was discussed above, the residential density of the project is 170 based on the number of units that are below 500 square feet. To determine the amount of density bonus required we divide the proposed density by the base density (170 / 115.15 = 1.48). Therefore, the project requires a 48-percent density bonus. While there is obviously density bonus from the surplus open-space the combination Earth Advantage, and affordability total 50-percent which exceeds the 48-percent required, for this reason we do not address potential open-space density bonus. Staff conclude based on the above that findings can be made that this standard will be met.

Next, AMC 18.3.9.060 provides the requirements for parking standards and requires that "*all performance standards subdivisions in R-2 or R-3 zones which create or improve city streets, at least one on-street parking space per proposed lot shall be provided*" with certain exceptions. In the present application the subdivision is not creating any city streets. While the highway does have proposed street improvements, it is outside of the City of Ashland's Jurisdiction and is therefore exempt pursuant to AMC 18.3.9.060.A.2.

Finally, AMC 18.3.9.070 provides for the setback standards and building separation for a PSO subdivision. The Code requires that "*Front yard setbacks shall follow the requirements of the underlying district.*" The R-2 zone, which is the underlying zone requires a front yard setback of 15.' Each lot for the buildings measure 69' x 116.5,' the proposed building footprints are 42'x

112.5.' This provides a 'front yard' setback of 19' exceeding the required 15', and also an 8' setback to the rear for porch areas.

The Code also requires that "*minimum separation between two buildings must be half of the height of the tallest building, where building height is measured at the two closest exterior walls, and the maximum required separation is 12 feet.*" An examination of the site plan shows that the closest any building is to each other is 20-feet which exceeds that required maximum separation of 12-feet.

The Code requires that "*Setbacks along the perimeter of the development shall have the same setbacks as required in the parent zone.*" In the present application the front yard is along the highway frontage. Building five is the closest to the 'front yard' and it is measured to be over sixty feet away where a 15-foot setback would be required. Building seven and eight are the closest to what would be considered the rear yard and they are shown to be over forty feet away. The remaining yards would be considered side yards and require a six-foot setback. It is clear from the site plan that there is more than a six foot setback along the entire perimeter meeting this standard.

With the application materials fully considered staff concluded that findings can be made that all applicable ordinance requirements have been met, and that findings can be made that the first criterion of approval will be met.

The second approval criterion is that "*adequate key City facilities can be provided including water, sewer, paved access.*" As discussed in great detail above in the fourth approval criteria for annexation above the development has considered all city facilities. Staff conclude that, based on the proposed facilities, that findings can be made that this approval criterion will be met.

The third approval criterion is that "*the natural features, such as wetlands and large trees, are included in unbuildable areas.*" The primary natural feature on the site is a small wetland. The entire wetland is protected in the open space area, and it is shown that no development is proposed to encroach on the wetland. A condition of approval has been added below to modify the tree protection plan (Sheet L1.1 of the landscaping set) to include fencing around the entire wetland to ensure it protection during construction and site work. Staff conclude that with the inclusion of the condition of approval that findings can be made that this approval criterion will be met.

The fourth approval criterion is that "*the development of the land will not prevent adjacent land from being developed.*" The subject property is bordered on the western side by railroad property which prevents any further development. On the eastern side the property is either adjacent to the highway frontage or fully developed parcels. To the north is the vacant remnant of land that will retain its county zoning and is able to be developed in a limited manner under county regulations, however due to the steep topography it is unlikely that it will develop to urban levels. Staff conclude that findings can be made that this approval criterion is met

The fifth approval criterion is that "*there are adequate provisions for the maintenance of common open space.*" The application includes a Declaration of Covenants, Conditions, and Restrictions (CC&R's) for the Grand Terrace Apartments which will be recorded concurrently

with the subdivision plat. The CC&R includes provisions for architectural control, landscape maintenance and other use restrictions. Staff conclude that with the creation of the HOA with binding CC&R's findings can be made that this approval criterion has been met.

The sixth approval criterion is that "*the proposed density meets the base and bonus density standards.*" As discussed in detail in the first approval criteria above, the application is leveraging density bonuses for conservation housing, and affordable housing. As set about above the project has a base density of 115.15 and a proposed calculated density of 170 when considering the units below 500 square feet. This requires a 48-percent density bonus. As was explained above, the conservation housing and affordable housing bonuses total a 50-percent bonus which exceeds the bonus required. Staff conclude that the proposed 210 dwellings (regulated density of 170) are within the allowed base and bonus density standards and that findings can be made that this approval criterion will be met.

The seventh approval criterion is that "*the development complies with the street standards.*" As was discussed in detail above in the fifth approval criterion for annexation, with the exception to the street standards being granted Staff conclude that findings can be made that this approval criterion will be met.

The eighth and final approval criterion is that "*the proposed development meets the common open space standards.*" The proposed subdivision includes a single open space lot that is 6.67 acres. The subject property is 8.53 acres. This means that 78-percent of the subject property is being set aside as common open space lot not all of which is functional open space. The tabulation sheets indicate that 58-percent (214,277 square feet) of the total site will be dedicated to open space amenities including 'kid only play areas,' tennis courts, basketball courts, and a significant area of landscaped open space. These dedications obviously exceed the requirement of 5-percent. Staff conclude that findings can be made that this approval criterion will be met.

Lastly, the approval criteria for final plan are intended to ensure substantial conformance between outline plan approval and final plan approval when the two are requested as separate procedural steps. Where the two are allowed to be filed concurrently, as is the case here, there is no procedural separation between the two and the concurrent final plan proposal is identical to the outline plan in terms of number of dwelling units, yard depths, distances between buildings, common open spaces, building sizes, building elevations and exterior materials, standards resulting in density bonuses, and street standards. Staff conclude that findings can be made that this approval criteria for final plan are met.

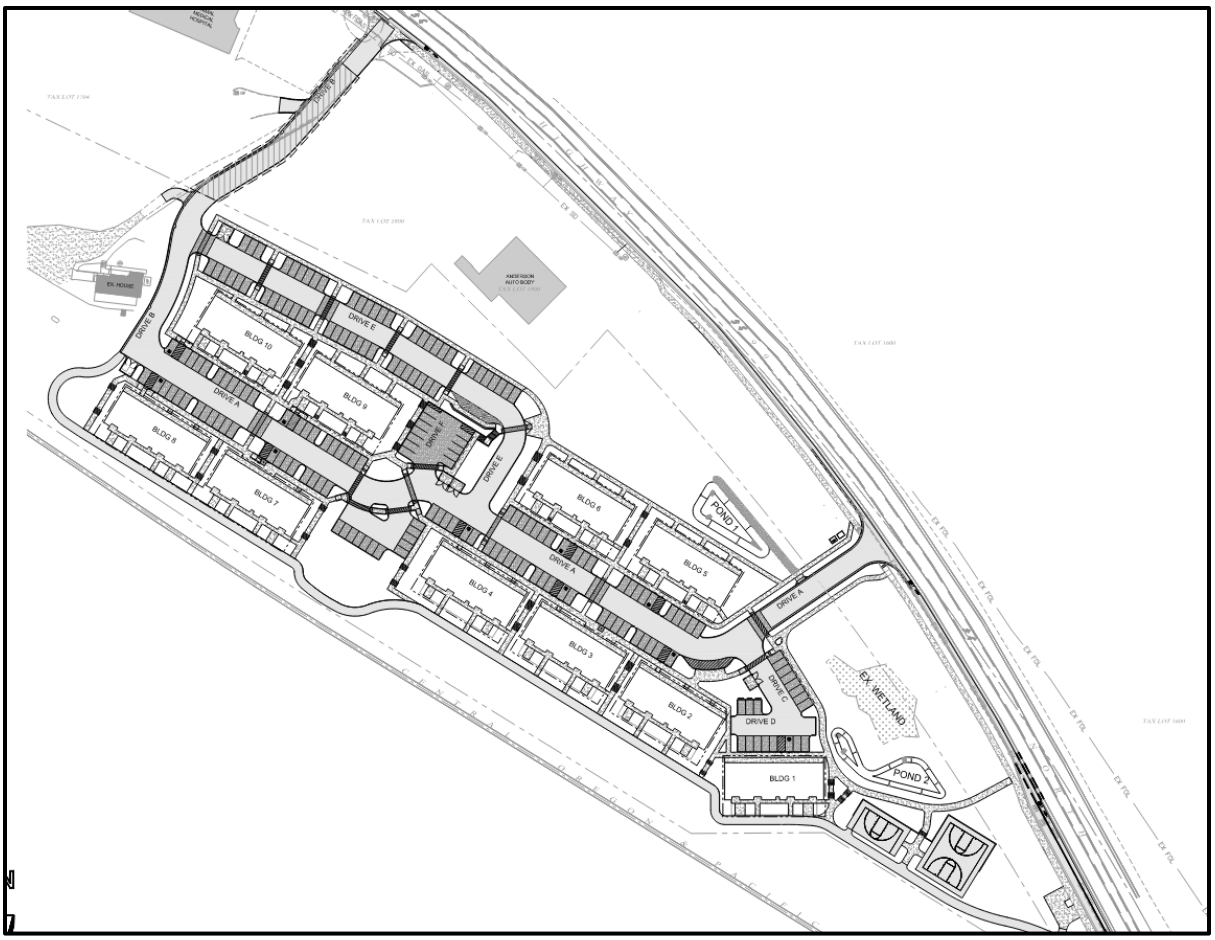
3) Site Design Review

Multi-Family housing requires Site Design Review. The purpose of Site Design Review at AMC 18.5.2.010 provides the following: "*The purpose and intent of this chapter is to regulate the manner in which land in the City is used and developed, to reduce adverse effects on surrounding property owners and the general public, to create a business environment that is safe and comfortable, to further energy conservation efforts within the City, to enhance the environment for walking, cycling, and mass transit use, and to ensure that high quality development is maintained throughout the City*".

The approval criteria for Site Design Review include five items which are summarized as follows:

1) The proposal complies with the underlying zone (part 18.2).
2) The proposal complies with applicable overlay zone (part 18.3)
3) The proposal complies with Site Development and Design Standards (part 18.4)
4) The proposal complies with the requirements for City Facilities in section 18.4.6
5) Addresses any required Exception to the Site Development and Design Standards.

The project site plan is shown on the following page. It shows the entire subject property area, proposed buildings, walkways, parking area, vehicle access & parking areas, and open space amenities.



The first approval criterion is that "*The proposal complies with all of the applicable provisions of the underlying zone (part 18.2).*" In terms of the underlying zone, multi-family residential is a permitted use outright, and the application, as has been discussed above exceeds the required minimum density, but also does not exceed the maximum density through the use of bonuses and the development of apartments that are under 500 square feet. AMC 18.2.5.030 provides the "unified standards for residential zones" including setbacks, and the maximum allowed lot coverage. In the R-2 zone the maximum lot coverage of impervious area allowed is 65-percent. In terms of total impervious area, the landscape plans on sheet L1.0 indicate that all impervious

area including driveways, parking areas, bike paths and buildings totals to 201,169 square feet (the total proposed area for annexation is 375,792 square feet), so the total lot coverage is 53.5-percent of the total project area and is less than the allowed limit of 65-percent. Staff conclude that with the forgoing findings can be made that this approval criteria will be met.

The second approval criterion is that "*The proposal complies with applicable overlay zone requirements (part 18.3).*" The overlay zones that relate to the subject property includes chapter 18.3.9 the "Performance Standards Option And PSO Overlay" and chapter 18.3.11 which is the "Water Resources Protection Zones (WRPZ)" The PSO overlay was covered in detail above with the responses to the approval criteria for outline and final plan. Similarly, WRPZ regulations were addressed in the third approval criteria for outline plan above as it addressed the identified wetland and its required buffer zone. Staff conclude that findings can be made that this approval criterion is met

The third approval criterion is that "*The proposal complies with the applicable Site Development and Design Standards of part 18.4.*" As relevant to the Site Design Review approval the following chapters of Part 18.4 apply and are addressed below:

- 18.4.2 Building Placement, Orientation, And Design
- 18.4.3 Parking, Access, And Circulation
- 18.4.4 Landscaping, Lighting, And Screening

The application findings and other exhibits includes detailed responses to each of the Site Development and Design Standards as well as comprehensive landscape, civil and architectural plans. The building orientation, proposed building materials, landscape plan and open space standards are all shown to be met, and staff conclude that with the foregoing, as well as the application materials fully considered, findings can be made that this approval criterion will be met.

The fourth approval criterion is that "T*he proposal complies with the applicable standards in section 18.4.6 Public Facilities, and that adequate capacity of City facilities for water, sewer, electricity, urban storm drainage.*" As discussed in great detail above in the fourth approval criteria for annexation above the development has considered all city facilities. Staff conclude that, based on the proposed facilities, that findings can be made that this approval criterion will be met.

The fifth approval criterion provides "*The approval authority may approve exceptions to the Site Development and Design Standards of part 18.4.*" if certain circumstances are found to exist. In the present application they address a single exception to these standards to allow parking between the face of the building and the highway. The application explains that due to the site layout and the location of the wetland to provide vehicle access to the building necessitates locating the parking between the road and the building. The application findings explain that the building is over 200' from the road, and the parking will ultimately be screened by both the parking lot trees and landscaping associated with the wetland. Staff believe that when considering the shape of the property and how the site layout relates to the topography and shape of the property that the reason for the exception is sound. Staff conclude that based on the distance from the road, and the landscape and other screening elements that granting the

exception will not substantially negatively impact adjacent properties; and approval of the exception is consistent with the stated purpose of the Site Development and Design.

4) Public Input

Notice was filed online with the DLCD on April 7, 2025, which meets the required statutory deadline of 35 days prior to the first hearing. Notice was also posted on the property frontage and mailed to all properties of record within 200' of the subject property on April 22, 2025.

At the time of this writing a single written comment was received. The letter is general in nature and while it does have "grand terrace" written near the 'regarding' line there are no specific issues raised with the project other than the fact that it involves an annexation.

III. Procedural – Approval Criteria

1) Annexation

AMC 18.5.8.050 provides the approval criteria and standards for annexation:

An application for an annexation may be approved if the proposal meets the applicable criteria in subsections A through H below. The approval authority may, in approving the application, impose conditions of approval consistent with the applicable criteria and standards, and grant exceptions and variances to the criteria and standards in this section in accordance with subsection I.

A. The annexed area is within the City's Urban Growth Boundary.

B. The annexation proposal is consistent with the Comprehensive Plan designations applicable to the annexed area, including any applicable adopted neighborhood, master, or area plan, and is an allowed use within the proposed zoning.

C. The annexed area is contiguous with the City limits.

D. Adequate City facilities for the provision of water to the annexed area as determined by the Public Works Department; the transport of sewage from the annexed area to an approved waste water treatment facility as determined by the Public Works Department; the provision of electricity to the annexed area as determined by the Electric Department; urban storm drainage as determined by the Public Works Department can and will be provided from the annexed area. Unless the City has declared a moratorium based upon a shortage of water, sewer, or electricity, it is recognized that adequate capacity exists system-wide for these facilities. All required public facility improvements shall be constructed and installed in accordance with subsection 18.4.6.030.A.

E. Adequate transportation can and will be provided to serve the annexed area. For the purposes of this section, "adequate transportation" for annexations consists of vehicular, bicycle, pedestrian, and transit transportation meeting the following standards:

1. For vehicular transportation a minimum 22-foot-wide paved access exists, or can and will be constructed, providing access to the annexed area from the nearest fully improved collector or arterial street. All streets bordering on the annexed area shall be improved, at a minimum, to an applicable City half-street standard. The approval authority may, after assessing the impact of the development, require the full improvement of streets bordering on the annexed area. All streets located within annexed areas shall be fully improved to City standards unless exception criteria apply. Where future street dedications are indicated on the Street Dedication Map or required by the City, provisions shall be made for the dedication and improvement of these streets and included with the application for annexation.

2. For bicycle transportation, safe and accessible bicycle facilities according to the safety analysis and standards of the governing jurisdiction of the facility or street (e.g., City of Ashland, Jackson County, Oregon Department of Transportation) exist, or can and will be constructed. Should the annexed area border an arterial street, bike lanes shall be constructed along the arterial street frontage of the annexed area. Likely bicycle destinations within a quarter of a mile from the annexed area shall be determined and the approval authority may require the construction of bicycle lanes or multiuse paths connecting the annexed area to the likely bicycle destinations after assessing the impact of the development proposed concurrently with the annexation.

3. For pedestrian transportation, safe and accessible pedestrian facilities according to the safety analysis and standards of the governing jurisdiction of the facility or street (e.g., City of Ashland, Jackson County, Oregon Department of Transportation) exist, or can and will be constructed. Full sidewalk improvements shall be provided on one side of all streets bordering on the proposed annexed area. Sidewalks shall be provided as required by ordinance on all streets within the annexed area. Where the annexed area is within a quarter of a mile of an existing sidewalk system or a location with demonstrated significant pedestrian activity, the approval authority may require sidewalks, walkways or multiuse paths to be constructed and connect to either or both the existing system and locations with significant pedestrian activity.

4. For transit transportation, should transit service be available to the annexed area, or be likely to be extended to the annexed area in the future based on information from the local public transit provider, the approval authority may require construction of transit facilities, such as bus shelters and bus turnout lanes.

5. Timing of Transportation Improvements. All required transportation improvements shall be constructed and installed in accordance with subsection 18.4.6.030.A.

F. For all residential annexations, a plan shall be provided demonstrating that the development of the annexed area will ultimately occur at a minimum density of 90 percent of the base density for the zone, unless reductions in the total number of units are necessary to accommodate significant natural features, topography, access limitations, or similar physical constraints. The owner or owners of the annexed area shall sign an agreement, to be recorded with the County Clerk after approval of the annexation, ensuring that future development will occur in accord with the minimum density indicated in the development plan. For purposes of computing maximum density, portions of the annexed area containing unbuildable lots, parcels, or portions of the annexed area such as existing streets and associated rights-of-way, railroad facilities and property, wetlands, floodplain corridor lands, slopes greater than 35 percent, or land area dedicated as a public park, shall not be included.

G. Except as provided in subsection 18.5.8.050.G.7, below, annexations with a density or potential density of four residential units or greater and involving residential zoned lands, or commercial, employment or industrial lands with a Residential Overlay (R-Overlay) shall meet the following requirements:

1. The total number of affordable units provided to qualifying buyers, or to qualifying renters, shall be equal to or exceed 25 percent of the base density as calculated using the unit equivalency values set forth herein. The base density of the annexed area for the purpose of calculating the total number of affordable units in this section shall exclude any unbuildable lots, parcels, or portions of the annexed area such as existing streets and associated rights-of-way, railroad facilities and property, wetlands, floodplain corridor lands, water resource areas, slopes greater than 35 percent, or land area dedicated as a public park.

a. Ownership units restricted to households earning at or below 120 percent of the area median income shall have an equivalency value of 0.75 unit.

b. Ownership units restricted to households earning at or below 100 percent of the area median income shall have an equivalency value of 1.0 unit.

c. Ownership or rental units restricted to households earning at or below 80 percent of the area median income shall have an equivalency value of 1.25 unit.

2. As an alternative to providing affordable units per section 18.5.8.050.G.1, above, the applicant may provide title to a sufficient amount of buildable land for development complying with subsection 18.5.8.050.G.1.b, above, through transfer to a non-profit (IRC 501(3)(c)) affordable housing developer or public corporation created under ORS 456.055 to 456.235.

a. The land to be transferred shall be located within the project meeting the standards set forth in sections 18.5.8.050.G.5 and 18.5.8.050.G.6.

b. All needed public facilities shall be extended to the area or areas proposed for transfer.

c. Prior to commencement of the project, title to the land shall be transferred to the City, an affordable housing developer which must either be a unit of government, a non-profit 501(c)(3) organization, or a public corporation created under ORS 456.055 to 456.235.

d. The land to be transferred shall be deed restricted to comply with Ashland's affordable housing program requirements.

e. Transfer of title of buildable land in accordance with this subsection shall exempt the project from the development schedule requirements set forth in subsection 18.5.8.050.G.4.

3. The affordable units shall be comparable in bedroom mix with the market rate units in the development.

a. The number of bedrooms per dwelling unit in the affordable units within the residential development shall be in equal proportion to the number of bedrooms per dwelling unit in the market rate units within the residential development. This provision is not intended to require the same floor area in affordable units as compared to market rate units. The minimum square footage of each affordable unit shall comply with the minimum required floor area based as set forth in Table 18.5.8.050.G.3, or as established by the U.S. Department of Housing and Urban Development (HUD) for dwelling units developed under the HOME program.

4. A development schedule shall be provided that demonstrates that the affordable housing units per subsection 18.5.8.050.G shall be developed, and made available for occupancy, as follows:

a. That 50 percent of the affordable units shall have been issued building permits prior to issuance of a certificate of occupancy for the last of the first 50 percent of the market rate units.

b. Prior to issuance of a building permit for the final ten percent of the market rate units, the final 50 percent of the affordable units shall have been issued certificates of occupancy.

5. That affordable housing units shall be constructed using comparable building materials and include equivalent amenities as the market rate units.

a. The exterior appearance of the affordable units in any residential development shall be visually compatible with the market rate units in the development. External building materials and finishes shall be substantially the same in type and quality for affordable units as for market rate units.

b. Affordable units may differ from market rate units with regard to floor area, interior finishes and materials, and housing type; provided, that the affordable housing units are provided with comparable features to the market rate units, and shall have generally comparable improvements related to energy efficiency, including plumbing, insulation, windows, appliances, and heating and cooling systems.

6. Exceptions to the requirements of subsections 18.5.8.050.G.2through 18.5.8.050.G.5, above, may be approved by the City Council upon consideration of one or more of the following:

a. That an alternative land dedication as proposed would accomplish additional benefits for the City, consistent with the purposes of this chapter, than would development meeting the on-site dedication requirement of subsection 18.5.8.050.G.2.

b. That the alternative phasing proposal not meeting subsection 18.5.8.050.G.4 provided by the applicant provides adequate assurance that the affordable housing units will be provided in a timely fashion.

c. That the materials and amenities applied to the affordable units within the development, that are not equivalent to the market rate units per subsection 18.5.8.050.G.5, are necessary due to local, state, or federal affordable housing standards or financing limitations.

7. The total number of affordable units described in this subsection shall be determined by rounding up fractional answers to the nearest whole unit. A deed restriction or similar legal instrument shall be used to guarantee compliance with affordable criteria for a period of not less than 60 years for units qualified as affordable rental housing, or 30 years for units qualified as affordable for-purchase housing.

H. One or more of the following standards are met:

1. The annexation proposal shall meet the requirements of subsection 18.5.8.050.B, above.

2. A current or probable danger to public health exists within the proposed area for annexation due to lack of full City sanitary sewer or water services in accordance with the criteria in ORS chapter 222 or successor state statute.

3. Existing development in the proposed area for annexation has inadequate water or sanitary sewer service, or the service will become inadequate within one year.

4. The proposed area for annexation has existing City water or sanitary sewer service extended, connected, and in use, and a signed consent to annexation agreement has been filed and accepted by the City.

5. The proposed area for annexation is an island surrounded by lands within the City limits.

I. Exceptions and Variances to the Annexation Approval Criteria and Standards. The approval authority may approve exceptions to and variances from the approval criteria and standards in this section using the criteria in section 18.4.6.020.B.1, Exceptions to the Street Design Standards, or chapter 18.5.5, Variances.

2) Outline Plan

AMC 18.3.9.040.A.3 provides the approval criteria and standards for outline plan approval.

3. Approval Criteria for outline plan. The Planning Commission shall approve the outline plan when it finds all of the following criteria have been met:

a. The development meets all applicable ordinance requirements of the City.

b. Adequate key City facilities can be provided including water, sewer, paved access to and through the development, electricity, urban storm drainage, police and fire protection, and adequate transportation; and that the development will not cause a City facility to operate beyond capacity.

c. The existing and natural features of the land; such as wetlands, floodplain corridors, ponds, large trees, rock outcroppings, etc., have been identified in the plan of the development and

significant features have been included in the common open space, common areas, and unbuildable areas.

d. The development of the land will not prevent adjacent land from being developed for the uses shown in the Comprehensive Plan.

e. There are adequate provisions for the maintenance of common open space and common areas, if required or provided, and that if developments are done in phases that the early phases have the same or higher ratio of amenities as proposed in the entire project.

f. The proposed density meets the base and bonus density standards established under this chapter.

g. The development complies with the street standards.

h. The proposed development meets the common open space standards established under section 18.4.4.070. Common open space requirements may be satisfied by public open space in accordance with section 18.4.4.070 if approved by the City of Ashland.

3) Final Plan

AMC 18.3.9.040.B.5 provides the approval criteria and standards for final plan Approval.

18.3.9.040.B.5. Approval Criteria for final plan. Final plan approval shall be granted upon finding of substantial conformance with the outline plan. This substantial conformance provision is intended solely to facilitate the minor modifications from one planning step to another. Substantial conformance shall exist when comparison of the outline plan with the final plan meets all of the following criteria:

a. The number of dwelling units vary no more than ten percent of those shown on the approved outline plan, but in no case shall the number of units exceed those permitted in the outline plan.

b. The yard depths and distances between main buildings vary no more than ten percent of those shown on the approved outline plan, but in no case shall these distances be reduced below the minimum established within this ordinance.

c. The common open spaces vary no more than ten percent of that provided on the outline plan.

d. The building size does not exceed the building size shown on the outline plan by more than ten percent.

e. The building elevations and exterior materials are in conformance with the purpose and intent of this ordinance and the approved outline plan.

f. That the additional standards which resulted in the awarding of bonus points in the outline plan approval have been included in the final plan with substantial detail to ensure that the performance level committed to in the outline plan will be achieved.

g. The development complies with the street standards.

h. Nothing in this section shall limit reduction in the number of dwelling units or increased open space; provided, that if this is done for one phase, the number of dwelling units shall not be transferred to another phase, nor the common open space reduced below that permitted in the outline plan.

4) Exception to Street Standards

AMC 18.4.6.020.B provides the approval criteria for exceptions to the street design standards.

1. Exception to the Street Design Standards. The approval authority may approve exceptions to the street design standards in section 18.4.6.040 if the circumstances in either subsection B.1.a or b, below, are found to exist.

a. There is demonstrable difficulty in meeting the specific requirements of this chapter due to a unique or unusual aspect of the site or proposed use of the site; and the exception is the

minimum necessary to alleviate the difficulty; and the exception is consistent with the purpose, intent, and background of the street design standards in subsection 18.4.6.040.A; and the exception will result in equal or superior transportation facilities and connectivity considering the following factors where applicable:

i. For transit facilities and related improvements, access, wait time, and ride experience.

ii. For bicycle facilities, feeling of safety, quality of experience (i.e., comfort level of bicycling along the roadway), and frequency of conflicts with vehicle cross traffic.

iii. For pedestrian facilities, feeling of safety, quality of experience (i.e., comfort level of walking along roadway), and ability to safely and efficiently cross roadway; or

b. There is no demonstrable difficulty in meeting the specific requirements, but granting the exception will result in a design that equally or better achieves the stated purposes, intent, and background of the street design standards in subsection 18.4.6.040.A.

5) Site Design Review

AMC 18.5.2.050 provides the approval criteria for Site Design Review approval.

An application for Site Design Review shall be approved if the proposal meets the criteria in subsections A, B, C, and D below. The approval authority may, in approving the application, impose conditions of approval, consistent with the applicable criteria.

A. Underlying Zone. The proposal complies with all of the applicable provisions of the underlying zone (part 18.2), including but not limited to: building and yard setbacks, lot area and dimensions, density and floor area, lot coverage, building height, building orientation, architecture, and other applicable standards.

B. Overlay Zones. The proposal complies with applicable overlay zone requirements (part 18.3).

C. Site Development and Design Standards. The proposal complies with the applicable Site Development and Design Standards of part 18.4, except as provided by subsection E, below.

D. City Facilities. The proposal complies with the applicable standards in section 18.4.6 Public Facilities, and that adequate capacity of City facilities for water, sewer, electricity, urban storm drainage, paved access to and throughout the property, and adequate transportation can and will be provided to the subject property.

E. Exception to the Site Development and Design Standards. The approval authority may approve exceptions to the Site Development and Design Standards of part 18.4 if the circumstances in either subsection 1, 2, or 3, below, are found to exist.

1. There is a demonstrable difficulty meeting the specific requirements of the Site Development and Design Standards due to a unique or unusual aspect of an existing structure or the proposed use of a site; and approval of the exception will not substantially negatively impact adjacent properties; and approval of the exception is consistent with the stated purpose of the Site Development and Design; and the exception requested is the minimum which would alleviate the difficulty;

2. There is no demonstrable difficulty in meeting the specific requirements, but granting the exception will result in a design that equally or better achieves the stated purpose of the Site Development and Design Standards; or

3. There is no demonstrable difficulty in meeting the specific requirements for a cottage housing development, but granting the exception will result in a design that equally or better achieves the stated purpose of section 18.2.3.090.

IV. Conclusion and Recommendations

Staff recommend that the Planning Commission recommend to the City Council approval of the annexation. Staff further recommend that the Planning Commission conditionally approve both Outline and final plan for the subdivision, grant the exception to street standards, and also conditionally approve the request for Site Design Review for the proposed buildings.

If the Planning Commission recommends approval of the application, staff recommends including the following conditions of approval below:

1) That all proposals of the applicants shall be conditions of approval unless otherwise modified herein.

2) That any new addresses shall be assigned by the City of Ashland. Street and subdivision names shall be subject to City of Ashland review for compliance with applicable naming policies.

That prior to City Council approval and first reading of the ordinance for annexation of the property, the applicant shall provide:

3) A legal description (*we have the map, but no legal description*) of the properties to be included in the annexation prepared by a registered Professional Land Surveyor. The boundary shall be surveyed and monumented as required by statute subsequent to City Council approval of the proposed annexation.

4) A final, signed irrevocable consent to annexation as required in AMC 18.5.8.020.A (*we have scans, need the original document*).

5) A final, signed agreement to deposit an amount sufficient to retire any outstanding indebtedness of special districts defined in ORS 222.510 as required in AMC 18.5.8.020.B (*we have scans, need the original document*).

6) A deed restriction agreement ensuring that any future development will occur in accord with the minimum required 90 percent of the subject properties' base density and to ensure that the development is in keeping with the approved development plan, as required in AMC 18.5.8.050.F and that development of the property shall comply with the affordability requirements for annexations in AMC 18.5.8.050.G including specific details on which units in which buildings will be reserved for affordable housing units reserved for those at or below 80-percent AMI

7) A deed restriction agreement that the required utility infrastructure and street frontage improvements required of annexation and approved herein shall be completed prior to issuance of any building permits

That prior to any work within the right-of-way, the applicant shall:

8) The applicant shall obtain required federal, state or regional approvals including but not limited to approvals from the Bureau of Reclamation (BOR), Talent Irrigation District (TID), Oregon Department of State Lands (DSL), Oregon Department of Transportation (ODOT & ODOT Rail), Rogue Valley Sewer Services (RVSS), Rogue Valley

Transportation District (RVTD), or Central Oregon & Pacific Railroad (CORP) prior the commencement of site work on the property or within the rights-of-way.

9) The applicants shall provide evidence of permit approval to the city, including copies of all approved plans, for all work to be done within ODOT right-of-way prior to the commencement of work. Approved plans will need to correspond to the land use approval granted here, or modifications shall be requested.

10) The applicants shall also obtain any necessary plan and permit approvals from the City of Ashland Public Works Department/Engineering Division. The applicants shall obtain all required Public Works inspection approvals for work completed within City ROW.

11) That the applicant shall obtain and provide evidence of any necessary permits or approvals from the Bureau of Reclamation (BOR) and/or Talent Irrigation District (TID) for any work within the "Billings Siphon" irrigation easement.

12) That the applicant shall obtain and provide evidence of any necessary permits or approvals from Rogue Valley Sewer Services (RVSS) for the sanitary sewer connections to the RVSS system

13) That the requirements of the Ashland Fire Department relating to approved addressing; fire apparatus access, fire apparatus access approach, aerial ladder access, firefighter access pathways, and fire apparatus turn-around; fire hydrant distance, spacing and clearance; fire department work area; fire sprinklers; limitations on gates, fences or other access obstructions; and addressing standards for wildfire hazard areas including vegetation standards and limits on work during fire season shall be satisfactorily addressed in final civil drawings provided for permit review.

14) The applicant shall provide final electric service, utility and civil plans including but not limited to the water, sewer, storm drainage, electric, street and driveway improvements shall be submitted for the review and approval of the Planning, Building, Electric, and Public Works/Engineering Departments, Rogue Valley Sewer Services and Oregon Department of Transportation for approval prior to permit issuance. The street improvement plan shall include full designs with cross-sections consistent with city standards, except where exceptions have been approved herein. Street lights shall be included in keeping with city street light standards. The utility plan shall include the location of connections to all public facilities including the locations of water lines and meter sizes; fire hydrant; sanitary sewer lines, manholes and clean-out's; storm drain lines and catch basins; and locations of all primary and secondary electric services including line locations, transformers, cabinets, meters and all other necessary equipment. Transformers, cabinets and vaults shall be located in areas least visible from streets, while considering the access needs of the utility departments. Any required private or public utility easements shall be delineated in the civil plans. All civil infrastructure shall be installed by the applicants, inspected and approved prior to the signature of the final survey plat.

15) The applicant shall submit a final electric plan including any necessary load calculations and locations of all primary and secondary services including transformers, cabinets, streetlights and all other necessary equipment. Transformers and cabinets shall be located in areas least visible from streets and outside of the sidewalk corridor and vision

clearance areas, while considering the access needs of the Electric Department. Electric services shall be installed underground to serve all lots prior to signature of the final survey plat. With annexation, the property will no longer be served by Pacific Power and Light; service will be provided by the City's municipal electric utility and the necessary services to make this transition will need to be installed at the applicant's expense. This plan shall be reviewed and approved by the Planning, Engineering and Electric Departments prior installation.

16) A final storm drainage plan detailing the location and final engineering for all storm drainage improvements associated with the project shall be submitted for review and approval by the Departments of Public Works, Planning and Building Divisions. The applicant shall provide evidence that this plan has been reviewed and approved by the Oregon Department of Transportation and Rogue Valley Sewer Services as well. The storm drainage plan shall demonstrate that post-development peak flows are less than or equal to the pre-development peak flow for the site as a whole, and that storm water quality mitigation has been addressed through the final design.

17) Engineered construction drawings for the required street improvements from the existing terminus of the sidewalk south of the site near Schofield Street to the existing terminus of the sidewalk north of the site near El Tapatio shall be provided for review and approval by the Oregon Department of Transportation and the City of Ashland's Planning and Engineering Departments prior to any work within the street right-of-way or pedestrian corridor. The required improvements shall be as described herein and illustrated in the applicant's civil drawings submitted with the application.

18) The final engineered designs shall include details of the transition from the existing sidewalks, and any additional right-of-way necessary to accommodate these improvements shall be provided through a right-of-way dedication if deemed necessary by the Public Works/Engineering Department or Oregon Department of Transportation.

That prior to any Site Work / Excavation, the applicant shall:

19) That the tree protection plan (Sheet L1.1 of the landscaping set) shall be modified to include fencing around the entire wetland to ensure it protection during construction and site work.

20) The applicant shall provide evidence of concurrence from the Division of State Lands (DSL) for the wetland delineation including any wetland area in the ODOT right-of-way

21) That a final Fire Prevention and Control Plan addressing the General Fuel Modification Area requirements in AMC 18.3.10.100.A.2 of the Ashland Land Use Ordinance shall be provided prior to bringing combustible materials onto the property, and any new landscaping proposed shall comply with these standards and shall not include plants listed on the Prohibited Flammable Plant List per Resolution 2018-028.

22) Final construction drawings for the grading and erosion control plan shall be approved by Public Works which includes the location of all erosion control measures and silt fencing placement to protect the wetland and its protection zones during construction.

23) Permit submittals for common area and excavation permits shall include final lot coverage calculations demonstrating that lot coverage is to comply with the applicable 65

percent lot coverage allowance of the R-2. Lot coverage includes all building footprints, driveways, parking areas and other circulation areas, and any other areas other than natural landscaping.

24) That the tree protection fencing and fencing to delineate and protect the wetland water resource protection zone shall be installed according to the approved plan, inspected and approved by the Staff Advisor prior to any site work, storage of materials, staging or issuance of a building or excavation permit. The tree protection fencing shall consist of chain link fencing six feet tall and installed in accordance with 18.4.5.030.C. No construction activity, including dumping or storage of materials such as building supplies, soil, waste, equipment, or parked vehicles, shall occur within the tree protection zones.

That prior to final plat, the applicant shall:

25) That a final survey plat shall be submitted within 12 months of this Final Plan approval and approved by the City of Ashland within 18 months of this approval.

26) That final CC&Rs for the Homeowner's Association shall be provided for review and approval of the Staff Advisor with the Final Plat. The CC&R's shall describe responsibility for the maintenance of all common use-improvements including driveway, open space, landscaping, utilities, and stormwater detention and drainage system, and shall include an operations and maintenance plan for the stormwater detention and drainage system.

27) The approved Tree Protection Plan, Water Resource Protection Zone, and accompanying standards for compliance shall be noted in the CC&Rs. The CC&Rs must state that deviations from the approved Tree Preservation and Protection Plan or disturbance of the Water Resource Protection Zones shall be considered violations of the Planning approval and subject to penalties described in the Ashland Municipal Code.

28) If fencing is proposed, a fencing plan which demonstrates that all fencing shall be consistent with the provisions of the "Fences and Walls" requirements in AMC 18.4.4.060, and that fencing around common open space, except for deer fencing, shall not exceed four feet in height. Fencing limitations shall be noted in the subdivision CC&R's. The location and height of fencing shall be identified at the time of building permit submittals, and fence permits shall be obtained prior to installation.

29) The final subdivision plat shall include the following:

    a. All easements including but not limited to public and private utilities, mutual access and parking, public pedestrian and public bicycle access, drainage, irrigation and fire apparatus access shall be indicated on the final subdivision plat submittal for review by the Planning, Engineering, Building and Fire Departments.

    b. Any necessary easements for transit amenities shall be identified in the final plat submittal to allow for the placement of the Rogue Valley Transportation District (RVTD) bus stop, transit-supportive plaza and bus pull-out lane. The final easement details shall be mutually agreed upon with RVTD.

c. That the final subdivision name shall be approved by the City of Ashland.

d. That all infrastructure improvements associated with the annexation and subdivision including but not limited to utilities, driveways, street improvements including but not limited to all street lighting, and common area improvements shall be completed according to approved plans, inspected and approved.

e. That irrigated street trees selected from the Recommended Street Tree Guide and planted according to city planting and spaces standards shall be planted where park row planting strips have been approved, inspected and approved by the Staff Advisor.

f. That electric services shall be installed underground to serve all lots, inspected and approved. The final electric service plan shall be reviewed and approved by the Ashland Electric, Building, Planning and Engineering Divisions prior to installation.

g. That the sanitary sewer laterals and water services including connection with meters at the street shall be installed to serve all lots within the applicable phase, inspected and approved. The applicant shall provide evidence from Rogue Valley Sewer Services (RVSS) that the sewer laterals have been installed and paid for with the plat submittal.

That prior to the issuance of any building permits, the applicant shall:

30) That building permit submittals shall include:

a. Evidence that the Earth Advantage® certifications described in the application materials and necessary to satisfy the requirements for the conservation housing density bonus are being pursued.

b. Evidence that storm water from all new impervious surfaces and run-off associated with peak rainfalls will be collected on site and channeled to the storm water collection system or through an approved alternative in accordance with Ashland Building Division policy BD-PP-0029. On-site collection systems shall be detailed on the building permit submittals.

c. The building permit submittals for each lot shall demonstrate compliance with the outdoor lighting standards in AMC 18.4.4.050.C including but not limited to directing outdoor fixtures downward and with full shielding to minimize excessive light spillover onto adjacent properties.

31) As required in AMC 18.3.9.040.A.4.b, if the development is completed in phases, 50 percent of the value of the common open space shall be provided in the first phase and all common open space shall be provided when two-thirds of the units are finished *(i.e. prior to the issuance of the seventh certificate of occupancy).*

That prior to issuing a Certificate of Occupancy, the applicant shall:

32) Demonstrate that the bicycle parking facilities shall be installed according to the approved plan, inspected and approved. Inverted u-racks shall be used for the bicycle parking. All bicycle parking shall be installed in accordance with design and rack

standards in 18.4.3.070 prior to the issuance of the certificate of occupancy. The building permit submittals shall verify that the bicycle parking spacing, and coverage requirements are met in accordance with 18.4.3.070.

33) Prior to the issuance of a final Certificate of Occupancy, the applicant shall provide evidence of having received the required Earth Advantage® certification for each unit/building.

34) That all exterior lighting shall be selected, installed and or shrouded to avoid directly illuminating adjacent residential proprieties. All lighting shall be verified to comply with this requirement prior to issuance of a certificate of occupancy.

Public Comments

Brent Thompson
P.O. Box 201
Ashland, Oregon 97520

Feb 10, 2025

Ashland City Council , Ashland Planning Commission & City Staff
20 East Main
Ashland, Oregon 97520

RE: Available lands inventory & GRAND TERRACE

To the Council, Planning Commission, and staff,

It was wise for Oregon's state government to eliminate so called "exclusionary zoning" where only single family homes might be permitted in certain areas. **That almost all parcels can have more than one unit gives us a benign way to increase density, thus discouraging sprawl. Thus, the change can supply much of the need for apartments.**

According to Greg Holmes, of 1000 Friends of Oregon, the legislature did not automatically allow cities to include the housing potential for the multitude of possible ADU's in land inventories for multi family housing, but it also did not prohibit cities from including the potential of additional units from being included in a multi family zone land inventory. Sound vague? Yes, visioning often is. The point is that there is no penalty for focusing on adding ADU's instead of apartment complexes to satisfy rental housing needs.

In the mid 1980's there was a planning action and annexation request at the top of Walker Street on Peachy Lane. During the hearing the question came up as to whether there was already a 20 year supply of available land in that zoning category to meet the state requirement. The reasoning was that if there was already a 20 year supply, why are we annexing land? The Planning Commission's discussion then centered on the need for an updated land inventory of not just vacant land but also ***underdeveloped*** **single family zoned land.** The reasoning was that under developed land (e.g. a single house on acreage) also has development potential. Our planners supported including *underdeveloped* land jn inventories.

That meeting started the sprawl versus infill debate which reached a peak in the mid 1990's. The Council's verdict was that Ashland should infill. In late 1995 a poll showed that 95% of Ashland's population understood the sprawl versus infill issue with a majority favoring infill over sprawl.

Subsequently, in the County master plan process in the early 2000's known as Regional Problem Solving, the Council elected to not expand the Urban Growth Boundary for 40 years. And now there is much more potential for unique accessory dwelling units in what had been single family dwelling zones. T**herefore, indefinitely there is no need to annex land for apartment complexes.**

People seeking apartments in Ashland often ask if a given apartment is part of a large complex. When informed that a given apartment is not part of a large complex, there is relief. What this means is that apartment hunters in Ashland want small scale dwelling units with character. Many reject large impersonal REIT owned complexes.

In summary so as to not go beyond one page: Please 1. Maintain the policy of holding in sprawl by infilling and rejecting annexation requests; 2. Encourage ADU's—- with subsidies if necessary; 3. Direct staff devise a **"substandard in size" lot partition ordinance.** (I'd help with that); 4. Continue encouraging mixed use projects to promote infill and housing.

And don't forget that a **bigger** city, county, or state doesn't make any of them **better.** And that applicants spend money in the application process isn't grounds for approval. Also, isn't North Main often at capacity for traffic? Then why add even more cars? Thank you.

Brent Thompson 541 488-0407
(alternativestogrowth.com) for planning info
Former Ashland Planning Commissioner & City Counselor; former President of the Southern Oregon Land Conservancy, Jackson County Citizen's League , & Friends of Jackson County

Applicant Submittal

To The City of Ashland Oregon

January 5, 2025

Proposal for 210 Rental Apartments and Request for the following:
Annexation Tax Lot 1702, Site Design Review, Exception to Site Design Standards, Street Standards Exception, Performance Standards Option Subdivision, Preliminary Plat Approval

Applicant:	Kendrick Enterprise LLC Robert Kendrick Casita Developments LLC, member
Property Owner:	Linda Zare Casita Developments LLC, member
Project Name:	Grand Terrace
Property Address:	1151 HWY 99 N
Map & Tax Lots:	39S 1E 32 Tax Lots: 1700 & 1702
Comprehensive Plan Designation:	Multi-Family Residential
Zoning:	Jackson County Rural Residential (RR-5)
Adjacent Zones:	Ashland R-1-5; Jackson County RR-5, Jackson County General Commercial (JCGC) Exclusive Farm Use (EFU)
Project Owner:	Casita Developments 716 N Laurel St Ashland, OR 97520
Developer:	Kendrick Enterprise LLC 716 N Laurel St Ashland, OR 97520
Architect / Site Planning:	Design: Gary Caperna & Jenny Kueck

Architect Engineer:	Brian Mockridge, PE Mockridge Engineering PO Box 1395 Merlin, Or 97532
Civil Engineering:	Powell Engineering and Consulting Todd Powell 100 E Main Street, Suite O Medford, OR 97501
Landscape Architecture:	KenCairn Landscape Architecture 146 Central Avenue Ashland, OR 97520
Survey:	Polaris Surveying Pacific Crest Surveying
Building:	Taylor Elements Kyle Taylor

INCLUSIONS

COMPLIANCE LETTER COMPLIANCE LETTER

- A. PROPERTY INFORMATION
- B. APPLICATION HISTORY
- C. PROPOSAL SUMMARY

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- No 3 EXCEPTION TO SITE DESIGN STANDARDS
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ORDINANCE CRITERIA FINDINGS

- No 1 ANNEXATION 18.5.8
- No 2 SITE DESIGN REVIEW CHAPTER 18.5.2
- No 3 EXCEPTION TO SITE DESIGN STANDARDS
- No 4 PUBLIC FACILITIES - STREET DESIGN STANDARDS 18.4.6
- No 5 EXCEPTION TO STREET STANDARD CHAPTER 18.4.6.020.B
- No 6 PARKING ACCESS AND CIRCULATION CHAPTER 18.4.3
- No 7 PERFORMANCE STANDARDS OPTION CHAPTER 18.3.9.
- No 8 BUILDING PLACEMENT, ORIENTATION & DESIGN CHAPTER 18.4.2
- NO 9 PRE LIM-PLAT APPROVAL 18.5.3.030
- No 10 LANDSCAPING LIGHTING AND SCREENING CHAPTER 18.4.4
- No 11 18.4.4.070 OPEN SPACE
- No 12 18.4.5 TREE PROTECTION

END

EXHIBITS ATTACHED

- Waiver Fee Request
- CCR's Grand Terrace HOA
- CONSENT TO ANNEX
  - LINDA ZARE
  - GENNESSEE & WYOMIN RAILROAD SERVICES
  - OREGON DEPARTMENT OF TRANSPORTATION

- Grand Terrace Land Use Sets
  - Civil Engineering Powell Engineering
  - Architectural Engineering Mockridge Engineering
  - Landscape Architectural Kencaring Landscape Architectural
  - Landscape ANSI 300 Tree Design Compliance Leter
  - Landscape Parking Lot Tree Type

- Oregon Department of Transportaion
  - ODOT Letter Agree to Annex
  - ODOT Require Street Improvements Letter
  - ODOT RR Bridge Easement
  - ODOT TIA Approval
  - ODOT Traffic Study

- Polaris Survey
  - Preliminary Property Line Adjustment Polaris
  - Preliminary Subdivision Map Polaris
  - Survey ALTA S-1, S-2, S-3

- Rogue Valley Sewer Capacity Letter

- Solar Equations Report

- Criteria Letter Reference Site Tabulation "Density-Bonus Points"
  - Tabulation Bonus Points Analysis Report
  - Tabulations of Site Analysis Report

- Traffic Engineer Sandow Engineering & Sage Fire Engineering
  - TIA Grand Terrace 8-5-19 w License Update
  - TIA Tech Memo Update Grand Terrace Access Safety Evaluation Signature Update
  - TIA Traffic Volumes Update 12-11-24
  - TIA Trip Evaluation Update 11-6-24 Signature
  - Transportation Meeting Committee Report Copy
  - Sage Fire Project Report

Environmental

- Wetlands Delineation Report
- Wetland Map
- Wetlands Update Verification Report

*Please be advised that numerical data presented in the tabulation spreadsheet is deemed correct. In the event of any discrepancies between the figures in this narrative letter application and those in the tabulation spreadsheet table that the numbers in the spreadsheet should be considered the accurate representation of the data.

GRAND TERRACE APARTMENTS
COMPLIANCE NARRATIVE LETTER

PROPERTY INFORMATION

The development proposal request is for approvals to Annexation, Site Plan Review, Performance Standard Subdivision, Outline Plan, Final Plan and Preliminary Plat Map, for the development of Grand Terrace a 210-apartment community.

The annexed property consists of parcel Lot 1702 on the south side of OR HWY 99, at 1511 Hwy. 99 N. It's served by the RVSS for sanitary and storm water services and electric service is currently from Pacific Power. The lot development area consists of 8.53 acres and abuts OR Hwy 99 property at the entrance of the City of Ashland. The lot's land area frontage is separated from the Hwy drive lanes for a depth of approximately 100 feet. The applicants parcel sits behind this separation and is approximately 900 feet along this frontage area. Behind the frontage, the applicant's development lot area slopes gently upland at about 5 degrees to the Central-Oregon Pacific Railroad (CORP) above.

The land separating the frontage from the highway consists of an earth berm that stands nearly 7' above the Hwy 99 street grade for the entire length of the applicant's property. Upon annexation the applicant will improve the ODOT land, and the high berms will be flattened and level with the applicant's land. The area will be improved with public facilities and landscaped. A Transit Plaza and bus pull out lane will be built in the area too.

The property has a current access easement that will serve as a secondary access point and a new main entrance driveway will be built along the frontage of lot 1702, 1,000 feet away from the existing easement driveway. The property is served by the Rogue Valley Sanitary Sewer Service (RVSS) District. The adjacent tax lots has a residential dwelling awaiting demolition. The development lot has a wetland of 4,606 square feet near and along the Hwy with a few trees and a delineation report is attached. The Bureau of Reclamation has an irrigation easement on the property that is 100-foot wide. No buildings are planned on the easement but only allowed parking and driveways.

The property is within the city of Ashland Urban Growth Boundary (UGB) and zoned Jackson County Rural Residential (RR-5), Low Density, Multi-Family Residential on the city of Ashland Comprehensive Plan. Adjacent properties to the east and north are within the UGB and zoned Jackson County General Commercial (GC). The properties to the south, include the railroad and Single Family Residential (R-1-5) properties immediate to the other side of the railroad up the hill side in the city boundary.

APPLICATION HISTORY

This proposal was last brought before this commission 12 months ago on a LUBA Remand Hearing and approved by the Planning Commission. It went to the City Council and was withdrawn and suspended by the applicant, after the applicant's attorney advised a remand item that applied to application dates and another post date law, or the Goal Post rule, would be overturned in another appeal causing more time and damages.

The commission and council first approved this application in 2020 and again in 2022 and 2023. The remand item by LUBA was based on a law that was not in effect at the time of the applicant's application. The new state law eliminated required parking. The law came into effect effect after the application was submitted in 2023. The new State law was created to reduce barriers to housing and improve the environment through the elimination of redundant parking. This is the Climate Friendly Equitable Communities Act CFEC. Consequently, another state statue on application dates and post application dates, the Goal Post rule, sunk the development.

Months later with the help of Pam Marsh the state legislature passed SB 5703 which amended the Goal Post rule and stipulates that an applicant can "opt in" if an application made before any land use laws are later made. The basis for their decision was the was that another application was "redundant and caused additional duplicate fees" and it wasn't fair.

The application has been approved by Ashland three previous times and this application is the same as the ones approved before except for updating to the new Climate Friendly Act of the State of Oregon. This is the same as "opting in" except we had to work redundantly and paying the same fees again. Another application and paying fees again is unjust.

Under 18.5.8.030 annexation require an accompanying planning application for the development of the entirety. The prior application included portions of tax lot 1700 that accounted for more acres that the development area of only 8.53 acres. The development size and area has not changed and is still the same. Tax Lot 1700 will be set aside for another separate application. With the adjustment from 13.75 acres to 8.53, twenty 24 affordable units are being provided at this time and the remainder of other 15 affordable units will be under a separate application with Tax Lot 1700.

PROPOSAL SUMMARY

This letter demonstrates the application complies to the criteria for the Grand Terrace development of 210 apartments located in Ashland's Urban Growth boundary at the north gateway of the city.

The following is a general summary of the ordinances criteria and how the application complies. Followed by a detailed list of each applicable ordinance and the applicants' findings complying with the various items in the applicable Ordinances. All development documents including a Traffic Impact Analysis, Land Survey's, Architectural Drawings of the Site and Building Plans and Civil Engineering drawings for the site and all offsite public utilities and pedestrian transportation plans are attached supporting the criteria. These plans are all final and construction ready.

The first item in the application is the Annexation and its criteria. The application for the annexed area is the acreage of the project. For annexation a dedication of 25% of the base density must be affordable rated. For renting units, they must be up to HUD standard of 80% of the area medium income. The units will be built and owned by the developer and dedicated affordable for 60 years. The units will be evenly distributed on a pro basis between all ten buildings.

Annexations require a Site Review. The development has not changed the site plan from the last application, buildings or any on and off-site work. The Climate Friendly Act changed the parking amount. Covering the parking area to reduce heat required larger trees and the area for the roots expanded and caused the loss of 44 parking spaces. Covered bike areas were in the act, but the application already had this in earlier applications. The Act also ask for the consideration of Multiple modes of pedestrian transportation which was already in the previous application. Pooled parking was required so 13 parking spaces were removed to make room for two van parking spots.

The Public Facilities Street Design Standards are included as before. There are multiple transportation options of sidewalks, crosswalks, bus stops, plaza, bike lanes, an RFB for pedestrians and bikes to cross the street and enter the development. These are still all the same as the last submittal, including the request for the exception to the standards due to the numerous natural and man-made physical impediments that prevent the standard street

improvements. The proposed improvements comply with the standards and specifications of the jurisdiction, the Oregon Dept. of Transportation and the Climate Friendly Act.

Of the few changes under the Climate Act parking standards, Units smaller than 750 square feet, or affordable housing where not subject to the requirement to providing on-street parking. The application includes the same Performance Standards Subdivision that included all small units below that level and all units are 500 sq ft units and less.

Another change is where parking is voluntarily provided the maximum number of voluntarily provided off-street automobile parking spaces for a multifamily development can be no more than two spaces per unit and this development has less than one space per unit. And no street parking.

Another is the requirement for bicycle parking. The number of spaces, how the spaces are constructed, protected and their location. There is no change to the application because bikes are in the same location as the new rule. The bike parking is sheltered and there is more than required. Electrical charging isn't required but it is included.

Next under the climate act is how the parking lot is treated for heat. To minimize the adverse environmental and microclimatic impacts over 50% of the areas is built with a lighter colored concrete with 40% shaded by trees. The areas include landscaped mediums and swales to divert the water toward capture areas, so storm water systems are not overburdened the water is released at nonpeak times. Captured water is treated before being released in a containment system built under the parking lots, and in open area retention ponds. There are 176 parking spaces and 75 have EV stations and two dedicated van pool parking spaces. Solar panels are added to the building rooftops for resident units' electric utilities.

Parking access and circulation is unchanged, and it still includes access at the main entrance and an additional access point several hundred feet to the north. The circulation criteria are the same and meet for the fire department requirements. Also, we made ADA parking greater than the federal standards and development includes 2 spaces per building.

Under our Performance Standards Subdivision submittal, we have nine lots under the apartment buildings.

There are two required steps to Performance Standards Options which include the approval of an outline plan and then later approval of a final plan. Under the PSO ordinance these can be completed individually or combined for concurrent review. This application is a combined proposal with a concurrent review of an outline plan and final plan. In conclusion the plans presented are full construction drawings for the entire development, "Final plan approval shall be granted upon finding of substantial conformance with the outline plan".

For purposes of calculation density of the development the City Ordinance uses an equivalent factor. For a unit that is 500 sq ft the equivalent factor is one 1. Where units are less than 500

square feet they are considered a three quarters .75 dwelling unit. The base density is 115.155 units, the development has 210 units one-bedroom units, and equivalent is 170 units. The density criteria is outlined clearly in the Tabulation Table.

The buildings are clad with a fire-resistant Nichia Vintage Blackwood & Poplar plank siding with white windows and doors. The main exterior elevation will have patios and dividers finished in cedar planks. Mesh stainless steel will join them all together with over 80% transparency allowing for full clear views, light and air.

An Exception to the Site Development and Design Standards is requested for parking spaces that are located between the building and the street of building No 1. The Wetland setback lines, and dedicated open space restricts the efficient layout for the building and parking area as designed through the rest of the site. The parking is 200 feet from the street with trees and wetland vegetation blocking their view and not visible from the street. They are also over 800 feet from the neighbors parking lot of Anderson Auto Body and does not affect them. The exception doesn't conflict with the intent city land use laws.

The proposed open space is 58%. Private Open Space is nearly 6% and required is 4%.

SUMMARY of ORDINACE COMPLIANCE

NO 1

ANNEXATION

The annexation approval criteria is to provide an orderly expansion of the City and public facilities and services. This application includes all the submission requirements including a consent to annex, an agreement to deposit amount to retire special districts debts, boundary description, written findings, the property owners' requests to annexation and a concurrent filing of a planning action. The annexation is in the UGB zoned R-2.

"The application requires an accompanying planning action for the development of the entirety of the annexed area". This application includes the Site Plan Review/Outline & Final Plan, Performance Standard Subdivision, Exceptions to Street Design, Lot Line Adjustment and Preliminary Plat Approval for proposed developed acreage in the annexed area.

As required adequate public facilities of water, electric, sewage, stormwater be available or can be installed as well adequate transportation facilities and the plans demonstrate that adequate public facilities are available and can be installed as well as adequate transportation facilities. Contiguity to the city boundary is made through the state procedure ORS 222.170 whose use will formulate compliance to approval criteria standards of chapter 18.5.8. 050 subsection C. where "The annexed area is contiguous with the City Limits."

Under AMC 18.5.060 "When an annexation is initiated by an applicant other than the city, the staff Advisor may include other land in the proposed annexation to make a boundary extension more logical. Along with the applicant's property the staff advisor can include adjacent properties. This is logical in that it achieves necessary contiguity for the fulfillment of the Urban Growth Boundary to meet the goals of the City's Comprehensive Plan. Through its extension needed housing for the city is achieved through the use of the Urban Growth Boundary lands.

As prescribed by ORS 222.170 letters seeking consent for annexation by the applicant and property owners in the adjacent area have been sent to ODOT, the Genesee-Wyoming Railroad and the applicant. When more than half of the owners in the annexed area consent and they represent more than half of the land to be annexed and more than half of the assessed value to be annexed the requirement for annexation is satisfied. The annexation has been satisfied on all previous applications in 2020 and 2023 and again now in 2024.

Accompanying an annexation request is a Site design whose standards under chapter 18.4 are complied with as are building placement, parking access, circulation, landscaping, public facilities, solar access and trees. For city facilities the development will be using City Water and Electric and all improvements in the design documents will be dedicated to the city where requested. Sewer and Storm water is provided by RVSS through an interagency agreement and dedications will be in conformance with the terms of the agreement. The application includes a letter from the facility districts affirming there is sufficient water to meet the development's needs. Storm and sewer are adequate through approval in writing from the RVSS district that the storm and sewer systems are adequate for the development.

For residential applications a plan must be provided demonstrating that the development of the annexed area will occur at the minimum base density of the development area. Twenty five percent 25% of that density is for affordable units to qualifying renting households earning at or below 80% percent the area median income.

The prior application included 13.75 acres of Tax Lots 1700 and 1702. This application is for 8.53 acres from Lot 1702. Tax Lot 1700 is not included in the annexation request or is it part of the development.

The total affordable units are derived from the zoning density. The area is zoned R-2 and density is 13.5 du/acre the development acreage 8.53 acres x 13.5 du/pa = 115.155 base density. Base density of 115.155 x 25% = 28.78units. For Affordable unit at 80% the equivalent factor is 1.25. The 28.78 units are divided by 1.25, 28.78 / 1.25 = 23.031. These are rounded up to 24.

The applicant has the option to transfer land sufficient to build these units to a nonprofit but will instead build the units themselves. Retaining the units will result in a calculated subsidy at an estimated monthly cost of $12,000, (in first year 2024). The cost of construction is over four million dollars. The units will be dedicated as affordable per the criteria for a term of 60 years.

The affordable are one bedroom 500 square feet units. All the units in the development are one-bedroom units measuring from < > 500 sq ft. The development consists of 10 buildings holding 21 unit each. Subject to financing and the Debt Coverage Ratio the affordable units will be equally distributed to all the buildings with the first affordable units starting in the first building. On average there will be 2.4 units per building or two to three units per building respectively. Neither market units or affordable units will be discernable or built any different than each other. The criteria for affordable units meet the HUD standards outlined in the ordinance.

NO 2
SITE DESIGN REVIEW CHAPTER 18.5.2

The proposed development will beautify the entryway of Ashland, and greatly benefit the local businesses and the environment. The purpose of site review is to regulate the manner land is developed, reduce adverse effects on surrounding property owners and the public and create an environment that is safe and comfortable, further energy conservation and enhance the environment for walking, cycling, and mass transit use, increase business activity and to ensure high quality development in the City.

The proposed development includes nearly a mile of pedestrian improvements including overhead lighting and sidewalks greatly enhancing the entry to the city. The development will be facilitating nearly 400 occupants. With pedestrian and mass transit opportunities of a bus transit plaza and two other improved bus stops, safe crosswalks, bike lanes, RFB at crosswalks for biking and walking safely across the highway to Grand Terrace will encourage the use of less carbon polluting transit means. This is a great benefit to our environment, neighbors the economy, Ashland and the public and finally the beautification of the gateway to the city of Ashland.

The development area is at the entrance to the city and is mostly avoided because its unsafe and at nighttime it's more dangerous. There are no safe Pedestrian or bike facilities that equal the standards of the city but only a ditch, a roadside strip on the highway shoulder with dirt and rocks with an exposed earth berm seven feet tall towering over the road and vehicles. For nearly a mile this condition continues with no sidewalks, driveways, curbs or pedestrian street lighting. This is the entryway of the city. The proposed development exceeds city standards, beautifies the entryway of Ashland, benefits the local businesses, protects the environment encourages multiple transit options that have no impact on the environment through walking, cycling, walking and mass transit.

The development acreage is 8.53 acres with onsite EV charging stations powering vehicles, bikes and solar panel rooftops powering 210 apartments. Ten Buildings are spread out over the site each covering an area of 6,251 sq ft, with 21 units in each.

The building areas and other impervious areas covers slightly over 52% of the site and includes 176 parking spaces, parkways, crosswalks, sidewalks and bike paths. The minimum coverage is

65% so the development is extremely more open than required. There are 20 dedicated spaces for ADA parking and 75 EV charging stations equaling 42% of the spaces. Driveways and parking surfaces are 49% asphalt, at 37,569 sq ft, and 38,112 sq ft, 50.3% of light-colored concrete that reflects heat making it cooler.

A Bus Stop, Pull Out Lane and Transit Plaza with overhead cover, lighting, seating and bike racks will be installed adjacent to the entryway.

The Building Height of the proposed buildings are two-story and ½ story apartments with walkout basement units. The buildings are less than 30' feet tall with orientation to the Hwy 99. The Architecture is compatible with the terraced site which has a 5% slope. The building lines are simple, clean, neat and functionally shaped with an orientation to capture the light. Exterior color tones are reflective making the air cooler. The design is a classical/contemporary with a design that is a traditional garden style apartment building. All siding is cement composite fire-resistant material and all units are fire sprinklered with mini split HVAC systems.

Site design review is required for residential uses and a plan is attached demonstrating how the improvements fit on the site and conforms to the criteria and standards. The basic plan, analysis, boundaries, drawings, grading and landscape plans are included with the application. The zone is R-2, it complies with development and design standards. Public facilities are included, and construction drawings demonstrate the feasibility. Because of the unusual aspects of the area the applicant is requesting an exception to the street standards an exception to street design standards.

No 3
EXCEPTION TO SITE DESIGN STANDARDS

"The approval authority may approve exceptions to the Site Development and Design Standards of part 18.4 under Chapter 18.5.2.050.E.1."
Chapter 18.4 Building Placement, Orientation & Design
Part 18.4.2.030 Residential development
2. Limitation on Parking Between Primary Entrance and Street
"Parking areas shall be located behind buildings, or on one or both sides".
An exception to the site design standards is needed for parking between building No 1 and the street. The Wetland setbacks lines, and dedicated open space restrict the layout for the building and the parking area can't be placed anywhere else.
The parking exception is over 200 feet from the street and not seen because it is screened by trees and the wetland vegetation that blocks the view of the parking from the street. There is only one neighbor Anderson Auto Body Paint shop. It's over 600 feet away and within this expanse are trees and multiple other landscape items obscuring the parking. There is no visual impact on this neighbor, or any other neighbors or the public. Furthermore, the development has nearly 53% of the site open and landscaped including the dedicated preserved wetlands. The exception is consistent with the intent of the standards.

NO 4
PUBLIC FACILITIES - STREET DESIGN STANDARDS 18.4.6

This chapter applies to all new development where public facility improvements are required consisting of pedestrian transportation facilities and utilities. The application includes all public improvements of electric, storm, sewer and water plans. The application includes a letter from the facility districts affirming there is sufficient water to meet the development's needs. The development will be using city water and electric while sewer and Storm water service is provided by RVSS through an interagency agreement.

Multiple pedestrian transportation options of new sidewalks, crosswalks, curbs and bus stops are being proposed. No new streets are being added but the applicant will be improving streets. Two driveways are included in the development with concrete aprons and a full commercial grade apron at the main entry where ODOT's safety standards are met for the ingress and egress to the highway.

The right of way where much of the improvements will go have hillsides outcroppings and wetlands which are being retained with block walls. Street trees, where possible, are within the landscape plan along the highway. Vertical six-inch curbs are included along with approved streetlights in accordance with the jurisdictional authority ODOT. The application plans also include a full bus stop, pull out lane, transit plaza, and all items requested by RVTD. For storm water surface runoff, a capture system of landscape islands and curbed with swales directing runoff to retention ponds and underground tanks are included in the plans. These are designed to release storm water after peak hours.

NO 5
EXCEPTION TO STREET STANDARD CHAPTER S CHAPTER 18.4.6.020.B.1

The approval authority may approve exceptions to the street design standards if there is a demonstrable difficulty in meeting the specific requirements due to a unique or unusual aspect of the site or proposed use of the site and the exception is the minimum necessary to alleviate the difficulty, and the exception is consistent with the purpose intent and background of the the standard and result in equal or superior transportation facilities and connectivity .

There are numerous natural and man-made physical impediments that prevent the standard street improvements. Currently the area is dangerous, and the proposed development area, and the surrounding area for almost a mile have no pedestrian transit facilities of crosswalks, sidewalks, curbs, bus stops and street lighting. The area is very unsafe and hazardous to pedestrians, bicyclist and motorist.

The applicant is installing new transit facilities that provide much more access to all areas in the area than before and other improvements that will reduce wait time and safety substantially. New crosswalks with RFB's will diminish the time waiting to cross the highway. Closer bus stops will reduce wait and street lighting added the area pedestrians will feel safer and be safer.

Sidewalks will provide access to the new transit plaza and the other adds bus stop. They will be closer and reduce time and increase safety and comfort. These new additions will create more opportunities for all forms of transit via the opportunity to access areas. The quality of the experience will increase by 100% and the approval of the exception will result in superior transportation facilities and connectivity.

PROPOSED IMPROVEMENT WITH EXCEPTIONS

An exception is requested where the exiting sidewalk terminates near El Tapatio Restaurant where private property squeezes into the right of way area leaving little room for full improvements. There is room to continue the 8-foot sidewalk, bike lane and buffer lane in approval with ODOT the jurisdictional authority for about 300' and for about the next 400', up to the Grand Terrace development property line abutting Anderson Auto Body.

From this point for over 300' a park row, sidewalks, bike lane and buffer lane will be built up to the main driveway entry of the development then another 320' will be added beyond the driveway. Here it will meet a bus pull out lane that narrows the width area again. The pull-out lane is needed for the safety of the bus entering the traffic. Because of the topography a pull-out lane and park row together won't fit. Standard sidewalks, curbs, bus lane, bike lane, buffer lane and drive lane will be built here. Along the pull-out lane a 6' retaining wall is needed in this area to accommodate these improvements and retain the outcroppings. The total area from the beginning of the pull-out lane, including the retaining wall is about 400' to the bridge.

From the bridge railroad trestle tunnel ODOT has proposed a state facility raised 6-foot sidewalk and curb. The curb has a mounted 3-foot concrete barrier providing safety to pedestrians and cyclist walking to the Grand Terrace development. Beyond the tunnel, an 8' foot sidewalk and curb will continue to N. Main Street for about 840' where another six-foot retaining wall will be added to maintain and protect city infrastructure facilities. Going to Schofield Ave., a full standard improvement will be built for about another 300'. Here a new crosswalk with a RFB to get safely across the street to catch the North and South Bound Bus will be installed. RVTD and ODOT have designed new hardscape surface areas on the North Bound side to safely and comfortably get on and off the bus. This should be very helpful for handicapped pedestrians and wheelchairs.

Pedestrians will have control of the crossing the beacon. By activating the Rapid Flashing Beacon all pedestrians can notify vehicles to stop to safely cross the street and access Grand Terrace by foot, bike and wheelchair.

The proposal is consistent with the purpose, intent, and background of the street design standards in subsection 18.4.6.040 which are based on safety. The proposed improvements comply with the standards and specifications of the jurisdiction, the Oregon Dept. of Transportation. Through the installation of these improvement neighborhoods will be connected through the installation of 3,000 lineal feet of sidewalks, overhead lighting, crosswalk and flashing beacon, bus stops and transit plaza. The public will have opportunities for multiple forms of transit. The improvements will also change the roadside culture and

induce cars to lower their speed limit. The multiple transit options make for a safer environment by increasing the feeling of safety and security for pedestrians, cyclist and bus users. The proposed improvement which are an exception to the city standard comply with the standards of the jurisdictional authority, the Oregon Department of Transportation.

For Water, Storm Water and Electric the development will be using city water and electric. All these improvements are noted in the design documents. The utilities will be dedicated to the city where requested.

Sewer and Storm water services are provided by RVSS through an interagency agreement and any required dedications of improvements will be in conformance with the terms of the agreement. The application includes all public improvements including sewer and water plans and are submitted to the city engineer for review and approval. Any sizing requirements will be accommodated if needed in the existing application after the engineer's review.

The application includes a letter from the facility districts affirming the there is sufficient water to meet the development's needs. Adequate storm and sewer facilities are here and approved in writing from the RVSS district stipulating that the storm and sewer systems are adequate for the development. Storm and drainage plans are attached to the application for both the City Engineer and the RVSS District Engineer. All engineered utility plans are supplied to providers during the application permit process, most are reviewed concurrently during the design process.

NO 6
PARKING ACCESS AND CIRCULATION CHAPTER 18.4.3

Where parking is voluntarily provided in the development it must meet the conditions of this chapter. Requirements include parking, vehicular and pedestrian access, circulation, and connectivity. The plans demonstrate the criteria are met including the added items from the developer. All ADA parking, emergency vehicle lanes, loading areas, dedicated van pool parking, a Bus Stop with a pull-out land, a transit plaza, sidewalks, curbs, trees, lighting, bicycle parking, EV charging stations and infrastructure, both pedestrian and multi modal paths throughout the site including paths from the public area to the development buildings.

For auto parking requirements a maximum of 2 spaces per unit are allowed and the development has less than one parking space per unit. For Bicycle Quantity Standards, one sheltered space per studio/bedroom is required and the development has 250 including electric charging out lets for safe charging bikes outside the building area. All are within 50 feet of the entrance of the building.

The amount of ADA parking exceeds the standards. They are immediately accessible to the entrance of the building and in most cases located nearest the dedicated handicap apartments whose total exceed the federal requirement. Predominantly flat, smooth and hard, ADA access roll up is made better from the parking area to the unit itself that has flat entrance areas. The

American with Disability Act requires 6 parking spaces for lots over 150 spaces. Grand Terrace has 186 parking spaces with 20 ADA spaces.

Bike parking is provided by separate sheltered parking booths on concrete or asphalt base. They are immediate to and visible from the unit front door and easily accessible. The location from the unit to the bike parking is under 50 ft distance from the building and not further than the closest vehicle parking space. Lighting is provided in the shelters along with electric for charging.

Auto parking is not located in front and side yard setbacks abutting a public street and no parking is in front yards or on the streets except as outlined in the exception because parking spaces are between the building and street and an exception is being requested for building No 1 where the vegetated wetlands contrains the design parameters.

Voluntarily provided parking areas and parking spaces meet all the minimum and maximums sizes. The back up distance of 22 feet is met. Pedestrians walking from their cars at long distances will walk by a variety of designs of buildings, landscape islands, breezeways, raised walkways, parkways and other street like features.

Sidewalks are safe with five feet and greater in width and curbs are six inches high. Curb ramps are located at all crossings with hash marked lines. Street trees are along the walkways, and pedestrian oriented lighting is in all pedestrian areas.

Parking lot areas include all parking spaces, driveways, circulation and maneuvering areas. They are designed to minimize the adverse environmental and microclimatic impacts with over 50% of the areas built with a lighter colored concrete with 40% shaded by trees**.** The areas include landscaped mediums and swales to divert the water toward capture areas. Storm water systems are not overburdened during a storm and the runoff is released at non-peak times. The captured water is treated in a containment system before being released. These are built under the parking lots and in open area retention ponds. There's approximately 12,000 sq ft of containment tanks under the parking area.

A list of Parking Lot Trees is attached to the landscape plan that include trees from the City of Ashland Recommended Street Trees Guide.

A circulation system map for pedestrians and bicycles consisting of sidewalks, ADA pathway, multi-use paths, bike paths, bike parking, bus stop and pull-out lane, transit center with seating and bike parking, secured pathways under the bridge, a crosswalk with RFB, pooling and van parking areas are included in the application.

For all vehicles and emergency vehicles a circular system is designed in the plans to rotate vehicles around the development in a forward position without turning around. There are two dedicated pool van areas. Emergency vehicle access is made from two access points. The driveways meet the requirements for heavy equipped fire engines both in weight capacity and

in turn around standards. FD personnel have approved safe and unobstructed access to all buildings from streets, driveways, and walkways at the sides, front and rear of all buildings. For driveways and areas, the distance between the applicants 'driveways is over 100 feet and none are as close as 24 feet, and over 100 feet from any intersection.

The subdivision meets the controlled access standards which can be made from two points. Separate egress and ingress is included with a turn lane in the street for safety and the lanes marked with center line paint. The street is already fully marked for left and right and turns along the frontage. The driveway design is clearly marked in all areas per code with clearly defined traffic areas and drive areas. The driveway accommodates two-way circulation, and the driveway meets the 20-foot width standard for two-way traffic and 22 feet back up distance.

Only one approach is at the developments frontage while the secondary one is over 800 feet away. The development frontage entry is safe and clear of other traffic from nearby driveways and there are no vertical clearance issues or Vision clearance obstructions from the driveways.

Because the residential development would be creating traffic onto the Highway, the city, by order of the ODOT the jurisdiction authority, was required to conduct a study from a detailed list of items by ODOT about the impact on the highway and its safety. This report is called the Traffic Impact Analysis or "TIA" and it's over 200 pages long replying and responding to all ODOT's points of authority. The city approved Sandow Engineering to conduct the study at the expense of the developer. ODOT reviewed the study, and several times required verifications and inspected the site themselves to verify. After a normal back and forth analysis the report was finalized and approved by ODOT. The report is attached to the application. It includes an analysis of the driveway safety. An approval letter is on file from ODOT to the City. The entrance criteria were exceeded, and it meets the safety standard for a clear line of sight, the ability to stop within a measured distance at a posted speed and time to react at the posted speed. All these measurements were met and approved by ODOT.

UDATED TIA TRAFFIC COUNT: Since the TIA was done in 2019 three different traffic analysis were conducted in November and December of this year 2024. After adjusting for commuter traffic per ODOT's Seasonal Adjustment Methodology and the study being conducted at the peak season of the year they were compared to the volumes in 2019 and showed traffic at the major intersection of Hwy 99 and Valley View where 20% lower now than in 2019. The year over year reports show the predemic, pandemic and postdemic traffic for the highway also and projected growth of traffic is not as great as projected in 2019.

The main driveway grade is 5 percent far beneath the maximum standard and the secondary access driveway is 15% at the highest point for a short distance and is approved by the fire department for access and safety standards.

Driveways are designed to City standards. Lots and parcels conform to the lot standards of the applicable zoning district and the developments lots have been created through the Performance Standard Option and its criteria have been met through the PSO standards.

Driveway approaches are designed with concrete. All parking areas are designed for permanent marking of driveways and parking spots that are handicap and compact. All parking spots are designed for wheel stops to the specifications.

EVC infrastructure is included in the engineering plans. There are 76 car charging stations included in the design documents meeting the 40% criteria. The plans have site lighting throughout the development and all lighting is designed to be directed downward so not to glow into any neighbor property or night sky.

The development pedestrian plan demonstrates that a Continuous Walkway System extends throughout the development site, and to existing or planned off-site adjacent sidewalks, trails, common open space areas, bus stops and transit plazas. Walkways that cross a parking area or driveway are clearly marked with contrasting paving materials and is a raised/hump crossing area. All units have direct access to the exterior and sidewalks to other buildings, units, trash, parking and open space areas. Parking, units, buildings, trash, open spaces, bus stops, transit plaza all have direct safe avenues that are solid and well-lit at nighttime. All sidewalk walkways in the parking areas are built with curbs that have a raised 6-inch curb.

NO 7
PERFORMANCE STANDARDS OPTION CHAPTER 18.3.9.

The applicant is exercising the option to apply under the Performance Standards Option, Properties not located in the Performance Standards Overlay but meeting the requirements of section 18.3.9.030 may be processed under chapter 18.3.9. Performance Standards Option whose purpose is to allow an option for more flexible design, stress energy efficiency, architectural creativity, and innovation; use the natural features, provide a quality of life equal to or greater than that provided in developments built under the standard zoning codes; be aesthetically pleasing; provide for more efficient land use; and reduce the impact of development on the natural environment and neighborhood.

Grand Terrace development design meets this in the design of small flexible household units with open spaces, views, air, and multiple various transportation options that reduces energy and carbon generators. Using multiple buildings of apartments with individuality provides private entrances located directly to the exterior in lieu of corridors and halls, with private decks at opposing ends of the entrance with panoramic views of the surrounding areas. The high ceilings, more windows, solar panels, collecting power for the residents' electric utilities. This lowers cost, provides clean energy and reduces the environmental impact.

Geographically, the building utilizes the open terrace preserving natural features of the area leaving an abundant amount of open space for the occupants, neighborhood and city at large.

When placed at the entryway of the city, preserving the natural features of the area is significant. For neighbors the low profile of the buildings and large open areas preserve the

views of the open fields and the valley for everyone. For transportation and safety, the development provides all this and more especially where none existed before.

The goals of the chapter in using natural landscape, energy conservation and features to the greatest advantage is achieved.

The proposed development area is immediate to the entryway of the city in the UGB along Hwy 99 where Anderson Auto Body Paint and Paradise buildings are located. In the daylight the area is very distinguishable by the high dirt berms in the ODOT right of way along the drive lane. The development sets back about 100 feet from these berms and its frontage is 900 feet long. it includes the vegetated wetland with trees and is perpendicular to the berms. Upland from the berms and wetlands are visible open fields gently terraced to the Railroad tracks. From here it wraps northeast behind the paint shop and Paradise supply. An old farmhouse and barn sit up here. From here northerly another eight acres of forest and a Gulch are the backdrop for all the car lots along Hwy 99. This is all in the UGB and the forest is being preserved and maintained by the owners. Most is constrained and unbuildable.

Currently, at nighttime this entryway of the city along the highway is remarkably dark with no public facilities. For security the area is spotted with tall bright security lights glaring back on the commercial buildings and car lots. The light spills onto the north Ashland hillside neighborhood. The night sky is gone, and pedestrians are not visible, creating a dangerous situation.

While the frontage of the development is 900 feet, the improvements area is 3 times larger. It includes the restoration of standard public facilities and safe and multiple transportation opportunities. With the addition of critically needed rental housing it will put more eyes on the street.

The application is a combined proposal and follows the subdivision process for bonding, public improvements, and common areas creation. There are two required steps to Performance Standards Options and PSO Overlay approval, which may be completed individually or combined for concurrent review. 1. An application for an outline plan approval and 2. application for a final plan approval. An application with fewer than 10 lots may file a Final Plan concurrently as defined in 18.3.9.040.B.4 An outline plan is submitted here for subdivision approval, and it consist of less than 10 lots. Accordingly, the Outline Plan/ Final Plan are submitted here concurrently.

The development area contains 210 residential units. The units are spread among 10 buildings each consisting of 21 one-bedroom units per building. All units have HVAC systems mini split systems. There is no phasing, and the final plan are the construction ready plans for immediate development of the annexed area acreage. Financing is a combination of private equity and bank financing for construction and permanent loans after completion. A request for Preliminary Plat approval is for financial underwriting. Development is contemplated to begin shortly after all approval, jurisdictional and financing approval.

The site plan delineates more accurately the driveways walkways, parking, pedestrian and bike plan, public bus stop and plaza with seating and overhead cover with lighting. In combination, they demonstrate connectivity. The attached final Landscape Plan includes all trees existing and to be included in the construction of the landscaping.

Final plans for the development of offsite and onsite work are in the civil engineering plans and include water, sewer, drainage, electric, cable, and street improvements.

A full construction set of public facilities including water, electric, sewer and storm water facilities are on the plans conforming to the code. Required open space is indicated on the plan and the total area is double the required amount. The proposed utilities extensions to the subject property from the various public utility providers are through existing and proposed easements and street rights-of way surrounding the site. Written statements verifying capacity from the various service providers were already provided stating there is adequate capacity to serve the development.

The chapter stresses innovation, architectural creativity and efficiency. Breaking the multi units into individual buildings kept the development non imposing or monolithic and giving it a sense of intimacy and human scale achieves these goals. Geographically, its set on a terrace and spread out with abundant open space preserving and utilizing the natural features of the area. Occupant's view from the living space is oriented toward the valley and wide-open spaces.

The minimum base density required is met and the proposal conforms to the requirement. For open space the minimum amount required is 8% and the plan demonstrates the open space is greater than 50%. The goals of the chapter in using natural landscape and features to the greatest advantage and the wetlands along with an abundance of open fields are kept and protected, meeting the criteria. The plan outlines the site’s significant natural features such as the wetland area in the development acreage. Large open spaces are included throughout the Grand Terrace site. Trees and landscape islands within the parking area and pedestrian walkways connect the apartment units to the site open spaces, the parking areas, the site sidewalks and the public pedestrian and transit improvements.

The Method of maintaining common and open space is with CC&Rs to regulate the use, appearance, and maintenance of the development which commonly include the buildings, common area spaces, driveways and parking lots.

The subject property development provides the opportunity for adjacent property to be developed for uses as shown in the Comprehensive Plan. Without this annexation, the north Ashland Urban Growth Boundary is prevented from future expansion and growth because the applicant is bringing utilities and transportation to the area that didn’t exist before. This promotes the City’s Comprehensive Plan, including existing residential subdivisions to the south, and commercial areas to the north.

Submitted with the application are final civil plans with street improvement plans with changes to the city street standards that includes a request for an exception to the Street Standards. The approval authority may approve exceptions to the street design standards of Chapter 18.4.6.040 "if there is demonstrable difficulty in meeting the specific requirements of this chapter due to a unique or unusual aspect of the site or proposed use of the site; and the exception is the minimum necessary to alleviate the difficulty", see Section in 18.4.6.020.B.1.

The findings of the applicant showing that the development meets the criteria set forth in this ordinance and the Comprehensive Plan and this narrative along with all the plans and exhibits demonstrate the application meets the ordinance requirements. The design documents attached, and this letter are the findings demonstrating the development meets the criteria set forth in the ordinance and the Comprehensive Plan

These are the approval criteria for outline plan and the planning commission shall approve the outline plan when if finds all the above submissions have been met. The submittal meets all applicable ordinance requirements.

When an outline plan and final plan are filed concurrently, the criteria for approval of an outline plan shall also be applied. All application requirements for the final plan have been submitted and attached to this application and letter

The Approval Criteria for Final Plan shall be granted upon finding substantial conformance with the outline plan which means the outline plan meets the final plan criteria and doesn't change any more than 10%.

The density of the development conforms to the Chapter 18.3.9.050. The zone is R 2, and the density allowed is 13.5 du/acre based on the acreage of the project. The density cannot exceed this. The acreage of the project is 8.53 acres x 13.5 du/acre = 115.155 units.

Density Bonus and permitted density. The permitted base density shall be increased by the percentage gained through density bonus points. The maximum density bonus permitted shall be 60 percent (base density x 1.6).

Residential Density Calculations in R-2 zones is covered under Chapter 18.2.5.080.B.2. A unit that is 500 sq ft. the equivalent factor is 1 one. Where units that are less than 500 square feet they are considered as .75 of a dwelling unit.

Proposed unit mix and density is
50 >500 sq ft units, 50 x1 = 50, and 160 <500 sq ft units, 160 x .75 = 120. 50 + 160 = 170

The minimum allowed density is 90% of the base density.
Minimum Base density = 115.155 x 90% = 104
Maximum Allowed Density is 115.155 x 1.60 = 184
Base Density with Bonus is 115.155 + 69 = 184

Proposed Density is 170
(see tabulation table for calculations)

18.3.9.060 Parking Standards On-Street Parking Required
The proposed development is improving streets controlled by Oregon Department of Transportation on Hwy 99 and parking is prohibited. In accordance with 18.3.9.060. A.2.Streets outside the City of Ashland's jurisdiction, such as those overseen by the State of Oregon Department of Transportation (ODOT) or Jackson County, which are improved by a development, are not required to provide on-street parking as outlined in this requirement if prohibited or exempted by the governing jurisdiction.

For setbacks: The proposal setbacks comply with the underlying zone, and it exceeds the front setback of 20 feet for the underlying district. The minimum separation between two buildings must be half of the height of the tallest building. Half the height of the building in the development is 15 feet and the distance between the building is 20 feet meeting the criteria. The Side yard of 6 ft and the Rear Multi Story 10 ft per story and 5 for half story setbacks meet the parent zoning criteria. The perimeter setbacks meet the standards for the zone.

Solar: Solar measurements are attached to the application and meet the criteria where applicable.

NO 8
BUILDING PLACEMENT, ORIENTATION & DESIGN CHAPTER 18.4

A. 18.4.2 applies to residential development subject to 18.5.2 Site Design Review
The purpose is to enhance the environment to encourage alternative modes of transportation, such as walking, bicycling, and transit, an environment that is safe and comfortable, and natural surveillance of public spaces, or "eyes on the street," for crime prevention and security. Reduce dependency on the automobile for short trips, thereby conserving energy and reducing unwanted congestion. Support resource conservation and reusable energy generation, through solar, wind, and other renewable energy sources; and require high quality development that makes a positive contribution to the streetscape and maintains a sense of place that is distinctly Ashland.

-The colors of the building will be consistent with the earth tones of the area light colored to reduce heat.
-All parking is visible and a close walking distance to units, and no parking abuts a unit, and all ADA parking is immediately available to ADA units.
-All parking areas are adjacent to walkways and paths located for immediate access to residential units by paths, sidewalks and breezeways. Windows are plentiful to all residential units allowing the units to be surveyed if needed.
-Laundry rooms are centrally located at each building directly accessible to all units and have windows for light and safety.

-High standard installed hardware is included in all areas used and lived in along with well lit walkways and entry ways, common areas paths and walkways leading to cars and entryways will have security cameras. Assessable by residents and security companies.
-All lights will be installed for the safety of the residential occupants and oriented downward and not in any way to effect adjacent neighbors and the night sky.
-Light will be sufficient to monitor for safety of the residents and viewing of security systems.
-Concurrently all inclusion of larger trees will be to accommodate carbon reduction in the shading of driveways and parking areas and will be man size height.
-The buildings primary orientation is toward the street and driveways and are connected to the right of way via multiple approved walkways and meandering paths from units through the common area open space for both pedestrians and bicycle riders.
-Parking areas are located behind buildings, or on one or both sides. No parking is proposed between the buildings and the street, but due to the open space buffer around the wetland area it constricted the design of Building No 1 one where spaces are between the street and building because it could not be adjusted, but it is 200 feet back from the street and screened by the wetlands and trees. An acceptance is requested for this building.
-The proposed siding material are fire resistant fiber cement cladding with colors reflective of the area in Poplar and Blackwood plank siding. Six by eight patio doors at the end of the unit, with dividers between patios of a Polar slat wood and woven stainless-steel screens. The woven steel is strong, long lasting and allows over 80% transparency. Along the base of the buildings are poured concrete foundation base lines. The roof will be a “standing seam” metal roof to accommodate solar panels that power the units.
-There is one street tree selected from the street tree list placed every 30-feet of frontage for the portion of the property fronting the street.
-The landscape plan complies with landscape area coverage and is 52% of the area. The proposed is greater than the minimum required and preserving all the trees except one dead near the wetland buffer area.
-The site plan attached provides details of the common refuse areas compliant with AMC 18.4.4.040.A.1.b. and screened in accordance with AMC 18.4.4.030.G.1 and to meet the access needs of Recology.
-A Wetland Delineation Report was drafted by Pacific Habitat Services, Inc and the site plan demonstrates that the minimum required wetland buffer of 20-feet will be provided.

The common open space is nearly double the minimum required per 18.4.4.070 with a variety of landscape spaces and recreational open spaces. With the inclusion of the excess ODOT property the total sum of open space will increase by nearly another acre.

No 9
Preliminary Plat Approval 18.5.3.030

A final plat is required if lots are to be sold. Under 18.3.9 Performance Standards Option, 18.3.9.040 Review Procedures “o.” stipulate that if lots are to be sold, a final plat is required similar to that required for of a subdivision, per chapter 15.5.3 Land Division.

Preliminary Plat Approval is a Type I procedure under Chapter 18.5.3. The Applicant has participating interest that will require individual Deeds, and the plat is required since lots will be segregated for security interest much like the requirements of a sale. The application for Performance Standards Subdivision is being requested and it complies with the Type II procedure.

NOTE 18.3.9.020 The Performance Standards option may be used to divide residential and non-residential zoned land.

The preliminary plat submissions under this section are submitted with the plans and all other criteria are under the PSO application. The proposal is submitting under the Performance Standards criteria and "developments subject to this chapter 18.3.9.020 are not required to meet the minimum lot size, lot width, lot depth, and setback standards of part 18.2, and other standards as specifically provided by this chapter. The Performance Standards option may be used to divide residential and non-residential zoned land.

NO 10

LANDSCAPING LIGHTING AND SCREENING CHAPTER 18.4.4

This chapter applies to residential developments subject to chapter 18.5.2 Site Design Review. The minimum landscape area in the zone (R-2) is 8% of the developed area and the plan for the development is 16%. The standards of the chapter are met for all landscape areas, planting. A tree preservation plan is attached to the plans. An irrigation plan is included with the drawings. Water conservation plans are designed into the plans. Areas for recycling and refuge are included in the architectural, engineering and landscape plans. Outdoor lighting is throughout the development and all focused downward shown in the plan. Screening with any hedges and fencing is in the plan.

No 11

OPEN SPACE 18.4.4.070.

Section 18.4.4.070 establishes standards for open space and applies to residential developments that are subject to chapter 18.5.0, Site Design Review, and/or 18.3.9, Performance Standards Option and PSO Overlay. Density bonus Available for common and open area is one percentage point times the density for every additional point exceeding the base requirement of 8%. The common landscaped area and other open space is 58%. In the R 2 zone the landscape area minimum is 35% the proposed is 59%

Private Open Space minimum is 4% and the development has 6% and is not counted in the Open Space calculation.

No 12

18.4.5 TREE PROTECTION PLAN

A tree protection plan is included with plans for review by staff advisor concurrent with applications for Type I, Type II, and Type III planning actions. There are 23 trees greater than six inches in diameter at breast height (DBH) on or directly adjacent to the property.

ORDINANCE CRITERIA FINDINGS

No 1 ANNEXATION
ANNEXATION 18.5.8

The Grand Terrace development is a 210-apartment community planned in the City of Ashland Urban Growth Boundary. Annexation is subject to meeting the following criteria.
1. Annexation 18.5.8.010 The purpose of this chapter is to establish procedures and approval criteria for the annexation of land to provide for the orderly expansion of the City and public facilities and services, consistent with the provisions of the Oregon Revised Statutes (ORS) including ORS chapter 222 or successor state statute. (Ord. 3204 § 3, amended, 12/21/2021)
Applicant: The following information is supplied to demonstrate the development complies with the criteria.

18.5.8.020 Application Submission Requirements
Except for annexations initiated pursuant to section 18.5.8.040, application for annexation shall include the following information.
A. Consent to annexation, which is non-revocable for a period of one year from its date.
Applicant: A non-revocable consent to annex has been provided by the property owner/applicant.

B. Agreement to deposit an amount sufficient to retire any outstanding indebtedness of special districts defined in ORS 222.510.
Applicant: An amount sufficient to retire any special district debt will be deposited if determined necessary. The property is within the Rogue Valley Sanitary Services (RVSS) District

Boundaries. RVSS is a special district as defined by ORS 222.510. The property is served by an existing perpetual services agreement that was created in 1995 between the City of Ashland and the RVSS. This perpetual services agreement dictates that the subject property and properties in the vicinity be served by RVSS.
To the applicant's knowledge, there are no other special districts as defined in ORS 222.510.

C. Boundary description and map prepared in accordance with ORS 308.225. Such description and map shall be prepared by a registered land surveyor. The boundaries shall be surveyed and monumented as required by statute subsequent to City Council approval of the proposed annexation.
Applicant: A boundary description and map prepared by an Oregon Licensed Land Surveyor and in accordance with ORS 308.225 is provided with the application.
D. Written findings addressing the criteria and standards in section 18.5.8.050.
Applicant: All criteria to 18.5.8.050 is included with this filing and all attachments and exhibits referenced and submitted upon the application is part of the written findings.

E. Written request by the property owner for a zone change. Provided, however, no written request shall be necessary if the annexation has been approved by a majority vote in an election meeting the requirements of Section 11g of Article XI of the Oregon Constitution (Ballot Measure No. 47).
Applicant: The property owners under this proposal requests an annexation in conformance with the city of Ashland's zoning designation as noted in the Ashland Comprehensive Plan designation for the property, Low Density, Multi-Family Residential (R-2).

F. For annexation applications not initiated by the City, a concurrent filing of a planning application (e.g., Site Design Review, Subdivision, or Land Division) for the development of the annexed area.
Applicant: A concurrent filing for a planning action is included and they consist of the Site Plan Review/Outline & Final Plan, Performance Standard Subdivision, Exceptions to Street Design, Site Design standards, Lot Line Adjustment and Preliminary Plat approval.

18.5.8.030 Applicability and Review Procedure All annexations shall be processed under the Type III procedure. Except for City-initiated annexations, annexation applications require an accompanying planning application for the development of the entirety of the annexed area in accordance with applicable procedure and approval criteria in chapter 18.5.1. General Review Procedures concurrent with the annexation application.
Applicant: Type III reviews are considered by the Planning Commission, who makes a recommendation to City Council. The application includes the Site Plan Review/Outline & Final Plan review and approval, Performance Standard Subdivision, Exceptions to Street Design & Site Design standards, Lot Line Adjustment and Preliminary Plat approval for the entire annexed area including all required off site improvements. The documents include complete civil engineering and construction drawings for public utilities, connectivity infrastructure and transit facilities for bicycle, pedestrian, parking, driveways, and building plans for the development of the Multi Family development. These facilities include utilities and street improvements.

18.5.8.040 Initiation by City Council or Planning Commission the City Council or Planning Commission on its own motion may initiate a proposal for annexation. The applicable approval criteria and standards in section 18.5.8.050 shall apply to City-initiated annexation applications. Annexations initiated to address dangers to public health shall follow the process and be subject to the criteria in ORS Chapter 222 or successor state statute.
Applicant: The request for annexation is voted on by a majority of the landowner in the area including the applicants and is not being initiated by the City Council or Planning Commission.

18.5.8.050 - Annexation Approval Criteria and Standards An application for an annexation may be approved if the proposal meets the applicable criteria in subsections A through H below. The approval authority may, in approving the application, impose conditions of approval consistent with the applicable criteria and standards, and grant exceptions and variances to the criteria and standards in this section in accordance with subsection 18.5.8.050.I.
APPLICANT: Criteria and standards are addressed in this letter and the applicant agrees to abide to the conditions of approval imposed being the criteria and standards missed by the applicant.

A. The annexed area is within the City's Urban Growth Boundary.
Applicant: The annexed area is currently within the city of Ashland, Urban Growth Boundary as designated on the 1982, adopted Ashland Comprehensive Plan.

B. The annexation proposal is consistent with the Comprehensive Plan plan designations applicable to the annexed area, including any applicable adopted neighborhood, master, or area plan, and is an allowed use within the propose zoning.
Applicant: The annexation proposal is consistent with the Comprehensive Plan designation applicable to the area. The proposed zoning of the property is Low-Density, Multi-Family Residential (R-2) and is consistent with the designation indicated on the Comprehensive Plan Map. The proposed application is for the multi-family residential complex development project an allowed use within the R-2 zoning.

C. The annexed area is contiguous with the city limits.
Applicant: Consistent with Chapter 18.5.8.060 when and annexation is initiated by an applicant other than the city the Staff Advisor may include other land in the proposed annexation in order to make a boundary extension more logical". "The staff advisor, in a report to the Planning Commission and City Council, shall justify the inclusion of any other land other than the land for which the. Annexation is filed." The inclusion of the applicant's property, the railroad property, and the ODOT property (Hwy 99) is logical in that it achieves necessary contiguity for the fulfillment of the Urban Growth Boundary to meet the goals of the City's Comprehensive Plan. An election by landowners in the area as prescribed by ORS 222.170 qualifies for the justification by staff advisors and is a legal annexation under state law.

ORS 222.170 The legislative body of the city need not call an election in any contiguous territory proposed to be annexed if more than half of the owners of land who own more than half of the

land in the contiguous territory and representing more than half of the assessed value of real property in the contiguous territory consent in writing to the annexation

ORS 222.170.4 Real property that is publicly owned, is a right of way, or railroad shall not be considered when determining the number of owners, the area of land or the assessed valuation required to grant consent to annexation under this section unless the owner of such property files a statement consenting to or opposing annexation with the legislative body. As noted, It can be found that the contiguity is created through the allowed Annexation procedure found ORS 222.170, and the application of AMC 18.5. 060..

D. Adequate City facilities for the provision of water to the annexed area as determined by the Public Works Department; the transport of sewage from the annexed area to an approved waste water treatment facility as determined by the Public Works Department; the provision of electricity to the annexed area as determined by the Electric Department; urban storm drainage as determined by the Public Works Department can and will be provided from the annexed area. Unless the City has declared a moratorium based upon a shortage of water, sewer, or electricity, it is recognized that adequate capacity exists system-wide for these facilities. All required public facility improvements shall be constructed and installed in accordance with 18.4.6.030.A

Applicant: The Comprehensive Plan, Urban Services, Chapter 9, states that the goal of the city is "To provide public utilities, services and facilities in an orderly, efficient and environmentally sensitive way and in sufficient quantity to meet city needs now and in the future." (9.01.03) The application includes infrastructure plans for all utilities under this chapter which have previously been found to comply with this requirement. There is an existing approved service district facilities in the area and there are agreements between the jurisdictions to service the area. The Comprehensive Plan, Urban Services, Chapter 9, states that the goal of the city is "To provide public utilities, services and facilities in an orderly, efficient and environmentally sensitive way and in sufficient quantity to meet city needs now and in the future." (9.01.03) The Water Supply and Services section states the goal of the City of Ashland is "To provide sufficient water supply for Ashland citizens" (9.03.04). Through the annexation of the subject property and the proposal to extend the water main to the proposed driveway where the meters are proposed achieves the Comprehensive Plan Goals of the City of Ashland.

PUBLIC UTILITIES:

Water**:** The proposal is to extend the City of Ashland, eight-inch water main within the Hwy. 99 N, ODOT right-of-way to the property. Presently, a 12-inch water main terminates in the Hwy. 99 right-of-way, approximately 766-feet south of the subject property frontage. The proposal requests extension of the city of Ashland water main as a public facility within the ODOT Highway right-of-way to the property under the railroad property through easement and connecting to the ODOT right-of-way where a private line will be extended through the site. In addition to the domestic services, an irrigation service meter will be installed. Adequate fire hydrants are proposed. The fire hydrant locations are provided on the civil engineering plan set (Overall Site Utility Plan, Pg. C5.0). There are substantial water pressures in the area and according to the Water Division Supervisor, pressure reduction valves (PRV) will be necessary.

The city of Ashland Public Works Department requires that the municipal water system be engineered by the current, contracted public utility water system engineers of record for Ashland. This is understood by the property owner, and the project civil engineer is working with this company. The proposed landscape plan provides for water conservation planting techniques wherever possible.

Sanitary Sewer: The property is within the Rogue Valley Sanitary Sewer Service District boundary. The existing site is connected to the RVSS system. Within Hwy 99N right-of-way, due north of the subject property, the end of the 8-inch RVSS main line is located within the Hwy. According to the Engineers with the RVSS, the property is required to connect to RVSS due to its location within their district boundaries. Additionally, an urban services agreement was made in 1995 which required that this property (and others in the area) be served by the Rogue Valley Sanitary Sewer Service District.

Urban Storm Sewer: The proposed development of the site with physical improvements are engineered and demonstrate compliance with the Rogue Valley Sanitary Sewer Services, Stormwater Quality Design Manual. The project Civil Engineer has determined the approximate size and locations for on-site detention and treatment facilities. The property is served by RVSS Storm Sewer Services, and the storm water management plan has been designed in accordance with the most current Rogue Valley Stormwater Quality Design Manual standards at the time of building permit submittal. RVSS has formally confirmed there is more than adequate capacity for the proposed development.

Electric: The property is presently served by Pacific Power. With the proposed development, the property will be served by city of Ashland Electric infrastructure. The City of Ashland electric service lines will extend along the highway to provide adequate infrastructure to serve the proposed development and future development in the vicinity. An electric service distribution plan, both offsite and onsite, has been created with the oversight of the city of Ashland Electric Division and is included with the construction documents.

E. Adequate transportation can and will be provided to and through to serve the subject annexed area. For the purposes of this section "adequate transportation" for annexations consists of vehicular, bicycle, pedestrian, and transit transportation meeting the following standards.

Applicant: The property abuts Hwy 99 N under the jurisdiction of Oregon Department of Transportation (ODOT). The proposed street improvements are located here and they comply with the ODOT standards for the entirety of the highway frontage. The Oregon Department of Transportation required a Transportation Impact Analysis (TIA) under the State Transportation Planning Rule (TPR) for the traffic generated from the entrance of the development and it was found to meet the mobility standards. The main access driveway when measured for ingress and egress traffic safety met the standards.

1. For vehicular transportation: A minimum 22-foot-wide paved access exists, or can and will be constructed, along the full frontage of the project site providing access to the annexed area to

from the nearest fully improved collector or arterial street. All streets adjacent to bordering on the annexed area shall be improved, at a minimum, to an applicable City half-street standard with a minimum 20-foot-wide driving surface. The City approval authority may, after assessing the impact of the development, require the full improvement of streets adjacent to bordering on the annexed area. All streets located within annexed areas shall be fully improved to City standards unless exception criteria apply. Where future street dedications are indicated on the Street Dedication Map or required by the City, provisions shall be made for the dedication and improvement of these streets and included with the application for annexation.
Applicant: A 22-foot-wide paved access exists along the full frontage of the project site to the nearest fully improved collector or arterial street. The full improvement of the highway frontage adjacent to the development and in the annexed area is proposed to be improved. The improvement area includes not only the development but adjoining lands. These new improvements consist of bike lane, curb, gutter, some park row and a bus stop and pull-out lane with a transit-oriented plaza.

At the Development entrance ODOT required the Traffic Impact Analysis to study the following items of Site Distance, Stopping Distance and Reaction Sight Distance and they were found to meet their criteria.

ODOT CRITERIA MET
SIGHT DISTANCE: Clear line of sight, or sight distance for vehicles at the driveway access connection allows for drivers entering and existing the access to make safe turning movements and allow vehicle traveling on the roadway time to react to turning vehicles in a safe manner. The proposed location has the clear line of sight required for all conditions.

STOPPING SIGHT DISTANCE: Safe Stopping sight distance (SSD) is based on the speed of the roadway being traveled on Hwy 99 with a posted speed of 45 MPH and the required distance to see and stop. Based on AASHTO (The American Association of State Highways) this distance needed exceeds the amount required in either direction. Grand Terrace Development – Access Safety Evaluation Kelly Sandow, P.E., Sandow Engineering.

INTERSECTION SIGHT DISTANCE: Safe reaction time to turn meets the criteria. The Intersection Sight Distance (ISD) is a measure of the length of visibility of the roadway give to a stopped driveway on a minor road approach. The distance provides time to perceive and react to gaps in traffic and allow a driver to safely turn into the roadway. The recommended ISD is calculated for a vehicle turning from the access onto Hwy 99 for both left and right turn maneuvers. The ISD calculations are based on the AASHTO manual and the speed of 45 mph and ISD of 500 feet for this approach. The available ISD to the north was measured at 569 feet, and the available ISD to the south was measured at 577 feet both exceeding the required safe distance.

2. For bicycle transportation: Safe and accessible bicycle facilities according to the safety analysis and standards of the governing jurisdiction of the facility or street (e.g., City of Ashland, Jackson County, Oregon Department of Transportation) exist, or can and will be constructed. Should the annexation be adjacent to annexed area border an arterial street, bike lanes shall be

provided or-adjacent to the arterial street-constructed along the arterial street frontage of the annexed area. Likely bicycle destinations within a quarter of a mile from the annexed area shall be determined the approval authority may require the construction of bicycle lanes or multi-use paths connecting the annexed area to the likely bicycle destinations after assessing the impact of the development proposed concurrently with the annexation.
Applicant: Hwy 99 currently has buffered bicycle lane (striping) along the frontage of the property. There are bike lanes on both sides of Hwy 99 that extend to the north of Valley View Road and south, into downtown Ashland. The bike lanes are ODOT width and striped with a buffer along the frontage and most of the improvement area. The development proposal includes two path connections into the site and bike racks at the Transit Plaza. The bicycle facilities that exist and designed in the plan are in compliance with the design and safety criteria of the governing jurisdiction, ODOT and the destinations designed are for over a half mile connecting areas that had no improvements for accessibility. These include coffee shops, two restaurants including El Tapatio, Evergreen Financial a newly built financial institution, retail on the north side including Bear Creek Bicycle, a bike store a popular destination for cyclists. The site is also less than one half of a mile from the connection to the Bear Creek Greenway. The bike lanes continue 1.25 miles from the development site to downtown Ashland.

3. For pedestrian transportation:
Safe and accessible pedestrian facilities according to the safety analysis and standards of the governing jurisdiction of the facility or street (e.g., City of Ashland, Jackson County, Oregon Department of Transportation), exist, or can and will be constructed. Full sidewalk improvements shall be provided on one side of all streets bordering on the proposed annexed area. Sidewalks shall be provided as required by ordinance on all streets within the annexed area. Where the annexed area is within a quarter of a mile of an existing sidewalk system or a location with demonstrated significant pedestrian activity, the approval authority may require sidewalks, walkways or multi-use paths, to be constructed and connect to either or both the existing system and locations with significant pedestrian activity.
Applicant: There are currently no sidewalks along Hwy. 99 in the UGB for nearly a mile where the development is located. This severely limits pedestrian access and safety for north Ashland residents. For Pedestrian Transportation the applicant has developed construction plans and is proposing new street frontage improvements in this area which includes full sidewalk improvements for safer pedestrian travel. All these improvements will be connecting the area in the UGB where the sidewalks stop and to where the sidewalks begin in Ashland. Hwy 99 is the only street that borders the development site. There are currently no sidewalks on either side of Hwy 99 along the frontage and there will be several pedestrian connections between sidewalks along the Hwy here, the apartment buildings, parking areas, transit plaza, and other areas within the site. These are all ADA compliant.

Safe crossing to enter Grand Terrace is provided by a pedestrian activated beacon and crosswalk “RRFB” crossing will provide a safe pedestrian and bicyclist crossing for all the residents to access to Grand Terrace development when crossing Hwy 99. RVTD and ODOT have been involved with the planning for the new improved area where facilities for pedestrian and wheelchairs will be available.

As noted, a High Visibility Flashing Beacon with a crosswalk for crossing Hwy 99. The (RRFB) is planned and approved by ODOT. The RRFB crossing will be placed between N Main St at Schofield St between the North and South bound bus stops. The RRFB crossing will provide a safe pedestrian and bicyclist crossing for all the residents in north Ashland where none existed before and providing safe access to Grand Terrace when crossing Hwy 99. RVTD and ODOT have been involved with the planning for the new improved bus stops that will give safe access to North & Southbound bus travel.

The public sidewalks connect to the onsite sidewalk system and together enhance connectivity that is safe with multiple accessible routes to the public areas. Pedestrian connections within the development connect the apartments to the parking areas, open spaces and other apartments and to the public sidewalks along the frontage.

The RR underpass it is presently dark and lacks improvements but the applicant in conjunction with ODOT has developed construction plans for a raised pedestrian sidewalk, overhead lighting, and a bike lane. An extra measure of caution is added by including a vertical barrier or a separation wall atop the curb. This will provide a safer, well-lit area increasing the comfort and safety than currently exists.

. Stop Monday 345 pg 32

4. For transit transportation: Should transit service be available to the annexed area or be likely to be extended to the annexed area in the future based on information from the local public-transit provider, for the approval authority may require construction of transit facilities, such as bus shelters and bus turn-out lanes.

Applicant: Currently, the nearest transit stop is located south of the site between Main Street and Schofield St (approximately 950 feet to the south) and difficult and unsafe to get across the street. The applicant has designed a high visibility pedestrian crossing in the form of a Rectangular Rapid Flashing Beacon (RRFB). The crossing will be placed between N Main St at Schofield St near the transit stops. With the help of RVTD and ODOT the crossing at Scofield is being improved for pedestrians crossing Hwy 99 and waiting for the bus. Plans have been made by both entities for hard surface staging and waiting areas at the bus stop for pedestrians on foot, bike and wheelchair. The RRFB crossing is pedestrian activated making it much safer because the operator has control over the traffic. This will provide a safe crossing for pedestrian, bicycle and wheelchairs crossing to entry Grand Terrace and for north Ashland neighborhoods to cross Hwy 99 to access the transit stop.

There are Two transit stops providing north and south bound trips and are approximately 2,100-feet (.39 mile) and 1,767-feet (.33 mile). The other north bound stop is in front of Bear Creek Cycle. The south bound stop is in front of Butler Automotive. There are no bus shelters or bus turn-out lanes presently provided at these stops.

The applicant has worked with RVTD Programs Manager and ODOT for a new stop directly in front of the development. The proposed stop has adequate bus pull out area and meets the

dimensional requirements for the Transit Supportive Plaza area that will also be installed in the area. There are paths for pedestrians and bicyclist that are ADA accessible leading directly to the site from the public sidewalk and the transit stop.

The applicant will be constructing a bus lane and a covered transit-oriented pedestrian plaza for an enhanced transit stop with bicycle facilities along the eastern side of the driveway. The design will allow buses to stop outside the travel lane and have a dedicated lane to accelerate prior to merging into the travel lane safely.

On the Development site there are two dedicated pedestrian loading area for vans and buses that are located for easy access. This area will also serve those with disabilities using the Valley Lift service and can be scheduled through the Paratransit Coordinator and can access the users from their front door, bus plaza or the dedicated van pool spots.

5. Timing of Transportation Improvements. All required transportation improvements shall be constructed and installed in accordance with 18.4.6.030.A.
Applicant: All required public facility improvements will be installed in accordance with this section.

F. For all residential annexations, a plan shall be provided demonstrating that the development of the annexed area will ultimately occur at a minimum density of 90 percent of the base density for the zone. The owner or owners of the annexed area shall sign an agreement, to be recorded with the County Clerk after approval of the annexation, ensuring that future development will occur in accord with the minimum density indicated in the development plan.
APPLICANT:. The property owner will sign a recorded agreement after approval of the annexation, ensuring that future development will occur in accord with the minimum density as indicated on the development plan.

G. Except as provided in 18.5.8.050.G.7, below, annexations with a density or potential density of four residential units or greater and involving residential zoned lands, or commercial, employment or industrial lands with a Residential Overlay (R-Overlay) shall meet the following requirements.
APPLICANT: The proposed annexation proposal consists of a multi-family residential community with a potential density of more than four residential units and its overlay zone is R-2. Residential Low Density Multi Family Residential.

G.1. The total number of affordable units provided to qualifying buyers, or to qualifying renters, shall be equal to or exceed 25 percent of the base density as calculated using the unit equivalency values set forth herein. The base density of the annexed area for the purposes of calculating the total number of affordable units in this section shall exclude any unbuildable lots, parcels, or portions of the annexed area such as existing streets and associated rights-of-way, railroad facilities and property, wetlands, floodplain corridor lands, water resource areas, slopes greater than 35 percent, or land area dedicated as a public park.

g.1.a. Ownership units restricted to households earning at or below 120 percent of the area median income shall have an equivalency value of 0.75 unit.

g.1.b. Ownership units restricted to households earning at or below 100 percent of the area median income shall have an equivalency value of 1.0 unit.

g.1.c. Ownership or rental units restricted to households earning at or below 80 percent the area median income shall have an equivalency value of 1.25 unit.
Ownership or rental units at 80% AMI is 29 / 1.25 = 23.031 units rounded up equals 24 units.

Applicant: The proposal consists of 24 affordable units. Under the criteria the development is a rental development and will provide 24 affordable units meeting the criteria of G.1.g.c "rental units restricted to households earning at or below 80 percent and the area median income shall have an equivalency value of 1.25 unit." For Rental 29 / 1.25 = 24 units rounded up.

G.2. As an alternative to providing affordable units per section 18.5.8.050.G.1 above, the applicant may provide title to a sufficient amount of buildable land for development complying with subsection 18.5.8.050.G.1.b above, through transfer to a non-profit (IRC 501(3)(c)) affordable housing developer or public corporation created under ORS 456.055 to 456.235.

Applicant:

The applicant is not transferring land to a nonprofit but will be developing and owning the affordable units.

G.3. The affordable units shall be comparable in bedroom mix with the market rate units in the development.

a. The number of bedrooms per dwelling unit in the affordable units within the residential development shall be in equal proportion to the number of bedrooms per dwelling unit in the market rate units within the residential development. This provision is not intended to require the same floor area in affordable units as compared to market rate units. The minimum square footage of each affordable unit shall comply with the minimum required floor based as set forth in Table 18.5.8.050.G.3, or as established by the U.S. Department of Housing and Urban Development (HUD) for dwelling units developed under the HOME program.

Applicant: Table 18.5.8.050.G.3, states that One Bedroom units shall be 500 square feet and the application plans demonstrate size of the affordable units are compliant with Table 18.5.8.050.G.3, for one-bedroom units, and equal in proportion to market units and no dissimilarities between affordable units and market units exist.

G. 4. A development schedule shall be provided that demonstrates that the affordable housing units per subsection 18.5.8.050.G shall be developed, and made available for occupancy, as follows.

a. That 50 percent of the affordable units shall have been issued building permits prior to issuance of a certificate of occupancy for the last of the first 50 percent of the market rate units.

b. Prior to issuance of a building permit for the final ten percent of the market rate units, the final 50 percent of the affordable units shall have been issued certificates of occupancy.

Applicant:
A development schedule will be provided demonstrating that prior to a certificate of occupancy for the last of the first 50 percent of market rate units 50 % of the affordable units will have been issued building permits. The final 50% of the affordable units will have been issued certificates of occupancy before a building permit is issued for the final ten percent of the market rate units.

G. 5. That affordable housing units shall be constructed using comparable building materials and include equivalent amenities as the market rate units. The exterior appearance of the affordable units in any residential development shall be visually compatible with the market rate units in the development. External building materials and finishes shall be substantially the same in type and quality for affordable units as for market rate units.
Applicant:
The affordable units will be constructed in the same buildings, mixed throughout all the buildings and adjacent to the market units and therefor will not be using any dissimilar materials. External building materials and finishes shall be the same in type and quality for affordable units as for market rate units.

5.b. Affordable units may differ from market rate units with regard to floor area, interior finishes and materials, and housing type; provided, that the affordable housing units are provided with comparable features to the market rate units and shall have generally comparable improvements related to energy efficiency, including plumbing, insulation, windows, appliances, and heating and cooling systems.
Applicant:
The affordable units will not differ in either floor area, interior finish, materials or type. All affordable units will have the same features as the market units and improvements as they relate to efficiency, plumbing, insulation, window, appliances and HVAC systems.

G.6. Exceptions to the requirements of subsections 18.5.8.050.G.2 through 18.5.8.050.G.5, above, may be approved by the City Council upon consideration of one or more of the following:
Applicant:
No exceptions to the requirements of subsections 18.5.8.050.G.2 through 18.5.8.050.G.5 are proposed. G.6. a-c is not applicable.

7. The total number of affordable units described in this subsection 18.5.8.050.G shall be determined by rounding up fractional answers to the nearest whole unit. A deed restriction or similar legal instrument shall be used to guarantee compliance with affordable criteria for a period of not less than 60 years for units qualified as affordable rental housing, or 30 years for units qualified as affordable for-purchase housing.
Applicant:
The affordable units are rounded up and a legal instrument satisfactory to the City will be used to guarantee compliance with affordable criteria for a period of 60 years.

H. One or more of the following standards are met.
1. The annexation proposal shall meet the requirements of subsection 18.5.8.050.B.

Applicant:
The annexation proposal meets the requirements of subsection 18.5.8.050.B. "The annexation proposal is consistent with the Comprehensive Plan designations applicable to the annexed area and is an allowed use under R-2 zoning for the area." The annexation proposal development is for 210 Low Rise Residential units, and which meets the subsection in that it is consistent with the Comprehensive Plan of Low-Density, Multi-Family Residential (R-2).

I. Exceptions and Variances to the Annexation Approval Criteria and Standards. The approval authority may approve exceptions to and variances from the approval criteria and standards in this section using the criteria in section 18.4.6.020.B.1 Exceptions to the Street Design Standards or chapter 18.5.5. Variances.
Applicant: The application contains a request for an Exception to the Street Design Standards and is included in this application.

18.5.8.060 Boundaries
When an annexation is initiated by an applicant other than the City, the Staff Advisor may include other land in the proposed annexation in order to make a boundary extension more logical, to address the effective extension of public facilities, or to avoid an area of land which is not incorporated but is partially or wholly surrounded by the City. The Staff Advisor, in a report to the Planning Commission and City Council, shall justify the inclusion of any land other than the land for which the annexation is filed. (Ord. 3204 § 3, amended, 12/21/2021)
Applicant:
The applicant initiated this annexation, and the Staff Advisor included other properties to make the boundary extension more logical and to address the effective extension of public utilities to the annexed area and importantly to achieve necessary contiguity of the Urban Growth boundary beyond the annexed area. This meets the goals of the City's Comprehensive Plan. The staff advisor, in a report to the Planning Commission and City Council, can justify the inclusion of any other land other than the land for which the Annexation is filed to make the boundary extension more logical.

18.5.8.070 Statutory Procedures
The applicant for the annexation shall also declare which procedure under ORS chapter 222 the applicant proposes that the Council use, and supply evidence that the approval through this procedure is likely.
Applicant: The Applicant declares the use of procedure ORS 222.170 whose use will formulate compliance to approval criteria standards of chapter 18.5.8. 050 subsection C. "The annexed area is contiguous with the City Limits."

> It can be found that the contiguity is created through the Annexation procedure found in ORS 222.170 and AMC 18.5.060 "When an annexation is initiated by an applicant other than the city, the staff Advisor may include other land in the proposed annexation in order to make a boundary extension more logical.

Along with the applicant's property the staff advisor can include adjacent properties of the railroad and ODOT (Hwy 99). This is logical in that it achieves necessary contiguity for the fulfillment of the Urban Growth Boundary to meet the goals of the City's Comprehensive Plan. Through its extension needed housing for the city is achieved through the use of the Urban Growth Boundary lands.

As prescribed by ORS 222.170 letters seeking consent for annexation by the property owners in the adjacent area have been sent to ODOT, the Genesee-Wyoming Railroad and the applicant. When more than half of the owners in the annexed area consent and they represent more than half of the land to be annexed and represents more than half of the assessed value to be annexed satisfies the requirements for annexation.

ORS 222.170 The legislative body of the city need not call an election in any contiguous territory proposed to be annexed if more than half of the owners of land who own more than half of the land in the contiguous territory and representing more than half of the assessed value of real property in the contiguous territory consent in writing to the annexation

ORS 222.170(4) Real property that is publicly owned, is a right of way, or railroad shall not be considered when determining the number of owners, the area of land or the assessed valuation required to grant consent to annexation under this section unless the owner of such property files a statement consenting to or opposing annexation with the legislative body.

END ANNEXATION

No 2

SITE DESIGN REVIEW CHAPTER 18.5.2

18.5.2.010 Purpose

A. The purpose and intent of this chapter is to regulate the manner in which land in the City is used and developed, to reduce adverse effects on surrounding property owners and the general public, to create a business environment that is safe and comfortable, to further energy conservation efforts within the City, to enhance the environment for walking, cycling, and mass transit use, and to ensure that high quality development is maintained throughout the City

APPLICANT:

The annexed area is blighted and it's the entry to the city and it's a focal point but there are no public sidewalks, lighting or infrastructure or public facilities. The area is synonymous with strip development where uncontrolled uses lack the basic public facilities if sidewalks, driveways, curbs or pedestrian street lighting. The area is always unsafe and especially at nighttime in the dark. This area isn't used because of the lack of adequate and safe transit opportunities.

The proposed development meets the purpose of Site Design Review because the development enhances the city and the property in the area with public facilities and adequate transportation.

It greatly benefits the local business and the environment. Energy conservation is achieved by the multiple transit option of cycling, walking and mass transit. EV charging stations reduce gas driving cars. Roof mounted solar panels reduces the need of gas and electricity generation. Sunlight powers the tenants housing and reduces energy consumption and eliminates the carbon that would have been produced and put in the atmosphere.

By creating nearly, a mile of pedestrian improvements including overhead lighting and sidewalks is facilitating nearly 400 occupants who mostly work in this and other communities will generate less carbon by using the multiple options of bus, bike and walking vs driving to work and school.

Transit facilities including bus stops, safe crosswalks and transit plaza, bike lanes, bike stands, together will encourage the use of less carbon polluting transit means. This is a great benefit to our environment, neighbors the economy of Ashland and the public. The beauty of Grand Terrace is a compliment to the city for its beautiful entry way threshold, carbon saver, economic engine and needed housing.

18.5.2.020 Site Design Review is required for the following types of project proposals.
B.1**Residential Uses.** Site design review applies to the following types of residential uses and project proposals, pursuant to section 18.5.2.030, Review Procedures:
1. Three or more dwelling units on a lot in a residential zone, and one or more dwelling units on a lot in any other nonresidential zone.
Applicant: This chapter applies to the proposal because it is a residential project of more than three dwelling units, and they reside in a residential zone. Chapter 18.5.8.020.F. annexation applications require a concurrent filing of a planning application, and the site design review is required for the annexed area.

18.5.2.030. Review Procedures
E. Residential Site Review are subject to a Type II procedure
APPLICANT: The proposal is residential structure.

18.5.2.040 Application Submission Requirements
A. General Submission Requirements Information required for Type I or Type II review, as applicable (see section 18.5.1.050 and 18.5.1.060, including but not limited to a written statement or letter explaining how the application satisfies each and all of the relevant criteria and standards.
APPLICANT: forms and fees and general submittal information have been submitted.
Under Chapter 18.5.1.060 all forms, fees as provided are complete. Other information of plans exhibits, are all completed in writing as noted herein, and information demonstrating compliances to relevant criteria and standards.

B**. Site Design Review Information.**
1. & 2. & 3. Basic Plan Information - Site Analysis Map – Proposed Site Plan

1.Plans and drawings shall include the project name, date, north arrow, scale, and names and addresses of all persons listed as owners.
2. Site Analysis map of area.
3. Proposed Site Plan of the development and boundaries.
4. Architectural Drawings
5. Preliminary Grading and Drainage Plans
6. Erosion Control Plan
7. Landscape and Irrigation Plans
APPLICANT: Site Plan information is on the attached plans. The project name and owners is in the introduction summary of this application Full construction drawing with underlying site plan analysis, proposed plan and boundaries, architectural drawings, grading and drainage plans, erosion control, landscape and irrigation plans, civil for site and offsite are provided as required with all the information of buildings, infrastructure, driveways, parking site features and natural impediments, including all trees location and species and all other items request under this chapter are attached with the plans..

8. b. square footage, number of units, lot coverage.
APPLICANT: this information is in the introduction summary.

AMC 18.5.2.050 Approval Criteria
An application for Site Design Review shall be approved if the proposal meets the criteria in subsections A, B, C, and D below. The approval authority may, in approving the application, impose conditions of approval, consistent with the applicable criteria.
A. Underlying Zone.
The proposal complies with all the applicable provisions of the underlying zone (part 18.2), including but not limited to: building and yard setbacks, lot area and dimensions, density, lot coverage, building height, building orientation, architecture, and other applicable standards.
APPLICANT
The underlying zone is R-2 and the application complies with its provisions under R-2 zone for Low Density residential. Building and yard Setback exceeds the 15-foot front yard setback minimum under the zone, the minimum lot area of 5,000 square feet is exceeded as are the dimensions. Lot Area and Dimensions: The minimum lot area in the zone is 5,000 square feet. The lot exceeds minimum lot areas in the zone.

B. Overlay Zones. The proposal complies with applicable overlay zone requirements (part 18.3).
APPLICANT The application includes Performance Standards option, and the area complies with the criteria under the PSO standards. Property not in a PSO overlay may only be approved if one or more of the following conditions exist. 18.3.9.030.D. 1. When the parcel is larger than two acres and is greater than 200 feet in average width. This site development exceeds these sizes and therefore complies with this exception.

C. Site Development and Design Standards.
The proposal complies with the applicable Site Development and Design Standards of part 18.4, including Buildings and Placement, Parking Access & Circulation, Landscaping, Public Facilities,

Solar Access, and Trees, except as provided by subsection E, below where an exception is requested.
APPLICANT: The application complies with the applicable Site Development and Design Standards of 18.4, as outlined under the chapter criteria in this application, for Building Placement, Parking Access & Circulation, Landscaping, Public Facilities, Solar Access and Trees as noted in the applicable sections of this application. The application does contain a request to deviate from the street standards and site design standards.

D. City Facilities
The proposal complies with the applicable standards in section 18.4.6 Public Facilities, and that adequate capacity of City facilities for water, sewer, electricity, urban storm drainage, paved access to and throughout the property, and adequate transportation can and will be provided to the subject property.
APPLICANT: The development will be using city water and all improvements in the design documents will be dedicated to the city where requested. Sewer and Storm water is provided by RVSS through an interagency agreement and dedications will be in conformance with the terms of the agreement. The application included letter from the facility districts affirming there is sufficient water to meet the development's needs. Storm and sewer are adequate through approval in writing from the RVSS district that the storm and sewer systems are adequate for the development.

The application includes all public improvements including sewer and water plans and are submitted to the city engineer for review and approval. Any sizing requirements will be accommodated if needed in the existing application after the engineer's review. The proposed development area presently has no pedestrian transit facilities of crosswalks, sidewalks, curbs, bus stops and street lighting. The area is very unsafe and hazardous to pedestrians, bicyclist and motorist. The applicant will install public facilities and transit facilities that will increase safety, the feeling of safety and security for the pedestrians where none existed before. The development will reduce carbon generators by creating more opportunities for forms of transit that include biking, walking and mass transit. For vehicles EV stations will be installed for future electric vehicle power. The proposal is consistent with the purpose, intent, and background of the street design standards in subsection 18.4.6.040 which are based on safety. The proposed improvements comply with the standards and specifications of the jurisdiction, the Oregon Dept. of Transportation. Through the installation of these improvement neighborhoods will be connected through the installation of 3,000 lineal feet of sidewalks, overhead lighting, crosswalk and flashing beacon, bus stops and transit plaza and carbon production will be reduced.

E. Exception to the Site Development and Design Standards. The approval authority may approve exceptions to the Site Development and Design Standards of part 18.4 if the circumstances in 1, 2 or 3 are found to exist.
APPLICANT: An exception to Site Design Standards is included in the application under No 1 of this section.

1. There is a demonstrable difficulty meeting the specific requirements of the Site Development and Design Standards due to a unique or unusual aspect of an existing structure or the proposed use of a site; and approval of the exception will not substantially negatively impact adjacent properties; and approval of the exception is consistent with the stated purpose of the Site Development and Design; and the exception requested is the minimum which would alleviate the difficulty;

AMC 18.5.2.060 Public Improvement Guarantee
Public improvements required as part of a Site Design Review approval shall be subject to the performance guarantee and warrant bond provisioning of chapter 18.4.6 Public Facilities, as applicable.
APPLICANT: The applicant addresses the improvement guarantee in this writing under the Public Facilities section. 18.4.6.030 General Requirement No building permit may be issued until all required public facility improvements are installed in accordance with the approved design, approved by the City Engineer, or financial guarantee is provided.

18.5.2.070 Expiration and Extensions
Site Design Review approvals are subject to sections 18.1.6.030 Permit Expiration and 18.1.6.040 Permit Extension.
APPLICANT: The chapter outlines the time period that an approval action or permit is revoked which is 18 months from the time of approval. The permit is not deemed used until the building has commenced. A one-time extension of 24 months is allowed under Chapter 18.1.6.040 if the applicant was not responsible for completing the development in the original time limitation. An extension may be granted too if land Use Ordinance requirements applicable have changed. If requirements have changed and there is no material effect upon the original approval, and the applicant agrees to comply with any new requirements, as a condition of the extension.

18.5.2.080 POWER TO AMEND PLANS
When approving an application to modify a Site Design Review approval pursuant to chapter 18.5.6 the Planning Commission or Staff Advisor may include any or all of the following conditions as they find necessary to meet the intent and purpose and the criteria for approval.
APPLICANT: No amended is requested at application.
END SITE DESIGN REVIEW

No 3
EXCEPTION TO SITE DESIGN STANDARDS

Building Placement, Orientation & Design Chapter 18.4.2
Residential development 18.4.2.030
2. Limitation on Parking Between Primary Entrance and Street
"Parking areas shall be located behind buildings, or on one or both sides".

An exception to the site design standards is needed for parking between building No 1 and the street. The Wetland setbacks lines, and dedicated open space restrict the layout for the building and parking area.
The approval authority may approve exceptions to the Site Development and Design Standards of part 18.4 under Chapter 18.5.2.050.E.1. if there is a demonstrable difficulty meeting the specific requirements of the Site Development and Design Standards due to a unique or unusual aspect of an existing structure or the proposed use of a site; and approval of the exception will not substantially negatively impact adjacent properties; and approval of the exception is consistent with the stated purpose of the Site Development and Design; and the exception requested is the minimum which would alleviate the difficulty.

The purpose of the chapter is to reduce adverse effects on surrounding property owners and the public, to create a business environment that is safe and comfortable, to further energy conservation efforts within the City, to enhance the environment for walking, cycling, and mass transit use, and to ensure that high quality development is maintained throughout the City.

The parking exception is over 200 feet from the street and not seen because it is screened by trees and the wetland vegetation that blocks the view of the parking from the street. There is only one neighbor Anderson Auto Body Paint shop. It's over 600 feet away and within this expanse are trees and multiple other landscape items obscuring the parking. There is no visual impact on this neighbor, or any other neighbors or the public. Furthermore, the development has nearly 53% of the site open and and landscaped including the dedicated preserved wetlands.

With the multiple alternative forms of transportations being provided by the developer all public spaces are now fully assessable. This encourages other transportation uses instead of the auto. The multiple buildings units have direct access to bus stops, parking areas and open spaces. There's lighting on the streets and public spaces. The development is safe, and the community is safer where it wasn't before in this area.

The commercial businesses in the location will only be improved by more business that will come from the disposable income of the development's residents adding substantial value to the area and its future. A public transit plaza, busing and EV charging stations, bike parking, dedicated van pool parking areas are all added to the development. This combined reduces the demand of the auto and reduces energy demand and improves the environment. Solar panels on all rooftops generating the residential appliances, HVAC mini split systems with a 100% SEER rating equates to a lower demand on the supply side of energy production where the greater climate damages originate.

All units have concrete flooring for sound damping, walls are doubled with one inch air separation. Sound transmission between units is minimized but also airtight. Combined with the clean HVAC systems the units have clean air and efficient ventilation. This conserves energy and making reusable energy with solar panels makes the development a model and complement to the goals of Ashland at the entry way of the city.

With all these added improvements a minor exception for a few cars parking where they will not be seen between the street and the building makes the approval of the exception consistent with the stated purpose of the chapter, and the exception requested is the minimum which would alleviate the difficulty.
END EXCEPTION TO PARKING

No 4
PUBLIC FACILITIES - STREET DESIGN STANDARDS 18.4.6

18.4.6.020 Applicability
A. Applicability. This chapter applies to all new development and planning actions requiring a Type I, Type II, or Type III review procedure where public facility improvements are required. All public facility improvements within the City shall occur in accordance with the standards and procedures of this chapter.
APPLICANT: The proposal includes a new development that includes the construction of new public facility improvements of utilities, pedestrian and street improvements.

B. Exceptions and Variances. Requests to depart from the requirements of this chapter are subject to chapter 18.5.5 Variances, except those deviations from section 18.4.040 Street Design Standards, are subject to subsection B.1 Exception to the Street Design Standards, below.
APPLICANT: The proposal includes a request for an exception to the street standards and design standards, outlined in this letter due to the demonstrable difficulty in meeting the specific requirements of this chapter due to a unique or unusual aspect of the site or proposed use of the site; and the exception is the minimum necessary to alleviate the difficulty; and the exception is consistent with the purpose, intent, and background of the street design standards in subsection 18.4.6.040.A. & 18.4.2 and the exception will result in equal or superior facilities.

18.4.6.030 GENERAL REQUIREMENTS
A. Public Improvement Requirement
APPLICANT: The applicant understands no permits will be granted until improvement are installed and will remonstrate and consent to participate in an improvement district if conducted by the authority. No improvements by the applicant will proceed until the plans are approved. The applicant will provide a guarantee sufficient to the city. Easement arrangement will be met if needed with the jurisdictional authority.

B. Waiver of Right to Remonstrate and Consent to Participate in Costs of improvements.
APPLICANT: The applicant agrees to participate with improvements and remonstrate.

C. Permit Approval
APPLICANT: No work will proceed without first obtaining necessary permits.

D. Easements.

APPLICANT: All public improvements made by the applicant for facilities will be granted an easement to the appropriate jurisdiction or authority.

E. Performance Guarantee Required
APPLICANT: The applicant shall provide a bond issued by a surety or other credit approved by the jurisdiction guaranteeing the completion of the public work.

F. Determination of Sum
APPLICANT: It's understood the sum of cost is determined by the city engineer for the public improvements.

G. Agreement
APPLICANT: The applicant will sign and execute an agreement for the improvements.

H. Failure to Perform
APPLICANT: The applicant understands the if they fail to perform on the agreement the city has unpaid cost the city can call the bond or letter of credit for reimbursement.

18.4.6.040 STREET DESIGN STANDARDS

A. Purpose Intent and Background
1. The Purpose of the standards are intended to provide multiple transportation options, focus on a safe environment for all users, design streets as public spaces, and enhance the livability
2. The intent of the standards is to be used in the development of new streets, and reconstruction of existing streets or portions thereof.
3. The standards are intended to provide multiple transportation options, focus on a safe environment for all users, design streets as public spaces, and enhance the livability of neighborhoods, consistent with the Comprehensive Plan. Encourage pedestrian and bicycle travel, all have vertical non mountable curbs, gutters, bike lanes, park rows on both sides but exception should be allowed when physical condition exit that preclude development of the street.
APPLICANT: The application demonstrates that multiple transportation options are planed with the addition of new sidewalks, crosswalks, curbs and bus stops. The street is improved with curbs and sidewalks to make the pedestrian safer, and the transportation options and improvements meet the goal of a safe environment for the user, they create public places and with the bus plaza the area is greatly enhanced and is much more livable. The applicant will not be creating any new streets but will be improving them.

B. APPLICABILITY The following standards apply to all street improvements, including new streets, alleys and pathways, and the extension or widening of existing streets. The street connectivity and design standards are part of the Ashland Land Use Ordinance and are approval standards that will be used in land use decisions and for street construction projects.
APPLICANT: This proposal includes street improvements, but no new streets.

C. General Requirements. New and reconstructed streets, alleys, and pathways shall conform to the following requirements.
1. dedicated public street.
APPLICANT: There are no new streets developed in this proposal.

2. Location. Locate transportation facilities, such as streets, pedestrian and bicycle ways, and transit facilities, within public rights-of-way, except that the approval authority may approve transportation facilities outside a public right-of-way where a public access easement is provided
APPLICANT: The completed Engineering Plans include specific details for the Offsite improvements that are installed in the public right of way. For any parts on the applicant property an easement will be granted if applicable.
3. NA
4. NA

5. Street Grade. a. & b. Drives in developments subject to chapter 18.3.9 PSO do not exceed a maximum grade of 15 %.
APPLICANT: No driveways exceed 15% in the development. As noted on the civil engineering plans all grade levels conform to this chapter and are noted on the plans.

D. Required Street Layout and Design Principles.
1. NA
APPLICANT: no new streets are in the proposal

5. Streetscape. Consider the entire area from building face to building face, or the streetscape in street design. The streetscape begins at the front of a vertical element, such as a building or fence on one side of a street and runs to the front of a building on the other side of the street. It is a three-dimensional area running the length of the street
APPLICANT: The proposal includes particular attention to the face of the buildings, the vertical elements, and the streetscape in scale and including the offsite improvements.
6. no new streets are in the proposal
7. no new streets are in the proposal

8. Pedestrians, Bicyclists, and Public Transportation Users. Pedestrians, bicyclists, and bus riders are considered primary users of all streets. Design streets to meet the needs of pedestrians and bicyclists, thus encouraging walking, bicycling, and riding the bus as transportation modes. Integrate pedestrian, bicycle, and public transportation considerations from the beginning of the design process.
APPLICANT: The street improvement engineer plans include Bus Stops, Covered Transit Plaza, bike racks, ADA pathway access, sidewalks, lighting, bike lanes and vertical curbs, for the encouragement of all pedestrians uses and safety.

9. Driveway Aprons and Curb Cuts. Minimize the number of driveway aprons and curb cuts to enhance the pedestrian environment and maintain vehicular, pedestrian, and bicycle capacity. See subsection 18.4.3.080.D Driveways and Turn-Around Design.
APPLICANT: Only one driveway is being built for the main entry of the development and has a full commercial grade apron. The main driveway meets ODOT's ingress and egress standards for safety on the highway.

13. Peak Run-Off. Where appropriate, use the local street system and its infrastructure to reduce peak storm water run-off into the city's storm drain system and natural water systems downstream, and provide biological and mechanical treatment of storm water runoff.
APPLICANT: The construction plans have both surface and subsurface catch basins for storm water. Mechanical Retention structures are built under the parking lots to catch hard surface runoff and designed to release storm water after peak hours for the public system to better accommodate the runoff. Above surface basin are designed to catch the open common and landscape areas. Here biological control is incorporated into the landscape design.

14. Preservation of Natural Features. Design neighborhood streets to be responsive to physical features, and to avoid or minimize impacts to natural features and water-related resources
APPLICANT: Along the right of way hillsides outcroppings are being retained with block walls and wetlands are saved and protected.

17. Street Trees. Plant street trees on neighborhood streets to buffer pedestrians and adjacent land uses from traffic, enhance street image and neighborhood character, calm motor vehicle traffic speeds, and enhance neighborhood identity or sense of place. Trees planted in the park row, along the sidewalk, or anywhere in the public right-of-way must be from the Ashland Recommended Street Tree Guide.
APPLICANT: Street trees, where possible, are within the landscape plan along the highway.

18. Streetlights. Install or relocate streetlights with street improvement projects.
APPLICANT: The plans include approved streetlights in accordance with he jurisdiction authority.

19. Street Furniture
APPLICANT: A Bus Stop and a transit supportive plaza will be included in the street plan and include lighting, seating and bike racks in accordance with the jurisdiction authority and RVTD.

20. Curbs. Use a standard, vertical six-inch high curb on improved streets.
APPLICANT: Vertical six-inch curbs are included and in the plan.

21. Transit Routes and Stops. Design streets identified as future transit routes to safely and efficiently accommodate transit vehicles. Transit stops should include amenities, such as but not limited to a bench, shelter from the elements, a posted schedule, bicycle parking, and water fountains. Such amenities encourage combination trips such as walking or bicycling to the bus stop and vice-versa at the destination.

APPLICANT: The application plans include a full bus stop, pull out lane, transit plaza, and all items requested by RVTD.

E. **Connectivity Standards.** New and reconstructed streets,
APPLICANT: There are no new streets developed in this proposal

F. Design Standards. A description of street design standards for each street classification follows in Table 18.4.6.040.F and subsection 18.4.6.040.G. All elements listed are required unless specifically noted, and dimensions and ranges represent minimum standard or ranges for the improvements shown. The approval authority may require a dimension within a specified range based upon intensity of land use, existing and projected traffic and pedestrian volumes,
APPLICANT The applicant is requesting an exception to deviate from the design standards as provided under Chapter 18.4.6.020B. Exception and Variances. …. deviations from section 18.4.6.040, Street Design Standards are subject to subsection B.1,The approval authority may approve exceptions to the street design standards if There is demonstrable difficulty in meeting the specific requirements of this chapter

No 5
EXCEPTION TO STREET STANDARD CHAPTER 18.4.6 PUBLIC FACILITIES

Chapter 18.4.6.020.B Exceptions and Variances.
Chapter 18.4.6.040 Requests to depart from the requirements of this chapter are subject to Chapter 18.4.6.020.B.1. **Exception to Street Design Standards,** as follows:
1. Exception to the Street Design Standards. The approval authority may approve exceptions to the street design standards in 18.4.040 if the circumstances in either subsection B.1.a. or b. Below are found to exist.
a. There is demonstrable difficulty in meeting the specific requirements of this chapter due to a unique or unusual aspect of the site or proposed use of the site; and the exception is the minimum necessary to alleviate the difficulty; and the exception is consistent with the purpose, intent, and background of the street design standards in subsection 18.4.6.040.A; and the exception will result in equal or superior transportation facilities and connectivity considering the following factors where applicable:
APPLICANT: B..1.a applies in this case. There are numerous natural and man-made physical impediments that prevent the standard street improvements. The proposed development area has no pedestrian transit facilities of crosswalks, sidewalks, curbs, bus stops and street lighting. The area is very unsafe and hazardous to pedestrians, bicyclist and motorist. The applicant will install new transit facilities, and they will increase safety, the feeling of safety and security for the pedestrians, and create more opportunities for transit. The exception will result in equal or superior transportation facilities and connectivity.

The proposal is consistent with the purpose, intent, and background of the street design standards in subsection 18.4.6.040 which are based on safety. The proposed improvements comply with the standards and specifications of the jurisdiction, the Oregon Dept. of Transportation. Through the installation of these improvement neighborhoods will be

connected through the installation of 3,000 lineal feet of sidewalks, overhead lighting, crosswalk and flashing beacon, bus stops and transit plaza. The public will have opportunities for multiple forms of transit. The improvements will also change the roadside culture and induce cars to lower their speed limit. The multiple transit options make for a safer environment by increasing the feeling of safety and security for pedestrians, cyclist and bus users. The proposed improvement which are an exception to the city standard comply with the standards of the jurisdictional authority, the Oregon Department of Transportation.

For transit facilities and related improvements, access, wait time, and ride experience.
Sidewalks will provide safe access to neighborhoods and bus stops. Adding a bus stop and transit supportive plaza area will reduce wait time when north and south bound bus stops are closer. They also increase better ride experience, overhead street lighting will make the transit experience safe, a pedestrian activated flashing light crossing near the site entry and near the intersection of Schofield will give citizens control over the traffic, safer increased access and reduce wait times to cross HWY 99. and will greatly improve pedestrian and bicycle safety where non of these conditions presently exist.

For bicycle facilities, feeling of safety, quality of experience (i.e., comfort level of bicycling along the roadway), and frequency of conflicts with vehicle cross traffic.
Improvements will make the bicycle more visible. Sidewalks and curbs, cross walks and beacons, bus stops with overhead cover, benches, bike racks and overhead lighting along the whole area change the transit environment for the bicyclist. Pedestrian walking on sidewalks creates a culture of calming the traffic. Bicyclist activated beacons make crossing the street safer and the user will be seen and the wait time to cross is reduced. A Transit Plaza with bike racks and benches make the user more comfortable. Combined the transit user feels safer, and their experience is of greater quality.

For pedestrian facilities, feeling of safety, quality of experience (i.e., comfort level of walking along roadway), and ability to safety and efficiency crossing roadway.
Improvements will make the pedestrians more visible. Sidewalks and curbs, cross walks and beacons, bus stops with overhead cover, benches, and overhead lighting along the whole area change the transit environment for the pedestrian and visibly walking in the area will calm the traffic. Pedestrian activated beacons make crossing the street safer because the user will be seen and the wait time to cross is reduced. The Transit Plaza with bike racks and benches make the user more comfortable. Combined, the transit user feels safer and their experience is of greater quality.

List:
List of Unique and unusual aspects of the development areas making it difficult to meet the specific requirements of the Street Design Standards of 18.4.6 site and proposed exceptions.

Typical standards for Bike Lanes are 6', Park rows are 5'8" and Sidewalks are 6' to 10'
The proposed improvements requesting an exception are all on Hwy 99 and are approximately 3,088 lineal feet long. The improvements begin to the north where El Tapatio is and where the

sidewalks along the Highway dead end at a wide and deep 260-foot-long drainage ditch. The ditch width extends into much of the public right of way as the rest of the following improvements do. The ditch location is along the front of the Land of Paws and As U Store It storage facilities. At the south end of the ditch, it meets a 60-foot-long private driveway. This driveway meets an island that is 30-foot-long with fixed business signs and a fire hydrant.

Similar private driveway improvements continue to the south for another 266 feet across the front of Paradise Supply and Anderson Auto-body where it meets the start of a private 158-foot-long curb running south. The curb face is at the edge of the public right of way, and it terminates at the applicant's property line and ODOT owned land. The applicant's frontage sits to the southwest or behind ODOT's land which is mostly backfilled with residual soils from the highway forming a vertical berm that rises above the applicant's land that is relatively flat. The applicants land runs parallel to the highway for over 1,000 lineal feet and alongside the ODOT property that appears as a berm along the frontage of the highway and is approximately 100 feet wide. The berm is 5 to 7 feet higher than the street and the applicant's property, whose grade is lower and lies behind the berm and is upland from ODOT property. The applicant property is flat here and dives into the backside the berm. The berm continues to the concrete Railroad Trestle which is a physical barrier that prevents standard street improvements. South of the railroad trestle are steep hillsides underpinning North Main Street and at the bottom is a drainage culvert and then City owned utility cabinets. From North Main Street to Schofield St no barriers are found.

PROPOSED IMPROVEMENT WITH "EXCEPTIONS"

An exception is requested where the exiting sidewalk terminates near El Tapatio Restaurant where private property limits room in the public right of way area leaving little room for full improvements and only room to continue the 8-foot sidewalk, bike lane and buffer lane in approval with ODOT the jurisdictional authority for about 300'.

This condition continues for 400' until Grand Terrace development property line next to Anderson Auto Body another. Here we have room to meet the standards for over 300' and add a park row, sidewalks, bike lane and buffer lane up to the main driveway entry and after the driveway for another 320'. At this point a safety pull out lane for the bus has to be built. There is only room for an ODOT approved sidewalks. This narrow area is caused by the pull-out lane and the topography. Only sidewalks, curbs, bus lane, bike lane, buffer lane and drive lane will fit.

Along the sidewalk where the pull-out lane is a 6' retaining wall is needed to retain the outcropping land mass. This area is about 400' long and goes up to the bridge walls.

From the bridge railroad trestle tunnel ODOT has proposed a state facility "raised 6-foot sidewalk and curb. The curb is mounted with a 3-foot concrete barrier on top.

Beyond the tunnel an 8' foot sidewalk and curb will continue up to N. Main Street for about 840' where another six-foot retaining wall will be added to create room for the sidewalk and

curb while protecting city infrastructure facilities in the area. Onto Schofield Ave full standard improvements will be built for about 300'.

The area will include a new crosswalk with a pedestrian activated RFB to get safely across the street to catch the North and South Bound Bus. RVTD and ODOT have designed new hardscape surface areas on the North Bound side to safely and comfortably get on and off the bus. A refuge area is planned in the area too.

A Rapid Flashing Beacon is placed here so all pedestrians can safely cross the street and access Grand Terrace by foot, bike and wheelchair.

18.4.6.050 Street and Greenway Dedications
APPLICANT: The development is land locked and cannot provide connections to any other neighborhoods. The development bordered by the Railroad to the Southeast and to the Northeast and the Oregon Department Of Transportation Highway to the Northwest and Southwest. There are no opportunities for neighborhood connectivity through any portion of the development and there is no opportunity for dedication of accessible streets or greenways. to the is surrounded by

118.4.6.060 Public Uses
Dedication of Public Use Area
Where a proposed park, playground, trail, or other public use shown in a plan adopted by the city is located in whole or in part in a subdivision, the city may require the dedication of this area to the city.
APPLICANT: None exist.

18.4.6.070 Sanitary Sewer and Water Service Improvements
A. Sewers and Water Mains Required. All new development is required to connect to city water and sanitary sewer systems
APPLICANT: The development will be using city water and all improvements in the design documents will be dedicated to the city where requested. Sewer and Storm water is provided by RVSS through an interagency agreement and dedications will be in conformance with the terms of the agreement.

B. Sewer and Water Plan Approval. Development permits for sewer and water improvements in the public right-of-way or public easements must be approved by the City Engineer.
APPLICANT: The application includes all public improvements including sewer and water plans and are submitted to the city engineer for review and approval. Any sizing requirements will be accommodated if needed in the existing application after the engineer's review.

D. Inadequate Facilities. Development permits may be restricted or rationed by the City where a deficiency exists in the existing water or sewer system
APPLICANT: The application includes a letter from the facility districts affirming the there is sufficient water to meet the development's needs. Storm and sewer are adequacy are approved

in writing from the RVSS district that the storm and sewer systems are adequate for the development.

18.4.6.080 Storm Drainage and Surface Water Management Facilities
The following standards apply to new development where extension of electric power or communication lines is required.

A. Storm Drainage Plan Approval. Development permits for storm drainage and surface water management plans must be approved by the City Engineer and Building Official.
APPLICANT: Storm and drainage plans are attached to the application for both the City Engineer and the RVSS District Engineer

C. Effect on Downstream Drainage.
APPLICANT: Runoff overload is measured in the plans and the engineer has addressed them.

D. Over-Sizing.
APPLICANT: the plans are completed for the inspection and review of the engineer in both jurisdictions for comment.

E. Existing Watercourse. Where a watercourse, drainage way, channel, or stream traverses a proposed development site, there shall be provided a storm water easement or drainage right-of-way
APPLICANT: Any drainage through the development from other sources have been addressed in the civil plans.

18.4.6.090 Utilities
A. General Provision. The developer is responsible for coordinating his or her development plan with the applicable utility providers and paying for the extension/installation of utilities not otherwise available to the subject property.
APPLICANT: All engineered utility plans are supplied to providers during the application permit process, most are reviewed concurrently during the design process.

B. Height. Utility transmission and distribution lines, poles, and towers may exceed the height limits otherwise provided for in this title, except for wireless communication systems as provided in chapter 18.4.10 and in the Airport Overlay as provided in chapter 18.3.7
APPLICANT: No overhead utility plans have been designed for the development.

C. Underground Utilities.
1. General Requirement. The requirements of the utility service provider must be met. All utility lines in new developments, partitions, and subdivisions, including but not limited to those required for electric, communication, lighting, and related facilities, must be placed underground, except as provided for in 18.4.6.090.D below.
2. Partitions and Subdivisions. The following additional standards apply to all new subdivisions, in order to facilitate underground placement of utilities.

a. The developer shall make all necessary arrangements with the serving utility to provide the underground services. Care shall be taken to ensure that all above ground equipment does not obstruct vision clearance areas for vehicular traffic, per section 18.2.4.040
b. All underground utilities installed in streets must be constructed and approved by the applicable utility provider prior to the surfacing of the streets.
c. Stubs for service connections shall be long enough to avoid disturbing the street improvements when service connections are made.
D. Exception to Under-grounding Requirement. The City may waive the under-grounding standard where existing physical constraints, such as geologic conditions, streams, or existing development conditions make underground placement impractical.
APPLICANT: For items A-B above. Utility providers and facilities designed by the applicants' engineers are in compliance with all of the above.
END PUBLIC FACILITIES - STREET DESIGN STANDARDS 18.4.6

No 6
PARKING ACCESS AND CIRCULATION CHAPTER 18.4.3

18.4.3.10 Purpose, where parking is voluntarily provided it must meet this chapter.
to provide safe and effective access and circulation for pedestrians, bicyclists, and vehicles. While off-street parking is not required, access for emergency vehicles must be retained, and adequate accessible parking spaces, loading areas, delivery areas, and pick-up/drop-off areas should be considered.
APPLICANT: Parking is voluntarily provided in the development with emergency vehicle lanes, loading areas, two dedicated van pool parking areas, Bus Stop with transit plaza, sidewalks and curbs, trees, lighting, bicycle parking, EV charging stations, pedestrian paths throughout the site from the public area to the development.

18.4.3.020
A. & B. The requirements of this chapter apply to parking, access, and circulation facilities in all zones deviations from the standards are subject to section 18.5.2.050 Exception to the Site Development and Design Standards.
APPLICANT: The application will show the parking, access, circulation facilities criteria under this Chapter is applied to the development on the Site Plan, Outline and Final Plan of the development along with plans submitted concurrently with this application. A request to deviate from the street and design standards are included in the application.

18.4.3.030 General Auto Parking Requirements
A. Maximum number voluntarily provided off-street automobile parking spaces. Voluntarily provided off-street automobile parking spaces shall not exceed the maximum number of spaces listed in Table 18.4.3.040
APPLICANT Under the table 18.4.3.040 for For Multifamily Zones a MAXIMUM of 2 spaces per unit is allowed and the application has less than one parking space per unit.

1. Automobile spaces provided on-street, or within the footprint of structures, such as in rooftop parking or under-structure parking, or in multi-level parking above or below surface lots, shall not apply towards the maximum number of allowable spaces.

APPLICANT: Parking on the street, in the footprint of the structure, rooftops, underground or multi level is not provided in the proposal.

2. Construction of additional off-street parking spaces in excess of the maximum parking spaces established by use, as specified in Table 18.4.3 requires approval of a conditional use permit under chapter 18.5.4 (Ord. 3229 § 1, amended, 12/19/2023; Ord. 3167 § 11, amended, 12/18/2018)

APPLICANT: No excessive parking is included.

18.4.3.040 Vehicle and Bicycle Quantity Standards. Except as provided by section 18.4.3.030 the standard ratios required for parking are as follows, as are the maximum allowances for voluntarily provided off-street automobile spaces. Fractional spaces shall be rounded up to the next whole number.
See also accessible parking space requirements in section 18.4.3.050
Multifamily Dwellings a maximum of 2 spaces per Multifamily dwelling unit for cars, and 1 sheltered bike space per studio/1 bedroom unit
APPLICANT: The application submittal will show there is less than 2 car parking spaces per unit and there is 1 bike parking space sheltered for each 1-bedroom unit. Only one-bedroom units are in the developments. 18.3.9 PSO units smaller than 750 square feet, or affordable housing are not subject to the requirement of providing on-street parking in performance standards subdivisions.

18.4.3.050 Accessible Parking Spaces
Where off-street vehicle parking is voluntarily provided, it must include the required number of accessible vehicle parking spaces as specified by the state building code and federal standards. multifamily developments with three or more dwelling units, it is mandatory to provide at least one accessible parking space.
APPLICANT: The required number of accessible parking is included and identified on the planning application submittals in conformance with state and federal standards. All ADA compliant units have immediate accessible access to ADA parking. The size is conforming, spaces are signed and marked in all areas. There are dedicated van-accessible spaces in two locations conveniently located, the ADA parking spaces are located closest to the unit in the building and unit entrances, the routes between parking areas and building entrances are easily assessable and well lit. The Accessible parking is included and identified on the planning application submittals

18.4.3.070 Bicycle Parking Standards
A. Applicability and Maximum Requirement All uses, with the exception of single-family residences, accessory residential units and duplexes and uses in the C-1-D zone, are required to provide the minimum bike parking spaces required in Table 18.4.3.040. The required bicycle

parking shall be constructed when an existing residential building or dwelling is altered or enlarged by the addition or creation of dwelling units, or when a non-residential use is intensified by the addition of floor space, seating capacity, or change in use.
APPLICANT: The development is newly constructed 210 one-bedroom development and the plan provides one bike sheltered parking space for each one bedroom unit.

B. Bicycle Parking Design Standards.NO 1-12
APPLICANT: Bike parking is immediate to and visible from the unit front door and easily assessable. The bike parking are in special bike racks and they are sheltered. The location from the unit to the bike parking is under 50 ft distance from the building and not further than the closest vehicle parking space. There are multiple buildings on the site and parking racks are made for each building with one bike parking spot per unit in the building. Direct access to parking is provided from the public access avenue and the residential units. The parking spots are sheltered and lit for safety. Parking spots are also viewable from the units and building. All parking is paved with smooth hard surface. The plans will demonstrate that all these amenities are compliant with the standards, and the maneuvering dimensions per the standards, including oversize areas for cargo bike spaces. Bike rack standards are compliant to the chapter and designed in the site plan and building documents. While parking or moving bike other bikes don't have to be moved because there is sufficient room. The minimum overhead coverage of 44" for clearance from rain is incorporated on the drawings. Bike parking spaces will be marked and reserved for bike parking only. Available too will be electric for the charging of electric bikes to keep the building safe from battery fire accidents.

C. Bicycle Parking Rack Standards. The intent of the following standards is to ensure that required bicycle racks are designed so that bicycles may be securely locked to them without undue inconvenience and will be reasonably safeguarded from intentional or accidental damage.
APPLICANT: Parking racks will be 30" W & 35" High U shaped 12.5OASTM A120 Grade B Steel with an anchored steel base plate holding a 1.5" steel pipe, or if different in accordance with the specifications of the ordinance

18.4.3.080 VEHICLE AREA DESIGN
A. Parking Location
APPLICANT:
1. Auto parking is not located in front and side yard setbacks abutting a public street.
2. There is no parking in front yards by off street parked cars on the development site.

B. Parking Area Design Voluntarily provided parking areas and parking spaces shall be designed in accordance with the following standards and dimensions as illustrated in Figure 18.4.3.080.B
1. Parking spaces shall be a minimum of nine feet by 18 feet.
2. compact spaces shall be eight feet by 16 feet
3. back-up maneuvering space not less than 22 feet

4. Parking lots with 50 or more parking spaces, and parking lots where pedestrians must traverse more than 150 feet of parking area
APPLICANT: The site plan includes a tabulation of the various parking spaces complying with 14.4.3. 080B.parking dimensions. Included are compact cars at 8x16 and standard 9x18. Compact spots will be signed for public view as Compact Car Only. The back-up maneuvering space is not less than 22 feet. The back up space dimension is 22 feet. The Parking lot has more than 50 parking spaces. Parking spaces are spread over 150 feet, but the distance is broken up by buildings, landscape islands, raised walkways and street like features. Sidewalks are five feet and greater in width and curbs that are six inch high. Curb ramps are located at all crossings with hash marked lines. Street trees are along the walkways, and pedestrian oriented lighting lines all pedestrian areas.

5. Parking areas shall be designed to minimize the adverse environmental and microclimatic impacts of surface parking**.** Use one or more of the following strategies for the surface parking area which are paving color, porous paving, 50% shade from trees or solar solar energy generating carport.
A**PPLICAN**T The construction plan for the parking area uses light colored concrete for over 50% of the parking area. The areas are designed to divert runoff by the use of landscape mediums and swales to capture it in areas for treatment.
i.light colored paving materials with a high solar reflectance is designed into the parking plan to reduce heat absorption for over 50 percent of the parking area surface, And b. Hard surface areas are designed to captures and treats runoff with landscaped medians and swales.

6**. Parking lot designs** shall incorporate the strategies identified in subsections 18.4.3.080.B.5.a (light color pavement) and 18.4.3.080.B.5.b (treat runoff) above, and further incorporate the following:
a. NA
b, New or redeveloped parking areas greater than one-half acre in area shall provide one of the following:
i. a tree canopy covering 40 percent of the new parking lot area at maturity, but no more than 15 years after planting is included in the landscape plan.
APPLICANT: The landscape plans will demonstrate that 40% of parking area is covered with shade producing trees**.** While meeting the conditions of subsection B.5.a&b. of using light colored paving and treating runoff, the applicant is also installing solar panels with a generation capacity that exceeds one-half kilowatt per new parking space. The panels will be placed on the roofs of the apartment buildings. Solar power will accrue to the benefit of the tenant's electrical cost and the environment pollution.

c. Parking lot trees shall be selected from the Parking Lot Trees list found in the City of Ashland Recommended Street Trees Guide. Parking lot trees shall be planted and maintained to maximize their root health and chances for survival and maintained to 2021 American National Standards Institute (ANSI) A300 standards including having ample high-quality soil, space for root growth, and reliable irrigation according to the needs of the species, or as amended by ANSI.

APPLICANT: The landscaping plans are attached and completed with all the requirement under this section and are for construction designed by a Licensed Certified Landscape Architect showing the parking lot tree canopy plan for the parking lot.
SUMMARY: The applicant meets the requirement of minimizing the adverse environmental and microclimatic impacts of surface parking by using Light colored concrete for 50.3% of the parking area, 40% of the parking area is shaded with trees, and the areas are designed with landscaped medians and swales for drainage to captures and treat runoff. Solar panels are in addition and added to the rooftops of the buildings.

C. Vehicular Access and Circulation. The intent of this subsection is to manage access to land uses and on-site circulation and maintain transportation system safety and operations.

1. Applicability. This section applies to all public streets within the City and to all properties that abut these streets
APPLICANT: The development abuts a public street.

2. Site Circulation. New development shall be required to provide a circulation system that accommodates expected traffic on the site. All on-site circulation systems shall incorporate street-like features as described in subsection 18.4.3.080.B4. Pedestrian connections on the site, including connections through large sites, and connections between sites and adjacent sidewalks must conform to the provisions of section 18.4.3.090
APPLICANT: A circulation system of sidewalks, paths, driveways, for cars and pedestrians is included in the engineering and landscape plan indicating all the sidewalks paths and crosswalks. For vehicles a circular system is designed in the plans to rotate around the development while traveling in a forward position and go anywhere in the site without turning around. For emergency equipment the access drive for the engines meets the required distance between building for large trucks. The plan includes street like features and connections to buildings, parking, open spaces, playgrounds, residential units, public sidewalks, bus stop and transit plaza.

3. Intersection and Driveway Separation. The distance from a street intersection to a driveway, or from a driveway to another driveway, shall meet the minimum spacing requirements for the street's classification in the Ashland Transportation System Plan (TSP).
APPLICANT: The distance between the applicants' driveways is well over 100 feet.

a. No driveways are 24 feet close.
APPLICANT: No driveways are as close as 24 feet

b. Partitions and subdivisions of property located in an R-2, shall meet the controlled access standards so that access to all properties created by the land division can be made from one or more points.
i. Distance between driveways on boulevard streets are 100 feet.
ii. Distance from intersections on boulevards are over 100 feet.

APPLICANT: The application includes a subdivision, and access can be made from two points, and the plans demonstrate the distance between driveways are over 100 feet and the distance from any intersection is greater than 100 feet.

c. Street and driveway access points in an R-2 zone shall meet distance between driveways of 100 feet on boulevards and the distance from a intersection must be over 100 feet.
APPLICANT: The development is in an R 2 zone and the application site plan demonstrates the distance between driveways are over 100 feet and the distance from any intersection is greater than 100 feet.

D. Access Requirements for Multifamily Developments. All multifamily developments which will have automobile trip generation more than 250 vehicle trips per day shall provide at least two driveway access points to the development. Trip generation shall be determined by the methods established by the Institute of Transportation Engineers.
APPLICANT: The application is a Multifamily Development, and it has more than 250 vehicle car trips per day and the development has two access points. The trip measurement was conducted by a certified traffic engineer under the methods of the Institute of Transporting Engineers.

4. Shared Use of Driveways and Curb Cuts.
a. Plans submitted for developments subject to a planning action shall indicate how driveway intersections with streets have been minimized through the use of shared driveways and all necessary access easements. Where necessary from traffic safety and access management purposes, the city may require joint access and/or shared driveways in the following situations:
APPLICANT: The development is a Multifamily development, and the plans demonstrate the driveway at the main entrance stands alone without other driveways nearby. Access reviews with the jurisdictional authority ODOT found it a safe access meeting view distance criterion. No other access driveways are added therefore limiting and minimizing the impact of additional access areas to the development while maintain greater separations.

b. Developments subject to a planning action shall remove all curb cuts and driveway approaches not shown to be necessary
APPLICANT: No preexisting curb cuts or driveways exist that require removal.

c. If the site is served by a shared access or alley, access for motor vehicles must be from the shared access or alley and not from the street frontage.
APPLICANT: The development is generating more than 250 vehicle trips per day and two access points are required by code and the new main access point is added to meet the criteria and it was reviewed and approved for safety by ODOT.

D. Driveways and Turn-Around Design. Driveways and turn-arounds providing access to parking areas shall conform to the following provisions:
3. Parking areas of more than seven parking spaces shall be served by a driveway constructed to: facilitate the flow of traffic on or off the site, with due regard to pedestrian and vehicle safety; be clearly and permanently marked and defined; provide adequate aisles or turn-around

areas so that all vehicles may enter the street in a forward manner; and a driveway width as follows:
a. A driveway accommodating two-way vehicular circulation on site shall be 20 feet in width.
APPLICANT: The development has more than seven parking spaces, for pedestrian and vehicle safety the access driveway meets ODOT standards. The areas will be clearly marked per code and clearly defined all the traffic areas and drive areas. The driveways have adequate space for turning around by driving in one direction without having to back up and can enter street in a forward manner. The driveway accommodates two-way circulation, and the driveway meets the 20-foot width standard.

b. A driveway configured for one-way vehicular circulation on site, which provides separated ingress and egress access onto the public street, may be reduced to 15 feet in width upon demonstration that adequate fire apparatus access is provided.
APPLICANT: The driveways are over 20 feet in width for two-way traffic. It provides separate egress and ingress features with a turn lane in the street for safety. The lanes will be marked with center line paint. The street is already fully marked for left and right and turns.

4. The width of driveways and curb cuts in the park row and sidewalk area shall be minimized.
APPLICANT: No cuts in these areas were made.

5. For single-family lots and multifamily developments, the number of driveway approaches and curb cuts shall not exceed one approach/curb cut per street frontage. For large multifamily developments and other uses, the number of approaches and curb cuts shall be minimized where feasible to address traffic safety or operations concerns.
APPLICANT: There is only one approach at the development's frontage.

6. Vertical Clearances. Driveways, aisles, turn-around areas and ramps shall have a minimum vertical clearance of 13.5 feet for their entire length and width.
APPLICANT. There are no vertical clearance issues at the development site.

7. Vision Clearance. No obstructions may be placed in the vision clearance area except as set forth in section
APPLICANT. Vision sight distance meets ODOT's criteria and there are no Vision clearance obstructions at the driveway under the jurisdictional authority criteria.

8. Grades for new driveways in all zones shall not exceed 20 percent for any portion of the driveway.
APPLICANT. The driveway grades in the development do not have 20 percent grades.

9. All driveways shall be installed pursuant to City standards prior to issuance of a certificate of occupancy for new construction.
APPLICANT. Driveways are designed to City standards.

10. Driveways for lots created or modified through a land division or property line adjustment, including those for flag lots, shall conform to the requirements of chapter 18.5.3, Land Divisions and Property Line Adjustments.
APPLICANT Lots and parcels conform to the lot standards of the applicable zoning district and the developments lots have been created through the Performance Standard Option and its criteria have been met through the PSO standards and Lands Divisions Chapter.

E. Parking and Access Construction. The development and maintenance as provided below shall apply in all cases, except single-family dwellings, accessory residential units, and duplexes:
1. Paving. All parking areas, aisles, turn-arounds, and driveways shall be paved with concrete, asphaltic, porous solid surface, or comparable surfacing, constructed to standards on file in the office of the City Engineer.
APPLICANT The area is being built with concrete and asphalt to city and fire apparatus standards.

2. Drainage. All parking areas, aisles, and turn-arounds shall have provisions made for the on-site collection of drainage waters to eliminate sheet flow of such waters onto sidewalks, public rights-of-way, and abutting private property.
APPLICANT Drainage swales, catch basins, subsurface retaining tanks to control the drainage onto public areas are included in the design. Water is retained and release at times the offsite storm system can adequately handle the volume.

3. Driveway Approaches. Approaches shall be paved with concrete surfacing constructed to standards on file in the office of the City Engineer
APPLICANT: Driveway approaches are designed with concrete.

4. Marking. Parking lots of more than seven spaces shall have all spaces permanently and clearly marked.
APPLICANT: All parking areas are designed for permanent marking of driveways and parking spots that are handicap and compact in the engineered construction documents.

5. Wheel Stops. Wheel stops shall be a minimum of four inches in height and width and six feet in length.
APPLICANT: All parking spots are designed for wheel stops to the specification of code and in the build plans.

6. Walls and Hedges.
a. NA parking areas are not near the street with walls and hedges.
b. NA parking isn't adjacent

7. Landscaping. In all zones, all parking facilities shall include landscaping to cover not less than seven percent of the area devoted to outdoor parking facilities,
APPLICANT The landscape plan includes landscaping for the parking area equaling 14% of the parking area. This is two times the requirement.

8. Electric Vehicle Charging. Mixed-use or multifamily residential developments with five or more dwelling units shall provide electrical service capacity by extending conduit to support future electric vehicle charging infrastructure to at least 40 percent of the off-street parking spaces provided.
APPLICANT EVC infrastructure is included in the engineering plans for the future use of 75 car charging stations in the design documents meeting the 40% of the parking space criteria.

9. Employee parking, NA
10. Lighting. Lighting of parking areas within 100 feet of property in residential zones shall be directed into or on the site and away from property lines such that the light element shall not be directly visible from abutting residential property.
APPLICANT: The plans have site lighting throughout the development and all lighting is designed to be directed downward so not to glow into any neighbor property or night sky.

18.4.3.090 Pedestrian Access and Circulation
A. Purpose. The purpose of this section is to provide for safe, direct, and convenient pedestrian access and circulation.
B. Standards. Development subject to this chapter shall conform to the following standards for pedestrian access and circulation:
1. Continuous Walkway System. Extend the walkway system throughout the development site and connect to all future phases of development, and to existing or planned off-site adjacent sidewalks, trails, parks, and common open space areas to the greatest extent practicable.
APPLICANT: The development plan demonstrates that a Continuous Walkway System extends throughout the development site, and to existing or planned off-site adjacent sidewalks, trails, common open space areas, bus stops and transit plazas and adjacent lands.

2. Safe, Direct, and Convenient. Provide safe, reasonably direct, and convenient walkway connections between primary building entrances and all adjacent streets
a. Reasonably Direct. Reasonably Direct. A route that does not deviate unnecessarily from a straight line or a route that does not involve a significant amount of out-of-direction travel for likely users.
APPLICANT: Routes are direct with access routes that do not deviate unnecessarily from a straight line or a route that does not involve a significant amount of out-of-direction travel for likely users. Walkways that cross a parking area or driveway are clearly marked with contrasting paving materials and they are all raised/hump crossing areas.

b. Safe and Convenient. Reasonably free from hazards and provides a reasonably direct means of walking between destinations.

APPLICANT The routes do not deviate unnecessarily, and they are safe built with solid materials with safety lighting

c. Primary Entrance. For a non-residential building, NA

d. Primary Entrance. For a residential building, the front door (i.e., facing the street). For multifamily buildings and mixed-use buildings where not all dwelling units have an individual exterior entrance, the "primary entrance" may be a lobby, courtyard, or breezeway serving as a common entrance for more than one dwelling.

APPLICANT All units have direct access to and from the primary entrance courtyard of the building via sidewalks and breezeways on sidewalks and pathways to other buildings, other units, trash, recycling, parking spaces, open space areas, public sidewalks and transit station.

3. Connections within Development. Walkways within developments shall provide connections meeting all of the following requirements as illustrated in Figures 18.4.3.090.B.3. and 18.4.3.090.B.3.b.

a. Connect all building entrances to one another to the extent practicable

APPLICANT: All units have direct access from their exterior to the courtyards primary entrance and breezeway from sidewalks to other buildings, units, trash, parking and open space areas.

b. Connect on-site parking areas, common and public open spaces, and common areas, and connect off-site adjacent uses to the site to the extent practicable. Topographic or existing development constraints may be cause for not making certain walkway connections

APPLICANT All units have direct access to and from the primary entrance courtyard of the building via sidewalks and breezeways on sidewalks and pathways to other buildings, other units, trash, recycling, parking spaces, open space areas, public sidewalks and transit station.

c. Install a protected raised walkway through parking areas of 50 or more spaces, and where pedestrians must traverse more than 150 feet of parking area, as measured as an average width or depth.

APPLICANT The plan demonstrates that all parking lot crossings are marked and raised under these criteria.

4. Walkway Design and Construction. Walkways shall conform to all of the following standards.

a. Walkways shall be raised six inches and curbed along the edge of the driveway

APPLICANT All sidewalk walkways in the driveway areas are built with curbs that have a raise 6-inch curb.

b. Crosswalks. Where walkways cross a parking area or driveway, clearly mark crosswalks with contrasting paving materials (e.g., light-color concrete inlay between asphalt), which may be part of a raised/hump crossing area. Painted or thermo-plastic striping and similar types of non-permanent applications may be approved for crosswalks not exceeding 24 feet in length.

APPLICANT The plans demonstrate that the crosswalks are designed to these specifications.

c. Walkway Surface and Width. Walkway surfaces shall be concrete, asphalt, brick/masonry pavers, or other durable surface, and at least five feet wide

Walkways are both asphalt and concrete, brick/masonry pavers, or other durable surface, and at least five feet wide. Multi-use paths (i.e., for bicycles and pedestrians) shall be concrete or

asphalt, and at least ten feet wide, in accordance with section 18.4.6.040, Street Design Standards.
APPLICANT Walkways are both either concrete or asphalt and at least five feet wide. All surfaces are hard and smooth.

d. Accessible Routes. Walkways shall comply with applicable Americans with Disabilities Act (ADA) and State of Oregon requirements. The ends of all raised walkways, where the walkway intersects a driveway or street, shall provide ramps that are ADA accessible, and walkways shall provide direct routes to primary building entrances.
APPLICANT: All walkway termination points have ADA compliant ramps as noted on the site plan.

e. Lighting. Lighting shall comply with section 18.4.4.050 (Ord. 3229 § 1, amended, 12/19/2023; Ord. 3229 § 1, amended, 12/19/2023; Ord. 3199 § 24, amended, 06/15/2021; Ord. 3191 § 24, amended, 11/17/2020).
APPLICANT: Lighting is incorporated in the attached plan for illumination of the walkway and parkway areas. The intent is to have no spillover light into the adjacent neighborhood.
END PARKING ACCESS AND CIRCULATION CHAPTER 18.4.3

No 7
PERFORMANCE STANDARDS OPTION CHAPTER 18.3.9.

The application includes a Performance Standards Subdivision of 9 Lots. The lots include apartment buildings, common open space driveways and parking.

The applicant is exercising the option to apply under the Performance Standards Option, under Land Division Chapter 18.5.3, part 18.5.020.A.4. properties located in the Performance Standards Overlay, all land divisions, other than partitions and development of individual dwelling units, shall be processed under chapter 18.3.9 Performance Standards Option and PSO Overlay. Properties not located in the Performance Standards Overlay but meeting the requirements of section 19.3.9.030 may be processed under chapter 18.3.9 Performance Standards Option and PSO Overlay.

18.3.9.010 The purpose of the PSO chapter is to allow an option for more flexible design than is permissible under the conventional zoning codes. The design should stress energy efficiency, architectural creativity, and innovation; use the natural features of the landscape to their greatest advantage; provide a quality of life equal to or greater than that provided in developments built under the standard zoning codes; be aesthetically pleasing; provide for more efficient land use; and reduce the impact of development on the natural environment and neighborhood.
APPLICANT: The innovation and architectural creativity and efficiency of the Gand Terrace design is market and socio/economic driving with the goal of tenant sustainability over the longer occupancy periods. Existing target markets are unmet, and this development meets them.

Efficient space drive creative design and meet that larger segment market of end users. Small spaces are less costly and when compensated with greater open spaces, views, air, or the multiple and various transportation options end users get better value. As a medium density development, the design breaks monolithic inclination apart by using multiple buildings of apartments with individuality. The units have private entrances located directly to the exterior in lieu of using corridors and halls that are noisy and public, while also including private decks at opposing ends of the entrance with panoramic open view corridors to the surrounding areas. The roof area design provides higher ceilings, more windows and is exposed to the dominant direction of the sun for use in collecting the solar power for the residents' electric utilities. This provides low cost, clean energy and reduces the environmental impact. The orientation and building separation with breezeways allow prevailing winds to sweep the development unobstructed and cools the buildings and grounds.

High density residential development can be difficult in providing privacy and a sense of intimacy to the environment, but these are achieved in the Grand Terrace design. Geographically, the building utilizes the open terrace preserving natural features of the area leaving an abundant amount of open space for the occupants, neighborhood and city at large when placed at the entryway of the city preserving natural features of the area. For neighbors the low profile of the buildings and large open areas preserve the views of the open fields and the valley. The goals of the chapter in using natural landscape, energy conservation and features to the greatest advantage is achieved.

18.3.9.020 Applicability Developments shall meet the provisions of this chapter and all other applicable sections of this ordinance; except that developments subject to this chapter are not required to meet the minimum lot size, lot width, lot depth, and setback standards of part 18.2 and other standards as specifically provided by this chapter. The Performance Standards option may be used to divide residential and non-residential zoned land.

18.3.9.030
A. Purpose of the PSO is for areas not largely developed under subdivision code, and due to undeveloped nature of property, sloping topography or natural hazards, its more suitable for development under the PSO standards.
APPLICANT: The proposed development area is in the UGB and is undeveloped and vacant. It lacks all public facilities including transportation and utilities. It's at the entrance of Ashland and very distinguishable by the sloping topography and roadside ditches and high berms of earth along the roadway, vegetated wetlands including a number of various trees, open unirrigated fields on sloping lands along the roadway and forested hillsides adjacent. The area has remarkably dark streets unfit for pedestrians and wraps around unimproved commercial storefronts with unimproved parking lots, or safe driveways. The use is mixed with a body paint shop, storage facilities, animal hospital and car lots. For safety the area is spotted with bright blinding security lights on 30-foot poles for their own property protection due to the lack of secure sidewalks, lighting and pedestrian presence.

B. Applicability of this chapter is for properties within the overlay map. The minimum number of dwelling units for a Performance Standards Subdivision within residential zoning districts is three

Applicant: The development is not for individual dwelling units and is not a partition. Is will have more than three units and is in a residential zone R-2 Low Density Multi Family Residential.

C. Permitted Uses, the granting of the application shall be considered an outright permitted use.

APPLICANT: The applicant is exercising the option to apply under the Performance Standards Option.

D. **Development Outside PSO-Overlay.** If a parcel is not in a PSO overlay, then development under this chapter may only be approved if one or more of the following conditions exist.

1. The parcel is larger than two acres and is greater than 200 feet in average width.
3. The property is zoned R-2, R-3 or CM

APPLICANT: The application meets two of the criteria number of this chapter. The average is Larger than 200 feet and the property is zoned R-2.

AMC 18.3.9.040 Review Procedures and Criteria

Review Steps. There are two required steps to Performance Standards Options and PSO Overlay approval, which may be completed individually or combined for concurrent review pursuant to subsection18.3.9.040.A.

1. Application for outline plan approval
2. Application for final plan approval.

Permitting and guarantees for public improvements, including bonding, and the creation of common areas shall follow the same procedures as for a subdivision.

APPLICANT: The application is a combined proposal with a concurrent review of an outline plan and final plan. The proposal follows the subdivision process and it's PSO standards of that section.

A. Outline Plan A proposed outline plan shall accompany applications for subdivision approval under this chapter. For developments of fewer than ten lots, the outline plan may be filed concurrently with the final plan, as that term is defined in subsection 18.3.9.040.B.4. For developments of ten or more lots, prior outline plan approval is mandatory.

APPLICANT: An outline plan is submitted here for subdivision approval under 18.3.9.040 and the subdivision consist of 9 lots. In accordance with the section an application with fewer than 10 lots may file a Final Plan concurrently as defined in 18.3.9.040.B.4. Accordingly, the Outline Plan/ Final Plan are submitted in this application following the procedure of Section A & B of 18.3.9.040. and all the application submission requirements are attached to the application, for the list of items in A. 2. Including Topo maps and survey maps. The current land use is R-2 and the proposed use is Multi Family Residential units. The development area is displayed in the accompanying plan which consist of 210 residential unit. The units are spread among 10 buildings each consisting of 21 one-bedroom units per building. The property lines are depicted

more accurately on the site plan. An easement with the Bureau of Reclamation is on the property. Trees adjacent to the site are on the landscape plan and accounted for by type and size. The site plan delineates more accurately the driveways walkways and parking areas. A public bus stop and plaza will be developed by the owner along with seating and overhead cover and lighting. A bike parking area will be installed in the bus plaza. Adjacent buildings within 160 feet of the development are delineated on the plans. A full construction set of public facilities including water, electric, sewer and storm water facilities are on the plans conforming to the code. A full construction set of excavation and fill plans are included with the submittal. The landscape plan outlines the areas of significant features such as marshes, wooded area, and preservable trees. The drawing submitted indicate direction of watercourses and any known flooding areas. No flooding areas are known. Required open space is indicated on the plan and the total area. Required open area is significantly greater and exceeds the standard. Private spaces are indicated and are not part of the common open area but are separate and greater than the requirement. The site plan includes all building envelopes for each lot, with height, solar access and view protection if any. All elevations on the site plan are to scale, included are dimensions and exterior facade material type treatment.

The chapter stresses innovation, architectural creativity and efficiency. Breaking the totality of multi units into individual buildings kept the development non imposing or monolithic and giving it a sense of intimacy and human scale. Geographically, its set on a terrace and spread out with abundant open space preserving and utilizing the natural features of the area. Occupant's view from the living space is oriented toward the valley and wide-open spaces. The goals of the chapter in using natural landscape and features to the greatest advantage and the application plans reflect this. Proposed financing for the proposed subdivision development construction cost is a financial stack of Institutional Financing and Equity. Present ownership Is Linda Zare, and a Member to Casita Development LLC together with Robert Kendrick, Member, Casita Development LLC.

The Method of maintaining common and open space is with CC&Rs to regulate the use, appearance, and maintenance of the development which commonly include the buildings, common area spaces, driveways and parking lots.

Time schedule of the development is largely dependent upon the Annexation application procedure.

The findings of the applicant showing that the development meets the criteria set forth in this ordinance and the Comprehensive Plan are the narrative herein by the applicant and the attached submittals noted herein. Again, the narrative along with all the plans and exhibits demonstrate the application meets the ordinance requirements. And exhibits and attachments are further findings demonstrating the development meets the criteria set forth in the ordinance and the Comprehensive Plan

3. Approval Criteria for Outline Plan: The Planning Commission shall approve the outline plan when it finds all of the following criteria of items a. -g. have been met.

a. The development meets all applicable ordinance requirements of the City. Unless otherwise noted herein, the applicants find the proposed subdivision meets all applicable ordinance requirements of the City of Ashland.
APPLICANT: The submitted documents, letter and exhibits are in compliance with the ordinance standards and criteria including an allowed exception to the street standards are requested and allowed under the ordinance. The submittal meets all applicable ordinance requirements.

b. Adequate key facilities can be provided.
APPLICANT: the proposed utilities extensions to the subject property from the various public utility providers are through existing and proposed easements and street rights-of way surrounding the site. It has been determined that the extension of city facilities to service the development area will not cause a facility to operate beyond the city's capacity including written statements verifying capacity from the various service providers. RVSS already provides services, and they state there is adequate capacity to serve the development. All utilities will extend to and through the property as identified on the Utility Plans that are part of the application plans. All Civil Engineered drawings are submitted identifying specific utility details for final construction of the development. The proposed development with the Street Standards, and requested exceptions, attached street cross-sections are all included under the civil plan.

c. The existing and natural features of the land, such as wetlands, floodplain corridors, ponds, large trees, rock outcroppings, etc., have been identified in the plan of the development and significant features have been included in the open space, common areas, and unbuildable areas.
APPLICANT: The ALTA Survey Documents detail each and all of the site's significant natural features such as the small wetland areas.

d. The development of the land will not prevent adjacent land from being developed for the uses shown in the Comprehensive Plan.
APPLICANT: The subject property development provides the opportunity for adjacent property to be developed for uses as shown in the Comprehensive Plan. Without this annexation, the north Ashland Urban Growth Boundary is prevented from future expansion and growth because the applicant is creating contiguity to the UGB that would not otherwise be possible and the city unable to expand and draw on the economic component benefits it would bring. The development is also bringing utilities that presently do not exist. Also, importantly safe pedestrian transportation systems are being installed connecting the communities together including important transportation of a bus stop with a transit plaza and bike parking. This promotes the City's Comprehensive Plan.

e. There are adequate provisions for the maintenance of open space and common areas, if required or provided, and that if developments are done in phases that the early phases have the same or higher ratio of amenities as proposed in the entire project.

APPLICANT: The development items on the plans will be built at the same time so common and open spaces are finished at the same time and therefore no building area will be left without the same amenities as shown in the plans.

f. The proposed density meets the base and bonus density standards established under this chapter
APPLICANT: The proposed density meets the standard and bonus density standards. The proposed density is greater that's the minimum and less than the maximum amount allowed.

g. The development complies with the street standards.
APPLICANT: Submitted with the application are final civil plans with a street improvement plan with changes to the city street standards and the application includes a request for an exception to the Street Standards. The approval authority may approve exceptions to the street design standards of Chapter 18.4.6.040 if there is demonstrable difficulty in meeting the specific requirements of this chapter due to a unique or unusual aspect of the site or proposed use of the site; and the exception is the minimum necessary to alleviate the difficulty, see Section in 18.4.6.020.B.1.

h. The proposed development meets the common open space standards established under section 18.4.4.070. Common open space requirements may be satisfied by public open space in accordance with section 18.4.4.070 if approved by the City of Ashland.
APPLICANT: The Site and Landscape plans demonstrate the proposed development exceeds the minimum common landscaped space of 8% and private open space. Private space requirements are 48 sq ft per unit and the development has 72 sq ft per unit and in 30 of the units are over 150 sq ft. Section 18.4.4.070 minimum common open requirement is nearly double.

4.Approval of the Outline Plan.
a. After the City approves an outline plan and adopts any zone change necessary for the development, the developer may then file a final plan in phases or in its entirety.
b. If an outline plan is phased, 50 percent of the value of the common open space shall be provided in the first phase and all common open space shall be provided when two-thirds of the units are finished
APPLICANT: a. The application for the PSO includes nine lots, with a concurrent application of an outline plan and final plan, "for developments of fewer than ten lots, the outline plan may be filed concurrently with the final plan" subsection 18.3.9.040.A.
b. There is no phasing, and the final plan is the construction plan for the development of the annexed area acreage.

B. FINAL PLAN.
1. Review Procedure. The Type I procedure shall be used for approval of final plans, unless an outline plan has been filed concurrently, in which case Type II procedure shall be used, and the criteria for approval of an outline plan shall also be applied.
APPLICANT: An outline plan and final plan are filed concurrently and follow the Type II hearing.

2. Phasing. The final plan may be filed in phases as approved on the outline plan
APPLICANT: The application of the Outline and Final Plan are processed concurrent and not phased.

3. Expiration. If the final plan or the first phase of the outline plan is not approved within 18 months from the date of the approval of the outline plan, then the approval of the plan is terminated and void and of no effect whatsoever.
APPLICANT: The outline plan and final plan are filed concurrent for approval concurrently.

4. Application Submission Requirements. The following information is required for a performance standards subdivision final plan application submittal listed as item a.-q., itemized in the response below and are specific in the design documents that are submitted to the authority and are all complete.
Subsection "a. – q" of this part are Below:
APPLICANT: Items under this part are answered specifically
a. Topography maps are attached
b. A Connectivity plan is attached.
c. Cross section, size, cuts and fills are attached.
d. All streets are identified
e. Boundary lines are included in architectural drawings (construction documents) attached and included in this application.
f. Plat map is final
g. Easements are on civil drawings and survey
h. Landscaping plan, civil and survey identify all easements and future utility's locations
i. Common and private spaces are noted on the plans
j. NA
K. Proposed building location
i. location is noted on plat
ii. use is noted
iii. number of units are noted on plans
iv. building envelopes, lots, height is on plans
l. elevations are to scale
m. financing is institutional and private
n. time schedule is planned after city approvals
o. a final plat approval is requested for financing
p. all utilities are on civil drawings
q. all trees over 6 inches are noted on plans
The site plan indicates all building locations, use, number of units, building height. Solar access calculation is on a separate exhibit document demonstrating the location of buildings, sun and shadows. The development consists of 10 identical building with 21 units in each one. Construction drawings are attached and included with the application and their dimensions are all to scale. As noted earlier all HVAC systems are mini split systems, and the exterior component is located on the exterior of each unit out of site. Financing is a combination of private equity and bank financing for construction and permanent loans after completion.

Development time schedule is contemplated to begin shortly after approval and financing both private and institutional approval. A final plat is required similar to that required for of a subdivision, per chapter 15.5.3 Land Division. The applicant is submitting a request for Preliminary Plat approval for underwriting feasibility to securitize individual lots for construction financing of the buildings. Final plans for the development of offsite and onsite work are in the civil engineering plans and include water, sewer, drainage, electric, cable, and street improvements. The attached final Landscape Plan includes all trees existing and to be included in the construction of the landscaping.

5. Approval Criteria for Final Plan. Final plan approval shall be granted upon finding of substantial conformance with the outline plan. This substantial conformance provision is intended solely to facilitate the minor modifications from one planning step to another. Substantial conformance shall exist when comparison of the outline plan with the final plan meets all the following criteria:
APPLICANT: Subsection "a. – h" of this part are Below:
a.-e**.** number of dwelling units varying no more than 10% or exceed the submittal, including yard depths and distance between buildings. Distance may not be reduced less than the minimum standard, and units can't exceed what's in the outline plan. Common open spaces cannot vary more than 10% and building size cannot exceed the size shown on the outline plan by more than 10%.
e.-f. Elevations and exterior materials are in accordance with the standards and approved outline plan,
g.-and the development complies with the street standards and there is an exception to the standards requested.
h.-Nothing in this section shall limit reduction in the number of dwelling units or increased open space; provided, that if this is done for one phase, the number of dwelling units shall not be transferred to another phase, nor the common open space reduced below that permitted in the outline plan.
APPLICANT: The outline plan and final plan are submitted concurrently and changes to the final could occur from conditions applied by the approval authority, planning commission, city council and normal corrections from consulting agents.

6. Any substantial amendment to an approved final plan shall follow a Type I procedure in section 18.5.1.050 and be reviewed in accordance with the above criteria.
APPLICANT: The applicant understands amendments are to be approved under a Type I procedure if there are any.

18.3.9.050 Performance Standards for Residential Developments
A. Base Densities. The density of the development shall not exceed the density established by this section. The density shall be computed by dividing the total number of dwelling units by the acreage of the project, including land dedicated to the public.
1. The base density, for purposes of determining density bonuses allowed under this section, for developments other than cottage housing, is as provided in Table 18.3.9.050.A.1.

APPLICANT: The acreage of the project is 8.53 acres. In accordance with Table 18.3.9.050.A.1 the zone is R-2 with an allowance of 13.5 du/acre.

B. Density Bonus Point Calculations. The permitted base density shall be increased by the percentage gained through density bonus points. In no case shall the density exceed that allowed under the Comprehensive Plan. The maximum density bonus permitted shall be 60 percent (base density x 1.6), pursuant to the following criteria:
APPLICANT: The base density is 115.155 and the bonus points used satisfies the minimum and maximum density criteria using the unit equivalency of ordinance.

Bonus Points For Conservation Housing
1. Conservation Housing. A maximum 15 percent bonus is allowed. One hundred percent of the homes or residential units approved for development, after bonus point calculations, shall meet the minimum requirements for certification as an Earth Advantage home, as approved by the Ashland Conservation Division under the City's Earth Advantage program as adopted by Resolution 2006-06.
APPLICANT: In accordance with 18.3.9.050 B.1. Conservation Housing a maximum 15% bonus for 100% of units shall meet minimum Earth Advantage program. The development will meet the Earth Advantage criteria for all the units in the development, and the points attained are 17. **Base Density = 115.16 x 15% = 17 points**.

Bonus Point for Common Open Space
2. Common Open Space. A maximum ten percent bonus is allowed, pursuant to the following:
APPLICANT:
18.3.9.050B.2.a. Common open spaces may be provided in the form of natural areas, wetlands, playgrounds, active or passive recreational areas, and similar areas in common ownership. However, for the purposes of awarding density bonus points, the Planning Commission shall consider whether or not the common open space is a significant amenity to project residents, and whether project residents will use or enjoy the common open space on a day-to-day basis.

18.3.9.050B.2.b Standard. Developments with fewer than ten units that provide more than two percent of the project area for common open space, or for developments of ten units or greater that provide more than five percent common open space, a one percent bonus shall be awarded for each one percent of the total project area in common open space in excess of any common open space required by section 18.4.4.070 and this chapter. The common open space shall meet the standards in section 18.4.4.070.
APPLICANT: 18.4.4.070 stipulates two different percentages that confuse the applicant. It stipulates that an application under a PSO receives a bonus after 5% is met and it goes on to say that a PSO and Site Review combined application receives a bonus after 8% e requirement of the total lot area is met under 18.5.2 Site Design Review and 18.3.9 PSO overlay. The applicant is using the 8% criteria and not the 5%. The area also consists of more than 10 units.

APPLICANT: The Common Area Open Space is a significant amenity to project residents, and residents will enjoy the common open space on a day-to-day basis. They include preserved

wetlands of 4606 sq ft with seating, landscaped common area of 59,417 sq ft which is 16% of the area and in excess of 8% required amount, 4 basketball courts, 1 tennis courts, 10 areas that include spaces of meditation, zen gardens, private gardens all with seating and lighting, kids play area of 2100 sq ft, and a multi bike & pedestrian path for 19,148 sq ft. This area totals 214,277 sq ft equaling 58% of the development area.
Open Space = 58% - Base Requirement is 8% equals, Calculation is 58% -8% = 50%. The maximum allowed is 10% so the calculation is
Base Density = 115.16 x 10% = 12 units.

3. **Affordable Housing**. A maximum bonus of 35 percent is allowed. Developments shall receive a density bonus of two units for each affordable housing unit provided. Affordable housing bonus shall be for residential units that are guaranteed affordable in accordance with the standards of section 18.2.5.050, Affordable Housing Standards
APPLICANT: The affordable units provided is 24 units. The bonus is 2 point per unit and can't exceed 35%. The base density is 115.15 and the bonus points used satisfies the minimum and maximum density criteria using the unit equivalency of ordinance.
Base Density is 115.15 x 35% = 40. The minimum amount allowed is 40 bonus point.
Affordable Units Provided = 24 x 2 = 48. Eight bonus points can't be used.
Bonus amount allowed is 40.
Bonus Density is = 40 units

APPLICANT: Bonus Point calculation recap.
Base Density 115.115
+ 17 (Conservation Housing)
+ 12 (Open Space)
+ 40 (Affordable Housing)
= Revised Based Density of 184 units

Density Standards	
Revised Base Density with Bonus is	184
Minimum	104
Maximum 1.6 x 115.15 =	184
Proposed Density	170

See tabulation Table

18.3.9.060 Parking Standards
All development under this chapter shall conform to the following parking standards, which are in addition to the requirements of chapter 18.4.3
A. On-Street Parking Required
For all performance standards subdivisions in R-1 zones, and for all performance standards subdivisions in R-2 or R-3 zones which create or improve city streets, at least one on-street parking space per proposed lot shall be provided with the following exceptions.
2. Streets outside the City of Ashland's jurisdiction, such as those overseen by the State of Oregon Department of Transportation (ODOT) or Jackson County, which are improved by a

development, are not required to provide on-street parking as outlined in this requirement if prohibited or exempted by the governing jurisdiction.
APPLICANT: The proposed development is improving streets controlled by Oregon Department of Transportation on Hwy 99 and parking is prohibited so the development is not required to provide on street parking. In accordance with 18.3.9.060. A.2.

B. NA
C. Signing of Streets
APPLICANT: Any signage is under the control of ODOT, and applicant will follow the rules of ODOT.

18.3.9.070 Setbacks
A. Front Yard Setback. Front yard setbacks shall follow the requirements of the underlying district.
APPLICANT:
The proposal setbacks comply with the underlying zone, and it exceeds the front setback of 20 feet for the underlying district,

B. Building Separation. The minimum separation between two buildings must be half of the height of the tallest building, where building height is measured at the two closest exterior walls, and the maximum required separation is 12 feet.
APPLICANT: For building separation, the maximum required is 12 feet between buildings. The buildings are under 30 feet tall. Half the height of the building is 15 feet and the distance between the building is 20 feet meeting the criteria.
C. Solar Setback. Solar setbacks shall meet the requirements of section
APPLICANT: Solar measurements are attached to the application and meet the criteria where applicable.

D. Perimeter Setback. Setbacks along the perimeter of the development shall have the same setbacks as required in the parent zone.
APPLICANT: The Side yard of 6 ft and the Rear Multi Story 10 ft per story and 5 for half story setbacks meet the parent zoning criteria. The perimeter setbacks meet the standards for the zone.
END PERFORMANCE STANDARDS OPTION CHAPTER 18.3.9.

No 8
BUILDING PLACEMENT, ORIENTATION & DESIGN CHAPTER 18.4.2

18.4.2.010 Purpose regulates the placement, orientation, and design of buildings.
A. Enhance the environment to encourage alternative modes of transportation, such as walking, bicycling, and transit.
B. Provide a business environment that is safe and comfortable, and natural surveillance of public spaces, or "eyes on the street," for crime prevention and security.

C. Reduce dependency on the automobile for short trips, thereby conserving energy and reducing unwanted congestion.
D. Support resource conservation and reusable energy generation, through solar, wind, and other renewable energy sources; and
E. Require high quality development that makes a positive contribution to the streetscape and maintains a sense of place that is distinctly Ashland.
APPLICANT: The plans and this letter demonstrate the purpose of this chapter are met. Nearly 58% of the site has open area, and protect wetland, purposefully maintaining a number of the State Goals of land use laws in the state and city. The multiple alternative forms of transportations are diverse but assessable and encouraging protection of the environment. The application of multiple building with units that have direct access to other units, bus stops, parking areas and open spaces. Well lite areas on site and not toward neighbors, added light to the streets, sidewalks and public spaces makes the community safer where it wasn't before. With several commercial businesses in the location only improved business should be expected from the disposable income added and the safe streets and offsite improvements. This adds substantial value through its improvements to the area along with a public transit plaza. Busing and EV charging stations, bike parking with charging, dedicated van pool parking areas reduces vehicle use and is good for the environment and combined reduces the demand of the auto and reduces energy demand and improves the environment. Solar panels on all rooftops generate the residential appliances, low voltage lighting and split HVAC systems with a 100% SEER rating are all positives to the environment. Additionally, units have concrete flooring for sound damping and the walls are doubled with one inch air separation not allowing transmission of sound between unit. The rating on these systems is greater than the code and they increase the energy efficiency too since they are tight. The energy conservation and reusable energy generation of solar panel and all the other environment components makes the development a model and complement to the goals of Ashland at the entry way of the city.

18.4.2.020 Applicability A. 18.4.2 applies to residential development subject to 18.5.2 Site Design Review
APPLICANT:
Chapter 18.5.8.020.F. A concurrent filing of Site Design Review is required for annexations, so this chapter is applicable because a site design review is required.

18.4.2.030 Residential development
A. **Purpose and Intent.** For new multifamily residential developments, careful design considerations must be made to assure that the development is compatible with the surrounding neighborhood. For example, the use of earth tone colors and wood siding will blend a development into an area rather than causing contrast through the use of overwhelming colors and concrete block walls.
APPLICANT: The colors of the building will use earth tones of horizontal Blackwood siding and Poplar plank siding alternating along the larger building exterior of the sides along the breezeways. Vertical plank poplar will be used to separate the patios. The separation panels on the patios are open for ventilation. The Polar siding will be used again as a band across the primary orientation of the building below the patios.

1. Crime Prevention and Defensible Space.

a. Parking Layout. Parking for residents should be located so that distances to dwellings are minimized. However, avoid designs where parking areas are immediately abutting dwelling units because there is little or no transition from public to private areas. Parking areas should be easily visible from adjacent areas and windows.

APPLICANT

All parking is visible from units. Parking is a close walking distance to units, and no parking abuts a unit. All ADA parking is immediately available to ADA units. All parking areas are adjacent to walkways to building entrances and breezeways.

b. Orientation of Windows. Windows should be located so that vulnerable areas can be easily surveyed by residents.

APPLICANT:

Windows are plentiful to all residential units allowing the units to be surveyed if needed.

c. Service and Laundry Areas. Service and laundry areas should be located so that they can be easily observed by others. Windows and lighting should be incorporated to assure surveillance opportunities. Mailboxes should not be located in dark alcoves out of sight. Barriers to police surveillance such as tall shrubs and fences should be avoided.

APPLICANT:

Laundry rooms are centrally located at each building directly accessible to all units and have windows for light and safety with immediate viewing from outside. Mailboxes are located on these building visibly viewable and assessable outsides near the parking lot. This is assessable for delivery and pickup. The boxes are easily viewable by all units and pedestrian areas.

d. Hardware. Reliance solely upon security hardware in lieu of other alternatives is discouraged.

APPLICANT:

Security cameras are visible and for record keeping. This is a deterrent. Site lighting and neighbors' full viewable areas are the eyes on the street.

e. Lighting. Site development should utilize lighting prudently. More lighting does not necessarily mean better security. Lighting should be oriented so that areas vulnerable to crime are accented.

APPLICANT:

All lights will be installed for the safety of the residential occupants and oriented downward where the feet land, buildings start up and all other possible obstructions. No light is wasted on open skies that could cloud out the stars, and neighbors' property too.

f. Landscaping. Plant materials such as high shrubs should be placed so that surveillance of semi-public and semi-private areas is not blocked. Thorny shrubs will discourage crime activity. Low shrubs and canopy trees will allow surveillance, hence, reduce the potential for crime.

APPLICANT:

Landscaping will be applied in accordance with the ordinance but in a minimalist mode to accent building architectural, fire prevention nor block views between residential units and traffic in the driveways. Concurrently inclusion of larger trees is tall to shade the hard surface streets and limit heat and taller than a man height and above the eyes.

B. Applicability. Except as otherwise required by an overlay zone or plan district, the following standards apply to residential development pursuant to section 18.5.2.020. See conceptual site plan of multifamily development in Figure 18.4.2.030.
APPLICANT: 18.5.2.050 is addressed fully and separately in this application.

C. Building Orientation. Residential buildings that are subject to the provisions of this chapter shall conform to all of the following standards. See also solar orientation standards in section 18.4.8.050.
1. Building Orientation to Street. Dwelling units shall have their primary orientation toward a street. Where residential buildings are located within 20 feet of a street, they shall have a primary entrance opening toward the street and connected to the right-of-way via an approved walkway.
APPLICANT: The buildings primary orientation is toward the street and driveways. Units entrance ways access to parking is from the building entrance onto sidewalks that go to parking space via the sidewalk and the breezeway. No buildings are located within 20 feet of the street. All units are connected to walkways that go to the public right of way. There are multiple approved walkways and meandering paths from units through the common area open space for both pedestrians and bicycle riders.

2. Limitation on Parking Between Primary Entrance and Street. Automobile circulation or off-street parking is not allowed between the building and the street. Parking areas shall be located behind buildings, or on one or both sides.
APPLICANT: A request for an exception for some parking is included in this application. There are 176 parking spaces in the development and due to the topography and the preservation of wetlands one building is constrained and not able to meet 100% of the standard. There are 8 parking spaces that would meet the definition of coming between the building and the street and the applicant is requesting an exception to allow the cars. See request for the exception under a separate paragraph below.

3. Build-to Line. Where a new building is proposed in a zone that requires a build-to line or maximum front setback yard, except as otherwise required for clear vision at intersections, the building shall comply with the build-to line standard.
APPLICANT: There is not a build-to line or maximum front setback yard.

D. Garages.
APPLICANT: Not applicable.

E. Building Materials. Building materials and paint colors should be compatible with the surrounding area. Very bright primary or neon-type paint colors, which attract attention to the building or use, are unacceptable.
APPLICANT: The proposed siding material are fire resistant fiber cement cladding, and the colors of the building will use earth tones of horizontal Blackwood siding and Poplar plank siding alternating along the larger building exterior of the sides along the breezeways. Vertical plank cedar will be used to separate the patios. Six by eight patio doors at the end of the unit facing the street, with poplar plank dividers and tied together with woven stainless-steel screens. The woven steel is strong and safe, long lasting and allows over 80% transparency which is important for light, views and air flow. Along the base of the buildings are poured concrete foundation base lines. The roof will be a "standing seam" metal roof to accommodate solar panels that power the units, the standing seam is best in deterring water leaks.

F. Streetscape. One street tree chosen from the street tree list shall be placed for each 30 feet of frontage for that portion of the development fronting the street pursuant to subsection 18.4.4.030.E.
APPLICANT:
There is one street tree selected from the street tree list placed every 30-feet of frontage for the portion of the property fronting the street.

G. Landscaping and Recycle/Refuse Disposal Areas. Landscaping and recycle/refuse disposal areas shall be provided pursuant to chapter 18.4.4.
APPLICANT:
The landscape plan complies with landscape area coverage and is covered in the landscape portion of this letter.

H. Open Space. Common and/or private open space is required to be provided pursuant to section 18.4.4.070.
APPLICANT: The site area for private and common open space greatly exceed the minimum required per 18.4.4.070 with a variety of landscape spaces and recreational open spaces. The chapter for landscape is covered in the letter.
END BUILDING PLACEMENT, ORIENTATION & DESIGN CHAPTER 18.4.2

No 9
Preliminary Plat Approval 18.5.3.030

Preliminary Plat Submissions18.5.3.040
A final plat is required if lots are to be sold. Under 18.3.9 Performance Standards Option, Review Procedures 18.3.9.040.B.4.o stipulate that if lots are to be sold, a final plat is required similar to that required for of a subdivision, per chapter 15.5.3 Land Division.
APPLICANT: Preliminary Plat Approval is a Type I procedure under Chapter 18.5.3. The Applicant has multiple participating security interest that will require individual Deeds, and a plat with separate parcels is required for securitization of divided interest.

18.5.3.030 Preliminary Plat Approval Process

A. Review of Preliminary Plat.

2. Subdivisions. Preliminary plat for subdivisions is subject to the approval criteria in section 18.5.3.050 and are reviewed through the Type II procedure, pursuant to section 18.5.1.060.

APPLICANT: The application for Performance Standards Subdivision is being requested and complies with the Type II procedure.

NOTE 18.3.9.020 The Performance Standards option may be used to divide residential and non-residential zoned land.

18.5.3.070 Preliminary Subdivision Platt Criteria

A. Approval Criteria. The approval authority, pursuant to subsection 18.5.3.030.A may approve, approve with conditions or deny a preliminary subdivision plat on findings of compliance with all of the following approval criteria.

1. The subdivision plan conforms to applicable City-adopted neighborhood or district plans, if any, and any previous land use approvals for the subject area.

APPLICANT: The plan complies with the zoning of R 2 of the underlying zoning.

2. Proposed lots conform to the requirements of the underlying zone, per part 18.2, any applicable overlay zone requirements, per part 18.3, and any applicable development standards, per part 18.4 (e.g., parking and access, tree preservation, solar access and orientation).

APPLICANT: The proposal is submitting under the Performance Standards criteria and ‘‘developments subject to this chapter 18.3.9.020 are not required to meet the minimum lot size, lot width, lot depth, and setback standards of part 18.2 and other standards as specifically provided by this chapter. The Performance Standards option may be used to divide residential and non-residential zoned land.

3. Access to individual lots necessary to serve the development shall conform to the standards contained in section 18.4.3.080 Vehicle Area Design.

APPLICANT: The application meets the criteria of 18.4.3.080 as demonstrated in this letter and the explanations of how these criteria are met under the specific Chapter 18.4.3 submitted herein.

4. The proposed streets, utilities, and surface water drainage facilities conform to the standards in chapter 18.4, and allow for transitions to existing and potential future development on adjacent lands. The preliminary plat shall identify all proposed public improvements and dedications.

APPLICANT: The application meets the criteria of 18.4.6 as demonstrated in this letter and the explanations of how these criteria are met under the specific Chapter 18.4.6 submitted herein

5. All proposed private common areas and improvements, if any, are identified on the preliminary plat and maintenance of such areas (e.g., landscaping, tree preservation, common areas, access, parking, etc.) is ensured through appropriate legal instrument (e.g., Covenants, Conditions and Restrictions (CC&Rs).

APPLICANT: All common and private areas are noted on the plan and CC&R's are attached specifying the responsibility of each lot share of cost as they relate to the common area including open spaces, parking and walkways, and everything outside the lot line of the individual lot.

6. Required State and Federal permits, as applicable, have been obtained or can reasonably be obtained prior to development.
APPLICANT: The Jurisdictional Authority for the highway has preliminary approved all plans and designs for the work within its jurisdiction. There is an easement with the Bureau of Reclamation and Talent Irrigation District for an irrigation easement. Approvals under the easement agreement restrictions are designed into the development as far as setback and non-Buildable areas.

B. Conditions of Approval. The approval authority may attach such conditions as are necessary to carry out provisions of this ordinance, and other applicable ordinances and regulations.
END LAND DIVISION AND PROPERTY LINE ADJUSTMENTS CHAPTER 18.5.3

No 10
LANDSCAPING LIGHTING AND SCREENING CHAPTER 18.4.4

CHAPTER 18.4.4
Includes design standards for landscaping and screening in residential projects that are subject to Site Design Review. Recycling and refuse disposal areas are subject to Site Design Review too. Design standards for lighting outdoors, and fences and walls are included in this section. Open space applies to residential development subject to Site Design Review and Performance Standards Option. The chapter establishes standards for common open space.

18.4.4 LANDSCAPING,
Section 18.4.4.070 establishes standards for open space and applies to residential developments that are subject to chapter 18.5.2 Site Design Review, and/or 18.3.9 Performance Standards Option and PSO Overlay. Certain sections of this ordinance require common and/or private open space as part of review under chapter 18.5.2 Site Design Review, or chapter 18.3.9 Performance Standards Option and PSO Overlay. Certain other sections allow common open space to be provided in order to obtain density bonuses. All those sections reference section 18.4.4.070which establishes standards for common and private open space.

APPLICANT: The completed landscape and irrigation plan are attached to the application. The Open Space, Common Area, and private space are covered earlier and are included in the Landscape plans and conform to its standards.

18.4.4.030 LANDSCAPING LIGHTING AND SCREENING
A. General Landscape Standard. All portions of a lot not otherwise developed with buildings, accessory structures, vehicle maneuvering areas, parking, or other approved hardscape shall be landscaped pursuant to this chapter.

APPLICANT: The minimum required is 8% and the plan demonstrates that 16% exceeding the criteria.

B. Minimum Landscape Area and Coverage. All lots shall conform to the minimum landscape area standards of the applicable zoning district (see Tables 18.2.5.030.A through C for residential zones and Table 18.2.6.030 for non-residential zones). Except as otherwise provided by this chapter, areas proposed to be covered with plant materials shall have plant coverage of not less than 50 percent coverage within one year and 90 percent coverage within five years of planting.

APPLICANT: The proposed landscape coverage is 59.7% and 90% will be covered in five years. The application Plans demonstrates the landscape area propose meets the minimum and exceeds it substantially. The plan is designed to provide the 50% coverage within one year and 90 % in five years.

C. Landscape Design and Plant Selection. The landscape design and selection of plants shall be based on all of the following standards:

D. Tree Preservation, Protection, and Removal. See chapter 18.4.5 for tree protection and preservation and chapter 18.5.7 for tree removal permit requirements.

E. Street Trees. The purpose of street trees is to form a deciduous canopy over the street. The same effect is also desired in parking lots and internal circulation streets; rows of street trees should be included in these areas where feasible. All development fronting on public or private streets shall be required to plant street trees in accordance with the following standards and chosen from the recommended list of street trees.

18.4.4.040 Recycling and Refuse Disposal Areas

APPLICANT: Landscape Design and plants selection is outlined in the Landscaped Architect and Civil Engineer Plan including tree preservation, street trees, protection and removal plans. The site plan demonstrates the new residential development has common refuse areas that include recycling areas. All areas are well screened and easily assessable to residents and truck pick up.

18.4.4.050 Outdoor Lightning

A. Purpose. This section contains regulations requiring adequate levels of outdoor lighting while minimizing light spillover onto adjacent properties

B. Applicability. All outdoor lighting is subject to the requirements of this section. Where a proposed development is subject to Type I, Type II, or Type III review, the approval authority may require specific lighting levels or limit lighting as a condition of approval to protect the public health, safety, and welfare.

APPLICANT: Adequate lighting is demonstrated in the site plans and the landscape plans by a certified landscape architect.

END LANDSCAPING LIGHTING AND SCREENING CHAPTER 18.4.4

No 11

18.4.4.070 OPEN SPACE

A. Required Area. Table 18.4.4.070.A. contains the minimum areas when common or private open space is required by this ordinance. See definition of open space in part 18.6.
From Table 18.5.2 Site Design Review, and 18.3.9. Performance Standards Option and PSO Overlay Minimum Total Area Required for Open Space is 8% of total lot area. Minimum Common is 4% of total lot area for development with a base density of 10 units or more. Maximum Area Allowed in Private Open Space is 4% of total lot area for developments with a base density of 10 or more unite or more. /Density bonus Available for common and open area in excess of base requirement is after 8% of total lot area is met
APPLICANT The application meets the standards under this chapter and table as demonstrated in the attached Landscape Plan and Site Plans. A tabulation chart is attached for explanation of area quantities.

B. General Standards.
1. Common and Private Open Space. For developments that are subject to chapter 18.5.2, Site Design Review, the required open space area may be met by combining common and private open spaces meeting the requirements of this section.
APPLICANT: The application is subject to site design review and the required open space area is met without using the private space portion in the calculation.

5. Ownership and Maintenance. Common open space shall be set aside as common area for the use of residents of the development. Maintenance of common open space shall be the responsibility of the property owner(s) or by an association of owners (i.e., homeowners' association).
APPLICANT: CC&R will be controlling the maintenance of the common areas through budgets and assessments to the individual lots/building and all the criteria in this section complies.

C. Common Open Space. Common open space that is provided to meet the minimum required open space area in subsection 18.4.4.070.A shall meet the following standards. See definition of common open space in part 18.6.
APPLICANT: The open space requirement in common area is met and nearly double the requirement and includes many of the features allowed in this section items 1-5 below.
1. Dimensional Standards. Common open space shall have no dimension that is less than 20 feet and a minimum area of 400 square feet, except as described below.
a. Pedestrian Connections. Walkways and multi-use paths shall contribute toward meeting the required common open space area when at least one common open space is provided that meets the dimensional standards in subsection 18.4.4.070.C.1, above. Pedestrian connections may be located within a required buffer or perimeter yard area. Sidewalks in the public right-of-way (i.e., public street) and walkways providing access to individual units may not be counted towards this requirement.

b. Natural Features. Common open space may include areas that provide for the preservation or enhancement of natural features that meet the requirements of this section and the definition of common open space. See definition of common open space in part 18.6. Natural features located in common open space shall be counted toward meeting common open space requirements. Natural features may be located within a required buffer or perimeter yard area.

2. Location. Common open space shall not be located within a required yard abutting a street, except for pedestrian connections and natural features as provided in subsection 18.4.4.070. above.

3. Slope. Common open space designed for active use, such as lawn and picnic areas, shall be located on slopes less than five percent, except for areas regulated by the Building Code (e.g., walkways). Natural features designed for passive use, such as riparian corridors and wetlands, may be located on slopes greater than five percent.

4. Improvements.

a. Structures. Common open space may include structures and outdoor furniture typically associated with outdoor recreation such as decks, gazebos, arbors, benches, and tables. Structures located in common open space shall be unenclosed and uninhabitable. Unenclosed for the purpose of this subsection means 50 percent or more of the walls are 42 inches in height or less, but the structure may be covered.

b. Fences and Walls. Fences, walls, hedges, and screen planting that are located on the perimeter of common open space shall not exceed four feet in height, except that fences in front yards and on the perimeter of the development shall meet the fence height requirements of the section. This requirement shall not apply to fences located on properties adjoining but not located within a proposed development.

c. Landscaping. Common open space shall be landscaped in accordance with section 18.4.4.030, Landscaping and Screening, except for natural features as provided in subsection 18.4.4.070.C.1 above.

5. R-2 and R-3 Zones. In addition to the standards in subsection 18.4.4.070.C, above, common open space in the R-2 and R-3 zones shall meet the following requirements:

a. Surfacing. A minimum of 50 percent of the common open space must be covered in suitable surfaces for human use, such as lawn areas, durable lawn alternatives, recreational fields, or courts. Up to 50 percent of the common open space may be covered by shrubs, mulch, and other groundcovers that do not provide suitable surfaces for human use if the area is usable for the intended residents, such as community gardens or a natural feature with benches and walking paths.

b. Play Areas. Play areas for children are required for projects of greater than 20 units that are designed to include families. Play areas are eligible for common open space.

D. Private Open Space. Private open space that is provided to meet the minimum required open space area in subsection 18.4.4.070.A shall meet the following standards. See definition of private open space in part 18.6.

1. Eligible Spaces. Decks, patios, porches, balconies, side and rear yards, and similar areas are eligible for private open space.

a. Access. Private open space shall be directly accessible by a door from the interior of the individual dwelling unit served by the space.

b. Walkways and Storage Space. The minimum area required for private open space shall not include area for ingress and egress to a ground-floor dwelling unit (e.g., walkway to dwelling

unit door) or storage space (storage or bicycle rack). The ingress and egress area shall be measured as 36 inches in width and the length of the pedestrian route.
2. Ground-Floor Dwelling Units. Decks, patios, porches, or yards shall be at least six feet deep and measuring at least 48 square feet. Ground-floor private open space shall not be located within 12 feet of recycling and refuse disposal areas. See definition of ground-floor dwelling unit in part 18.6.
3. Upper-Floor Dwelling Units. Balconies shall be at least six feet deep and measuring at least 48 square feet. See definition of upper-floor dwelling unit in part 18.6.
APPLICANT: Private space for individual units is not open to any others or near trash and recycling areas but are only adjacent immediate to the residential unit. The size is 6 ’x 12 ’ which is 50% greater than the criteria on all upper floors. Ground floor units are 228 sq feet and 6 feet deep. This section is me.
END **18.4.4.070 OPEN SPACE**

No 12
18.4.5 Tree Protection Plan

A. Tree Protection Plan. A tree protection plan shall be approved by the Staff Advisor concurrent with applications for Type I, Type II, and Type III planning actions.
APPLICANT: Protection plans are within the Landscape and Engineering Plan designs and in accordance with the protection measures outlined in this chapter.

END

THANK YOU

ROBERT J KENDRICK
KENDRICK ENTERPRISE LLC
CASITA DEVELOPMENTS LLC

GRAND TERRACE APARTMENTS

Robert J Kendrick
Casita Developments/Grand Terrace Apartments
716 N Laurel St
Ashland Or 97520

January 5, 2024

Ashland City Council
c/o Brandon Goldman
Director of Community Development
City of Ashland Oregon
Community Development
51 Winburn Way, Ashland, Oregon 97520

Dear Ashland City Council,

Re: Request to City Council to waive any fee that is a Duplication Fee for the Grand Terrace Apartments Application No 3.

An application fee of $26,876.00 was previously paid for the Grand Terrace Apartment by Casita Developments LLC. The city is requesting another $30,000 to resubmit the same application.

This is a request to waive a duplicative fee based on an already complied review. This is punitive. Current state law concurs also because repeating the application process is redundant and includes months of hearings and there is no change in standards or criteria for which the project was already approved under. The applicant will be going through this long arduous process again so paying a fee in addition is excessive.

The application has been approved by Ashland two previous times and approved upon Remand by the Planning Commission in September of 2023. The application was withdrawn at the following City Council Hearing the next month in October 2023 because the applicant was advised by their legal counsel any approval would likely be appealed.

LUBA had remanded the City's approval on two counts. One, the application date was preceding the new parking mandate date, the Goal Post Rule, which the application was submitted upon. Second, the architect did not label 500 sq ft on the plans and LUBA found the application didn't comply because the units were noted at 499.98 sq ft and 265 sq ft and not 500.

At the mandate hearing, the applicant was able to prove the units were 500 sq ft and did comply. For the application date Staff supported approval because the applicant would have to resubmit the same application under the same criteria, and it would be a waste of time. Before the City Council could vote on the Planning Commission recommendation the applicant withdrew the application because his attorney noted that a city approval would be very likely overturned upon an appeal on the Oregon State Goal Post Rule.

In accordance with new legislation SB 1537 an application for residential development that was made under the existing standards and criteria, the applicant can request to use the new standards that came into effect during the application period if the application is pending, this is “opt in”. The city may not require the applicant to pay a duplicative fee based on the complied review, resubmit a new application or duplicative information, or repeat redundant processes or hearing that are inapplicable to the change in standards or criteria.

New legislation also requires anyone that appeals a project like Grand Terrace to pay the applicant’s legal fees and other associated costs if they should lose their appeal. Grand Terrace apartment development project is defined in ORS 197.303 as “needed housing in the urban growth boundary that meet the need at price ranges and rent levels that are affordable to the households within the county with a variety of incomes”. This makes it eligible for redress.

If this legislation came into effect during the applicant’s appeal, the city would have abided by the new legislation by not requiring another fee or for the developer to go through another redundant hearing process and the applicant would have sued the appellant.

Background and history.
Application No 1. The developer began the application process in 2014. Ten years ago, It went through a couple Site Plan Reviews and Planning Commission hearings where it was approved and forwarded to the City Council who then approved the application in 2020. Craig Anderson the Staff Director of Rogue Advocates argued against its approval and appealed it to LUBA in 2021. LUBA rescinded the City’s approval because the annexation code did not allow for exceptions to street standards along Highway 99.

Application No 2. The applicant waited for the city to update the ordinance so they could reapply. The new application was resubmitted with the new revisions to the annexation code in 2022. The Planning Commission heard the revised application, and at the first public hearing, Steve Rouse President of Rogue Advocates ask for a delay of the hearing for time to submit their comments. The request was granted. The following month a hearing was held for Rogue Advocates to submit their comments, but they didn’t appear or submit their comments but did cause another delay. This was their intent. The Planning Commission finally finished their hearings and forwarded a recommendation to the City Council to approve the application.

The City Council then held public meetings on the commissions findings and again it was argued against by Craig Anderson of Rogue Advocates. Their argument was mostly innuendo with the implications of corruption between the city and the applicant, but nothing of material substance to the development but this gave them standing so they could appeal later. After a couple of months of hearings, the City Council approved the application in December 2022. Rogue Advocated appealed the decision the following month on 11 counts of error, nine of

which were farcical and denied by LUBA. Two 2 counts were sustained and sent back to the city to address. This was a Remand.

Remand Application Hearing. The first remand item addressed the affordable unit size of 500 sq ft which was required under the annexation criteria. The application plans had 30 affordable 265 sq ft studio units and 190 one-bedroom units at 499.98 sq ft. On an omission by the applicant's architects floor plans they failed to write the number 500 sq ft in place of 499.98 sq ft and the architect corrected the notes to show the 500 sq ft for the Planning Commission to review at the remand hearing.

The second remand item was on parking mandates. The State had removed parking mandates in 2022 before the application was submitted but the law wasn't to take effect until January 2023. LUBA denied the application because the application was made before the law was in effect. This is known as the Goal Post rule.

It was staff recommendation and understanding that the application would comply with the new law and recommended approval because it was needed housing and having the applicant make another duplicate application was time consuming and a burden to the applicant. At the Remand hearing the Planning Commission approved the corrected remanded items and forwarded their approval to the City Council in October of 2023.

Application Withdrawn. On the day of the City Council hearing and upon the advice of the applicant's attorney the applicant withdrew their application. The applicant's attorney noted that a city approval would be very likely overturned upon an appeal. Because the Goal Post rule argument had no precedent to argue upon, the attorney felt there was no winnable argument. Another appeal would cause more time and damages, and it was to the best interest for everyone to withdraw the application.

Legislation "Opt In". With the help of the State Legislature Representative Pam Marsh introduced legislation to amend the goal post law. SB 5703 was passed by the state in June 2024 and amended the Goal Post so that an applicant can "opt in" if an application was made before any land use laws are later made. The basis for their decision was another application was "redundant and caused additional duplicate fees" and it wasn't fair. This is the same argument the City Staff made.

The current law stipulates that any "pending applications can Opt In". Allows a housing developer with a "pending application" to opt in to amended local land use regulations and expands eligibility for attorney fees for the appeal of a residential development proposal to include local governments and all needed housing

Not only has Grand Terrace incurred years of time and hundreds of thousands of dollars in attorney fees, Rogue Advocates and their Staff Director Craig Anderson would use social media to slander the applicant personally until the applicant's attorney served Rogue Advocates and

Craig Anderson with cease and desist papers and a request for an apology. Steve Rouse the president of Rouge Advocates and Craig Anderson both apologized.

This has got to stop. The State Legislature has stepped up and is starting to put the brakes on these delays that hurt needed housing. We can get the housing our community needs, and with your help in waiving another duplicative fee the council will be making the statement that this needs to stop so we can move forward.

Your acceptance of this request is the right thing to do. The applicant will submit another application for the development again the day after your approval to waive the duplicative fee.

Fee's Paid
No 1 $8,397.25
No 2 $18.478.75
Total $26,876.00

Sincerely

Robert Kendrick
Grand Terrace
Casita Developments LLC

DECLARATION OF COVENANTS, CONDITIONS, AND RESTRICTIONS
GRAND TERRACE APARTMENTS

A. PLANNED UNIT DEVELOPMENT
Casita Developments LLC, an Oregon limited liability company, is the Owner in fee simple of real property commonly referred to as Casita Developments Subdivision Grand Terrace Apartments (hereinafter referred to as "GTD" located in the City of Ashland, County of Jackson, State of Oregon, more particularly described in Exhibit "A," Parcel

RECITALS, INTENT, AND PURPOSE

A. The Grand Terrace Apartments is a Class II Planned Community and is subject to the Planned Community Act (ORS 94.550-94.783)

B. The Grand Terrace Apartments Bylaws have been adopted under ORS 94.625 and shall be recorded herewith.

C. It is the desire and intention of Declarant to subject the Grand Terrace Apartments to the covenants, conditions and restrictions set forth in this Declaration.

DECLARATION
Now, therefore, Declarant hereby declares that Grand Terrace Apartments shall be held, conveyed, hypothecated, encumbered, leased, rented, used, occupied and improved, subject to the following covenants, conditions and restrictions, all of which are in furtherance of a plan for the subdivision, of said improvement and to sell, transfer, collateralize, make partial assignments, subordinations, blanket mortgages with right to release portions thereof, encumber lots independently of the other lots as an interrelated development, and which are established for the purpose of enhancing and perfecting the value, desirability and attractiveness of the Grand Terrace Apartments. All of the covenants, conditions and restrictions herein set forth shall run with the Grand Terrace Apartments and shall be binding on all parties having or acquiring any right, title or interest in the Grand Terrace Apartments or any part thereof, and shall be for the benefit of each Owner of any portion of the Grand Terrace Apartments, or any interest therein, and shall inure to the benefit of and be binding upon each successor in interest of such Owners.

NAME
The name by which the subdivision shall be known as is Grand Terrace Apartments

ARTICLE 1 DEFINITIONS

In addition to the terms defined in ORS Chapter 94 and elsewhere defined herein, the following terms shall have the following meanings whenever used in this declaration.

1.1 Articles; Bylaws. The Bylaws are recorded herewith in the Official Records of Jackson County, attached as Exhibit "D", and incorporated herein by reference and made a part thereof.

1.2 Association. Grand Terrace Homeowners' Association.

1.3 Board. The Board of Directors of the Association.

1.4 City Code. The code and any other relevant ordinances, laws, or regulations of the City of Ashland, Oregon.

1.5 Common Area/Open Space. All of the property described in Exhibit “A” TRACT MAP less the Lots as defined in Section 1.10 below, as depicted in the site plan at “Exhibit “C” incorporated herein by reference, and which includes open space.

1.6 Declarant. Casita Developments LLC, its successors and assigns.

1.7 Declaration. This Declaration as from time to time amended or supplemented.

1.8 Building. A two-story multifamily residential structure consisting of 21 apartments with a walk out basement, including patio’s, walkways, exterior stairways, 25 sheltered bike parking areas, laundry room, electrical room, fire riser room constructed on a Lot by the Declarant or by a successor Owner. Building is also referred to as a “Multi-Family Apartment Building” or “Building”.

1.9 Apartment. A residential living unit within a building.

1.10 Lot. That portion of the property described in Exhibit “A” conveyed or to be conveyed by the Declarant to an individual Owner in fee simple.

1.11 Lot Declaration. A Lot shall exist from and after the date of recording an instrument making such Lot subject to this Declaration.

1.9 Fiscal Year. The fiscal year shall run from January 1 through December 31

1.11 Rental Unit. A unit of a building that is occupied by a tenant.

1.11 Mortgage. Mortgage or a deed of trust of record encumbering a Lot. The term "mortgagee" shall include the beneficiary under a deed of trust and the vendor under a recorded land-sale contract or recorded memorandum of a land-sale contract.

1.12 Owner. The record Owner or Owners, if more than one of a Lot, including Declarant and including a vendee under a recorded land-sale contract or recorded memorandum of land-sale contract.

1.13 Private Outdoor Area. The portion of a Lot not occupied by the Building, subject to maintenance by the Lot owner including it’s garden areas if any, patio’s, porch’s, walkways, stairs, sheltered bike parking areas, bike parking fixtures, laundry rooms, electrical rooms, fire riser room, mail boxes, or other physical appurtenance to such structure, constructed on a Lot by the Declarant or by a successor Owner

1.14 PUD. All of that real property constituting the Casita Development LLC Subdivision as described on Exhibits “A” and “B” attached hereto.

1.15 PUE. An easement for utilities being a Public Utility Easement and Bureau of Reclamation easements, as shown on the final plat of this Subdivision.

1.16 Grand Terrace Apartments. The real property described on Exhibit “B” attached hereto which has been developed as a Planned Unit subdivision of Multi Family residential apartment buildings.

1.17 Wetland Reserve Area. A wetland is a biological area consisting of protected plants and other organic species. The GTD includes a protected area wetland where entry is prohibited for the protection of the environment.

1.18 Successor Owner. The owner of a Lot purchased from Declarant or purchased from another Successor Owner.

1.20 Maintenance Agreement. That Maintenance Agreement recorded in the official records of Jackson County on December, _____2024, as Document No. _____ 00000000 setting forth the shared obligations for maintenance of the PUD common area.

1.21 Affordable Units. An apartment with a restricted rent level in accordance with Housing and Urban Department standards and overseen by the City of Ashland, Oregon.

1.22 Restricted Rent. The level of rent an affordable unit in any building can ask from a tenant or tenants in monthly rent for an apartment.
1.23 Rent Restriction Period. The number of years a unit is required to be affordable is 60 years from the date the unit is first rented and becomes available to rent by owner at market rent level.

ARTICLE 2

2.1. Organization. The Association is a nonprofit corporation charged with the duties and vested with the powers prescribed by law and set forth in the Articles, the Bylaws, and this Declaration. Neither the Articles nor Bylaws shall, for any reason, be amended or otherwise changed or interpreted so as to be inconsistent with the Declaration. In the event of any such inconsistency, the provisions of this Declaration shall prevail. The Board, and such officers as the Board may elect or appoint, shall conduct the affairs of the Association in accordance with the Articles and Bylaws as from time to time amended.

2.2 Membership. Each Building Owner shall be a Member of the Association and shall be entitled to one membership for each BUILDING owned on a LOT. Each Member shall have the rights, duties, and obligations set forth in this Declaration, the Articles, the Bylaws, and the Association Rules as the same may from time to time be amended and such membership shall not be assigned, transferred, pledged, conveyed, or alienated in any way except upon the transfer of title to such Lot and then only to the transferee of title thereto. Any transfer of title to a Lot shall operate automatically to transfer the membership or memberships in the Association appurtenant thereto to the new Owner thereof. For purposes of membership, the recording of a land-sale contract shall constitute a transfer of the title to a Lot.

2.3 Voting.
(a) Members Entitled to Vote. Only Members of the Association shall be entitled to vote. The voting privileges of Members shall be as provided herein. Any action by the Association which must have the approval of the Association membership before being undertaken shall expressly require the vote or written assent of a prescribed percentage of the total voting power of the Association as more particularly stated within the Declaration. The Association shall have two classes of voting:

(1) Class A Members. Class A Members shall have one (1) vote for each building built on his or her Lot. When more than one person owns a single Lot, all Owners shall be Members of the Association. However, the vote allocated for each building on the Lot must be cast as a unit, and fractional votes shall not be allowed. In the event that joint Owners are unable to agree among themselves as to how their vote or votes shall be cast, they shall lose their right to vote on the matter in question. If any Owner (or Owners) casts a vote representing a certain building on a Lot, it will thereafter be conclusively presumed for all purposes that such Owner(s) was acting with the authority and consent of any other Owners of said building on the Lot. The right to vote may not be severed or separated from the Lot ownership to which it is appurtenant, and any sale, transfer, or conveyance of such Lot to a new Owner(s) shall operate to transfer the appurtenant vote or votes, in the case of multiple buildings, without the requirement of any expressed reference thereto.

(2) Class B Members. The Class B Member shall be the Declarant, its successors and assigns. The Class B Member shall be entitled to three (3) votes for each Building on a Lot in which it holds the interest required for membership as provided in Section 2.3(a) above. Class B membership shall be converted to Class A membership and shall forever cease to exist when one- hundred percent (100%) of the lots are conveyed to retail Owners other than Declarant.

(b) Voting Procedures. Any vote may be cast in person or by proxy. All proxies shall be in writing, dated, and signed by the Owner giving the proxy and filed with the Secretary before the commencement of any meeting. The proxy shall terminate eleven (11) months after its date, unless the proxy specifies a shorter term. Every proxy shall automatically cease upon the sale of the Lot by the Owner and upon the death or incapacity of the Member who executed the proxy

(c) Declarant’s Right to Vote. Notwithstanding any other provision of this Declaration, and except as provided in Section 10.1, any provision of this Declaration that provides for approval by a prescribed percentage of Members' votes, other than the Declarant, shall be effective and construed also to require the affirmative vote of a majority of the total votes of all Members, including the Declarant.

(d) Suspension of Voting Rights. The voting rights of an Owner shall be suspended during any period in which an assessment due hereunder from such Owner remains unpaid; provided, however, that the Board shall give any such Owner at least fifteen (15) days' notice prior to such suspension and such Owner shall be entitled to a hearing before the Board in accord with Section 3.4 of the Bylaws.

2.4 Initial Board of Directors. The initial Board shall be appointed by Declarant. Thereafter, the Board shall be elected as provided in the Bylaws.

2.5 Duties of the Association. The Association shall have the obligation and duties subject to and in accordance with this Declaration to do and perform the following acts for the benefit of its Members and for the maintenance and improvement as follows:

(a) Common Area Maintenance and Operation. To maintain and otherwise manage the Common Area, after such property is conveyed or otherwise transferred to it, all improvements located thereon, all easements for operation and maintenance purposes over the Common Area, and all easements for the benefit of Members and the Association within the Common Area. The Common Area includes but is not limited to the following amenities within the GTD: landscaped open space, hardscape, internal walkways, trash & recycling enclosure area, parking area,

retaining walls, wetlands and bio-swales, recreation and private area's such as meditation gardens and similar area and including basketball courts and tennis courts where such duties in the common area shall consist of:
(1) Removal of any debris deposited by winter storms.
(2) Annual (spring) inspection and startup of irrigation system.
(3) Annual (fall) maintenance of the irrigation system, including inspection of heads, winterization and coverage; and
(4) Semi-annual maintenance of all porous concrete areas in parking area.
(5) Maintenance of all landscape areas within parking areas and sidewalks
(6) Maintenance & repairs of all systems and structures noted as amenities herein or on exhibits.
(7) Maintenance and repairs of all offsite landscaping and walks along the frontage of the development that is not maintained by the City or ODOT.
(8) Maintenance of landscape retaining walls.
(9) Maintenance of all Common Area fencing.
(10) Maintenance of all adjacent lands not maintained by the Southern Pacific Railroad to such level that GTD is protected from economic loss due from vegetation, fire and any other work required by the Association Board.
(11) Utilities. To acquire, provide and/or pay for water, sewer, garbage disposal and pickup, electrical, telephone, gas and other necessary utility services for the Common Area.
(12) Walkways, Mailboxes, Etc. The Association shall, after construction thereof by Declarant as a part of the initial development of the GTD, maintain, repair, replace, reconstruct and relocate pathways, lighting, street signs, any mail and post boxes, as initially designated on the plans filed with the Association or as initially constructed by Declarant.
(13) Other. To perform such other acts whether or not expressly authorized by this Declaration as may be reasonably necessary to enforce any of the provisions of this Declaration, the Bylaws, and the Association Rules.

2.6 Powers and Authority of the Association. The Association shall have all of the powers of a nonprofit corporation organized under the general nonprofit corporation laws of the State of Oregon subject only to such limitations upon the exercise of such powers as are expressly set forth in the Articles, Bylaws, or this Declaration. The Association shall have the power to do any and all lawful things which may be authorized, required, or permitted to be done by the Association under this Declaration, the Articles, and the Bylaws and to do and to perform any and all acts which may be necessary and proper for or incidental to the exercise of any of the express powers of the Association, including without limitation:

(a) Assessments. To levy assessments on the Owners and enforce payment of such assessments all in accordance with the provisions of Sections 3 and 4 of this Declaration.
(b) Right of Entry and Enforcement. To enter upon any Lot for the purpose of performing the duties of the Association set forth in Section 2.5 of this Declaration, in enforcing by peaceful means any of the provisions of this Declaration, or maintaining or repairing any area on each Lot in a neat and attractive manner required to be maintained by an Owner if for any reason such Owner fails to maintain or repair such area. Such entrance upon a Lot shall be after seventy-two (72) hours' prior written notice to the Owner; provided, however, that such entrance shall be permitted upon consent of at least one Board Member without any prior notice in the event of an emergency. An emergency shall be deemed to exist when there is a condition causing peril or threat to persons or property. The Association shall also have the power and authority from time to time in its own name, on its own behalf, or on behalf of any Owner or Owners who consent thereto to commence and maintain actions and suits to restrain and enjoin any breach or

threatened breach of this Declaration and to enforce by mandatory injunction or otherwise all the provisions hereof. These rights will be exercised in such a manner as reasonable to minimize any adverse impact upon the Owner's right of enjoyment of his/her Lot.

(c) Easements and Rights-of-Way. To grant and convey to any third party easements and rights-of-way in, on, over, and under the GTD for the purpose of constructing, erecting, operating, or maintaining thereon, therein or thereunder, overhead, or underground lines, cables, wires, conduits, or other devices for the transmission of electricity for lighting, heating, power, telephone, and other purposes; public sewers; storm water drains and pipes; water systems; sprinkling systems; water and gas lines or pipes; cable T.V. lines; security system lines; and any similar public or quasi-public improvements or facilities.

(d) Employment of Manager. To employ the services of a person or firm to manage The GTD and the affairs of the Association (the "Manager") to the extent deemed advisable by the Board, as well as other such personnel as the Board shall deem to be necessary or proper for the operation of the GTD, whether such personnel are employed directly by the Association or are furnished by the Manager.

(e) Services. To contract for materials and/or services for the GTD or the Association. Any such service contract or management contract pursuant to Section 2.6(d) of the Declaration shall be subject to termination by either party without cause upon thirty (30) days' notice in writing to the other party.

(f) Rules. By majority vote of the Board and from time to time to adopt, amend, enforce, and repeal such rules and regulations as the Board shall determine to be necessary or proper to the operation of GTD (the "Association Rules"). The Association Rules shall govern the use of the GTD by any Owner, by the family of such Owner, or by any invitee, licensee, or tenant of such Owner; provided, however, that the Association Rules may not discriminate among Owners and shall not be inconsistent with this Declaration, the Articles, or Bylaws. A copy of the Association Rules, as they may from time to time be adopted, amended, or repealed, shall be mailed or otherwise delivered to each Owner. Upon such mailing or delivery, the Association Rules shall have the same force and effect as if set forth in and a part of this Declaration. The Association Rules shall not materially change the rights or privileges of any person or the restrictions on any Lot as herein set forth.

ARTICLE 3
FUNDS AND ASSESSMENTS

3.1 Operating Fund. The Association shall establish and maintain an operating fund into which shall be deposited all moneys paid to the Association as regular, special, and emergency assessments and miscellaneous fees and from which fund the Association shall make disbursements in the performance of its rights and duties as provided for in this Declaration.

3.2 Reserve Fund. The Association shall also establish and maintain a reserve fund for replacement of all items of Common Area which will normally require replacement in whole or in part in more than three (3) and less than thirty (30) years including but not limited to: exterior painting, of the Common Area that includes exterior painted surfaces; repaving/resurfacing of parking area and drive aisles, walkways, and for such other items as may be required by this Declaration or the Bylaws. Declarant may defer payment of accrued reserve assessments for a Lot until the Lot is conveyed but not the upkeep. The books and records of the Association shall reflect the amount owing from Declarant for all reserve assessments. The Board annually shall review and, if necessary, update the reserve study and existing maintenance responsibilities for the Common Area to determine the reserve account requirements as

provided in ORS 94.595 as it may be amended from time to time. The operating fund and the reserve fund shall be kept in separate accounts.

3.3 Regular Assessments. Within forty-five (45) days prior to the beginning of each fiscal year, the Board shall estimate the costs and expenses to be incurred by the Association during such fiscal year in performing its rights and duties under this Declaration, including a reasonable provision for unanticipated expenses and replacements and less any anticipated surplus from a prior year's fund provided that the Board may not, without the vote or written assent of the majority of the voting power of the Association residing in Members other than the Declarant, impose a regular annual assessment per Lot which is more than twenty percent (20%) greater than the Regular Assessment for the immediately preceding fiscal year. Such estimated amount shall be assessed equally to the Owners. The amount per Lot so assessed to each Owner is called the "Regular Assessment." The Regular Assessment shall include the Association’s share of maintenance for the PUD, as provided in the Maintenance Agreement.

3.4 Special or Emergency Assessments. In addition to the Regular Assessments, the Board may levy during any fiscal year a special or emergency assessment applicable to that year only for the purpose of defraying in whole or in part the cost of any construction, reconstruction (including reconstruction costs in excess of insurance proceeds), repair of any common watered areas or utilities, unexpected repair or replacement of a capital improvement, including the necessary fixtures and personal property related thereto, or any extraordinary expenses not contemplated by this Declaration of whatsoever nature provided that in any fiscal year the Board may not, without the vote or written assent of a majority of the voting power of the Association residing in Members other than the Declarant, levy special or emergency assessments to defray the costs of any action or undertaking on behalf of the Association which in the aggregate exceeds five percent (5%) of the budgeted gross expenses of the Association for that fiscal year. No special or emergency assessment shall be levied with respect to the initial construction of the GTD, it being understood that all such construction shall be at the sole cost and expense of the Declarant. Except as otherwise provided herein, special and emergency assessments shall be assessed to the Owners equally and shall be paid as the Board shall determine. The provisions herein with respect to special and emergency assessments do not apply in the case where the special assessment against a member is a remedy utilized by the Board to reimburse the Association for costs incurred in bringing the Member and his/her Lot into compliance with the provisions of this Declaration or the Bylaws.

3.5 Reimbursement Assessment. The Board shall levy an assessment against any Owner who has failed to comply with or has breached this Declaration or the Association Rules or Bylaws for whom moneys or expenses were expended or incurred by the Association from the operating fund in performing its functions or enforcing the provisions of this Declaration, the Association Rules, or Bylaws. Such assessment shall be for the purpose of reimbursing the Association and shall be limited to the amounts expended or incurred, along with any penalties or interest, and shall be due and payable to the Association when levied.

3.6 Payment of Assessments. Each Owner shall be obligated to pay Regular Assessments made pursuant to this Article 3 to the Association in equal monthly installments on or before the first day of each month in advance or in such other manner as the Board shall designate. The Board shall provide each Owner with a statement of the annual assessment within ten (10) days prior to the beginning of each fiscal year but shall not be obligated to provide monthly statements to any Owner thereafter. Special assessments shall be payable in such manner as the Board shall designate.

3.7 Commencement of Assessments. The Regular Assessments shall commence as to each respective Lot upon the close of the sale of the Lot to someone other than the Declarant, or such later date as Declarant may determine. The first Regular Assessment shall be adjusted according to the number of months remaining in the fiscal year, and the initial payment due with respect to a partial month from an Owner, other than the Declarant, shall be prorated as of the close of escrow for the purchase of such Owner's Lot. Notwithstanding any other provisions herein, in the event that assessments benefit fewer than all of the Lots such costs may be assessed exclusively against those benefitted Lots.

4.1 Covenant to Pay Assessments. Declarant covenants for each Lot owned and each Owner, other than Declarant, by acceptance of a deed to a Lot, shall be deemed to covenant to pay assessments levied in accordance with Article 3.

4.2 Enforcement. Each assessment levied hereunder shall be a separate, distinct, and personal debt and obligation of the person who is the Owner of such Lot at the time such assessment became due and payable. In the event of a default in payment of any such assessment, the Association may enforce each such obligation by any and all remedies provided by law. In the event the Association brings an action to enforce each such assessment obligation, any judgment rendered in any such action shall include a sum for reasonable attorney fees in such amount a the court may adjudge against the defaulting Owner, including reasonable attorney fees on appeal.
At any time when an assessment of any type provided for by this Declaration or an installment thereof is delinquent, the Association, by and through its Board or designated agent, may file a notice of lien in the deed records of Jackson County, Oregon, against the Owner and Lot to which the assessment pertains as provided by ORS 94.709.
Notwithstanding any other provision of this document, any general, special or other assessment levied under the authority of this document against a lot in the GTD shall at all times be second, inferior and subordinate to the lien of a mortgage or deed of trust and other related loan or security instrument in favor of a bank, lending institution, or any private entity, and this provision may not be altered or amended withou.

ARTICLE 5
ARCHITECTURAL AND LANDSCAPE CONTROL.

5.1 Board Review of Landscape and Architectural Plans. All buildings are to be built in accordance with the approved GRAND TERRACE Planned Unit Development Building Plans. It shall be the duty of the Board to consider and act upon all proposals or plans submitted to it pursuant to the terms hereof to ensure that overall building designs, and exterior finishes by anyone other than Declarant shall conform to the uniform plans of all buildings designed by the Declarant, Casita Developments LLC, and approved by the City of Ashland. Exhibits “B & C”. All approvals given under this Article 5 shall be in writing.

5.2 No lot owner shall make any alterations to the exterior, interior, landscape areas, sidewalks, breezeways, laundry rooms, electrical rooms, bike parking, covered bike improvements, stairs or any

other lot improvements that do not conform to the plans by Casita Developments LLC, the Declarant, and approved by the City of Ashland in Exhibit “C & D”.

5.2 Architectural Rules. The Board may, from time to time, in its sole and absolute discretion, adopt, amend, and repeal rules and regulations to be known as "Architectural Rules" only where they conflict with the Special Limitations in Section 5.3. Said rules shall interpret and implement this Declaration by setting forth the standards and procedures for any Board review and the design guidelines for architectural design, placement of buildings, landscaping, exterior finishes, and materials, and similar features which are to be used within the GTD. These rules shall not conflict with the special limitations set forth in this Declaration.

5.3 Special Limitations. It shall be the duty of the Board to consider and act upon all proposals submitted to it pursuant to the terms hereof to ensure that overall building, conform to the same design and improvements by anyone other than Declarant and that they conform to the uniform plans of all buildings designed by the Declarant Casita Developments LLC, as approved by the City of Ashland.
(a) All building built on any lot within the GTD site shall use the Boards approved contractor and the same set of plans approved by the City of Ashland.
(b) Insurance. All work must contain a course of construction insurance policy for the value of the building and the GTD HOA and Board are to be named as additional insured, indemnified and held harmless
(c) Plans of all buildings designed by the Declarant Casita Developments LLC, and as approved by the City of Ashland must be used on any Lot.
(d) Both interior floor plans and exterior design and associated improvements on said lot shall remain the same and consistent with the approved plan.
(f) No building lot owner shall change the design or density of the building.
(d) No unit can be changed in size, or any building be changed in mix of unit type, style or size.
(h) No interior walls or dividers can be moved and all floors, ceilings, lighting, HVAC systems, plumbing, kitchens, bathrooms or patios must remain the same.
(i) Dedicated Affordable Units approved for the building on the lot must remain affordable for the term of the agreement with the City of Ashland.
(j) No lot owner shall make any alterations to the exterior, interior, landscape areas, sidewalks, breezeway.
(k) The laundry rooms, electrical rooms, bike parking, covered bike improvements, stairs or any other lot improvements are to be built according to the plan by the Declarant, Casita Developments LLC, and approved by the City of Ashland.
(l) Landscaping on each Lot shall comply with the GTD approved landscape plan.
(m) Prior to construction the owner shall ensure all contractors are licensed and bonded.
(n) Require lien waivers, keep detailed records of payments and contracts and provide such to the Board on demand.

5.4 Application for Approval of Improvements. Any Owner, except the Declarant and its designated agents, proposing to perform any work of any kind which requires the prior approval of the Board pursuant to any provision in this Declaration, shall apply to the Board for approval by notifying the Board of the nature of the proposed work in writing and furnishing such information as the Board may require.

5. 5. Completion of Work. An Owner other than Declarant and it’s agents, shall complete the construction, reconstruction, refinishing, or alteration of any such improvement approved by the board within twelve (12) months of ownership except for so long as such completion is rendered impossible or

will result in great hardship to the Owner due to strikes, fires, national emergencies, natural calamities, or other supervening forces beyond the control of the Owner or his/her agents.

5. 6. Inspection of Work. Inspection of work and correction of defects therein shall proceed as follows:
(a.) All construction timelines shall be provided to the Board prior to the start of construction and approved by the Board.
(b) lot owners' or their consultants shall provide the Board with progress reports.
(c) The Board shall be given all lender payoffs and lien releases.
(d) Names and address and contact information of construction lenders, bridge and take out lenders and all lien holders.
(e) Upon the completion and provide the Notice of City Occupancy Permit.
(f) Copies of permits
(g) Notice of Completion and report to the Board that such improvement where constructed, reconstructed, altered, or refinished to substantial compliance with the approved plans.
(h.) If for any reason the Board fails to notify the Owner of any noncompliance within forty-five (45) days after receipt of said notice of completion from the Owner, the improvement shall be deemed to be in accordance with the said approved plans.

5.7 Compliance. If the Board finds that such construction, reconstruction, alteration, or refinishing was not done in substantial compliance with the approved plans, it shall notify the Owner in writing of such noncompliance specifying particulars of noncompliance and shall require the Owner to remedy such noncompliance.
(a) If the Owner fails to comply with this Section 5. the Board shall proceed in accordance with the provisions of Section 5. as though the failure to complete improvement were noncompliance with approved plans.
(b) Landscaping on each Lot shall comply with the GTD approved landscape plan.
(c) If upon the expiration of thirty (30) days from the date of such notification, the Owner shall have failed to remedy such noncompliance, the Board shall set a date on which a hearing before the Board shall be held regarding the alleged noncompliance. The hearing date shall be not more than thirty (30) days nor less than fifteen (15) days after notice thereof by the Board to the Owner, and in the discretion of the Board, to any other interested party. The hearing procedure shall conform to those adopted by the Board pursuant to the Bylaws.
(d) At the hearing, the Owner, and in the Board's discretion, any other interested person, may present information relevant to the question of the alleged noncompliance. After considering all such information, the Board shall determine whether there is a noncompliance, and if so, the nature thereof and the estimated costs of remedying the noncompliance shall be provided by the Lot Owner and any independent consultant retained by the Board.
(e) Noncompliance. If noncompliance exists, the Board shall require the Owner to remedy or remove the same within a period of not more than forty-five (45) days from the date of the Board ruling. If the Owner does not comply with the Board ruling within such a period or within any extension of such period the Board, in its discretion, may either remove the noncompliant improvement or remedy the noncompliance and the Owner shall reimburse the Association for all expenses incurred in connection therewith upon demand. If such expenses are not promptly repaid by the Owner to the Association, the Board shall levy an assessment against such Owner pursuant to Section 3.5 hereof.

5.8 Liability. Neither the Board nor any member thereof or their delegates shall be liable to the Association or to any Owner for any damage, loss, or prejudice suffered or claimed on account of (a) the approval or disapproval of plans, drawings, and specifications whether or not defective; (b) the

construction or performance of any work whether or not pursuant to approved plans, drawings, and specifications; (c) the development of any property within the GTD; or (d) the execution and filing of an estoppel certificate whether or not the facts therein are correct, provided, however, that such member has acted in good faith on the basis of such information as may be possessed by said Board member. Without in any way limiting the generality of the foregoing, the Board or any member thereof may, but is not required to, consult with or hear the views of the Association or any Owner with respect to any plans, drawings, specifications, or any other proposal submitted to the Board. Approval by the Board does not mean the Board is warranting or incurring any liability for the structural adequacy of the plans, drawings, and specifications submitted to and approved by said Board. Plans, specifications, and drawings may require building permits and other entitlements from the appropriate governmental agencies.

ARTICLE 6
PROPERTY RIGHTS AND EASEMENTS

6.1 Conveyance of Common Area. The Declarant hereby covenants for itself, successors, and assigns that prior to or at the turnover meeting provided for in the Bylaws, it will convey fee simple title to any common area to the Association free and clear of all liens and encumbrances except the covenants, conditions, and restrictions herein set forth, easements, and utility rights-of-way then of record. All said facilities shall be for the use and benefit of the Owners, tenants, guests and licensees in the GTD.

6.2 Easements in Common Area. Every Owner shall have a right and nonexclusive easement of enjoyment in and to the Common Area and any easements shown on the final plat, a nonexclusive easement for ingress and egress over and through the Common Area, and a nonexclusive easement for vehicular ingress and egress over and through those portions of the Common Area which shall be designated as a driveway or parking area as depicted on the Plat. Such easements shall be appurtenant to the right of the Association to sell, transfer, or encumber all or any portion of the Common Area to a person, firm, or entity, whether public or private, and the right of the Association to dedicate or transfer all or any part of the Common Area to any public agency, authority, or utility for such purposes and subject to such conditions as may be agreed to by the Owners. No such sale, transfer, encumbrance, or dedication shall be effective except upon compliance with the City's Land Use Ordinance and current final order of approval for the GTD, and the prior vote or written consent of Members representing sixty-six and two-thirds percent (66 and 2/3%) of the total voting power of Members without any weighted vote; provided, however, that a dedication required by a governmental agency as a condition to recording a final plat covering any portion of the real property shall require no such prior vote or written consent.

6.3 Utility Easements. Each Lot shall be conveyed to Owners, other than Declarant, subject to any and all easements of record for the use and benefit of several authorized public and/or other utilities, including Bureau of Reclamation, Talent Irrigation District, cable T.V., internet, sanitary sewer, water, gas, electrical, and drainage easements, and no Owner shall damage or interfere with the installation or maintenance of such utilities or in any manner change the direction or flow of drainage channels in any such easements or in any manner construct or retard the flow of water through drainage channels in any such easement.

6.4 Blanket Easements for Private Utilities, Internal Sidewalks and Walkways, and Retaining Walls. Each Owner has an easement for reasonable access and use of, in, and through each other Lot, Dwelling Unit and the Common Area, for private utility easements, wiring, heat, plumbing and other service elements,

internal sidewalks and walkways, and retaining walls and for reasonable access required to effectuate and continue proper operation of the Dwelling Units and Common Area. Each Lot and all the Common Area are specifically subject to the foregoing easement for access and use as required for the private utility lines and services for each Unit, as well as for access and maintenance of internal walkways and retaining walls. The rights described in this Section may be exercised only upon reasonable notice to the other Owner, at such time or times reasonably convenient to the other Owner, and in a manner that minimizes any interference with the other Owner's use and enjoyment of his/her Lot. Each Owner shall have an easement over the Common Area for reasonable ingress to and egress from the Owner's Lot. Such easement shall be perpetual and appurtenant to the Lot ownership. Each Owner hereby further grants to each other Owner, by accepting title to a Lot, a non-exclusive right of passage on and over such pathways or sidewalks that traverse over its Lot to an adjoining access-way, Lot or Lots for the further purpose of access to and from any Common Area or Lot.

6.5 Easements Granted by Owners of Lots.
Declarant hereby declares a non- exclusive easement of ingress and egress to the Association, on behalf of Owners accepting title to Lots, their successors and assigns, to that portion of an Owner's Lot in the subdivision as may be reasonably acquired by the Association to exercise and otherwise perform its rights under Section 2.5 Duties of the Association.

6.6 Delegation. Any Owner may delegate his right of use and enjoyment to the Common Area to the Members of his family or tenants who reside on his Lot. Tenants shall not have the right to further delegate the Owner's right to use and enjoy the Common Area. As to tenants, such Owner shall notify the Association in writing of such delegation and their names. The rights and privileges of any delegate shall be in accordance with and subject to this Declaration; provided, however, that the Owner making such delegation (and his Lot) shall remain liable for the assessments herein provided for and subject to all of the terms and conditions of this Declaration.

ARTICLE 7
USE RESTRICTIONS
The use of the Lots and the Common Area shall be restricted in accordance with the following provisions in addition to all other covenants, conditions, and restrictions herein contained.

7.1 Residential Use. The Lots and Dwelling Units shall be used for residential purposes only.

7.2 Lithium-ion batteries. Lithium-ion batteries are allowed only in areas that are Posted and are strictly prohibited in any building, patios, it's walkways or any structure. Prohibited too are any items holding or under the operation of same battery or any item using and or that contains such batteries, including chargers, cords, plugs and attachments. Batteries used for the operation of flashlights, remote controllers, computers, cellphones and other items similar are permitted.

7.3 For EV (electrical vehicles), Electric Bicycles, Scooters, or PMVs (personal mobility vehicles). Electric charging for all item under Article 7.3 is to be performed in specified posted designated areas only.

7.4 Water containers. Water beds, clothes washers or storage tanks are prohibited in all buildings.

7.5 Maintenance by Owners. Each Owner shall maintain and keep Buildings and improvements (including exterior paint, siding, and roof) and Lot in a clean, sanitary, and attractive condition. If the Owner fails to maintain his/her Building and improvement on his or her lot as required herein, the Association shall have the right to go upon the Owner's Lot and perform such maintenance pursuant to the Association's authority. The costs incurred by the Association shall be assessed against the Lot. Landscaping within Lot Areas shall be maintained per the approved landscape plan. Landscaping of unenclosed areas of Lots shall be maintained by the Association. In addition, solar panels, located on a building, shall be maintained by the Owner of the Lot's buildings.

7.6 Commercial or Agricultural Use. No industry, business, trade, occupation, or profession of any kind shall be conducted, maintained, or permitted on any part of the GTD, unless specifically allowed by this Declaration. No agricultural barns are permitted.

7.7 Animals. Household pets, in a reasonable number, may be kept if they are solely household pets for private use and not for commercial purposes. No animal shall be allowed to make an unreasonable amount of noise or otherwise to become a nuisance. No dog shall be permitted outside unless it is under the control of a responsible person. Upon request of any Owner, the Board shall determine, in its sole discretion, whether for the purpose of this Section, a particular animal shall be considered a house pet or a nuisance. The Owner of any pet shall be responsible for cleaning up after said pet on any property.

7. 8 Outside Storage. Storage of any materials or equipment on porches, patios, walkways or garden areas is prohibited. Nothing herein is intended to prohibit placement of patio furniture in patio areas only.

7.9 Trash Receptacles. All trash shall be placed in the Trash bin area within the designated enclosure. Trash and recycling service for the GTD is provided by the Association

7.10 Pesticide/Herbicide Restrictions. Synthetic pesticides and/or herbicides are prohibited anywhere within the GTD.

7.11 Growing of Marijuana Prohibited. The Association desires to ensure the peace and enjoyment of property owners within their Lots and to reduce nuisance created from odors as a result of growing, cultivating and/or producing marijuana, and to protect the safety, welfare and benefit of existing and future Owners of the Lots within the GTD. To that end, all outdoor and indoor growth, cultivation and production of marijuana is prohibited within the GTD.

7.12 Fire Protection Plan. The Association and the Members shall comply with the Fire Prevention and Control Plan requirements of City Code. Specifically, landscaping shall comply with these standards and plants listed on the Prohibited Flammable Plant List maintained by the City shall be prohibited anywhere within the GTD.

7.13 Firearms. No firearms or archery equipment shall be used or discharged on any Lot or Common Area.

7.14 Lighting. Disturbing glare from exterior or interior luminaries within the GTD is prohibited.

7.15 Fencing. Fences shall be constructed by Declarant at initial development pursuant to the approved fencing plan and maintained by the Association pursuant to Ashland Municipal Code, Section 18.4.4.060.

7.16 Tree Protection Plan. Any deviation from the Tree Protection Plan for the PUD, is deemed a violation of the planning application approval and may be subject to penalties under City Code. Any proposed deviation to the plan must receive prior written approval from the Board and the City of Ashland's Planning Department.

7.17 Nuisances. No machinery or equipment of any kind shall be placed, operated, or maintained upon or adjacent to any Lot. Gas operated leaf blowers are not permitted. No noxious or offensive condition, including activity causing excessive smoke, dust, noise, or debris, shall be permitted upon any part of the GTD. Motorized bikes and all- terrain vehicles may not be operated on any Lot or the Common Area. Motorized transportation may be operated on a Lot solely for the purpose of transporting it from a residence to a public roadway for off-site use but recreational use of such machinery within the GTD is not allowed.

7.18 Diseases and Insects. No Owner shall permit anything or condition to exist upon his Lot which shall induce, breed, or harbor infectious plant diseases or noxious insects.

7.19 Mineral Exploration. No property shall be used in any manner to explore for or to remove any water, oil, or other hydrocarbons, minerals of any kind, gravel, earth, or any other such substance or other mineral of any kind except for any excavation that may be done in connection with the construction in the GTD.

7.20 Restrictions on Further Subdivision. No Lot shall be further subdivided. No Owner, except Declarant, may grant an easement or other interest in a Lot without the prior written approval of the Board.

7.21Tenant Leases. All Owners shall supply tenants with a copy of this Declaration, as well any adopted rules and regulations that are provided with each Lot at the time of sale.

7.22 Construction Debris. The Owner of each Lot is responsible for the temporary containment and permanent removal of all construction debris on the Lot and any debris which is windblown or in any way displaced from the construction site to adjoining property. The Owner is also responsible for the cleanup of any dirt or mud tracked into public streets and common area driveways and parking lots during the course of construction of improvements on said property on a daily basis. Any damages to these areas are to be repaired by lot owner. The Owner shall not allow the accumulation of large quantities of debris, on or off site, during the course of construction.

7.23 Common Area Maintenance. No Lot Owner shall do any alteration, work, or maintenance within the Common Area, without the approval of the Board.

7.24 Solar Protection. Each Buildings Solar Reserve Area shall remain free from shading by any plantings or other items in the GTD. No person owning or in control of a property within the GTD shall allow vegetation or any other item to be placed on property or in any manner shade the a neighbor's Solar Reserve Area, window openings, patios or private open space.

7.25 Earth Advantage. At the point of initial construction, the GTD will be an Earth Advantage development, or a higher rating.

7.26 Solar Panels. Solar panels in any area other than the building roof are not permitted. Roof mounted solar panels will be installed by the Declarant upon the construction of any building. ~~So~~lar Reserve Area with the approval of the Board.

7.27 Assignment of Parking Spaces. The Declarant shall assign each Lot parking spaces. Owners may elect to exchange parking spaces after approval from the Board.

7.28 Smoking in Common Area Prohibited. Smoking is prohibited in common open space areas, including a prohibition against e-cigarettes or other vaping devices.

7.29 Right of Inspection. Upon seventy-two (72) hours' written notice (emergencies excepted) and during reasonable hours, any authorized Member of the Board, or any authorized representative of any Board Member, shall have the right to enter upon and inspect the Lot and the exterior of the building or any of the improvements thereon for the purpose of ascertaining whether or not the provisions of these covenants, conditions and restrictions, the Bylaws and the rules and regulations adopted by the Board, have been or are being complied with, and such persons shall not be deemed guilty of trespass by reason of such entry or inspection. These rights shall be exercised in such a manner as to reasonably minimize any adverse impact upon the Owner's right to enjoyment of his/her Lot. Any unimproved Lot or common area is not subject to the seventy-two (72) hours' written notice provision referenced above. A report shall be made to the full Board, and the Board shall determine the appropriate action to be taken.

ARTICLE 8 DEVELOPMENT RIGHTS

8.1 Limitations of Restrictions. Declarant is undertaking the work of constructing improvements identified in Exhibit B. The completion of that work and the sale, rental, and other disposal of Lots is essential to the establishment and welfare of said property as a residential community. In order that said work may be completed and said property be established as a fully occupied residential community as rapidly as possible, nothing in these restrictions shall be understood or construed to:

(a) Prevent Declarant, its contractors, subcontractors, or permittees from obtaining reasonable access over and across the Common Area of the GTD or from doing, on any Lot or any portion of the GTD whatever is reasonably necessary or advisable in connection with the completion of said work; or

(b) Prevent Declarant from maintaining such signs within the GTD, as may be necessary for the leasing, sale or disposition of the building and Lots therein.

8.2 Declarant's Development Rights. Notwithstanding any other provision herein contained, Declarant expressly retains unalterable rights to develop the GTD subject to this Declaration. Nothing in the Declaration shall limit the right of Declarant to commence and complete construction of improvements to the GTD or to alter the foregoing or to construct such additional improvements as Declarant deems appropriate prior to the sale of all of all the real property described in Exhibit A.

ARTICLE 9 AMENDMENTS

9.1 Amendment. Except as otherwise provided in ORS 94.590, and the restrictions set forth elsewhere herein, this Declaration may be amended at any time by an instrument approved by not less than 75% of the total votes of each class of members that are eligible to vote. Any amendment must be executed, recorded, and certified as provided by law; provided, however, that no amendment of this Declaration

shall effect an amendment of the Bylaws or Articles without compliance with the provisions of such documents, and the Oregon Nonprofit Corporation Act and that no amendment affecting the general plan of development or any other right of Declarant herein contained may be effected without the express written consent of Declarant or its successors and assigns, including, without limitation, amendment of this Section 9.1.

9.2 Unilateral Amendment by Declarant. In addition to all other special rights of Declarant provided in this Declaration, Declarant may amend this Declaration in order to comply with the requirements of the Federal Housing Administration of the United States, the Federal National Mortgage Association, the Government National Mortgage Association, the Federal Home Mortgage Loan Corporation, any department, bureau, board, commission, or agency of the United States or the State of Oregon, or any other state in which the Lots are marketed and sold, or any corporation wholly owned, directly or indirectly, by the United States or the State of Oregon, or such other state, the approval of which entity is required in order for it to insure, guarantee, or provide financing in connection with development of the Property the sale of Lots and leasing of buildings. Before the Turnover Meeting, no such amendment shall require notice to or approval by any Class A member.

ARTICLE 10 GENERAL PROVISIONS

10.1 Binding Effect; Term. The covenants, conditions, and restrictions of this Declaration shall run with the land and shall inure to the benefit of and be enforceable by the Association or any Owner, their respective legal representatives, heirs, successors, and assigns.

10.2 Nuisance. Every act or omission whereby any provision of this Declaration is violated in whole or in part is hereby declared to be a nuisance and may be enjoined or abated, whether the relief sought is negative or affirmative action, by Declarant, the Association, or any Owner.

10.3 Violation of Law. Any violation of any federal, state, municipal, local law, regulation or ordinance, or regulation pertaining to the ownership, occupation, or use of the GTD or any part thereof is hereby declared to be a violation of this Declaration and subject to any and all of the enforcement procedures set forth herein.

10.4 Condemnation of Common Area. If at any time all or any portion of any Common Area, or any interest therein, be taken for any public or quasi-public use under any statute, by right of eminent domain, or by private purchase in lieu of eminent domain, the entire award in condemnation shall be paid to the Association. Any such award to the Association shall be deposited into the operating fund of the Association. No Owner shall be entitled to any portion of such award, and no Owner shall be entitled to participate as a party, or otherwise, in any proceedings relating to such condemnation, such right of participation being herein reverted exclusively to the Association or other holder of the fee title which shall, in its name alone, represent the interests of all Lot Owners to the extent such Lot Owners have any interest.

10.5 Obligations of Owner. No Owner may avoid the burdens or obligations imposed on him/her by this Declaration through non-use of the Common Area or by abandonment of his/her Lot. Upon the conveyance, sale, assignment, or other transfer of a Lot to a new Owner, the transferring Owner shall not be liable for any such assessments levied with respect to such Lot after the date of such transfer, and no person, after the termination of his/her status as an Owner and prior to his/her again becoming an Owner, shall incur any of the obligations or enjoy any of the benefits of an Owner under this Declaration.

10.6 Notice of Sale. Within five (5) business days after the consummation of the sale of any Lot under circumstances whereby the transferee becomes an Owner thereof, the transferee shall notify the Association in writing of such sale. Such notification shall set forth (a) the name of the transferee and his/her transferor; (b) the street address of the Lot purchased by the transferee; (c) the transferee's mailing address; and (d) the date of sale. Prior to receipt of such notification, any and all communications required or permitted to be given by the Association or the Board shall be deemed to be duly made and given to the transferee if duly and timely made and given to his/her transferor.

10.7 Notices. Any written notice or other documents relating to or required by this Declaration may be delivered either personally, by electronic delivery (including email and facsimile) or by mail. If by mail, such notice or document shall be deemed to have been delivered and received five (5) calendar days after a copy thereof has been deposited in the United States Postal Service, postage prepaid, addressed as follows:

(a) If to the Association, to the address designated by the Association as its principal office address in the Articles.
(b) If to an Owner, to the address of any Lot owned in whole or in part by him/her or to any other address last furnished by an Owner to the Association.
(c) If to Declarant:
Casita Developments LLC
716 N Laurel St
Ashland, Oregon 9520
Provided, however, that any such address may be changed at any time by the party concerned by delivering a written notice of change of address to the Association. Each Owner of a Lot shall file the correct mailing address of such Owner with the Association and shall promptly notify the Association in writing of any subsequent change of address.

10.8 Cumulative Remedies. Each remedy provided by this Declaration is cumulative and not exclusive.

10.9 Partial Invalidity. The invalidity or partial invalidity of any provision of this Declaration shall not affect the validity of, or enforceability of, any other provision.

10.10 Number; Gender. As used herein, the singular shall include the plural and the plural the singular unless the context requires the contrary; and the masculine, feminine, and neuter shall each include the masculine, feminine, or neuter as the context requires.

10.11 Discrimination Prohibited. THE ASSOCIATION AND ITS MEMBERS ARE PROHIBITED FROM DISCRIMINATING ON THE BASIS OF RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, NATIONAL ORIGIN, MARITAL STATUS, FAMILIAL STATUS, SOURCE OF INCOME, DISABILITY OR THE NUMBER OF INDIVIDUALS, INCLUDING FAMILY MEMBERS, PERSONS OF CLOSE AFFINITY OR UNRELATED PERSONS, WHO ARE SIMULTANEOUSLY OCCUPYING A DWELLING UNIT OF ANY BUILDING WITHIN OCCUPANCY LIMITS, OR GENETIC INFORMATION AS SET FORTH IN APPLICABLE STATE AND FEDERAL LAW, EXCEPT TO THE EXTENT THAT SUCH COVENANT OR RESTRICTION IS PERMITTED BY APPLICABLE LAW.

10.12 City Enforcement. The City of Ashland reserves the right to enforce and assess the Association for maintenance of common areas, and the association shall comply with its street trees code.

10.13 Mediation and Arbitration.

(a) Meet and Confer. In the event of any dispute concerning this Agreement, excepting disputes involving non-payment of assessments or other fee, the parties shall, at the request of either of them, meet and confer in an effort to resolve the dispute. If the parties cannot resolve the dispute within thirty (30) days following the initial request to meet and confer, the dispute shall be submitted to arbitration as provided in Section 11.13(b), below.

(b) Arbitration. Except for claims and controversies involving non-payment of assessments or fees, all controversies or claims arising out of or relating to this Agreement; which are not resolved as provided in Section 11.13(a) above, including, without limitation, the making, performance, or interpretation of this Agreement, shall be settled by binding arbitration. Unless otherwise agreed, the arbitration shall be conducted in the county of the state where the Association is located, in accordance with the rules of the Arbitration Service of Portland. Judgment on the award rendered by the arbitrator may be entered in the circuit court in the county in which the arbitration occurs, and the resolution of the disputed matter as determined by the arbitrator shall be binding on the parties. The arbitrator’s fee will be split equally between the parties and promptly paid to the arbitrator as required by the arbitrator. The prevailing party is entitled to reimbursement for its share of the arbitrator’s fee expended, as well as its reasonable attorney's fees and court costs, in addition to any other relief the prevailing party may be entitled to.

IN WITNESS THEREOF, Declarant has executed this Declaration this ___ day of _____, 2024.
Casita Developments, LLC

By: _____ Robert J Kendrick, Member

By: _____ Linda M Zare, Member

Notarial form follows

STATE OF OREGON County of Jackson)

On this _____ day of _____, 202_, before me, the undersigned Notary Public in and for said State, personally appeared ROBERT J KENDRICK a Member of Casita Developments LLC an Oregon limited liability company, known or identified to me to be the person whose name is subscribed to the within instrument, and acknowledged to me that said instrument was signed and sealed on behalf of said company by authority of its Members, and he acknowledged said instrument to be its voluntary act and deed.

STATE OF OREGON County of Jackson

Notary Public for the State of Oregon My Commission Expires:
On this _____ day of _____, 2021, before me, the undersigned Notary Public in and for said State, personally appeared LINDA M ZARE a Member of Casita Developments LLC LLC, an Oregon limited liability company, known or identified to me to be the person whose name is subscribed to the within instrument, and acknowledged to me that said instrument was signed and sealed on behalf of said company by authority of its Members, and he acknowledged said instrument to be its voluntary act and deed.

Notary Public for the State of Oregon My Commission Expires:

Exhibit “A”
Legal Description of the
GRAND TERRACE PRELIMINARY SUBDIVISION MAP

Exhibit “B”
SITE PLAN LOTS

Exhibit “C”
APARTMENT BUILDINGS ELEVATIONS

Exhibit “D”
GRAND TERRACE COMMON AREA AND LANDSCAPE PLAN

Exhibit “E” BYLAWS

Description of Documents CCRS – GRAND TERRACE APARTMENTS

Notary Public for the State of Oregon

Notary Seal and Signature Follows

My Commission Expires:

Exhibits

Exhibit “A”
Legal Description of the
GRAND TERRACE PRELIMINARY SUBDIVISION MAP

Exhibit “B”
GRAND TERRACE APARTMENTS SITE PLAN AND LOTS

Exhibit “C”
GRAND TERRACE APARTMENT BUILDINGS PLAN

Exhibit “D”
GRAND TERRACE COMMON AREA AND LANDSCAPE PLAN

Exhibit “E” BYLAWS

After Recording Return to: Casita Developments LLC, 716 N Laurel Street, Ashland, Or.
Ashland, OR 97520

Grantor: Casita Developments LLC, 716 N Laurel Street, Ashland, Or. 97520

Grantee: Grand Terrace Homeowner’s Association 716 North Laurel Street, Ashland, Or. 97520

ANNEXATION AGREEMENT TO DEPOSIT AN AMOUNT SUFFICIENT TO RETIRE ANY OUTSTANDING INDEBTEDNESS OF SPECIAL DISTRICTS

THIS AGREEMENT entered into by and between _____, hereinafter referred to as "APPLICANT" and the CITY OF ASHLAND, hereinafter referred to as "CITY",

WITNESSETH:

WHEREAS, pursuant to ORS 222.520(2)(b), the CITY elects to pay the bonds of the special districts when such property subject to special district indebtedness is annexed by the CITY.

WHEREAS, Ashland Municipal Code, Sections 4.14.020, 14.08.030(F) and 18.106.020(B), require an applicant for annexation to agree to deposit an amount sufficient to retire any outstanding indebtedness of special districts defined in ORS 222.510 as part of an annexation application.

NOW, THEREFORE, as part of the annexation application for the property described in the attached **EXHIBIT A,** APPLICANT agrees to deposit an amount sufficient to retire any outstanding indebtedness of special district defined in ORS 222.510. In the event that no special district requests from the CITY an amount to be paid to retire indebtedness within one (1) year from the date of annexation, the full amount deposited to the CITY shall be returned to the APPLICANT. In the event that a special district requires an amount less than the amount deposited, the CITY shall return the remainder to the APPLICANT.

APPLICANT FOR ANNEXATION/PROPERTY OWNER:

Signature: Linda M Zare Date: 12/26/2024

Printed Name: Linda M. Zare

State of Oregon)
) ss:
County of Jackson)

Personally appeared the above named Linda Marie Zare and acknowledged the foregoing instrument to be his voluntary act and deed.

OFFICIAL STAMP
ZACHARY ROBERT CHEYNE-RUSSELL
NOTARY PUBLIC-OREGON
COMMISSION NO. 1050969
MY COMMISSION EXPIRES AUGUST 20, 2028

Notary Public for Oregon
My Commission expires: 08/20/2028

CITY OF ASHLAND:

Signed: _____ Date: _____

Printed Name/Title: _____

State of Oregon)
) ss:
County of Jackson)

Personally appeared the above named _____ and acknowledged the foregoing instrument to be his voluntary act and deed.

_____
Notary Public for Oregon
My Commission expires: _____

October 1, 2024

Gennesse & Wyoming Railroad Services, Inc.
Real Estate Department
13901 Sutton Park Dr. S, Suite 270
Jacksonville, Fl 32224

Re: Consent to Annex, City of Ashland Oregon

To Whom is May Concern:

This letter is to inform Genesee & Wyoming Railroad Service, Inc., that an application for Annexation into the City of Ashland Oregon, for the properties at 1511 Hwy. 99 N (381E32; TL 1700 and 1702); the adjacent OR HWY 99 ODOT right of way; and the California Oregon Railroad (CORP), Genesee-Wyoming railroad property into the City of Ashland Oregon was approved by the City Council but remanded by the Land Use Board of Appeals. The annexation application followed and included the new Oregon Climate Friendly Act parking mandates. The Land Use Board of Appeals remanded the annexation approval back to the City of Ashland because the annexation application was made before the effective date of the Climate Friendly Act Law. To comply with the State of Oregon Climate Friendly Act another application including the same development is being re-entered post Climate Friendly Act effective date.

Per the Oregon Revised Statutes (ORS222.170) an annexation that includes consent to the annexation of more than one-half of the landowners in the area can be approved through public hearing. As previously provided, the applicant is seeking Genesee & Wyoming property owner consent to annex the railroad proposed as depicted on the attached map.

Please see the attached map and consent to annex form.
Thank you for your prompt attention to this matter.

Sincerely,
Robert Kendrick
Grand Terrace Development
Linda Zare, Owner 1511 Hwy 99, Ashland Oregon

(ORS 222.170), an annexation may be approved by consent through a public hearing, without requiring an election, when: more than one-half of the owners with land in the area to be annexed consent to the annexation; owners of more than one-half the land in the area to be annexed consent to the annexation; and that land represents more than one-half of the total assessed value in the area to be annexed.

Attachments:
Irrevocable Consent to Annex
Map of annexed area

October 1, 2024

Oregon Department of Transportation
Transportation Planning
Micha Horowitz
100 Antelope Road
White City, OR 97503

Re: Consent to Annex, City of Ashland Oregon

Dear Micha Horowitz

This letter is to inform the Oregon Department of Transportation that an application for Annexation into the City of Ashland for the properties at 1511 Hwy. 99 N (381E32; TL 1700 and 1702); and consent to annex of the adjacent OR HWY 99 ODOT right of way, and the California Oregon Railroad (CORP), Genesee-Wyoming was approved by the City of Ashland, but remanded by the Land Use Board of Appeals. The annexation application followed and included the new Oregon Climate Friendly Act parking mandates. The Land Use Board of Appeals remanded the annexation approval back to the City of Ashland because the annexation application was made before the effective date of the Climate Friendly Act Law. To comply with the State of Oregon Climate Friendly Act another application including the same development is being re-entered post Climate Friendly Act effective date.

Per the Oregon Revised Statutes (ORS222.170) an annexation that includes consent to the annexation of more than one-half of the landowners in the area can be approved through public hearing. As previously provided, the applicant is seeking ODOT consent to annex the adjacent right-of way. An election by landowners in the area as prescribed by ORS 222.170 qualifies for the justification by staff advisors and is a legal annexation under state law. Consent of other properties is logical in that it achieves necessary contiguity for the fulfillment of the Urban Growth Boundary to meet the goals of the City's Comprehensive Plan.

Please see the attached map and consent to annex form.
Thank you for your prompt attention to this matter.

Sincerely,
Robert Kendrick
Grand Terrace Development
Linda Zare, Owner 1511 Hwy 99, Ashland Oregon

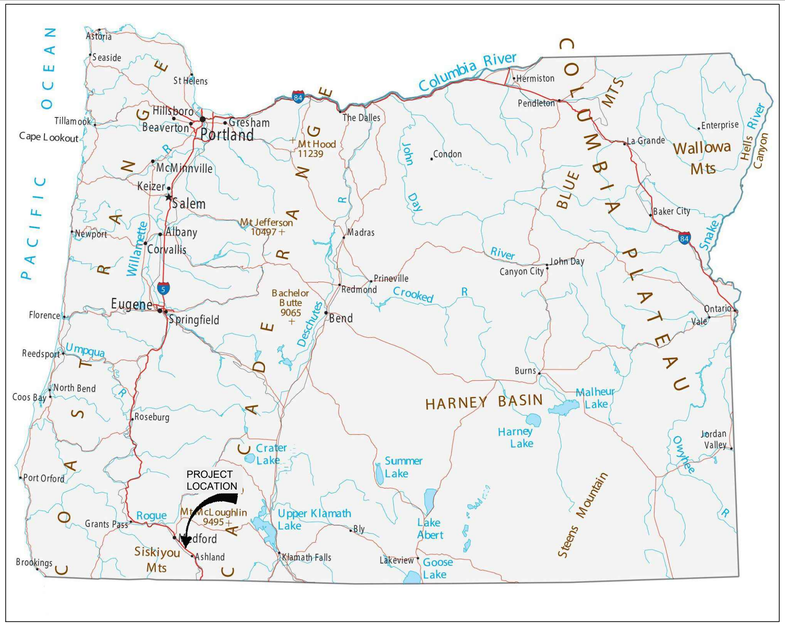
(ORS 222.170), an annexation may be approved by consent through a public hearing, without requiring an election, when: more than one-half of the owners with land in the area to be annexed consent to the annexation; owners of more than one-half the land in the area to be annexed consent to the annexation; and that land represents more than one-half of the total assessed value in the area to be annexed

Attachments:
Irrevocable Consent to Annex
Map of annexed area

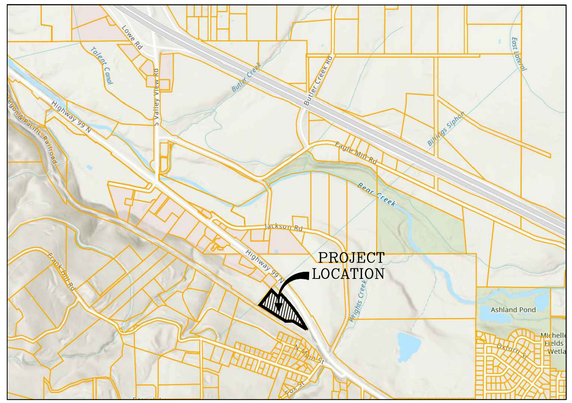
LAND USE APPLICATION DRAWINGS FOR

GRAND TERRACE
AN APARTMENT DEVELOPMENT

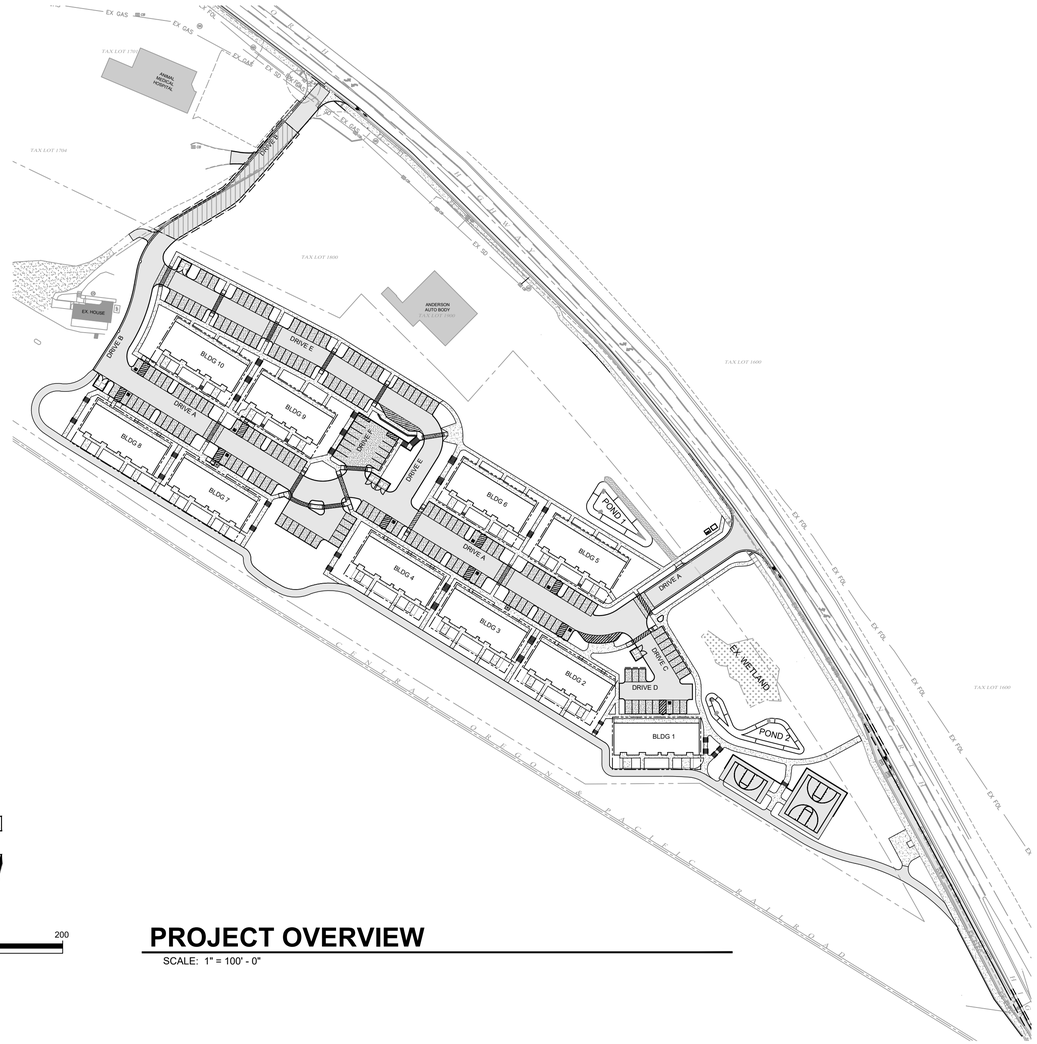
LOCATED IN:
SECTION 32, T.38S, R1E, W.M.
TAX LOTS 1702
JACKSON COUNTY, OREGON

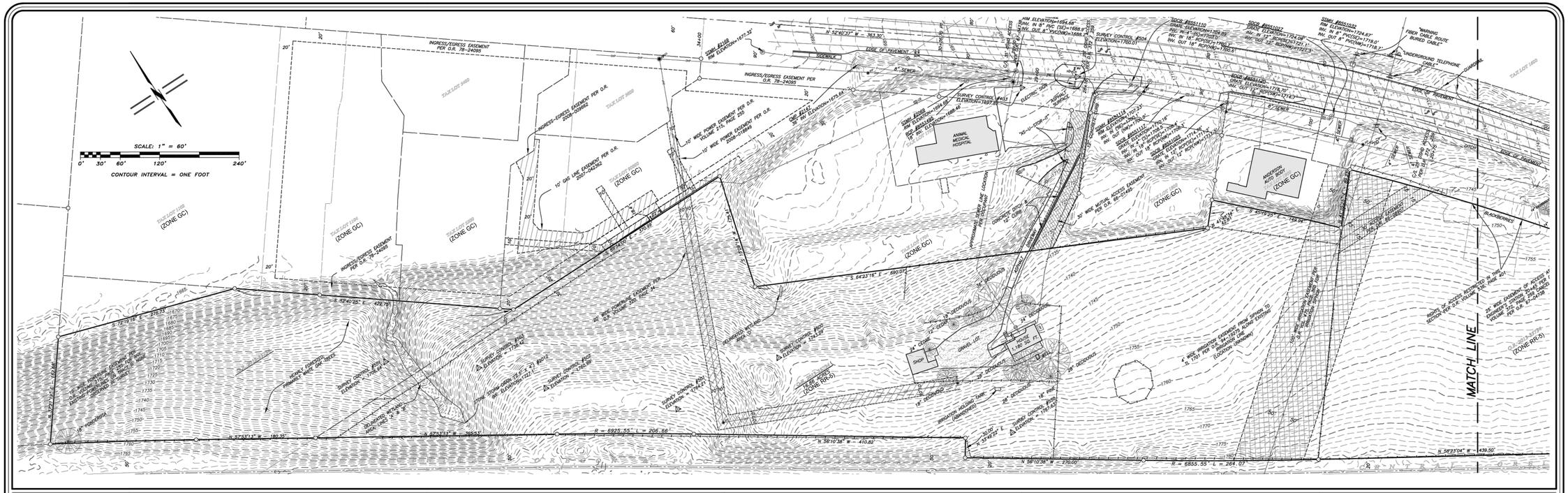


LOCATION MAP
NOT TO SCALE



VICINITY MAP
NOT TO SCALE


EX GAS
TAX LOT 1700
TAX LOT 1704
TAX LOT 1800
TAX LOT 1600
SMALL ANIMAL HOSPITAL
ANDERSON AUTO BODY
EX HOUSE
DRIVE B
DRIVE E
DRIVE A
DRIVE C
DRIVE D
BLDG 10
BLDG 9
BLDG 8
BLDG 7
BLDG 6
BLDG 5
BLDG 4
BLDG 3
BLDG 2
BLDG 1
POND 1
POND 2
EX. WETLAND
EX FOR
EX POWER
EX WATER
EX SS
EX STM
EX GAS
EX TEL
EX OHP
EX FOR
EX SS
EX STM
EX WATER


SCALE: 1" = 60'
0' 30' 60' 120' 240'
CONTOUR INTERVAL = ONE FOOT
MATCH LINE
INGRESS/EGRESS EASEMENT PER O.R. 78-24095
INGRESS/EGRESS EASEMENT PER O.R. 2006-026962
10' WIDE POWER EASEMENT PER O.R. VOLUME 215, PAGE 255
10' WIDE POWER EASEMENT PER O.R. 2006-018649
10' GAS LINE EASEMENT PER O.R. 2007-042352
30' WIDE MOTOR ACCESS EASEMENT PER O.R. 85-03145
20' WIDE IRRIGATION EASEMENT PER O.R. VOLUME 215, PAGE 255
4" WIDE IRRIGATION EASEMENT FROM SPIGOT TO TRAY PER O.R. 2006-026962 (EXACT LOCATION UNKNOWN)
DELINEATED WETLAND AREA "A"
DELINEATED WETLAND AREA "B"
DELINEATED WETLAND AREA "C"
HIGHLY DISTURBED SEASONALLY WET OAK WOODS
SURVEY CONTROL #459 ELEVATION = 1749.84'
SURVEY CONTROL #458 ELEVATION = 1740.09'
SURVEY CONTROL #457 ELEVATION = 1734.27'
SURVEY CONTROL #456 ELEVATION = 1744.71'
SURVEY CONTROL #455 ELEVATION = 1764.57'
SURVEY CONTROL #454 ELEVATION = 1787.57'
SURVEY CONTROL #453 ELEVATION = 1697.68'
SURVEY CONTROL #452 ELEVATION = 1688.01'
SURVEY CONTROL #451 ELEVATION = 1700.01'
SURVEY CONTROL #450 ELEVATION = 1704.67'
SURVEY CONTROL #449 ELEVATION = 1717.67'
SURVEY CONTROL #448 ELEVATION = 1716.30'
SURVEY CONTROL #447 ELEVATION = 1717.67'
SURVEY CONTROL #446 ELEVATION = 1707.23'
SURVEY CONTROL #445 ELEVATION = 1714.06'
SURVEY CONTROL #444 ELEVATION = 1707.90'
SURVEY CONTROL #443 ELEVATION = 1707.90'
SURVEY CONTROL #442 ELEVATION = 1707.90'
SURVEY CONTROL #441 ELEVATION = 1707.90'
SURVEY CONTROL #440 ELEVATION = 1750.92'
SURVEY CONTROL #439 ELEVATION = 1764.57'
SURVEY CONTROL #438 ELEVATION = 1792.13'
SURVEY CONTROL #437 ELEVATION = 1788.18'
SURVEY CONTROL #436 ELEVATION = 1785.57'
SURVEY CONTROL #435 ELEVATION = 1785.57'
BENCHMARK "LS-5" ELEVATION = 1798.18'
SURVEY CONTROL #434 ELEVATION = 1798.24'
SURVEY CONTROL #433 ELEVATION = 1799.24'
60' ROD #1135 ELEV.=1785.57'
60' ROD #1136 ELEV.=1785.57'
HIM ELEVATION=1674.69' SSMH, IN 8" PVC (SE)=1669.5' (S) INV. OUT 8" PVC(NW)=1668.2'
SSMH, #95511110 RIM ELEVATION=1677.33'
SSMH, #95511111 RIM ELEVATION=1694.66'
SSMH, #95511112 RIM ELEVATION=1708.23' INV. IN 8" PVC(NW)=1700.0' INV. OUT 18" RCP(SE)=1700.0'
SSMH, #95511113 RIM ELEVATION=1714.06' INV. IN 8" PVC(NW)=1706.5' INV. OUT 12" RCP(SE)=1706.5'
SSMH, #95511114 RIM ELEVATION=1707.90' INV. IN 8" PVC(NW)=1700.4' INV. OUT 18" RCP(SE)=1700.4'
SSMH, #95511115 RIM ELEVATION=1717.67' INV. IN 8" PVC(NW)=1709.8' INV. OUT 18" RCP(SE)=1709.8'
SSMH, #95511116 RIM ELEVATION=1716.30' INV. IN 8" PVC(NW)=1708.9' INV. OUT 18" RCP(SE)=1708.9'
SSMH, #95511117 RIM ELEVATION=1717.67' INV. IN 8" PVC(NW)=1709.8' INV. OUT 18" RCP(SE)=1709.8'
SSMH, #95511118 RIM ELEVATION=1724.67' INV. IN 8" PVC(NW)=1715.7' INV. OUT 8" PVC(NW)=1715.7'
SSCR, #95511119 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511120 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511121 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511122 GRATE ELEVATION=1717.67' INV. IN 12" RCP(W)=1709.8' INV. IN 18" RCP(SW)=1709.8' INV. OUT 18" RCP(NE)=1709.8'
SSCR, #95511123 GRATE ELEVATION=1716.30' INV. IN 12" RCP(W)=1708.9' INV. IN 18" RCP(SW)=1708.9' INV. OUT 18" RCP(NE)=1708.9'
SSCR, #95511124 GRATE ELEVATION=1717.67' INV. IN 12" RCP(W)=1709.8' INV. IN 18" RCP(SW)=1709.8' INV. OUT 18" RCP(NE)=1709.8'
SSMH, #95511125 RIM ELEVATION=1707.90' INV. IN 8" PVC(W)=1700.4' INV. OUT 8" PVC(E)=1700.4'
SSMH, #95511126 RIM ELEVATION=1707.90' INV. IN 8" PVC(W)=1700.4' INV. OUT 8" PVC(E)=1700.4'
SSMH, #95511127 RIM ELEVATION=1707.90' INV. IN 8" PVC(W)=1700.4' INV. OUT 8" PVC(E)=1700.4'
SSMH, #95511128 RIM ELEVATION=1707.90' INV. IN 8" PVC(W)=1700.4' INV. OUT 8" PVC(E)=1700.4'
SSMH, #95511129 RIM ELEVATION=1707.90' INV. IN 8" PVC(W)=1700.4' INV. OUT 8" PVC(E)=1700.4'
SSMH, #95511130 RIM ELEVATION=1707.90' INV. IN 8" PVC(W)=1700.4' INV. OUT 8" PVC(E)=1700.4'
SSMH, #95511131 RIM ELEVATION=1707.90' INV. IN 8" PVC(W)=1700.4' INV. OUT 8" PVC(E)=1700.4'
SSMH, #95511132 RIM ELEVATION=1724.67' INV. IN 8" PVC(W)=1715.7' INV. OUT 8" PVC(E)=1715.7'
SSCR, #95511133 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511134 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511135 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511136 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511137 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511138 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511139 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511140 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511141 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511142 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511143 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511144 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511145 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511146 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511147 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511148 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511149 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511150 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511151 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511152 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511153 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511154 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511155 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511156 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511157 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511158 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511159 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511160 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511161 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511162 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511163 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511164 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511165 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511166 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511167 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511168 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511169 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511170 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511171 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511172 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511173 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511174 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511175 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511176 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511177 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511178 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511179 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511180 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511181 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511182 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511183 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511184 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511185 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511186 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511187 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511188 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511189 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511190 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511191 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511192 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511193 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511194 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511195 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511196 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511197 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511198 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511199 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511200 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511201 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511202 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511203 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511204 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511205 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511206 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511207 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511208 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511209 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511210 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511211 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511212 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511213 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511214 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511215 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511216 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511217 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511218 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511219 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511220 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511221 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511222 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511223 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511224 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511225 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511226 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511227 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511228 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511229 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511230 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511231 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511232 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511233 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511234 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511235 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511236 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511237 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511238 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511239 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511240 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511241 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511242 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511243 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511244 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511245 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511246 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511247 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511248 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511249 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511250 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511251 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511252 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511253 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511254 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511255 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511256 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511257 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511258 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511259 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511260 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511261 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511262 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511263 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511264 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511265 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511266 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511267 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511268 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511269 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511270 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511271 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511272 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511273 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511274 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511275 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511276 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SSCR, #95511277 GRATE ELEVATION=1704.09' INV. IN 12" RCP(W)=1700.2' INV. IN 18" RCP(SW)=1700.2' INV. OUT 18" RCP(NE)=1700.0'
SS

ESCP STANDARD NOTES:

1. INCLUDE A LIST OF ALL PERSONNEL (BY NAME AND POSITION) THAT ARE RESPONSIBLE FOR THE DESIGN, INSTALLATION AND MAINTENANCE OF STORMWATER CONTROL MEASURES (E.G. ESCP DEVELOPER, BMP INSTALLER (SEE SECTION 4.10), AS WELL AS THEIR INDIVIDUAL RESPONSIBILITIES. (SECTION 4.4.C.II)
2. VISUAL MONITORING INSPECTION REPORTS MUST BE MADE IN ACCORDANCE WITH DEQ 1200-C PERMIT REQUIREMENTS. (SECTION 6.5)
3. INSPECTION LOGS MUST BE KEPT IN ACCORDANCE WITH DEQ'S 1200-C PERMIT REQUIREMENTS. (SECTION 6.5.Q)
4. RETAIN A COPY OF THE ESCP AND ALL REVISIONS ON SITE AND MAKE IT AVAILABLE ON REQUEST TO DEQ, AGENT, OR THE LOCAL MUNICIPALITY. (SECTION 4.7)
5. THE PERMIT REGISTRANT MUST IMPLEMENT THE ESCP. FAILURE TO IMPLEMENT ANY OF THE CONTROL MEASURES OR PRACTICES DESCRIBED IN THE ESCP IS A VIOLATION OF THE PERMIT. (SECTIONS 4 AND 4.11)
6. THE ESCP MUST BE ACCURATE AND REFLECT SITE CONDITIONS. (SECTION 4.8)
7. SUBMISSION OF ALL ESCP REVISIONS IS NOT REQUIRED. SUBMITTAL OF THE ESCP REVISIONS IS ONLY UNDER SPECIFIC CONDITIONS. SUBMIT ALL NECESSARY REVISION TO DEQ OR AGENT WITHIN 10 DAYS. (SECTION 4.9)
8. SEQUENCE CLEARING AND GRADING TO THE MAXIMUM EXTENT PRACTICAL TO PREVENT EXPOSED INACTIVE AREAS FROM BECOMING A SOURCE OF EROSION. (SECTION 2.2.2)
9. CREATE SMOOTH SURFACES BETWEEN SOIL SURFACE AND EROSION AND SEDIMENT CONTROLS TO PREVENT STORMWATER FROM BYPASSING CONTROLS AND PONDING. (SECTION 2.2.3)
10. IDENTIFY, MARK, AND PROTECT (BY CONSTRUCTION FENCING OR OTHER MEANS) CRITICAL RIPARIAN AREAS AND VEGETATION INCLUDING IMPORTANT TREES AND ASSOCIATED ROOTING ZONES, AND VEGETATION AREAS TO BE PRESERVED. IDENTIFY VEGETATIVE BUFFER ZONES BETWEEN THE SITE AND SENSITIVE AREAS (E.G., WETLANDS), AND OTHER AREAS TO BE PRESERVED, ESPECIALLY IN PERIMETER AREAS. (SECTION 2.2.1)
11. PRESERVE EXISTING VEGETATION WHEN PRACTICAL AND RE-VEGETATE OPEN AREAS. RE-VEGETATE OPEN AREAS WHEN PRACTICABLE BEFORE AND AFTER GRADING OR CONSTRUCTION. IDENTIFY THE TYPE OF VEGETATIVE SEED MIX USED. (SECTION 2.2.5)
12. MAINTAIN AND DELINEATE ANY EXISTING NATURAL BUFFER WITHIN THE 50-FEET OF WATERS OF THE STATE. (SECTION 2.2.4)
13. INSTALL PERIMETER SEDIMENT CONTROL, INCLUDING STORM DRAIN INLET PROTECTION AS WELL AS ALL SEDIMENT BASINS, TRAPS, AND BARRIERS PRIOR TO LAND DISTURBANCE. (SECTIONS 2.1.3)
14. CONTROL BOTH PEAK FLOW RATES AND TOTAL STORMWATER VOLUME, TO MINIMIZE EROSION AT OUTLETS AND DOWNSTREAM CHANNELS AND STREAMBANKS. (SECTIONS 2.1.1. AND 2.2.16)
15. CONTROL SEDIMENT AS NEEDED ALONG THE SITE PERIMETER AND AT ALL OPERATIONAL INTERNAL STORM DRAIN INLETS AT ALL TIMES DURING CONSTRUCTION, BOTH INTERNALLY AND AT THE SITE BOUNDARY. (SECTIONS 2.2.6 AND 2.2.13)
16. ESTABLISH CONCRETE TRUCK AND OTHER CONCRETE EQUIPMENT WASHOUT AREAS BEFORE BEGINNING CONCRETE WORK. (SECTION 2.2.14)
17. APPLY TEMPORARY AND/OR PERMANENT SOIL STABILIZATION MEASURES IMMEDIATELY ON ALL DISTURBED AREAS AS GRADING PROGRESSES. TEMPORARY OR PERMANENT STABILIZATIONS MEASURES ARE NOT REQUIRED FOR AREAS THAT ARE INTENDED TO BE LEFT UNVEGETATED, SUCH AS DIRT ACCESS ROADS OR UTILITY POLE PADS.(SECTIONS 2.2.20 AND 2.2.21)
18. ESTABLISH MATERIAL AND WASTE STORAGE AREAS, AND OTHER NON-STORMWATER CONTROLS. (SECTION 2.3.7)
19. KEEP WASTE CONTAINER LIDS CLOSED WHEN NOT IN USE AND CLOSE LIDS AT THE END OF THE BUSINESS DAY FOR THOSE CONTAINERS THAT ARE ACTIVELY USED THROUGHOUT THE DAY. FOR WASTE CONTAINERS THAT DO NOT HAVE LIDS, PROVIDE EITHER (1) COVER (E.G., A TARP, PLASTIC SHEETING, TEMPORARY ROOF) TO PREVENT EXPOSURE OF WASTES TO PRECIPITATION, OR (2) A SIMILARLY EFFECTIVE MEANS DESIGNED TO PREVENT THE DISCHARGE OF POLLUTANTS (E.G., SECONDARY CONTAINMENT). (SECTION 2.3.7)
20. PREVENT TRACKING OF SEDIMENT ONTO PUBLIC OR PRIVATE ROADS USING BMPS SUCH AS: CONSTRUCTION ENTRANCE, GRAVELED (OR PAVED) EXITS AND PARKING AREAS, GRAVEL ALL UNPAVED ROADS LOCATED ONSITE, OR USE AN EXIT TIRE WASH. THESE BMPS MUST BE IN PLACE PRIOR TO LAND- DISTURBING ACTIVITIES. (SECTION 2.2.7)
21. WHEN TRUCKING SATURATED SOILS FROM THE SITE, EITHER USE WATER-TIGHT TRUCKS OR DRAIN LOADS ON SITE. (SECTION 2.2.7.F)
22. CONTROL PROHIBITED DISCHARGES FROM LEAVING THE CONSTRUCTION SITE, I.E., CONCRETE WASH-OUT, WASTEWATER FROM CLEANOUT OF STUCCO, PAINT AND CURING COMPOUNDS. (SECTIONS 1.5 AND 2.3.9)
23. ENSURE THAT STEEP SLOPE AREAS WHERE CONSTRUCTION ACTIVITIES ARE NOT OCCURRING ARE NOT DISTURBED. (SECTION 2.2.10)
24. PREVENT SOIL COMPACTION IN AREAS WHERE POST-CONSTRUCTION INFILTRATION FACILITIES ARE TO BE INSTALLED. (SECTION 2.2.12)
25. USE BMPS TO PREVENT OR MINIMIZE STORMWATER EXPOSURE TO POLLUTANTS FROM SPILLS; VEHICLE AND EQUIPMENT FUELING, MAINTENANCE, AND STORAGE; OTHER CLEANING AND MAINTENANCE ACTIVITIES; AND WASTE HANDLING ACTIVITIES. THESE POLLUTANTS INCLUDE FUEL, HYDRAULIC FLUID, AND OTHER OILS FROM VEHICLES AND MACHINERY, AS WELL AS DEBRIS, FERTILIZER, PESTICIDES AND HERBICIDES, PAINTS, SOLVENTS, CURING COMPOUNDS AND ADHESIVES FROM CONSTRUCTION OPERATIONS. (SECTIONS 2.2.15 AND 2.3)
26. PROVIDE PLANS FOR SEDIMENTATION BASINS THAT HAVE BEEN DESIGNED PER SECTION 2.2.17 AND STAMPED BY AN OREGON PROFESSIONAL ENGINEER. (SEE SECTION 2.2.17.A)
27. IF ENGINEERED SOILS ARE USED ON SITE, A SEDIMENTATION BASIN/IMPOUNDMENT MUST BE INSTALLED. (SEE SECTIONS 2.2.17 AND 2.2.18)
28. PROVIDE A DEWATERING PLAN FOR ACCUMULATED WATER FROM PRECIPITATION AND UNCONTAMINATED GROUNDWATER SEEPAGE DUE TO SHALLOW EXCAVATION ACTIVITIES. (SEE SECTION 2.4)
29. IMPLEMENT THE FOLLOWING BMPS WHEN APPLICABLE: WRITTEN SPILL PREVENTION AND RESPONSE PROCEDURES, EMPLOYEE TRAINING ON SPILL PREVENTION AND PROPER DISPOSAL PROCEDURES, SPILL KITS IN ALL VEHICLES, REGULAR MAINTENANCE SCHEDULE FOR VEHICLES AND MACHINERY, MATERIAL DELIVERY AND STORAGE CONTROLS, TRAINING AND SIGNAGE, AND COVERED STORAGE AREAS FOR WASTE AND SUPPLIES. (SECTION 2.3)
30. USE WATER, SOIL-BINDING AGENT OR OTHER DUST CONTROL TECHNIQUE AS NEEDED TO AVOID WIND-BLOWN SOIL. (SECTION 2.2.9)
31. THE APPLICATION RATE OF FERTILIZERS USED TO REESTABLISH VEGETATION MUST FOLLOW MANUFACTURER'S RECOMMENDATIONS TO MINIMIZE NUTRIENT RELEASES TO SURFACE WATERS. EXERCISE CAUTION WHEN USING TIME-RELEASE FERTILIZERS WITHIN ANY WATERWAY RIPARIAN ZONE. (SECTION 2.3.5)
32. IF AN ACTIVE TREATMENT SYSTEM (FOR EXAMPLE, ELECTRO-COAGULATION, FLOCCULATION, FILTRATION, ETC.) FOR SEDIMENT OR OTHER POLLUTANT REMOVAL IS EMPLOYED, SUBMIT AN OPERATION AND MAINTENANCE PLAN (INCLUDING SYSTEM SCHEMATIC, LOCATION OF SYSTEM, LOCATION OF INLET, LOCATION OF DISCHARGE, DISCHARGE DISPERSION DEVICE DESIGN, AND A SAMPLING PLAN AND FREQUENCY) BEFORE OPERATING THE TREATMENT SYSTEM. OBTAIN ENVIRONMENTAL MANAGEMENT PLAN APPROVAL FROM DEQ BEFORE OPERATING THE TREATMENT SYSTEM. OPERATE AND MAINTAIN THE TREATMENT SYSTEM ACCORDING TO MANUFACTURER'S SPECIFICATIONS. (SECTION 1.2.9)
33. TEMPORARILY STABILIZE SOILS AT THE END OF THE SHIFT BEFORE HOLIDAYS AND WEEKENDS, IF NEEDED. THE REGISTRANT IS RESPONSIBLE FOR ENSURING THAT SOILS ARE STABLE DURING RAIN EVENTS AT ALL TIMES OF THE YEAR. (SECTION 2.2)
34. AS NEEDED BASED ON WEATHER CONDITIONS, AT THE END OF EACH WORKDAY SOIL STOCKPILES MUST BE STABILIZED OR COVERED, OR OTHER BMPS MUST BE IMPLEMENTED TO PREVENT DISCHARGES TO SURFACE WATERS OR CONVEYANCE SYSTEMS LEADING TO SURFACE WATERS. (SECTION 2.2.8)
35. SEDIMENT FENCE: REMOVE TRAPPED SEDIMENT BEFORE IT REACHES ONE THIRD OF THE ABOVE GROUND FENCE HEIGHT AND BEFORE FENCE REMOVAL. (SECTION 2.1.5.B)
36. OTHER SEDIMENT BARRIERS (SUCH AS BIOBAGS): REMOVE SEDIMENT BEFORE IT REACHES TWO INCHES DEPTH ABOVE GROUND HEIGHT AND BEFORE BMP REMOVAL. (SECTION 2.1.5.C)
37. CATCH BASINS: CLEAN BEFORE RETENTION CAPACITY HAS BEEN REDUCED BY FIFTY PERCENT. SEDIMENT BASINS AND SEDIMENT TRAPS: REMOVE TRAPPED SEDIMENTS BEFORE DESIGN CAPACITY HAS BEEN REDUCED BY FIFTY PERCENT AND AT COMPLETION OF PROJECT. (SECTION 2.1.5.D)
38. WITHIN 24 HOURS, SIGNIFICANT SEDIMENT THAT HAS LEFT THE CONSTRUCTION SITE, MUST BE REMEDIATED. INVESTIGATE THE CAUSE OF THE SEDIMENT RELEASE AND IMPLEMENT STEPS TO PREVENT A RECURRENCE OF THE DISCHARGE WITHIN THE SAME 24 HOURS. ANY IN-STREAM CLEAN-UP OF SEDIMENT SHALL BE PERFORMED ACCORDING TO THE OREGON DEPARTMENT OF STATE LANDS REQUIRED TIMEFRAME. (SECTION 2.2.19.A)
39. THE INTENTIONAL WASHING OF SEDIMENT INTO STORM SEWERS OR DRAINAGE WAYS MUST NOT OCCUR. VACUUMING OR DRY SWEEPING AND MATERIAL PICKUP MUST BE USED TO CLEANUP RELEASED SEDIMENTS. (SECTION 2.2.19)
40. DOCUMENT ANY PORTION(S) OF THE SITE WHERE LAND DISTURBING ACTIVITIES HAVE PERMANENTLY CEASED OR WILL BE TEMPORARILY INACTIVE FOR 14 OR MORE CALENDAR DAYS. (SECTION 6.5.F.)
41. PROVIDE TEMPORARY STABILIZATION FOR THAT PORTION OF THE SITE WHERE CONSTRUCTION ACTIVITIES CEASE FOR 14 DAYS OR MORE WITH A COVERING OF BLOWN STRAW AND A TACKIFIER, LOOSE STRAW, OR AN ADEQUATE COVERING OF COMPOST MULCH UNTIL WORK RESUMES ON THAT PORTION OF THE SITE. (SECTION 2.2.20)
42. DO NOT REMOVE TEMPORARY SEDIMENT CONTROL PRACTICES UNTIL PERMANENT VEGETATION OR OTHER COVER OF EXPOSED AREAS IS ESTABLISHED. ONCE CONSTRUCTION IS COMPLETE AND THE SITE IS STABILIZED, ALL TEMPORARY EROSION CONTROLS AND RETAINED SOILS MUST BE REMOVED AND DISPOSED OF PROPERLY, UNLESS NEEDED FOR LONG TERM USE FOLLOWING TERMINATION OF PERMIT COVERAGE. (SECTION 2.2.21)

LEGEND:

EXIST. FIRE HYDRANT
EXIST. WATER VALVE
EXIST. BLOW OFF
EXIST. WATER METER
EXIST. HOSE BIB
EXIST. IRRIGATION VALVE
EXIST. AIR RELEASE VALVE
EXIST. STORM DRAIN MANHOLE
EXIST. CLEANOUT
EXIST. SANITARY SEWER MANHOLE
EXIST. MAILBOX
HANDICAP PARKING SYMBOL
PARALLEL PARKING STRIPING
BICYCLE LANE SYMBOL
EXIST. SANITARY SEWER
EXIST. STORM DRAIN
EXIST. WATER
EXIST. GAS
EXIST. ELECTRIC
EXIST. OVERHEAD POWER
EXIST. TELEPHONE
EXIST. FIBER OPTIC
EXIST. CURB AND GUTTER
EXIST. CENTERLINE
EXIST. RIGHT OF WAY
EXIST. CONTOUR
PROPOSED CONTOUR
SANITARY SEWER
STORM DRAIN
WATER
GAS
ELECTRIC
CURB AND GUTTER
PROPOSED RIGHT OF WAY
FLOW LINE
PROPERTY LINE
FIRE HYDRANT
WATER VALVE
WATER METER
BACKFLOW DEVICE
IRRIGATION WATER METER
AIR RELEASE VALVE
BLOWOFF DEVICE ASSEMBLY
FIRE DEPARTMENT CONNECTION
END PLUG
TEE
SANITARY SEWER CLEANOUT
CONCENTRIC MANHOLE
STORM DRAIN CLEANOUT
CONTROL STRUCTURE MANHOLE
ATRIUM DRAIN / BUBBLER
AREA DRAIN
CATCH BASIN INLET
CURB INLET
LIGHTS
SIGN (TRAFFIC, INFORMATION)
BOLLARD
CONCRETE
HMAC PAVING
NEW RIP RAP

ABBREVIATIONS:

AC	ASPHALT
BC	BACK OF CURB
BR	BOTTOM OF RAMP
BS	BOTTOM OF STAIRS
BW	BOTTOM OF WALL
CMP	CORRUGATED METAL PIPE
CO	CLEANOUT RISER
C	CONCRETE
DIP	DUCTILE IRON PIPE
(E)	EXISTING
EG	EXISTING GRADE
EOC	EDGE OF CONCRETE
EOP	EDGE OF PAVEMENT
FF	FINISHED FLOOR
FG	FINISHED GRADE
FL	FLOW LINE
G	GAS
GB	GRADE BREAK
GC	GENERAL CONTRACTOR
GRD	GROUND
GRVL	GRAVEL
HDPE	HIGH-DENSITY POLYETHYLENE
HP	HIGH POINT
IE	INVERT ELEVATION
LP	LOW POINT
MAX	MAXIMUM
ME	MATCH EXISTING
MIN	MINIMUM
MUTCD	MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES
ODOT	OREGON DEPARTMENT OF TRANSPORTATION
PERF	PERFORATED PIPE
PVC	POLYVINYL CHLORIDE
RCP	REINFORCED CONCRETE PIPE
RE	RIM ELEVATION
REQ'D	REQUIRED
ROW	RIGHT-OF-WAY
SD	STORM DRAIN
SDMH	STORM DRAIN MANHOLE
SS	SANITARY SEWER
SSMH	SANITARY SEWER MANHOLE
STD	STANDARD
TBR	TO BE REMOVED
TC	TOP OF CURB
TR	TOP OF RAMP
TOW	TOP OF WALL
TYP	TYPICAL
UPC	UNIFORM PLUMBING CODE
W	WATER

AUTHORIZED NON-STORM WATER DISCHARGE

THE FOLLOWING NON-STORMWATER DISCHARGES FROM CONSTRUCTION SITES ARE AUTHORIZED IF THE TERMS AND CONDITIONS OF THIS PERMIT ARE MET, ALL NECESSARY CONTROLS ARE IMPLEMENTED TO MINIMIZE SEDIMENT TRANSPORT, AND THE DISCHARGE IS NOT PROHIBITED BY LOCAL ORDINANCE:

a. WATER AND ASSOCIATED DISCHARGES FROM EMERGENCY FIREFIGHTING ACTIVITIES;
b. FIRE HYDRANT FLUSHING;
c. PROPERLY MANAGED LANDSCAPE IRRIGATION;
d. WATER USED TO WASH EQUIPMENT AND VEHICLES (EXCLUDING THE ENGINE, UNDERCARRIAGE, AND WHEELS/TIRES) PROVIDED THERE IS NO DISCHARGE OF SOAPS, SOLVENTS, OR DETERGENTS USED;
e. WATER USED TO CONTROL DUST;
f. POTABLE WATER INCLUDING UNCONTAMINATED WATER LINE FLUSHINGS;
g. EXTERNAL BUILDING WASHDOWN, PROVIDED SOAPS, SOLVENTS, AND DETERGENTS ARE NOT USED, AND EXTERNAL SURFACES DO NOT CONTAIN HAZARDOUS SUBSTANCES;
h. PAVEMENT WASH WATERS, PROVIDED SPILLS OR LEAKS OF TOXIC OR HAZARDOUS SUBSTANCES HAVE NOT OCCURRED (UNLESS ALL SPILL MATERIAL HAS BEEN REMOVED) AND WHERE SOAPS, SOLVENTS, AND DETERGENTS ARE NOT USED. DIRECTING PAVEMENT WASH WATERS INTO ANY SURFACE WATER, STORM DRAIN INLET, OR STORMWATER CONVEYANCE IS PROHIBITED, UNLESS THE CONVEYANCE IS CONNECTED TO A SEDIMENT BASIN, SEDIMENT TRAP, OR SIMILARLY EFFECTIVE CONTROL FOR THE POLLUTANTS PRESENT. PER 2.2.19.B, HOSING OF ACCUMULATED SEDIMENTS ON PAVEMENT INTO ANY STORMWATER CONVEYANCE IS PROHIBITED;
i. UNCONTAMINATED AIR CONDITIONING OR COMPRESSOR CONDENSATE;
j. UNCONTAMINATED, NON-TURBID DISCHARGES OF GROUNDWATER OR SPRING WATER;
k. FOUNDATIONS OR FOOTING DRAINS WHERE FLOWS ARE NOT CONTAMINATED WITH PROCESS MATERIALS SUCH AS SOLVENTS OR CONTAMINATED GROUNDWATER

POTENTIAL POLLUTANT ACTIVITY

VEHICLE TRAFFIC
- EXHAUST EMISSIONS
- POSSIBLE FUEL AND SYSTEMS LEAKAGE
- TIRE WEAR
- MECHANICAL PARTS AND BRAKING SYSTEMS
- BODYWORK (CORROSION, ETC.)

ROAD SEDIMENT

CONSTRUCTION ITEMS
- ASPHALT AND PORTLAND CEMENT CONCRETE
- JOINT SEALANTS, CONCRETE CURING COMPOUNDS
- PAINT, SOLVENTS, GLUES, THINNERS, CAULKS, JOINT COMPOUNDS
- WOOD PRODUCTS
- MATERIAL PACKAGING WASTE

INSPECTION FREQUENCY

Site Condition	Minimum Frequency
1. Active period	On initial date that land disturbance activities commence. Within 24 hours of any storm event, including runoff from snow melt, that results in discharge from the site. At least once every 14 days, regardless of whether stormwater runoff is occurring.
2. Inactive periods greater than fourteen (14) consecutive calendar days	The Inspector may reduce the frequency of inspections in any area of the site where the stabilization steps in Section 2.2.20 have been completed to twice per month for the first month, no less than 14 calendar days apart, then once per month.
3. Periods during which the site is inaccessible due to inclement weather	If safe, accessible and practical, inspections must occur daily at a relevant discharge point or downstream location of the receiving waterbody.
4. Periods during which construction activities are suspended and runoff is unlikely due to frozen conditions.	Visual monitoring Inspections may be temporarily suspended. Immediately resume monitoring upon thawing, or when weather conditions make discharges likely.
5. Periods during which construction activities are conducted and runoff is unlikely during frozen conditions.	Visual monitoring inspections may be reduced to once a month. Immediately resume monitoring upon thawing, or when weather conditions make discharges likely.

BMPS CONSTRUCTION MATRIX

Year	2025				
Phase/BMP	CLEARING	MASS GRADING	UTILITY CONSTRUCTION	VERTICAL CONSTRUCTION	FINAL STABILIZATION
EROSION PREVENTION					
Ground Cover					
Plastic Sheeting					
Dust Control	X	X			
Temporary Stabilization (Straw/Mulch/ Hydroseed)					
Final stabilization shall be establishment of native grassy material or established hydroseed prior to removal of erosion control measures.					X
Buffer Zone (from Ravine)					
SEDIMENT CONTROL					
Sediment Fence (Perimeter)	X	X	X	X	X
Sediment Fence (Interior)					
Straw Wattles					
Inlet Protection			X	X	
Dewatering					
Construction Entrance	X	X	X		
Existing Outlet Protection	X	X	X	X	
New Outlet Protection		X	X	X	
Existing Curb Inlet Check Dams					
POLLUTION PREVENTION					
Hazard Waste Management					
Spill Kit Onsite	X	X	X	X	X
Concrete Washout Area		X	X	X	

RATIONALE STATEMENT

A COMPREHENSIVE LIST OF AVAILABLE BEST MANAGEMENT PRACTICES (BMP) OPTIONS BASED ON DEQ'S 1200-C PERMIT APPLICATION AND ESCP GUIDANCE DOCUMENT HAS BEEN REVIEWED TO COMPLETE THIS EROSION AND SEDIMENT CONTROL PLAN. SOME OF THE ABOVE LISTED BMPS WERE NOT CHOSEN BECAUSE THEY WERE DETERMINED TO NOT EFFECTIVELY MANAGE EROSION PREVENTION AND SEDIMENT CONTROL FOR THIS PROJECT BASED ON SPECIFIC SITE CONDITIONS, INCLUDING SOIL CONDITIONS, TOPOGRAPHIC CONSTRAINTS, ACCESSIBILITY TO THE SITE, AND OTHER RELATED CONDITIONS. AS THE PROJECT PROGRESSES AND THERE IS A NEED TO REVISE THE ESCP, AN ACTION PLAN WILL BE SUBMITTED.

SPILL CONTAINMENT

- CLEAN UP SPILLS OR CONTAMINATED SURFACES IMMEDIATELY USING DRY CLEAN UP MEASURES (DO NOT CLEAN CONTAMINATED SURFACES BY HOSING THE AREA DOWN), AND ELIMINATE THE SOURCE OF THE SPILL TO PREVENT A DISCHARGE OR A CONTINUATION OF AN ONGOING DISCHARGE; AND
- STORE MATERIALS IN A COVERED AREA (E.G., PLASTIC SHEETING, TEMPORARY ROOFS), OR IN SECONDARY CONTAINMENT TO PREVENT THE EXPOSURE OF THESE CONTAINERS TO PRECIPITATION OR STORMWATER RUNOFF, OR A SIMILARLY EFFECTIVE MEANS DESIGNED TO PREVENT THE DISCHARGE OF POLLUTANTS FROM THESE AREAS.



VICINITY MAP

NOT TO SCALE

N
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SITE MAP

NOT TO SCALE

DEVELOPER

KENDRICK ENTERPRISES LLC
ROBERT KENDRICK
716 N. LAUREL ST.
ASHLAND OR 97520

SITE CONTRACTOR

TAYLORED ELEMENTS CONSTRUCTION
KYLE TAYLOR
1679 JACKSON ROAD
ASHLAND, OR 97520
541-690-1617

ESC SITE INSPECTOR:

NAME: TBD
CONTACT:
CERTIFICATION:

BMP INSTALL/MAINTAIN

NAME: TBD
CONTACT:
CERTIFICATION:

BMP INSTALL & MAINTENANCE WILL FOLLOW THE CONSTRUCTION SCHEDULE WITH AN ESTIMATED START DATE OF JAN 2025 TO ESTIMATED COMPLETION OF JAN 2026

DESIGN ENGINEER

TODD POWELL, P.E.
POWELL ENGINEERING AND CONSULTING
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APPLIED GEOTECHNICAL ENGINEERING
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MEDFORD, OR 97501
541-226-6658

SURVEYOR

PACIFIC CREST SURVEYING
CURT CHAPPELL, PLS
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ASHLAND, OR 97520
(408) 375-5220

ESCP PREP

POWELL ENGINEERING AND CONSULTING
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MEDFORD, OR 97501
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todd@powellengineeringconsulting.com

SITE INFORMATION

1. TYPE OF DEVELOPMENT: MULTI-FAMILY HOUSING
2. CONSTRUCTION ACTIVITY WILL CONSIST OF:
   2.a. CURB AND GUTTER, SIDEWALKS, ASPHALT PAVING
   2.b. STORMWATER DRAINAGE SYSTEM: STORMWATER PIPING
   2 c. NEW BUILDING CONSTRUCTION

PROJECT TIMELINE:
BEGINNING DATE: JANUARY 2025
COMPLETION DATE: JANUARY 2026

3. PROJECT SITE AREAS:
TOTAL AREA: 9.8 AC (426,888) SF
DISTURBED AREA: 9.8 AC (426,888) SF
PERCENT OF SITE DISTURBED: 100%

4. OFFSITE PUBLIC IMPROVEMENT AREA:
PUBLIC DRIVEWAY APPROACH, HWY 99 - UTILITY CONNECTIONS
PUBLIC SIDEWALKS - HWY 99
PUBLIC BUS TRANSFER PLAZA - HWY 99

5. ONSITE SOIL TYPES: SITE CONSISTS OF 43D AND 165A SOIL TYPES FROM SOIL MAPS:
- 43 D - DAROW SILTY CLAY, 5 TO 20 PERCENT SLOPES - 93%
- 165 E - SHEFFLEIN LOAM , 20 TO 35 PERCENT NORTH SLOPES - 6.7%

RECEIVING WATER BODIES

BEAR CREEK

303(d) Listed :

BEAR CREEK
CAT 5: TEMPERATURE, IRON (TOTAL), BIOCRITERIA, HARMFUL ALGAL BLOOMS

CAT 4A: E. COLI, DISSOLVED OXYGEN, PH, EXCESS ALGAL GROWTH, FECAL COLIFORM

RAIN GAUGE

ROGUE VALLEY INTERNATIONAL AIRPORT
https://forecast.weather.gov/data/obhistory/KMFR.html

INSPECTION NOTES:

* HOLD A PRE-CON MEETING OF PROJECT CONSTRUCTION PERSONNEL THAT INCLUDES THE EC INSPECTOR.
* ALL INSPECTIONS MUST BE MADE IN ACCORDANCE WITH RVSS' 1200 C PERMIT REQUIREMENTS.
* INSPECTION LOGS MUST BE KEPT IN ACCORDANCE WITH RVSS' 1200 C PERMIT REQUIREMENTS.
* CHANGES TO THE APPROVED ESC PLAN MUST BE SUBMITTED TO RVSS IN THE FORM OF AN ACTION PLAN.

Know what's below.
Call before you dig.

SHEET INDEX

ESCP - COVER SHEET	C2.0
ESCP - ROUGH GRADING AND DEMO PHASE	C2.1
ESCP - STREET & UTILITY PHASE	C2.2
ESCP - VERTICAL CONSTRUCTION & STABILIZATION	C2.3
ESCP - BMP DETAILS	C2.4

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REGISTERED PROFESSIONAL ENGINEER
56425PE
NOT FOR CONSTRUCTION
OREGON
JAN. 13, 2004
TODD D. POWELL
EXPIRES: 12/31/2626

VERIFY SCALES
ORIGINAL DRAWING BAR IS ONE INCH
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

GRAND TERRACE
AN APARTMENT DEVELOPMENT

LAND USE APPLICATION PLANS
MAP 38-1E-32, TAX LOT 1702
HIGHWAY 99, ASHLAND, OR 97520

NO.	REVISION DESCRIPTION	DATE

DRAWN BY:	TDP
DESIGNED BY:	TDP
CHECKED BY:	TDP
ISSUE DATE:	10/02/24
LAND USE SET	
JOB NO.	ESC COVER SHEET
22-002	C2.00

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WET WEATHER CONSTRUCTION

THE SITE SOILS ARE CONSIDERED VERY MOISTURE SENSITIVE AND, AS SUCH, ARE SUSCEPTIBLE TO DISTURBANCE BY CONSTRUCTION EQUIPMENT, PARTICULARLY DURING PERIODS OF WET WEATHER. DURING WET WEATHER, THE CONTRACTOR SHALL MINIMIZE TRAFFIC ON PREPARED SOIL SUBGRADE AREAS. IF THE SITE SOILS ARE EXPOSED DURING WET WEATHER, THE USE OF CRUSHED ROCK PLACED AS ENGINEERED FILL IN THE BOTTOM OF THE EXCAVATIONS MAY BE NECESSARY TO PROTECT THE SUBGRADE. THE GRADING CONTRACTOR SHALL TAKE ALL PRECAUTIONS TO LIMIT SURFACE DISTURBANCE AND PROTECT THE SITE GRADING AREA FROM EXCESSIVE RUNOFF EROSION.

ESCP RESPONSIBILITY

IT IS THE INTENT OF THIS TEMPORARY EROSION AND SEDIMENT CONTROL PLAN THAT STORM WATER RUNOFF BE CONTROLLED AT ALL TIMES TO PREVENT SOIL EROSION AND TO MAINTAIN WATER QUALITY. ANY AND ALL MEASURES NECESSARY TO DO SO SHALL BE EMPLOYED BY THE CONTRACTOR.

1. REGARDLESS OF SITE, WEATHER, SOIL OR OTHER CONDITIONS, THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ENSURING THAT EROSION DOES NOT OCCUR ON THE SITE AND THAT POLLUTED OR SILT-LADEN RUNOFF DOES NOT LEAVE THE SITE OR ENTER INTO ANY CREEK, STREAM, WETLAND OR WATER BODY ON THE SITE.
2. BEYOND THE MINIMUM REQUIREMENTS SHOWN ON THIS PLAN, THE CONTRACTOR SHALL BE RESPONSIBLE FOR SELECTING AND IMPLEMENTING APPROPRIATE METHODS, "BEST MANAGEMENT PRACTICES" (BMPS), FOR STORM WATER TREATMENT AND CONTROL THAT MEET THE REQUIREMENTS OF THE STATE AND LOCAL JURISDICTION.
3. THE CONTRACTOR SHALL REPORT ALL WATER QUALITY CONCERNS AND ACTIVITIES TO THE PROJECT ENGINEER. IN THE EVENT THAT THE INSTALLED WATER QUALITY CONTROL MEASURES ARE INEFFECTIVE AT CONTROLLING EROSION AND SEDIMENT, THE CONTRACTOR SHALL IMMEDIATELY REPORT TO AND CONSULT WITH THE PROJECT ENGINEER TO FIND AN APPROPRIATE REMEDY. ALL CONSTRUCTION ACTIVITIES, WITH THE EXCEPTION OF EROSION AND SEDIMENT CONTROL MEASURES, SHALL CEASE UNTIL SUCH TIME AS THE WATER QUALITY IS BROUGHT UNDER CONTROL.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MONITORING WEATHER FORECASTS AND ANTICIPATING STORM ACTIVITY AND SHALL SCHEDULE ALL PROJECT ACTIVITIES IN ANTICIPATION OF THE WEATHER.
5. ALL SUPPLIES AND MATERIALS NECESSARY FOR IMPLEMENTING BMPS SHALL BE STORED ON SITE AND SHALL BE IMMEDIATELY AVAILABLE FOR USE. SUCH SUPPLIES AND MATERIALS SHALL INCLUDE, BUT NOT BE LIMITED TO, STRAW BALES OR OTHER MULCHING MATERIAL, SILT FENCING AND STAKES, FILTER FABRIC, ETC.
6. DURING AND AFTER RUNOFF PRODUCING STORM EVENTS, CONTRACTOR SHALL MONITOR ALL EROSION CONTROL MEASURES AND SHALL PRIORITIZE IMPLEMENTATION AND MAINTENANCE OF EROSION AND SEDIMENT CONTROL MEASURES ABOVE ALL OTHERS.

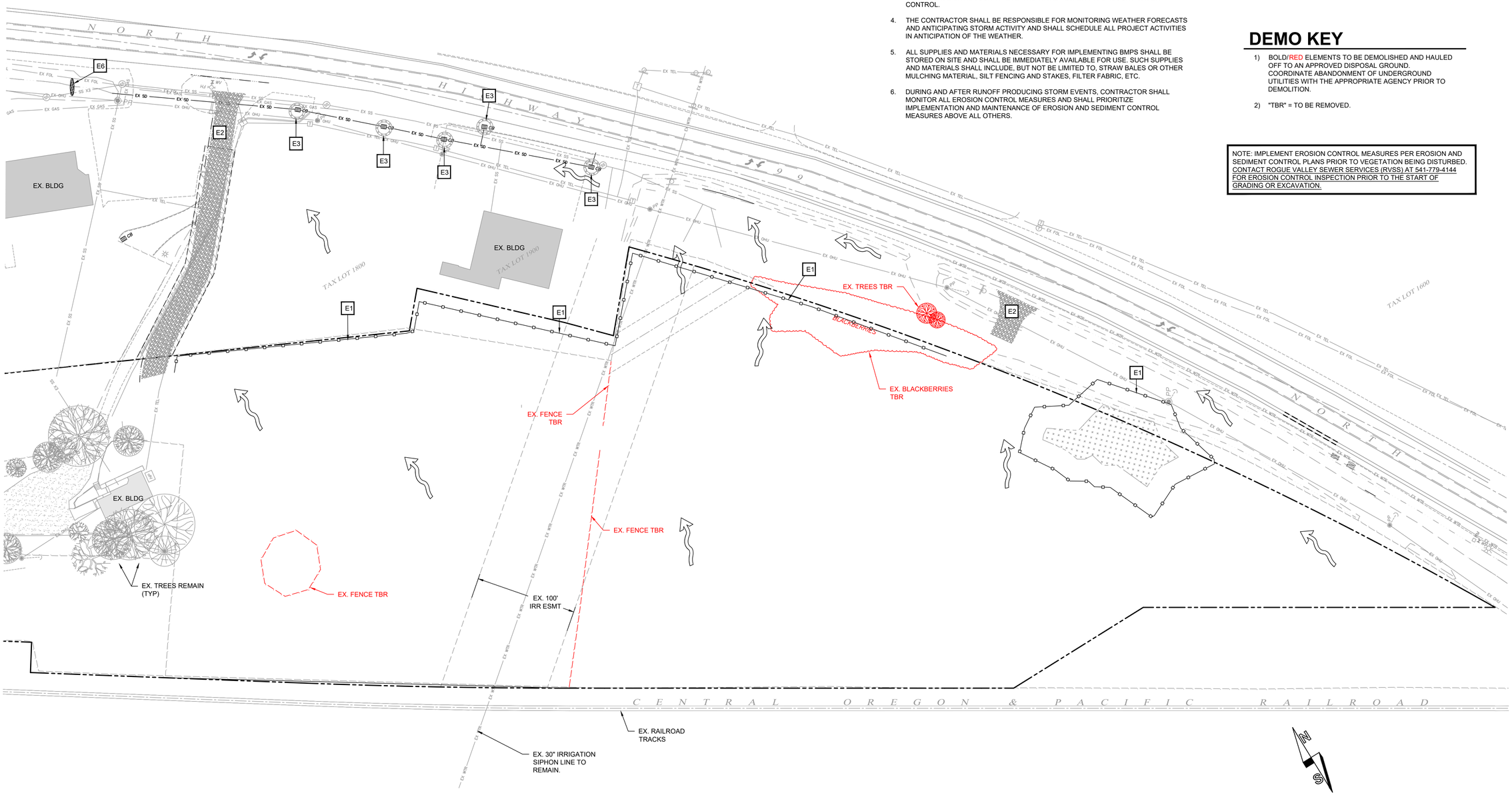
ESCP LEGEND

- E1 — INSTALL SEDIMENT FENCE PER ODOT DETAIL RD1040.
- E2 — INSTALL TEMPORARY CONSTRUCTION ENTRANCE (TCE) PER ODOT DETAIL RD1000.
- E3 — INSTALL INLET PROTECTION ON EXISTING CATCH BASINS PER ODOT DETAIL RD1010.
- EX. SURFACE FLOW DIRECTION

DEMO KEY

1) BOLD/RED ELEMENTS TO BE DEMOLISHED AND HAULED OFF TO AN APPROVED DISPOSAL GROUND. COORDINATE ABANDONMENT OF UNDERGROUND UTILITIES WITH THE APPROPRIATE AGENCY PRIOR TO DEMOLITION.
2) "TBR" = TO BE REMOVED.

NOTE: IMPLEMENT EROSION CONTROL MEASURES PER EROSION AND SEDIMENT CONTROL PLANS PRIOR TO VEGETATION BEING DISTURBED. CONTACT ROGUE VALLEY SEWER SERVICES (RVSS) AT 541-779-4144 FOR EROSION CONTROL INSPECTION PRIOR TO THE START OF GRADING OR EXCAVATION.



ESCP - ROUGH GRADING AND DEMO PHASE

0 50 100
1" = 50'

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JUNE 13, 2006
TODD D. POWELL
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GRAND TERRACE AN APARTMENT DEVELOPMENT

LAND USE APPLICATION PLANS
MAP 38-1E-32, TAX LOT 1702
HIGHWAY 99, ASHLAND, OR 97520

NO.	REVISION DESCRIPTION	DATE

DRAWN BY:	TDP
DESIGNED BY:	TDP
CHECKED BY:	TDP
ISSUE DATE:	10/02/24
LAND USE SET	
JOB NO.	ESC ROUGH GRD & DEMO PHASE
22-002	C2.10

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WET WEATHER CONSTRUCTION

THE SITE SOILS ARE CONSIDERED VERY MOISTURE SENSITIVE AND, AS SUCH, ARE SUSCEPTIBLE TO DISTURBANCE BY CONSTRUCTION EQUIPMENT, PARTICULARLY DURING PERIODS OF WET WEATHER. DURING WET WEATHER, THE CONTRACTOR SHALL MINIMIZE TRAFFIC ON PREPARED SOIL SUBGRADE AREAS. IF THE SITE SOILS ARE EXPOSED DURING WET WEATHER, THE USE OF CRUSHED ROCK PLACED AS ENGINEERED FILL IN THE BOTTOM OF THE EXCAVATIONS MAY BE NECESSARY TO PROTECT THE SUBGRADE. THE GRADING CONTRACTOR SHALL TAKE ALL PRECAUTIONS TO LIMIT SURFACE DISTURBANCE AND PROTECT THE SITE GRADING AREA FROM EXCESSIVE RUNOFF EROSION.

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ESCP RESPONSIBILITY

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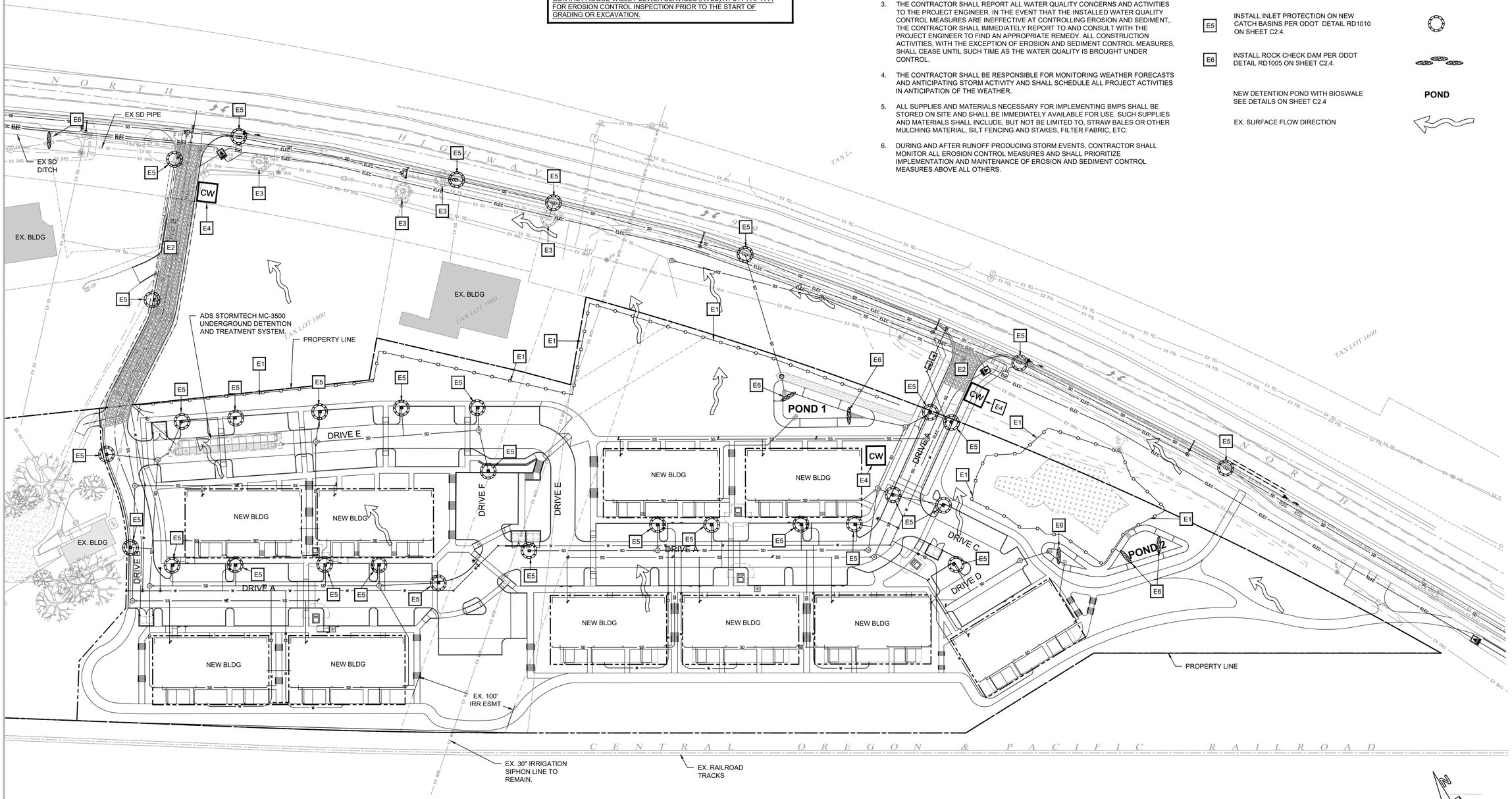
ESCP LEGEND

E1	SEDIMENT FENCE PER ODOT DETAIL RD1040 ON SHEET C2.4	
E2	INSTALL TEMPORARY CONSTRUCTION ENTRANCE (TCE) PER ODOT DETAIL RD1000.	
E3	INSTALL INLET PROTECTION ON EXISTING CATCH BASINS PER ODOT DETAIL RD1010 ON SHEET C2.4.	
E4	INSTALL CONCRETE WASH OUT PER DETAIL E4, ON SHEET C2.4.	CW
E5	INSTALL INLET PROTECTION ON NEW CATCH BASINS PER ODOT DETAIL RD1010 ON SHEET C2.4.	
E6	INSTALL ROCK CHECK DAM PER ODOT DETAIL RD1005 ON SHEET C2.4.	
	NEW DETENTION POND WITH BIOSWALE SEE DETAILS ON SHEET C2.4	POND
	EX. SURFACE FLOW DIRECTION	



ESCP - STREET & UTILITY PHASE

SCALE: 1" = 50' - 0" (22X34)

0 50 100
1" = 50'

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TODD D. POWELL
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GRAND TERRACE AN APARTMENT DEVELOPMENT

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HIGHWAY 99, ASHLAND, OR 97520

NO.	REVISION DESCRIPTION	DATE

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DESIGNED BY:	TDP
CHECKED BY:	TDP
ISSUE DATE:	10/02/24
LAND USE SET	
JOB NO.	ESC STREET AND UTILITY PHASE
22-002	C2.20

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ESCP LEGEND

E1	SEDIMENT FENCE PER ODOT DETAIL RD1040 ON SHEET C2.4	
E2	NOT USED	
E3	INSTALL INLET PROTECTION ON EXISTING CATCH BASINS PER ODOT DETAIL RD1010 ON SHEET C2.4.	
E4	INSTALL CONCRETE WASH OUT PER DETAIL E4, ON SHEET C2.4.	CW
E5	INSTALL INLET PROTECTION ON NEW CATCH BASINS PER ODOT DETAIL RD1010 ON SHEET C2.4.	
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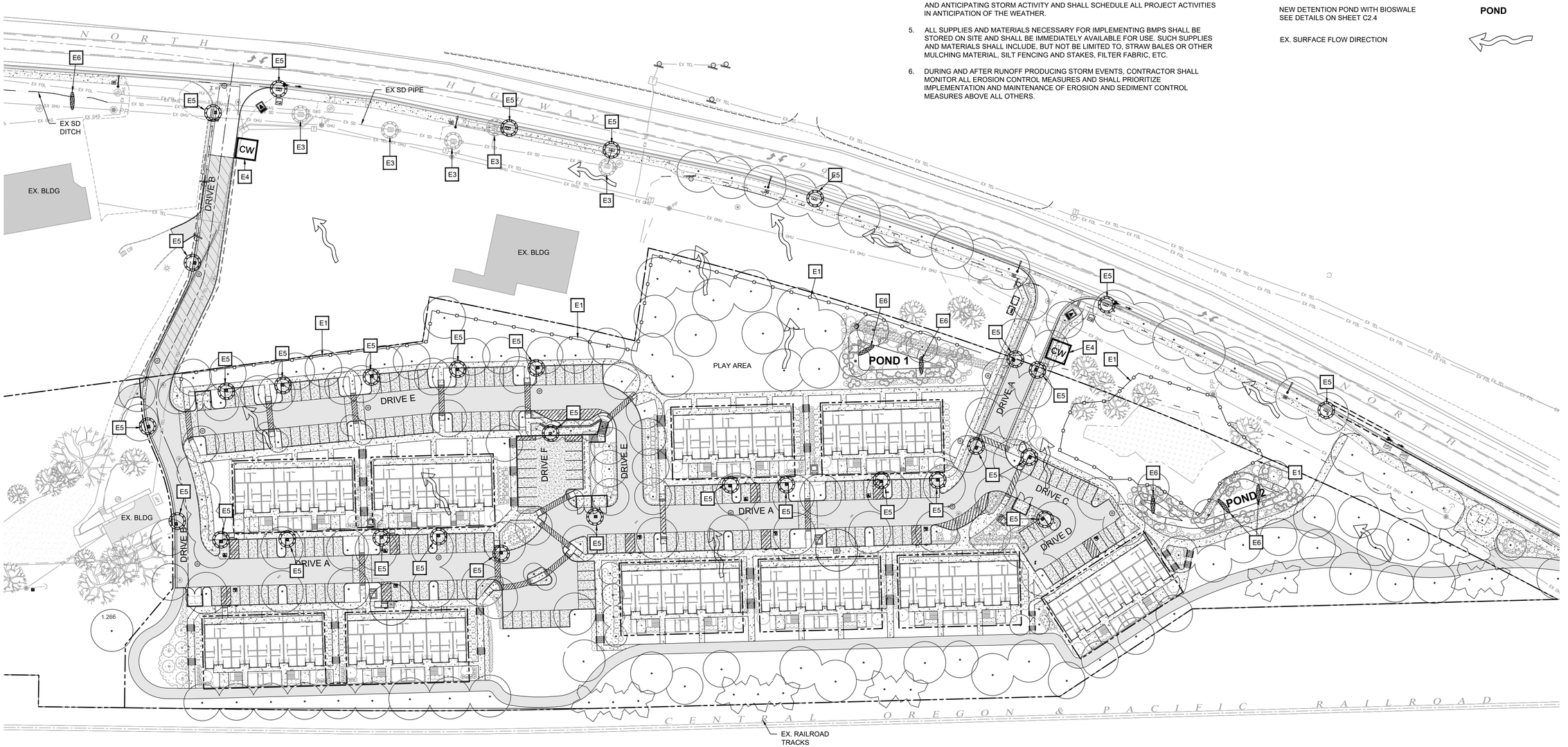
	EX. SURFACE FLOW DIRECTION	



ESCP - VERTICAL CONSTRUCTION & STABILIZATION

SCALE: 1" = 50' - 0" (22x34)

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OREGON
JAN. 13, 2006
TODD D. POWELL

EXPIRES: 12/31/2626

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GRAND TERRACE
AN APARTMENT DEVELOPMENT

LAND USE APPLICATION PLANS
MAP 38-1E-32, TAX LOT 1702
HIGHWAY 99, ASHLAND, OR 97520

NO.	REVISION DESCRIPTION	DATE

DRAWN BY:	TDP
DESIGNED BY:	TDP
CHECKED BY:	TDP
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LAND USE SET	
JOB NO.	ESC VERT. CONST & STABILIZATION
22-002	C2.30

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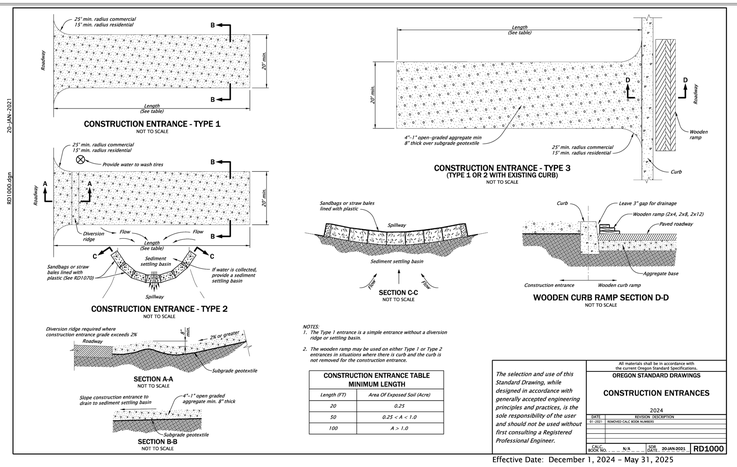
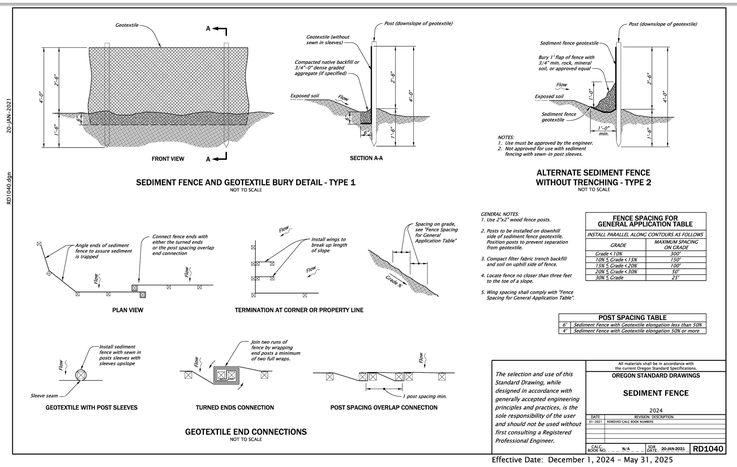
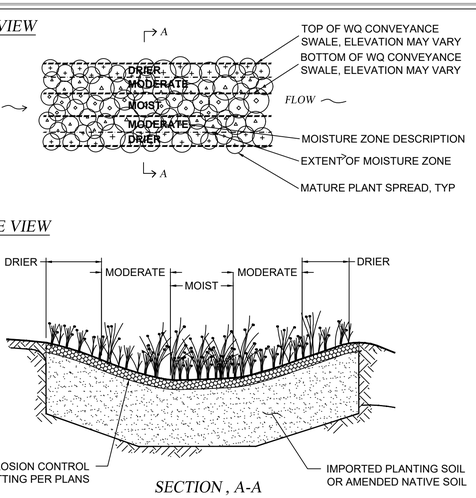






LEGEND:

- INDICATES GRADE BREAK
- MOISTURE ZONE

PLANT SPECIES APPROPRIATE FOR MOISTURE ZONE:

- (+) DRIER
- (^) MODERATE
- (◇) MOIST

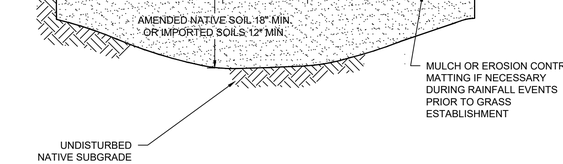
NOTES:

1. THIS DETAIL IS PROVIDED AS A SCHEMATIC EXAMPLE OF THE RANDOM PLANT PLACEMENT AND 90% COVERAGE AFTER ESTABLISHMENT PERIOD DESIRED TO REDUCE EROSION AND WEEDS.
2. INSTALL PLANTS PER PLANS, ACCORDING TO LANDSCAPE DESIGN PLANT TABLE, WHICH SHOULD INCLUDE PLANT SPECIES, SPACING, AND QUANTITIES IN EACH MOISTURE ZONE.
3. MOISTURE ZONES VARY FROM THOSE SHOWN DEPENDING ON GRADING PLAN, LOCATION OF INLET(S) AND OUTLET(S) AND FACILITY SHAPE.

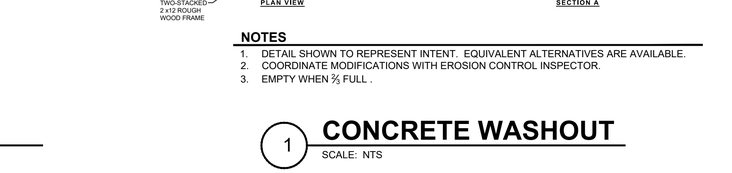
Rogue Valley Stormwater Design Manual	Water Quality Conveyance Swale Planting Schematic	BMP 8.03 1 of 1 Scale: NTS

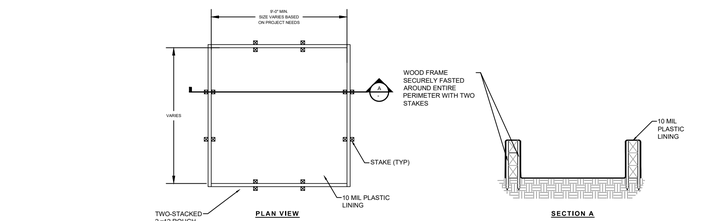
General Notes for Vegetated BMPs

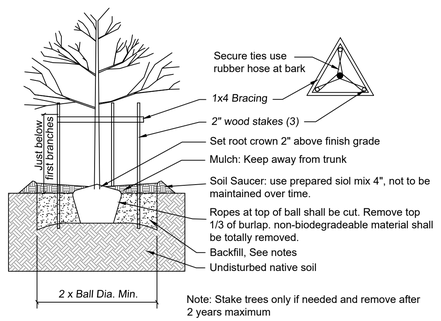
1. Excluding construction of the facility itself, exposed stormwater treatment area subgrade shall be fenced to prohibit impacts from construction (including materials and equipment storage).
2. Build and vegetate as early as possible to establish plantings prior to directing stormwater runoff to the BMP.
3. Call the reviewing agency 48 hours in advance of constructing this facility so construction observation may be performed to identify variations in the field that may affect design and verify proper construction.
4. Over-excavate within the BMP to allow for placement of amended or imported soil up to final grade.
5. Amended native or imported soil mix shall be the "Water Quality Mixture" specified in Oregon Standard Specifications for Construction Special Provision Section 01012.12.
6. Placement of amended native or imported soil mix shall occur as follows:
   a. Conduct excavation, fine grading and placement work only when the facility and the soil to be placed is dry. Do not place if soil is saturated.
   b. If unprotected soil has been exposed to rainfall, scarify the surface to a depth of 4 inches to restore filtration capacity.
   c. Place soil in 8 inch maximum lifts (i.e. depths).
   d. Lightly compact each lift, (e.g. a water filled landscape roller) to achieve 85% compaction. Do not compact with heavy machinery or vibratory compaction.
7. If soil is placed during the wet season and the facility will not be planted within one week of soil installation, install Oregon Standard Specifications for Construction, Special Provision 00280 Type E erosion control matting.
8. Contact approving jurisdiction 48 hours in advance of planting so that the jurisdiction can review soil installation and plant placement prior to plant installation.
9. Mulch shall be:
   a. Placed in areas shown on the approved plan
   b. Shredded wood chips or course compost
   c. Dye, pesticide and weed free
   d. Spread in a minimum two inch layer over bare soil or in a ring around plants
   e. Not touching plant stems
10. Side slopes outside of flow area shall be permanently stabilized with mulch and vegetation.
11. The approved jurisdiction may request evidence the the amended native or imported soil mix meets specification prior to placement.
12. If requested, test data for the soil mix shall be provided by an accredited laboratory with current certification. The date of the analysis must be no more than 90 days prior to submittal. The report must include the following:
    a. Name and address of the laboratory
    b. Phone, contact and email address of the laboratory
    c. Test data, including date and name of the test procedure
    d. Source of the topsoil



451 **SECTION - BIOSWALE/POND**
SCALE: NTS MODIFIED RVSS BMP 8.01

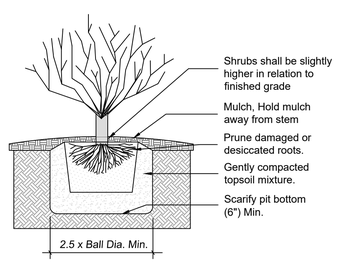






TREE PLANTING DETAIL

SCALE: N.T.S.



SHRUB PLANTING DETAIL

SCALE: N.T.S.

NOTES

1. DETAIL SHOWN TO REPRESENT INTENT. EQUIVALENT ALTERNATIVES ARE AVAILABLE.
2. COORDINATE MODIFICATIONS WITH EROSION CONTROL INSPECTOR.
3. EMPTY WHEN ⅔ FULL .

1 **CONCRETE WASHOUT**

SCALE: NTS

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NO.	REVISION DESCRIPTION	DATE

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ESC DETAILS
C2.40

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PARKING & COVERAGE CALCULATIONS

PARKING LOT COVERAGE (NOT INCLUDING DRIVEWAY ENTRY'S FROM HWY 99):

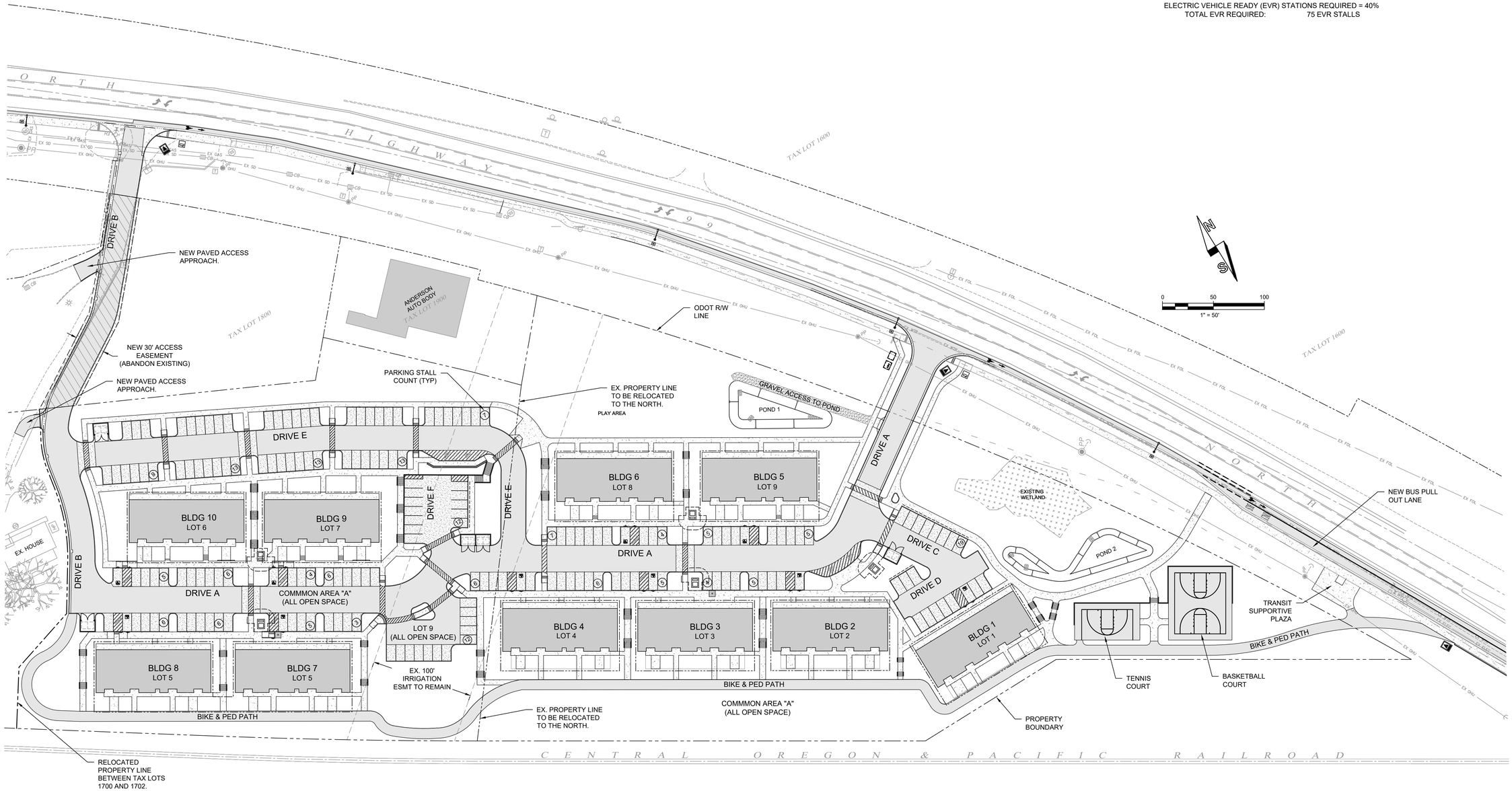
PARKING LOT ASPHALT = 37,569 SF
PARKING LOT CONCRETE = 38,112 SF = 50.3% OF TOTAL

PARKING CALCULATIONS:

10 BUILDINGS: 21 UNITS PER BLDG = 210 TOTAL UNITS

TOTAL PARKING SPACES: 186 SPACES
REGULAR PARKING STALLS: 176 SPACES
ADA VAN ACCESSIBLE STALLS: 10 SPACES

ELECTRIC VEHICLE READY (EVR) STATIONS REQUIRED = 40%
TOTAL EVR REQUIRED: 75 EVR STALLS



PLAN VIEW - OVERALL CIVIL SITE PLAN

SCALE: 1" = 50' - 0" (22X34)

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DRAWN BY:	TDP
DESIGNED BY:	TDP
CHECKED BY:	TDP
ISSUE DATE:	12/11/24
LAND USE SET	
JOB NO.	CIVIL OVERALL SITE PLAN
22-002	C3.00

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PRELIMINARY SUBDIVISION MAP

LOCATED AT

1511 North Highway 99
Ashland, Oregon

LYING SITUATE WITHIN

SOUTHWEST QUARTER OF SECTION 32
TOWNSHIP 38 SOUTH, RANGE 1 EAST, WILLAMETTE MERIDIAN
CITY OF ASHLAND, JACKSON COUNTY, OREGON

FOR

Grand Terrace PUD

716 North Laurel Street
Ashland, Oregon 97520

LEGEND

- IRON PIN MONUMENT
- PROPERTY BOUNDARY LINE
- PROPOSED LOT LINE
- BOUNDARY LINE
- CENTERLINE
- EASEMENT LINE
- PROPOSED LOT
- IRRIGATION EASEMENT
- ACCESS EASEMENT

PROPOSED PARCEL 1
8.33 ACRES

PARCEL 1 - A
O.R. 2013-03734

TAXLOT 1701

TAXLOT 1704

TAXLOT 1800

TAXLOT 5800

TAXLOT 1600

TAXLOT 1900

N O R T H H I G H W A Y 9 9

C E N T R A L P A C I F I C & O R E G O N R A I L R O A D

453.75'
N 64°23'16" W 690.07'

S 56°10'38" E - 410.82'

S 25°49'21" W 30.00'

129.80'

S 56°10'38" E - 270.00'

140.20'

N 19°47'31" E - 165.00'

R = 605.42'
L = 264.07'

N 41°09'55" E 34.09'

N58°43'56"E

R = 605.42'
L = 75.12'

R = 270.00'
L = 83.60'

N 31°31'46" E 77.28'

N 50°47'44" E 457.35'

S 58°23'04" E - 439.50'

238.28'
269.36'

S 41°48'34" W 42.81'

149.84'
N 45°19'25" W

N 43°21'12" W 50.02'

S 41°15'25" W 169.23'

17.08'

N 89°53'15" W 145.31'

RIGHTS OF ACCESS RESTRICTED IN THIS SECTION PER D.R. VOLUME 536, PAGE 401

S 38°28'42" E 239.00'

64.34'

R = 3788.83'
L = 901.97'

N 29°32'55" W 400.20'

N 58°23'04" W - 348.32'

151.14'
N 89°39'37" E

SUBDIVISION TRACT AREAS
EXTERIOR BOUNDARY: 8.53 ACRES
TOTAL COMMON AREA: 6.67 ACRES
TOTAL LOT AREAS: 1.86 ACRES

LOT 1	8057 SQ. FT.
LOT 2	8057 SQ. FT.
LOT 3	8057 SQ. FT.
LOT 4	8057 SQ. FT.
LOT 5	16,414 SQ. FT.
LOT 6	8057 SQ. FT.
LOT 7	8057 SQ. FT.
LOT 8	8057 SQ. FT.
LOT 9	8057 SQ. FT.

COMMON AREA 'A'
8.53 ACRES

SCALE: 1" = 60'
0' 30' 60' 120' 240'

REGISTERED
PROFESSIONAL
LAND SURVEYOR

OREGON
JULY 14, 1998
SHAWN KAMPMANN
2883 LS

RENEWAL DATE: 6/30/2025

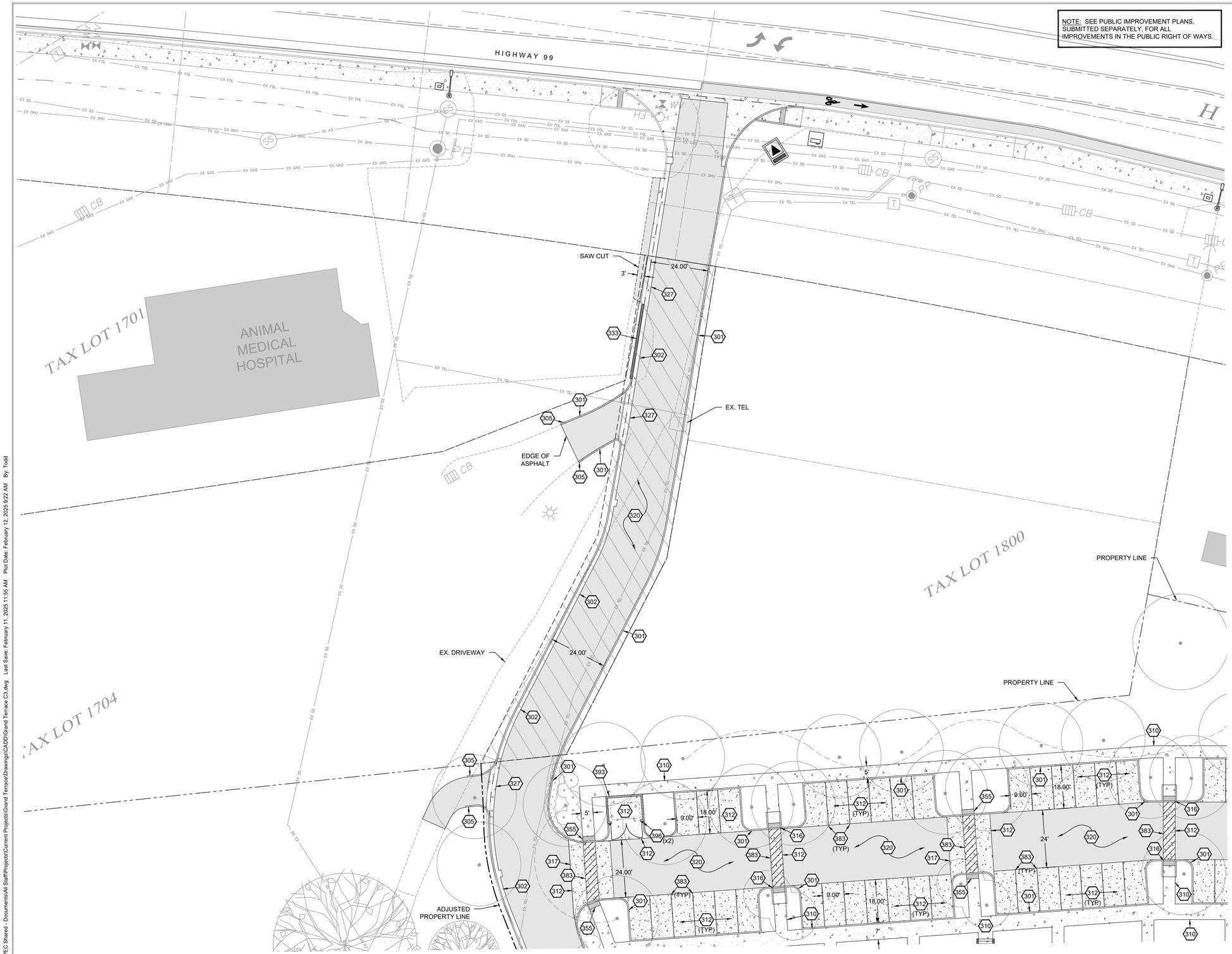
SURVEYED BY:
POLARIS LAND SURVEYING LLC
P.O. BOX 459
ASHLAND, OREGON 97520
(541) 482-5009

DATE: OCTOBER 30, 2024
PROJECT NO. 855-14

Assessor's Map No. 38 1E 32, Tax Lot 1700 & 1702

POLARIS LAND SURVEYING

C3.01



NOTE: SEE PUBLIC IMPROVEMENT PLANS, SUBMITTED SEPARATELY, FOR ALL IMPROVEMENTS IN THE PUBLIC RIGHT OF WAYS.

GENERAL NOTES

1. ALL SIGN POSTS SHALL BE TELESPAR (2", 12 GAUGE).
2. ALL SIGNS WITHIN THE PUBLIC RIGHT OF WAY TO BE INSTALLED BY CITY FORCES. CONTRACTOR TO COORDINATE.
3. CONTRACTOR TO INSTALL ALL SIGNS ON PRIVATE PROPERTY.

KEYNOTES

- 301 STANDARD VERTICAL CURB. (301 / C6.0)
- 302 CURB AND GUTTER. (302 / C6.0)
- 305 CURB TAPER (305 / C6.0)
- 310 4" CONCRETE SIDEWALK OVER 4" CRUSHED ROCK BASE. (310 / C6.0)
- 312 6" REINFORCED CONCRETE SECTION (312 / C6.0)
- 316 PERPENDICULAR RAMP WITH TRUNCATED DOMES (d910 / C6.2)
- 317 RAISED CONCRETE SIDEWALK (317 / C6.0)
- 320 HEAVY ASPHALT PAVING SECTION (DRIVE AISLES) (320 / C6.0)
- 327 VALLEY GUTTER (327 / C6.0)
- 333 12" RETAINING WALL (333 / C6.1)
- 355 TRUNCATED DOMES PER RD 902 (d902 / C6.2)
- 368 PROPOSED SIGN (SEE ARCH & ELEC)
- 383 4" WHITE STRIPING PER MUTCD STANDARDS
- 393 TRASH ENCLOSURE (SEE ARCH)
- 396 6" FIXED BOLLARD (396 / C6.1)

PLAN VIEW - PARTIAL CIVIL SITE PLAN (NORTHEAST)

SCALE: 1" = 20' - 0" (22x34)

0 20 40
1" = 20'

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EXPIRES: 12/31/2626

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GRAND TERRACE AN APARTMENT DEVELOPMENT

LAND USE APPLICATION PLANS
MAP 38-1E-32, TAX LOT 1702
HIGHWAY 99, ASHLAND, OR 97520

NO.	REVISION DESCRIPTION	DATE

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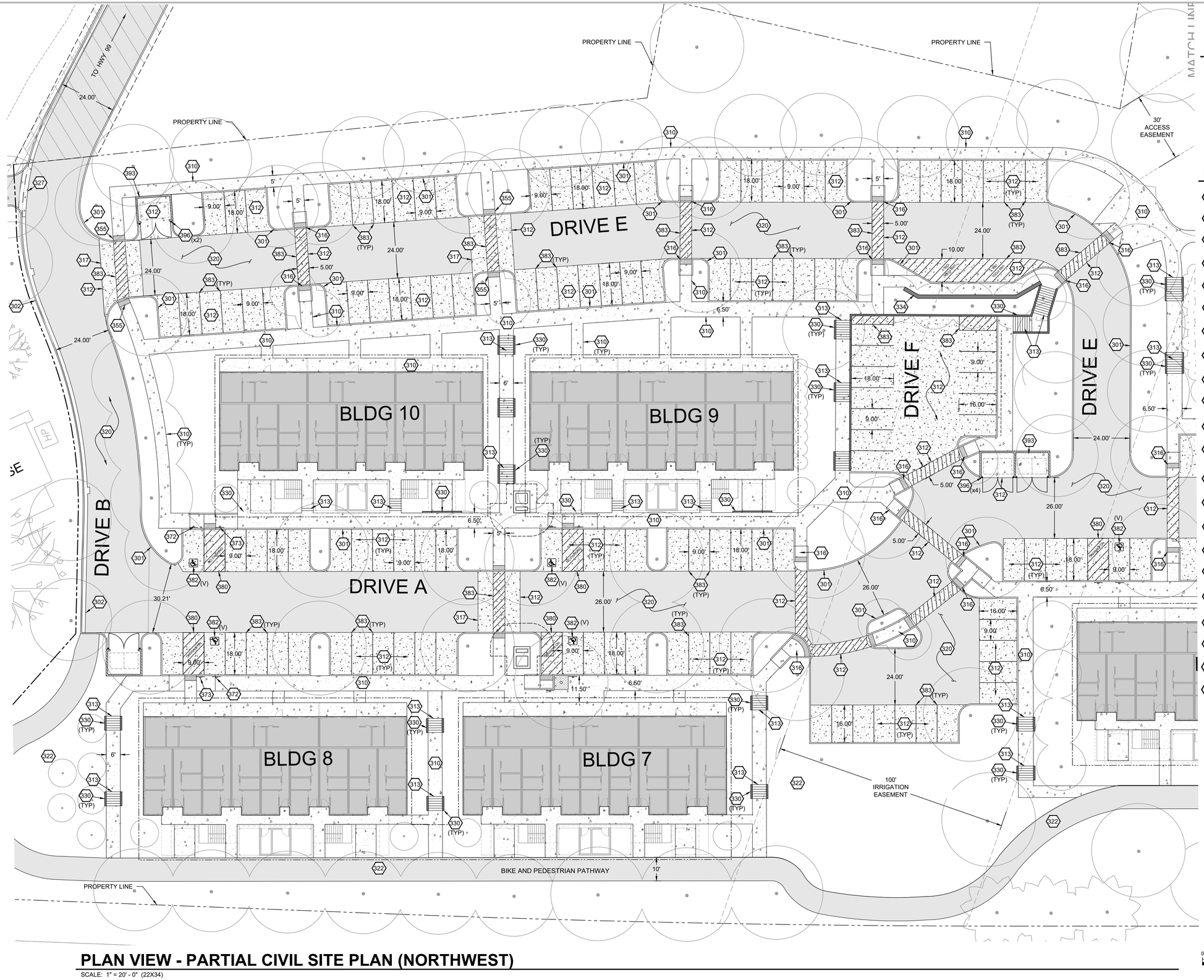

PLAN VIEW - PARTIAL CIVIL SITE PLAN (NORTHWEST)

GENERAL NOTES

1. ALL SIGN POSTS SHALL BE TELESPAR (2", 12 GAUGE).
2. ALL SIGNS WITHIN THE PUBLIC RIGHT OF WAY TO BE INSTALLED BY CITY FORCES. CONTRACTOR TO COORDINATE.
3. CONTRACTOR TO INSTALL ALL SIGNS ON PRIVATE PROPERTY.

KEYNOTES

- 301 STANDARD VERTICAL CURB. (301 C6.0)
- 302 CURB AND GUTTER. (302 C6.0)
- 305 CURB TAPER (305 C6.0)
- 310 4" CONCRETE SIDEWALK OVER 4" CRUSHED ROCK BASE. (310 C6.0)
- 312 6" REINFORCED CONCRETE SECTION (312 C6.0)
- 313 CONCRETE STAIRS (313 C6.1)
- 316 PERPENDICULAR RAMP WITH TRUNCATED DOMES PER RD 910 (rd910 C6.3)
- 317 RAISED CONCRETE SIDEWALK (317 C6.0)
- 319 GRAVEL SECTION (319 C6.0)
- 320 HEAVY ASPHALT PAVING SECTION. (DRIVE AISLES) (320 C6.0)
- 322 LIGHT ASPHALT PAVING SECTION. (PATH) (322 C6.0)
- 327 VALLEY GUTTER (327 C6.0)
- 330 8" CONCRETE RETAINING WALL (330 C6.1)
- 334 CONCRETE SEAT WALL (334 C6.1)
- 355 TRUNCATED DOMES PER RD 902 (rd902 C6.3)
- 372 ADA PARKING SIGN (380 C6.0)
- 373 ADA ACCESS AISLE SIGN (380 C6.0)
- 380 ADA VAN ACCESS AISLE STRIPING (380 C6.0) (381 C6.0)
- 382 ADA PARKING SYMBOL (382 C6.0) WC=WHEEL CHAIR; V=VAN
- 383 4" WHITE STRIPING PER MUTCD STANDARDS
- 393 TRASH ENCLOSURE (SEE ARCH)
- 396 6" FIXED BOLLARD (396 C6.1)

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LAND USE APPLICATION PLANS
MAP 38-1E-32, TAX LOT 1702
HIGHWAY 99, ASHLAND, OR 97520

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22-002	C3.11

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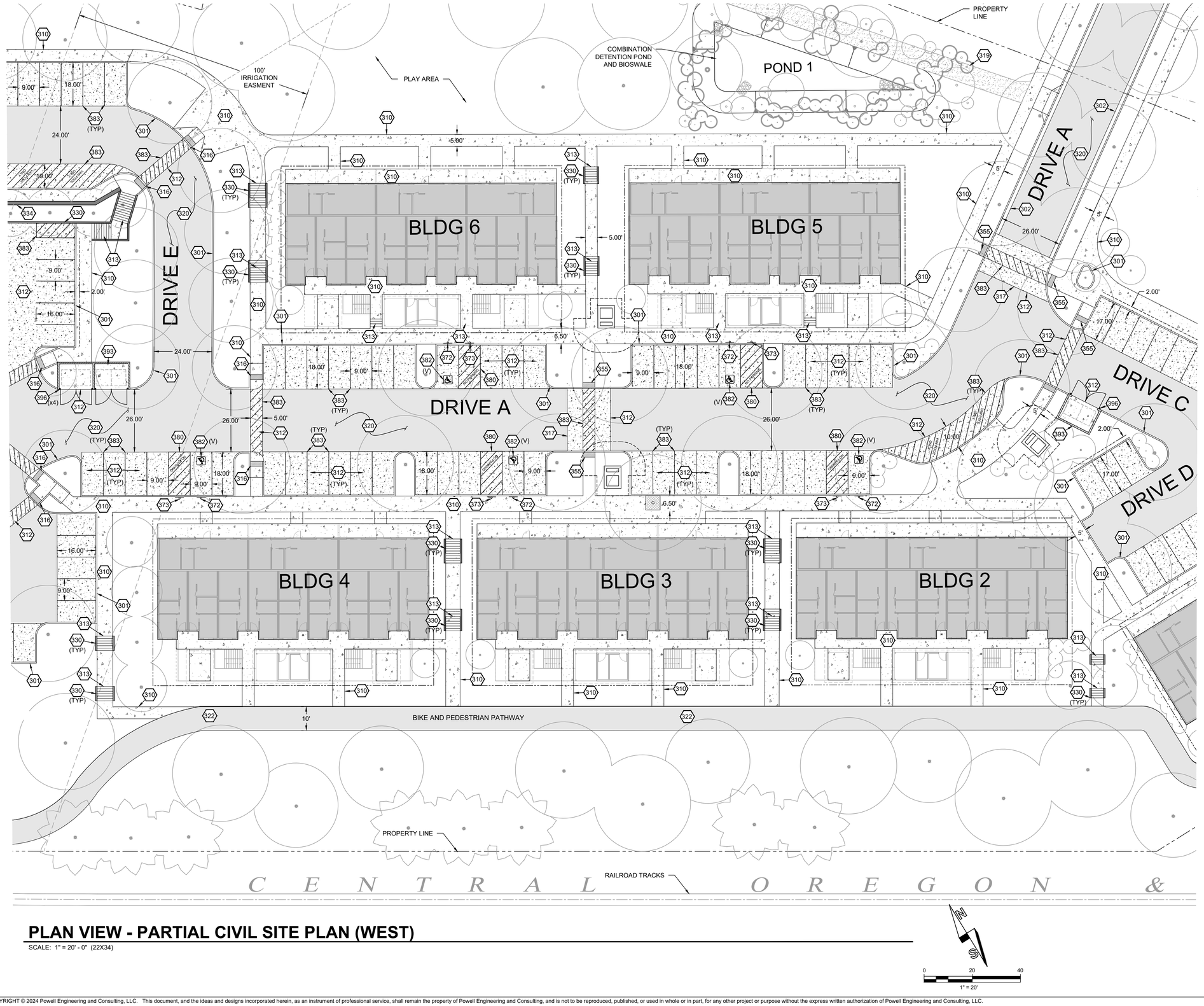

PLAN VIEW - PARTIAL CIVIL SITE PLAN (WEST)

SCALE: 1" = 20' - 0" (22X34)

GENERAL NOTES

1. ALL SIGN POSTS SHALL BE TELESPAR (2", 12 GAUGE).
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KEYNOTES

301	STANDARD VERTICAL CURB.	301 C6.0
302	CURB AND GUTTER.	302 C6.0
305	CURB TAPER	305 C6.0
310	4" CONCRETE SIDEWALK OVER 4" CRUSHED ROCK BASE.	310 C6.0
312	6" REINFORCED CONCRETE SECTION	312 C6.0
313	CONCRETE STAIRS	313 C6.1
316	PERPENDICULAR RAMP WITH TRUNCATE DOMES PER RD 910	d910 C6.3
317	RAISED CONCRETE SIDEWALK	317 C6.0
319	GRAVEL SECTION	319 C6.0
320	HEAVY ASPHALT PAVING SECTION. (DRIVE AISLES)	320 C6.0
322	LIGHT ASPHALT PAVING SECTION. (PATH)	322 C6.0
330	8" CONCRETE RETAINING WALL	330 C6.1
355	TRUNCATED DOMES PER RD 902	d902 C6.3
372	ADA PARKING SIGN	380 C6.0
373	ADA ACCESS AISLE SIGN	380 C6.0
380	ADA VAN ACCESS AISLE STRIPING	380 C6.0, 381 C6.0
382	ADA PARKING SYMBOL	382 C6.0 WC=WHEEL CHAIR; V=VAN
383	4" WHITE STRIPING PER MUTCD STANDARDS	
393	TRASH ENCLOSURE (SEE ARCH)	
396	6" FIXED BOLLARD	396 C6.1

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LAND USE APPLICATION PLANS
MAP 38-1E-32, TAX LOT 1702
HIGHWAY 99, ASHLAND, OR 97520

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22-002	C3.12

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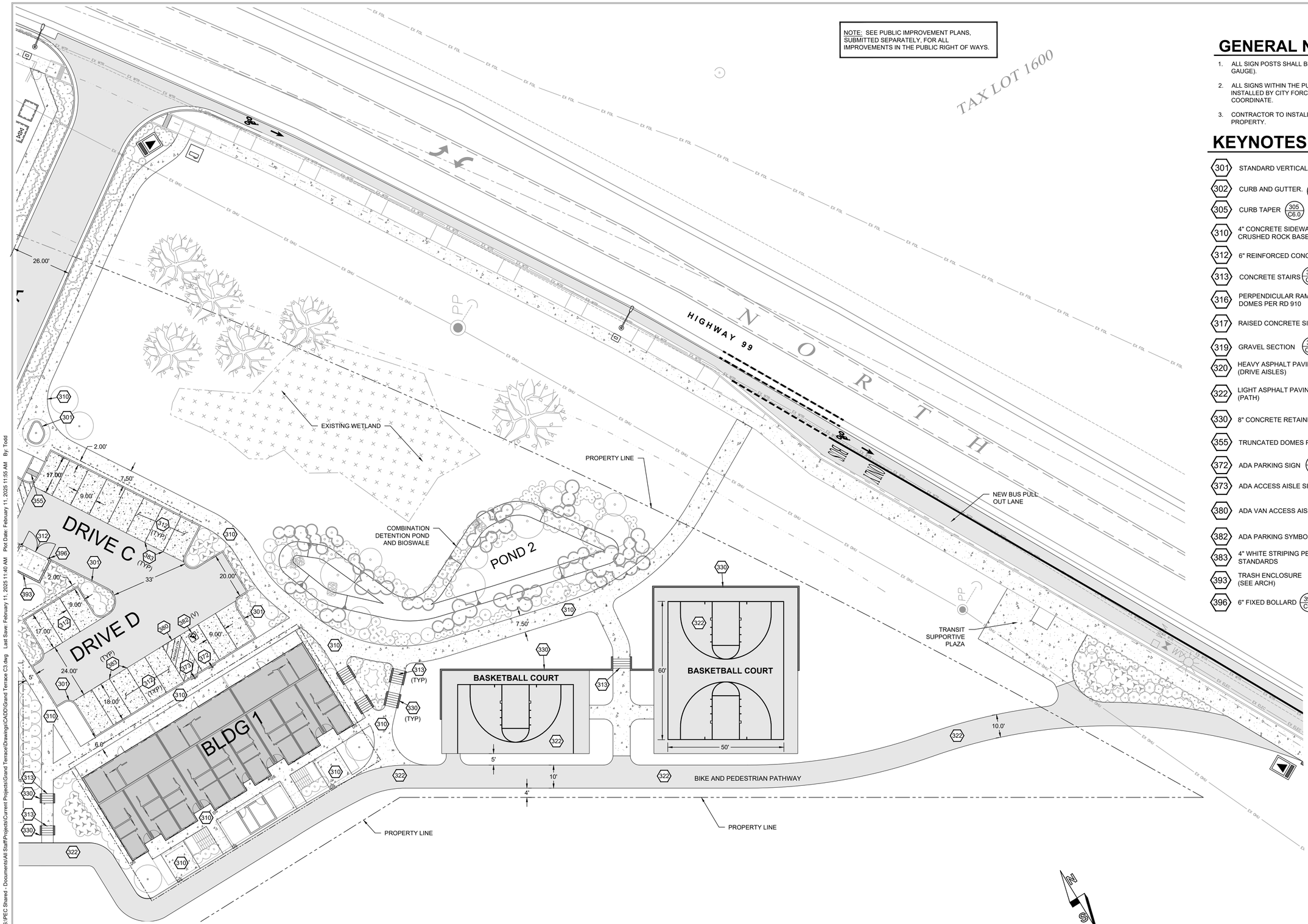

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- 380 ADA VAN ACCESS AISLE STRIPING (380 / C6.0) (381 / C6.0)
- 382 ADA PARKING SYMBOL (382 / C6.0) WC=WHEEL CHAIR; V=VAN
- 383 4" WHITE STRIPING PER MUTCD STANDARDS
- 393 TRASH ENCLOSURE (SEE ARCH)
- 396 6" FIXED BOLLARD (396 / C6.1)

PLAN VIEW - PARTIAL CIVIL SITE PLAN (SOUTH)

SCALE: 1" = 20' - 0" (22X34)

0 20 40
1" = 20'

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GRAND TERRACE AN APARTMENT DEVELOPMENT

LAND USE APPLICATION PLANS
MAP 38-1E-32, TAX LOT 1702
HIGHWAY 99, ASHLAND, OR 97520

NO.	REVISION DESCRIPTION	DATE

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22-002	C3.13

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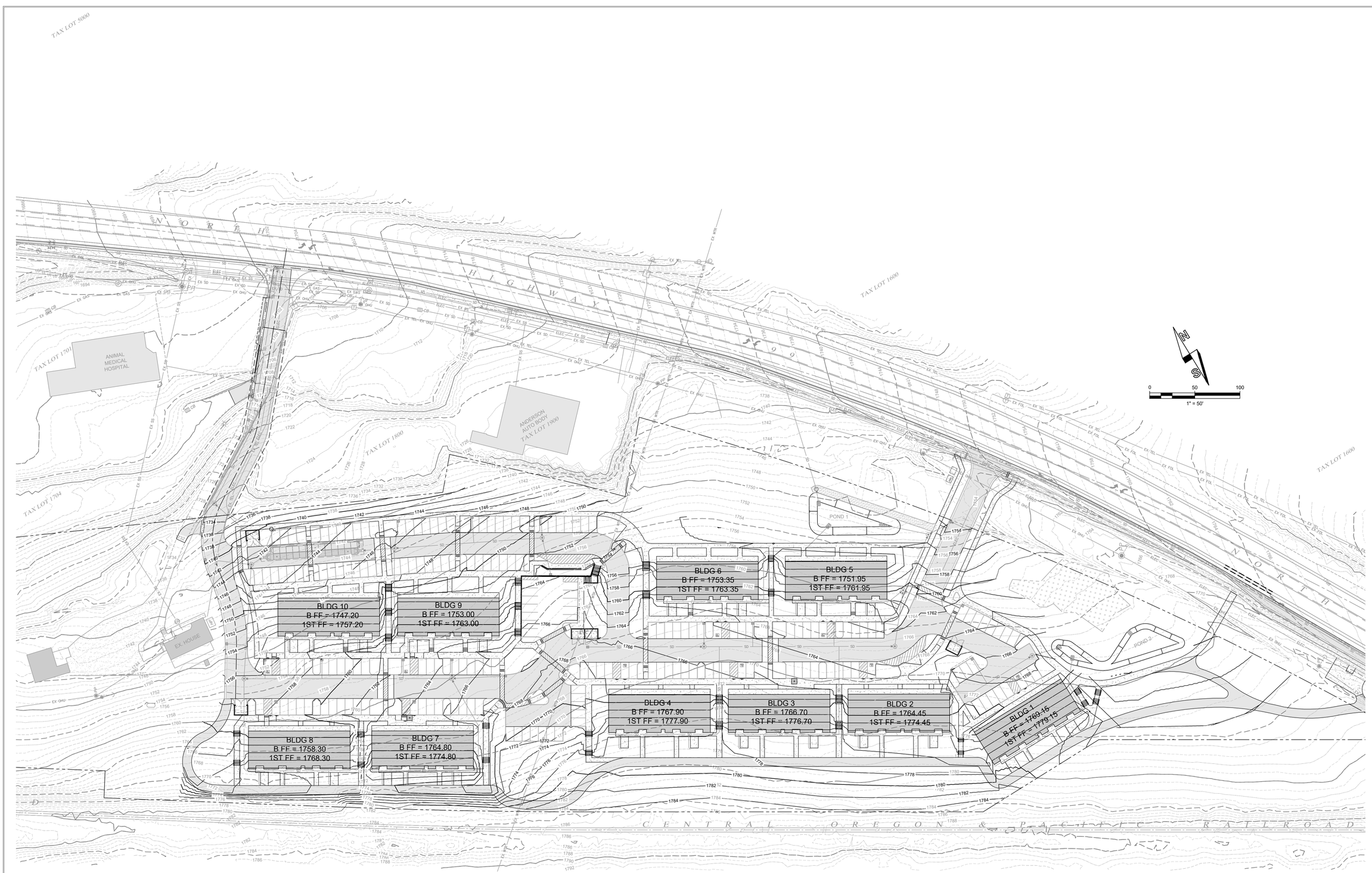

PLAN VIEW - CONCEPTUAL OVERALL GRADING PLAN

SCALE: 1" = 50' - 0" (22X34)

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GRAND TERRACE
AN APARTMENT DEVELOPMENT

LAND USE APPLICATION PLANS
MAP 38-1E-32, TAX LOT 1702
HIGHWAY 99, ASHLAND, OR 97520

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JOB NO.	22-002
OVERALL GRADING PLAN	**C4.01**

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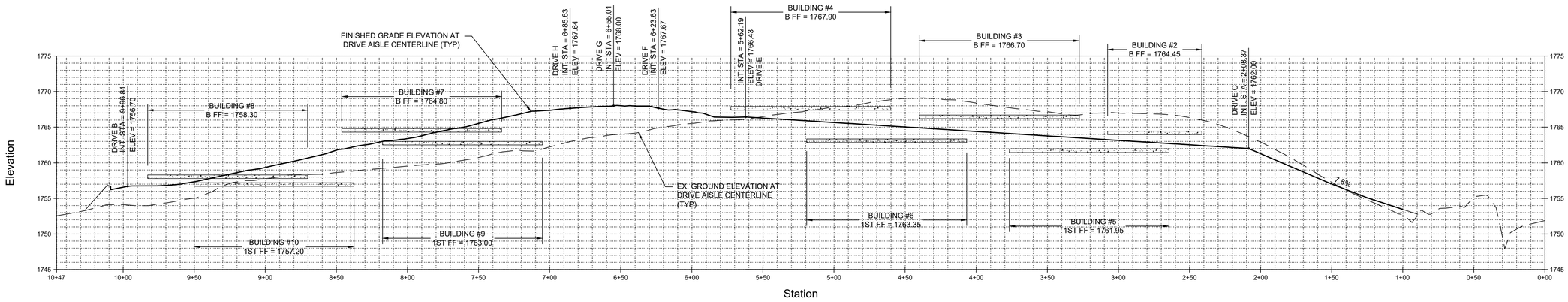
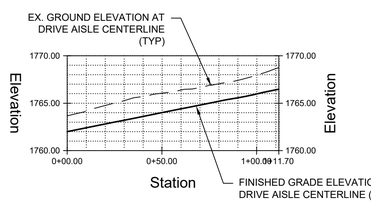


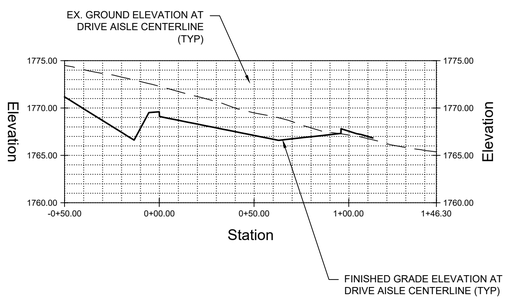
PROFILE VIEW - DRIVE AISLE A

SCALE: 1" = 40' - 0" (HORIZ)
1" = 8' - 0" (VERT)



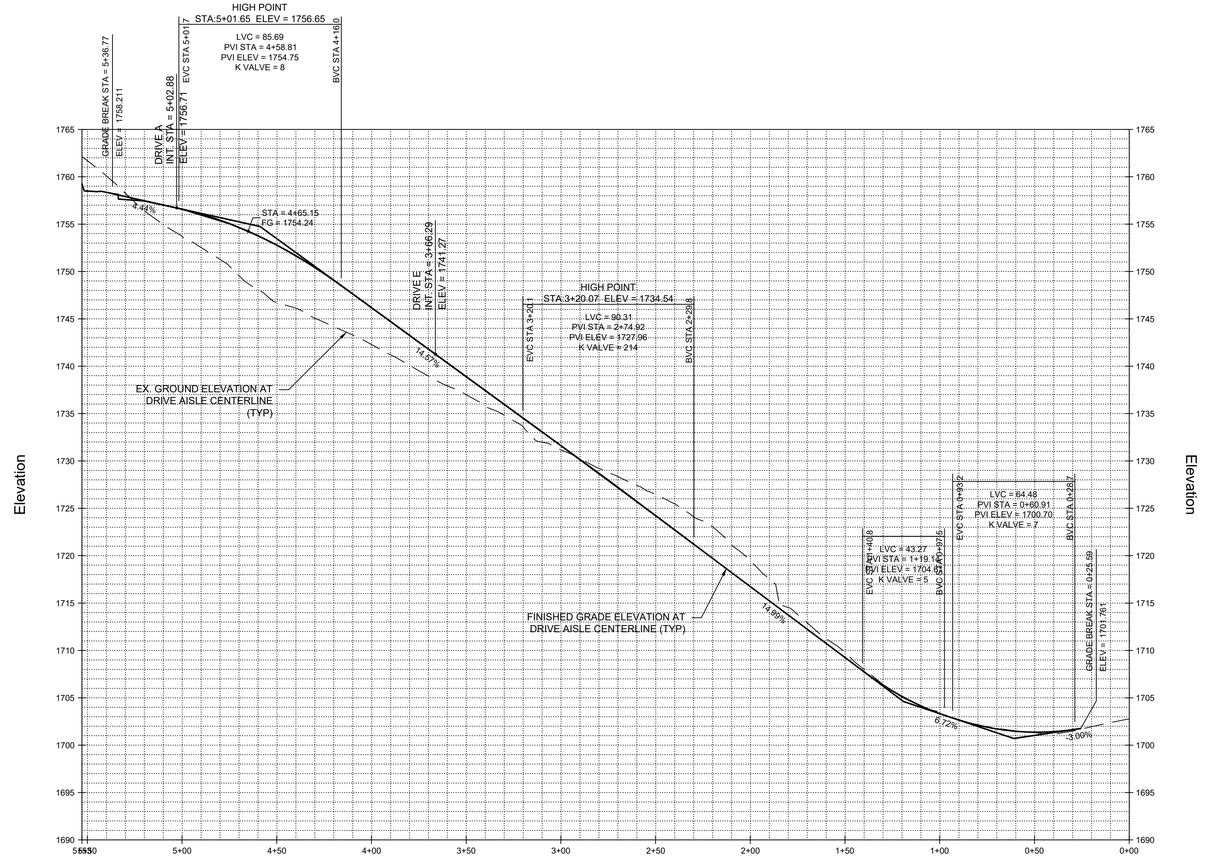
PROFILE VIEW - DRIVE AISLE C

SCALE: 1" = 40' - 0" (HORIZ)
1" = 8' - 0" (VERT)



PROFILE VIEW - DRIVE AISLE D

SCALE: 1" = 40' - 0" (HORIZ)
1" = 8' - 0" (VERT)



PROFILE VIEW - DRIVE AISLE B

SCALE: 1" = 40' - 0" (HORIZ)
1" = 8' - 0" (VERT)

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LAND USE APPLICATION PLANS
MAP 38-1E-32, TAX LOT 1702
HIGHWAY 99, ASHLAND, OR 97520

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22-002	C4.40

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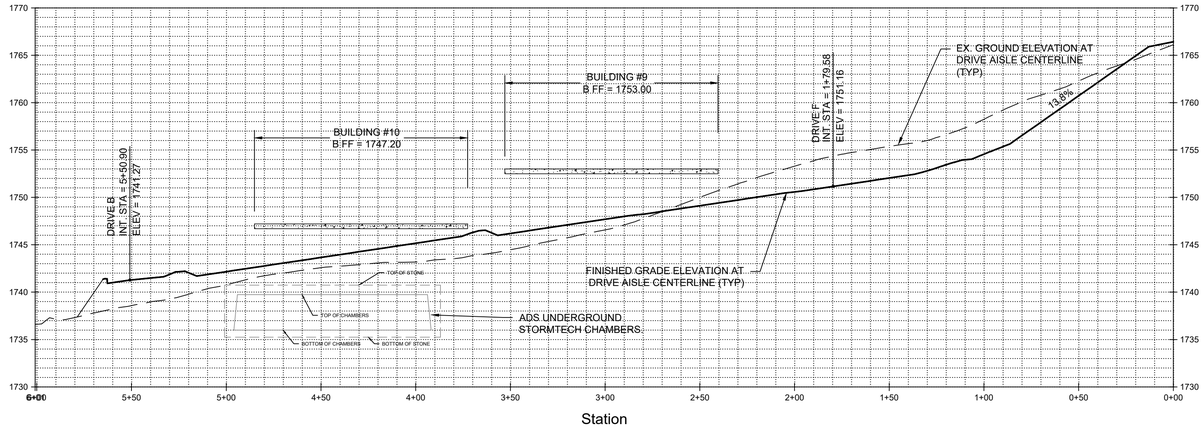

PROFILE VIEW - DRIVE AISLE E

SCALE: 1" = 40' - 0" (HORIZ)
1" = 8' - 0" (VERT)

PROFILE VIEW - DRIVE AISLE F

SCALE: 1" = 40' - 0" (HORIZ)
1" = 8' - 0" (VERT)

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OREGON
JULY 13, 2004
TODD D. POWELL

EXPIRES: 12/31/2626

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LAND USE APPLICATION PLANS
MAP 38-1E-32, TAX LOT 1702
HIGHWAY 99, ASHLAND, OR 97520

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JOB NO.	DRIVEWAY PROFILES
22-002	C4.41

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UTILITY STATEMENT:

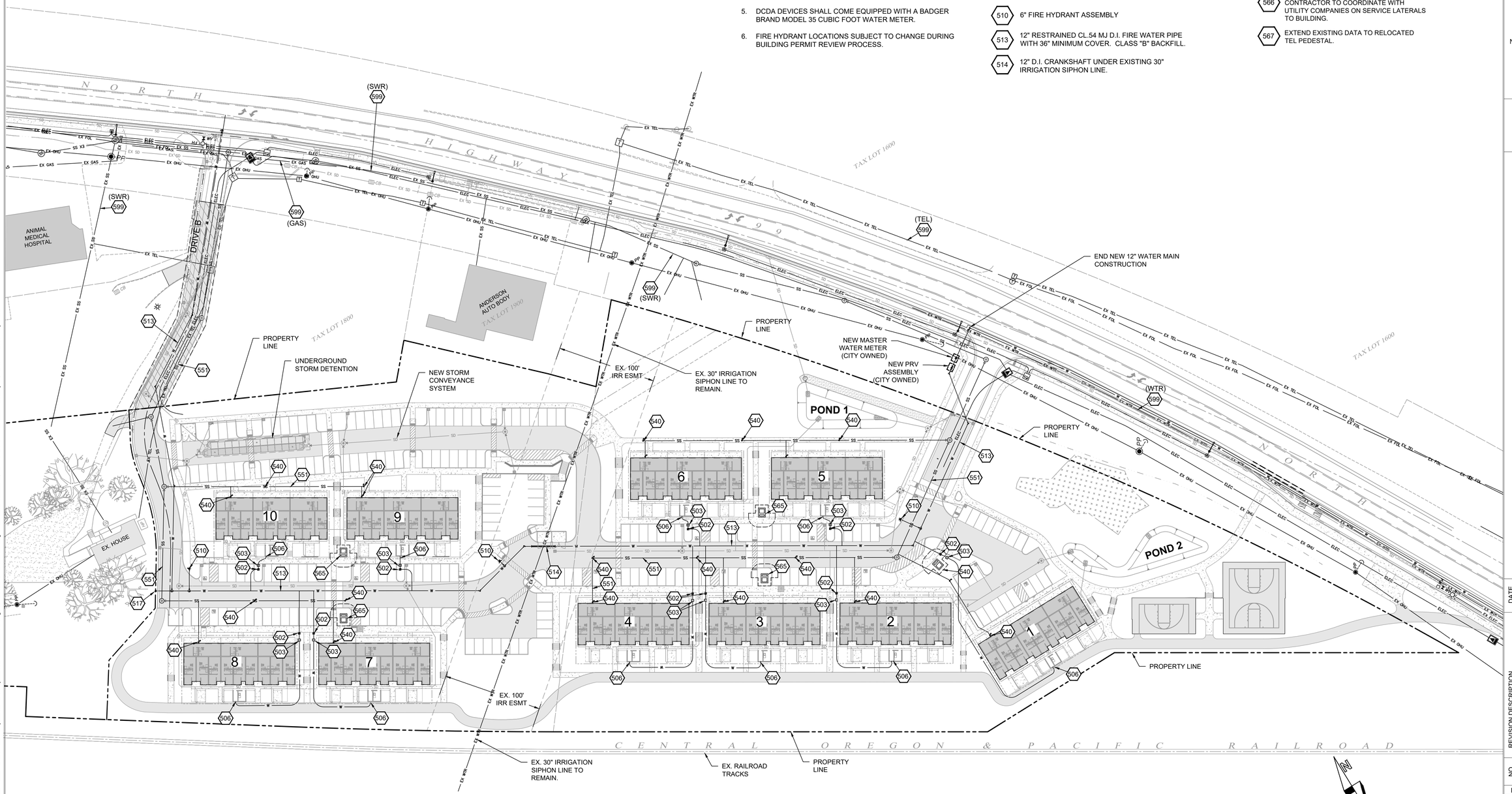
EXISTING UNDERGROUND UTILITIES ILLUSTRATED IN THESE PLANS ARE APPROXIMATED BASED ON MAPS OBTAINED FROM CITY OF ASHLAND GIS OR HAVE BEEN LOCATED BY A UTILITY LOCATE COMPANY. LAYOUT INDICATED IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. ALL LINES WITHIN PROJECTED WORK ZONE SHALL BE FIELD VERIFIED AS REQUIRED PRIOR TO CONSTRUCTION.

GENERAL NOTES

1. SEE LANDSCAPE PLANS FOR PLANTING AND IRRIGATION DETAILS AND SPECIFICATIONS.
2. CONTRACTOR TO COORDINATE WATER DISINFECTION TESTING AND WATER TIE-IN WITH CITY SITE INSPECTOR.
3. ASHLAND WATER DEPT. WILL EXCAVATE THE ROAD AND SUPPLY ALL MATERIALS AND LABOR TO TAP WATER MAIN FOR THE NEW MASTER METER AND PRV DEVICE IN THE RIGHT OF WAY. THE COST OF THIS WORK WILL BE CHARGED TO THE DEVELOPER OR CONTRACTOR.
4. ALL WATER FACILITIES BEYOND THE PRV DEVICE IN THE RIGHT OF WAY WILL BE PRIVATELY OWNED AND OPERATED.
5. DCDA DEVICES SHALL COME EQUIPPED WITH A BADGER BRAND MODEL 35 CUBIC FOOT WATER METER.
6. FIRE HYDRANT LOCATIONS SUBJECT TO CHANGE DURING BUILDING PERMIT REVIEW PROCESS.

KEY NOTES

- 502 INSTALL 2" WATER SERVICE CONNECTION WITH 1.5" WATER METER. DEMAND LOAD AT BUILDING IS 65 GPM. CONTRACTOR TO PROVIDE EXCAVATION, BACKFILL, SHORING, DEWATERING, AND SETTING METER TO GRADE.
- 503 STATE OF OREGON APPROVED BACKFLOW DEVICE. TESTING SHALL BE COMPLETED BY AN OREGON CERTIFIED BACKFLOW ASSEMBLY TESTER.
- 506 2.0" DOMESTIC WATER MAIN CONNECTION AT BUILDING WITH SHUT OFF VALVE. SEE PLUMBING.
- 510 6" FIRE HYDRANT ASSEMBLY
- 513 12" RESTRAINED CL.54 MJ D.I. FIRE WATER PIPE WITH 36" MINIMUM COVER. CLASS "B" BACKFILL.
- 514 12" D.I. CRANKSHAFT UNDER EXISTING 30" IRRIGATION SIPHON LINE.
- 517 12" END OF LINE CAP WITH THRUST BLOCK.
- 540 SANITARY SEWER CLEANOUT.
- 551 6" PVC SEWER LATERAL AT 1% MIN. SLOPE.
- 560 PRIMARY POWER FEED TO BUILDING (SEE ELEC). CONTRACTOR TO COORDINATE WITH PPL ON SERVICE FEEDS TO BUILDING.
- 566 PRIMARY DATA FEED TO BUILDING. CONTRACTOR TO COORDINATE WITH UTILITY COMPANIES ON SERVICE LATERALS TO BUILDING.
- 567 EXTEND EXISTING DATA TO RELOCATED TEL PEDESTAL.



PLAN VIEW - OVERALL SITE UTILITY PLAN

SCALE: 1" = 50' - 0" (24x36)

0 50 100
1" = 50'

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56425PE
NOT FOR CONSTRUCTION
OREGON
JAN. 13, 2004
TODD D. POWELL
EXPIRES: 12/31/2626

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GRAND TERRACE
AN APARTMENT DEVELOPMENT

LAND USE APPLICATION PLANS
MAP 38-1E-32, TAX LOT 1702
HIGHWAY 99, ASHLAND, OR 97520

NO.	REVISION DESCRIPTION	DATE

DRAWN BY:	TDP
DESIGNED BY:	TDP
CHECKED BY:	TDP
ISSUE DATE:	12/11/24
LAND USE SET	
JOB NO.	OVERALL SITE UTILITY PLAN
22-002	C5.00

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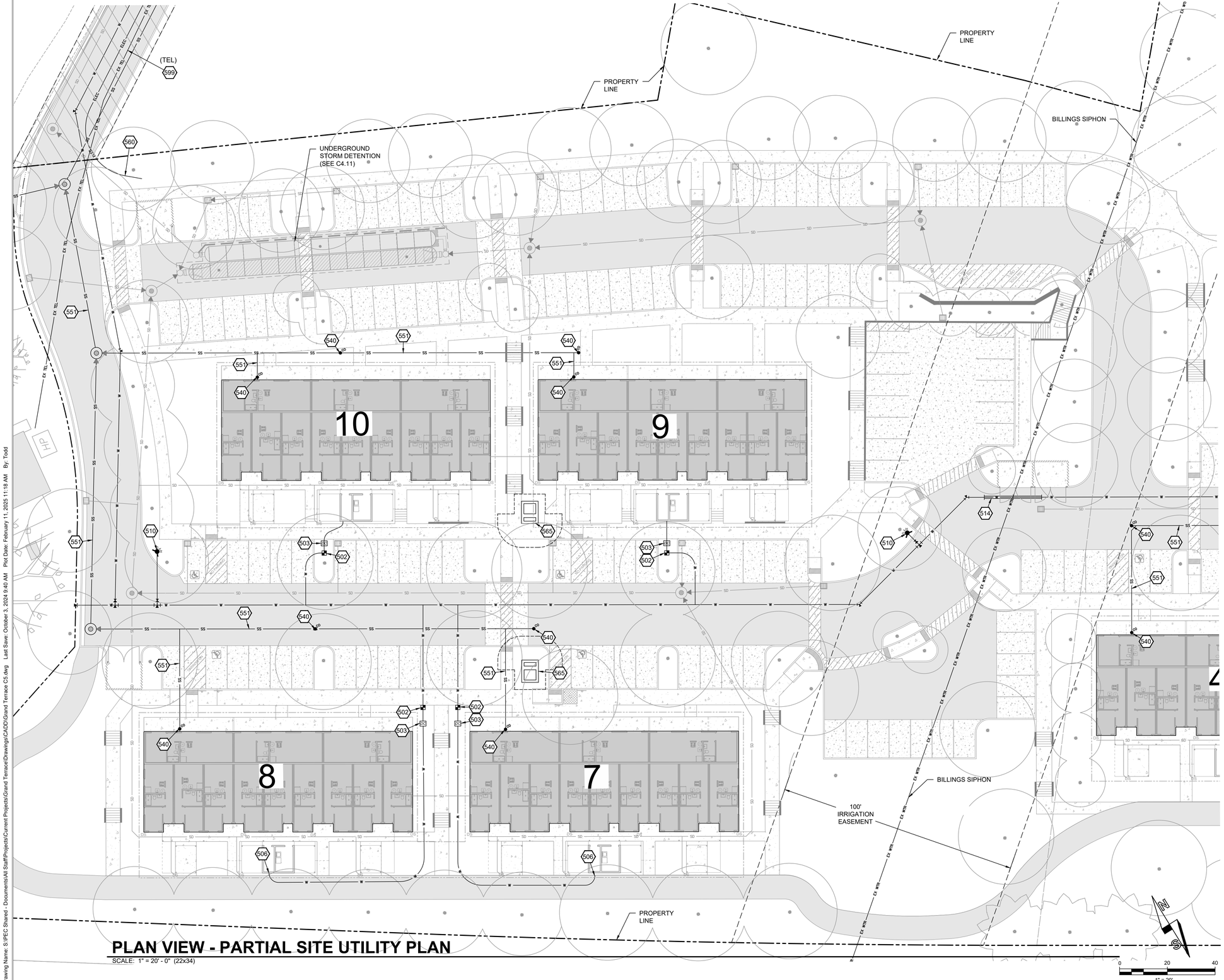


PLAN VIEW - PARTIAL SITE UTILITY PLAN

SCALE: 1" = 20' - 0" (22x34)

GENERAL NOTES

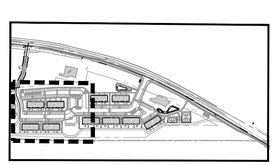
1. SEE LANDSCAPE PLANS FOR PLANTING AND IRRIGATION DETAILS AND SPECIFICATIONS.
2. CONTRACTOR TO COORDINATE WATER DISINFECTION TESTING AND WATER TIE-IN WITH CITY SITE INSPECTOR.
3. ASHLAND WATER DEPT. WILL EXCAVATE THE ROAD AND SUPPLY ALL MATERIALS AND LABOR TO TAP WATER MAIN AND RUN DUCTILE IRON TO THE DCDA VAULT. THE COST OF THIS WORK WILL BE CHARGED TO THE DEVELOPER OR CONTRACTOR.
4. DCDA DEVICE SHALL COME EQUIPPED WITH A BADGER BRAND MODEL 35 CUBIC FOOT WATER METER.
5. FIRE HYDRANT LOCATIONS SUBJECT TO CHANGE DURING BUILDING PERMIT REVIEW PROCESS.

KEYNOTES

- 502 — INSTALL 2" WATER SERVICE CONNECTION WITH 1.5" WATER METER. DEMAND LOAD AT BUILDING IS 65 GPM. CONTRACTOR TO PROVIDE EXCAVATION, BACKFILL, SHORING, DEWATERING, AND SETTING METER TO GRADE. (d274 C6.3)
- 503 — STATE OF OREGON APPROVED BACKFLOW DEVICE. TESTING SHALL BE COMPLETED BY AN OREGON CERTIFIED BACKFLOW ASSEMBLY TESTER.
- 506 — 2.0" DOMESTIC WATER MAIN CONNECTION AT BUILDING WITH SHUT OFF VALVE. SEE PLUMBING.
- 510 — 6" FIRE HYDRANT ASSEMBLY (d254 C6.3)
- 513 — 12" RESTRAINED CL.54 MJ D.I. FIRE WATER PIPE WITH 36" MINIMUM COVER. CLASS "B" BACKFILL.
- 514 — 12" D.I. CRANKSHAFT UNDER EXISTING 30" IRRIGATION SIPHON LINE.
- 517 — 12" END OF LINE CAP WITH THRUST BLOCK. (d250 C6.3)
- 540 — SANITARY SEWER CLEANOUT. (d362 C6.3)
- 549 — 4" PVC SEWER SERVICE CONNECTION TO EXISTING MAIN. (FIELD VERIFY EX. LOCATION AND DEPTH PRIOR TO CONSTRUCTION)
- 551 — 6" PVC SEWER LATERAL AT 1% MIN. SLOPE (d300 C6.3) (d310 C6.3)
- 560 — PRIMARY POWER FEED TO BUILDINGS (SEE ELEC). CONTRACTOR TO COORDINATE WITH CITY OF ASHLAND ON SERVICE FEEDS TO BUILDINGS.
- 565 — ELECTRIC TRANSFORMER
- 566 — PRIMARY DATA FEED TO BUILDING. CONTRACTOR TO COORDINATE WITH UTILITY COMPANIES ON SERVICE LATERALS TO BUILDING.
- 567 — EXTEND EXISTING DATA TO RELOCATED TEL PEDESTAL.
- 598 — SAWCUT AND REPLACE IN KIND EXISTING ASPHALT PER OREGON STND DWG RD-302. CLASS B BACKFILL PER RD-300.
- 599 — EXISTING UNDERGROUND UTILITY. CONTRACTOR TO COORDINATE WITH APPROPRIATE UTILITY PRIOR TO CONSTRUCTION. REPLACE OR PROTECT DURING CONSTRUCTION AS DIRECTED BY FRANCHISE UTILITY.

UTILITY STATEMENT:

EXISTING UNDERGROUND UTILITIES ILLUSTRATED IN THESE PLANS ARE APPROXIMATED BASED ON MAPS OBTAINED FROM CITY OF ASHLAND GIS OR HAVE BEEN LOCATED BY A UTILITY LOCATE COMPANY. LAYOUT INDICATED IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. ALL LINES WITHIN PROJECTED WORK ZONE SHALL BE FIELD VERIFIED AS REQUIRED PRIOR TO CONSTRUCTION.



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LAND USE APPLICATION PLANS
MAP 38-1E-32, TAX LOT 1702
HIGHWAY 99, ASHLAND, OR 97520

NO.	REVISION DESCRIPTION	DATE

DRAWN BY:	TDP
DESIGNED BY:	TDP
CHECKED BY:	TDP
ISSUE DATE:	12/11/24
LAND USE SET	
JOB NO.	PARTIAL SITE UTILITY PLAN
22-002	C5.11

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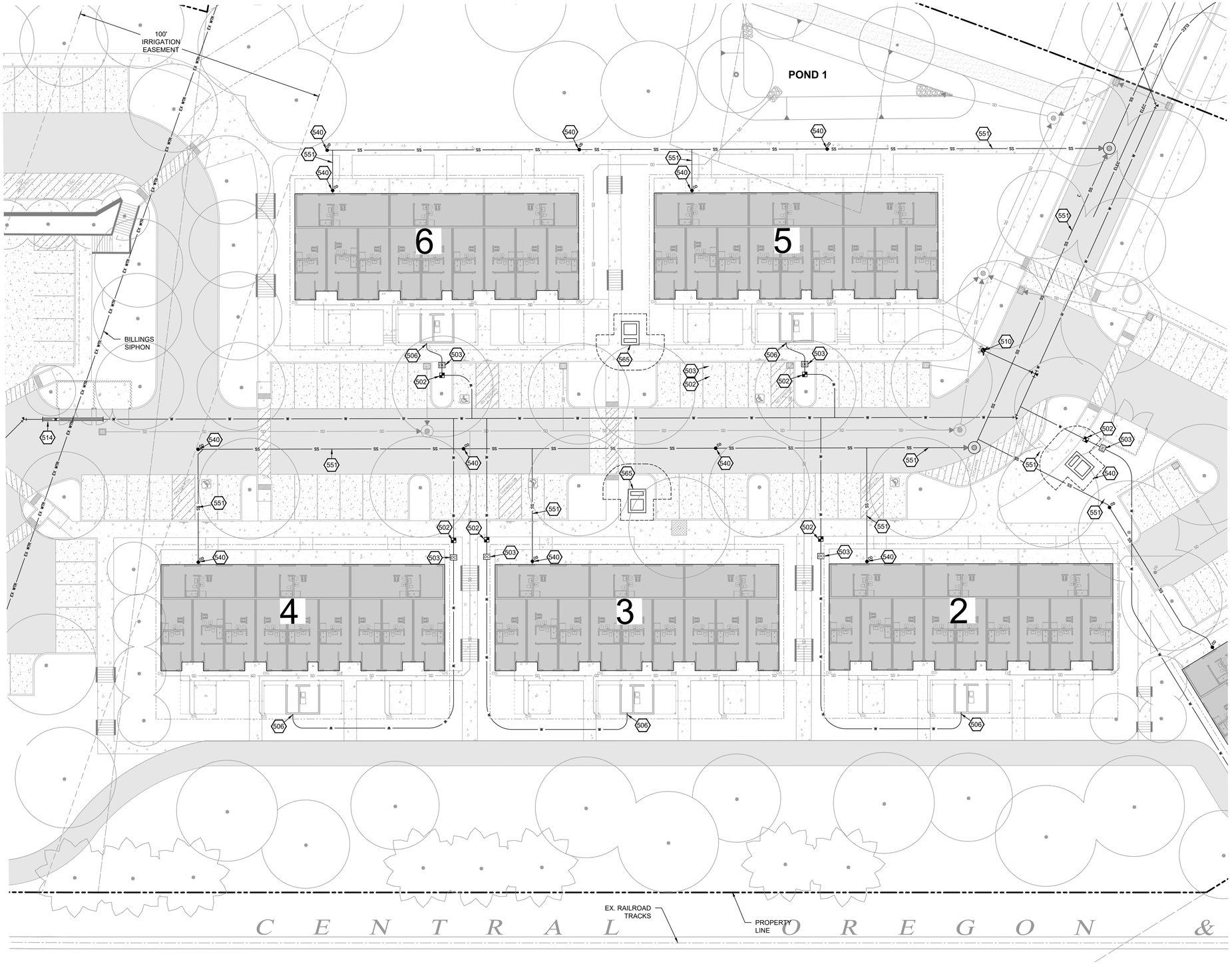

PLAN VIEW - PARTIAL SITE UTILITY PLAN

SCALE: 1" = 20' - 0" (22x34)

GENERAL NOTES

1. SEE LANDSCAPE PLANS FOR PLANTING AND IRRIGATION DETAILS AND SPECIFICATIONS.
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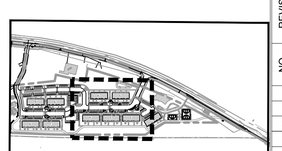
0 20 40
1" = 20'



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NO.	REVISION DESCRIPTION	DATE

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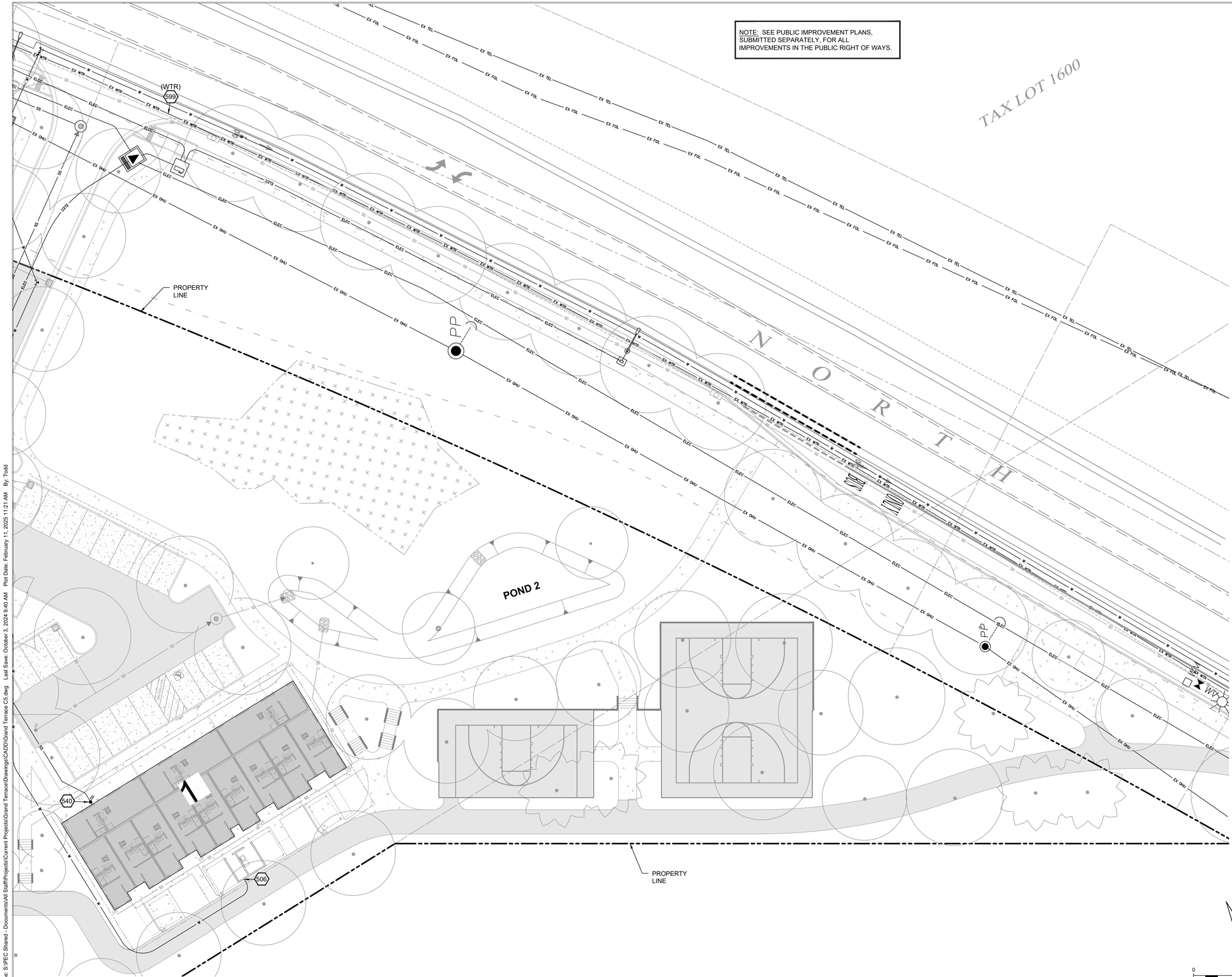
NOTE: SEE PUBLIC IMPROVEMENT PLANS, SUBMITTED SEPARATELY, FOR ALL IMPROVEMENTS IN THE PUBLIC RIGHT OF WAYS.



PLAN VIEW - PARTIAL SITE UTILITY PLAN - SOUTH

SCALE: 1" = 20' - 0" (22x34)

GENERAL NOTES

1. SEE LANDSCAPE PLANS FOR PLANTING AND IRRIGATION DETAILS AND SPECIFICATIONS.
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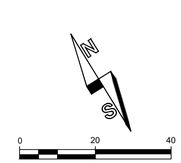

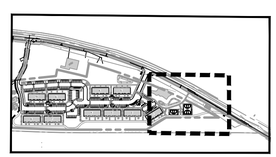

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LAND USE APPLICATION PLANS
MAP 38-1E-32, TAX LOT 1702
HIGHWAY 99, ASHLAND, OR 97520

NO.	REVISION DESCRIPTION	DATE

DRAWN BY:	TDP
DESIGNED BY:	TDP
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ISSUE DATE:	12/11/24
LAND USE SET	
JOB NO.	PARTIAL SITE UTILITY PLAN SOUTH
22-002	C5.13

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GENERAL NOTES

1. PROVIDE ALL MATERIALS AND PERFORM ALL WORK ACCORDING TO THE "OREGON STANDARD SPECIFICATIONS FOR CONSTRUCTION 2024" UNLESS OTHERWISE COVERED BY THE SPECIFICATIONS WRITTEN FOR THIS PROJECT OR THE CITY SPECIFICATIONS.
2. ALL WORK PERTAINING TO THIS PROJECT SHALL BE SUBJECT TO INSPECTION BY THE PROJECT ENGINEER, CITY ENGINEER, AND/OR THE OREGON DEPARTMENT OF TRANSPORTATION (ODOT). PRIOR TO ANY SITE WORK, THE CONTRACTOR SHALL CONTACT ODOT, THE CITY OF ASHLAND, AND THE PROJECT ENGINEER TO SCHEDULE A PRE-CONSTRUCTION CONFERENCE.
3. PRIOR TO ANY SITE DISTURBING ACTIVITY INCLUDING CLEARING, LOGGING OR GRADING, THE SITE BOUNDARIES & CLEARING LIMITS AS SHOWN ON THESE PLANS SHALL BE LOCATED AND FIELD IDENTIFIED BY THE PROJECT SURVEYOR AND ALL ESC MEASURES SHALL BE INSTALLED AS IDENTIFIED ON THE EROSION & SEDIMENT CONTROL PLAN.
4. A COPY OF THESE APPROVED PLANS MUST BE ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
5. ALL SITE WORK IMPROVEMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THESE APPROVED PLANS. ANY DEVIATION FROM THESE PLANS WILL REQUIRE PRIOR APPROVAL FROM THE OWNER, ENGINEER AND APPROPRIATE PUBLIC AGENCIES PRIOR TO PERFORMING THE CHANGES IN THE FIELD.
6. ALL LOCATIONS OF EXISTING UTILITIES SHOWN HEREON HAVE BEEN ESTABLISHED BY FIELD SURVEY OR OBTAINED FROM AVAILABLE RECORDS AND SHOULD THEREFORE BE CONSIDERED APPROXIMATE ONLY AND NOT NECESSARILY COMPLETE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO INDEPENDENTLY VERIFY THE ACCURACY OF ALL UTILITY LOCATIONS SHOWN AND TO FURTHER DISCOVER AND AVOID ANY OTHER UTILITIES NOT SHOWN HEREON WHICH MAY BE AFFECTED BY THE IMPLEMENTATION OF THIS PLAN. THE CONTRACTOR SHALL CONTACT THE UNDERGROUND UTILITIES LOCATION SERVICE (DIAL 811) AT LEAST TWO BUSINESS DAYS PRIOR TO CONSTRUCTION. THE APPLICANT OR HIS REPRESENTATIVE AND THE ENGINEER SHALL BE CONTACTED IMMEDIATELY IF CONFLICTS EXIST.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE SAFEGUARDS, SAFETY DEVICES, PROTECTIVE EQUIPMENT, FLAGGERS, AND ANY OTHER NEEDED ACTIONS TO PROTECT THE LIFE, HEALTH AND SAFETY OF THE PUBLIC, AND TO PROTECT PROPERTY IN CONNECTION WITH THE PERFORMANCE OF WORK COVERED BY THE CONTRACT.
8. THE CONTRACTOR SHALL KEEP OFF-SITE STREETS CLEAN AT ALL TIMES BY SWEEPING. STREET WASHING WILL NOT BE ALLOWED WITHOUT PRIOR APPROVAL FROM THE CITY OF ASHLAND AND ODOT.
9. THE CONTRACTOR SHALL VERIFY ALL FIELD CONDITIONS PRIOR TO INITIATING WORK. THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER WHEN CONFLICTS OCCUR BETWEEN THE PLANS AND FIELD CONDITIONS. CONFLICTS SHALL BE RESOLVED PRIOR TO PROCEEDING WITH CONSTRUCTION. REVISIONS SHALL BE FORMALLY APPROVED BY THE APPLICANT AND PROJECT ENGINEER PRIOR TO MAKING CHANGES IN THE FIELD.
10. UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ANY UTILITY RELOCATIONS WITH UTILITY COMPANIES.
11. ALL NEW UTILITIES SHALL BE INSTALLED UNDERGROUND.
12. CONTRACTOR SHALL DOCUMENT AND RECORD FIELD CHANGES, PIPE INVERT, PIPE SLOPE, AND ANY OTHER CRITICAL AS-CONSTRUCT DATA. AS-BUILT DRAWINGS AND FINAL REPORTS WILL BE REQUIRED BEFORE FINAL APPROVAL.
13. WORK IN CITY RIGHT-OF-WAY REQUIRES PERMITS FROM THE CITY OF ASHLAND.
14. WORK IN ANY STATE RIGHT-OF-WAY REQUIRES A MISCELLANEOUS PERMIT FROM ODOT.
15. APPROVED PERMANENT TRAFFIC CONTROL SIGNS AND MARKINGS WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE INSTALLED PRIOR TO FINAL APPROVAL.
16. DURING PROJECT CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE AND MAINTAIN ALL TEMPORARY CONSTRUCTION SIGNS, TRAFFIC CONTROL SIGNS, DELINEATORS AND TEMPORARY MARKINGS AS REQUIRED.
17. ACCESS BY EMERGENCY VEHICLES SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION.
18. ALL CLEARED AND GRUBBED MATERIAL SHALL BE REMOVED FROM THE CONSTRUCTION SITE AND DISPOSED AT AN APPROVED LOCATION.
19. ALL AREAS WITH ABANDONED UTILITY LINES, STORM DRAINS, UNDERGROUND TANKS, ETC. WHICH MAY PROVIDE VOID SPACE BENEATH THE SURFACE SHALL BE REMOVED. WHEN APPROVED BY THE ENGINEER THE VOID SPACE MAY BE FILED WITH APPROVED MATERIAL. ALL TANKS OR HAZARDOUS MATERIALS SHALL BE DEALT WITH IN ACCORDANCE TO ALL LOCAL, STATE AND FEDERAL LAWS.
20. PRIOR TO START OF CONSTRUCTION, THE CONTRACTOR SHALL VERIFY GRADES AT SAWCUT LOCATIONS AND MATCHING OF EXISTING GRADE LOCATIONS.
21. CONTRACTOR IS RESPONSIBLE FOR ANY ASPHALT GRINDING, OVERLAY AND SLURRY SEAL. ALL SPECIFICATIONS SHALL COMPLY WITH ALL LOCAL AUTHORITY REQUIREMENTS.
22. CONSTRUCTION SHALL CONFORM TO THE 2021 STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION PUBLISHED BY THE OREGON CHAPTER OF APWA, AND THE CURRENT AMENDMENTS OF THE APPROVING AGENCY.
23. ALL CONCRETE SHALL BE 3300 PSI AT 28 DAYS UNLESS OTHERWISE SPECIFIED.
24. CONTRACTOR SHALL BE RESPONSIBLE TO CLEAN AND/OR MAINTAIN EXISTING PUBLIC STREETS OF SOIL OR OTHER DEBRIS DEPOSITED BY CONSTRUCTION OPERATIONS AND REPAIR ALL STREETS DAMAGED BY CONSTRUCTION OPERATIONS IN A TIMELY MANNER TO AVOID INCONVENIENCES OR HAZARDS TO THE PUBLIC.
25. CONTRACTOR SHALL NOTIFY OREGON UTILITY NOTIFICATION CENTER AT 1-800-332-2344, THE CITY OF ASHLAND ENGINEERING DEPARTMENT, AND ODOT 48 HOURS PRIOR TO BEGINNING WORK.
26. ALL CONTRACTORS AND SUBCONTRACTORS SHALL BE PRE-QUALIFIED WITH THE CITY OF ASHLAND AND ODOT PRIOR TO ANY CONSTRUCTION OF THIS PROJECT.
27. THE CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN AND SECURE APPROVAL OF THE PLAN FROM THE AGENCY AT LEAST FIVE (5) WORKING DAYS PRIOR TO STARTING WORK.
28. THE CONTRACTOR SHALL NOT PERFORM WORK WITHOUT AGENCY INSPECTIONS WHERE INSPECTIONS ARE REQUIRED BY THE SPECIFICATIONS.
29. WHERE CONNECTING TO AN EXISTING PIPE, THE CONTRACTOR SHALL EXPOSE THE END OF THE EXISTING PIPE AND ALLOW THE ENGINEER TO VERIFY EXACT LOCATION AND ELEVATION BEFORE LAYING ANY NEW PIPE ON THAT SYSTEM.
30. REQUESTS BY THE CONTRACTOR FOR CHANGES TO THE PLANS MUST BE APPROVED BY THE CONSULTING ENGINEER AND THE AGENCY'S ENGINEER BEFORE CHANGES ARE IMPLEMENTED.
31. WHEN PERFORMING EXCAVATIONS, THE CONTRACTOR SHALL COMPLY WITH THE PROVISIONS OF ORS 757.541 TO 757.571, WHICH INCLUDE REQUIREMENTS THAT THE CONTRACTOR HAND-EXPOSE (POTHOLE) UNDERGROUND FACILITIES AND USE REASONABLE CARE TO AVOID DAMAGING THEM.
32. PLACEMENT OR STORAGE OF SPOILS FROM THE SEWER LINE TRENCHES IS NOT PERMITTED ON HARD SURFACE STREETS WITHIN PUBLIC RIGHT-OF-WAY. SPOILS STORED IN OTHER RIGHT-OF-WAY AREAS SHALL BE COVERED TO PREVENT EROSION.
33. FORMS OF ADEQUATE SIZE AND CONFIGURATION TO MEET CONCRETE THICKNESS REQUIREMENTS SHALL BE USED AROUND OUTSIDES OF OUTSIDE-DROP MANHOLES.
34. GRANULAR MATERIALS SHALL BE OBTAINED FROM A SOURCE APPROVED BY THE CITY OF ASHLAND AND ODOT. THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEER AND ODOT OF THE MATERIAL.

STRIPING NOTES

1. ALL STRIPING AND SIGNAGE SHALL BE PER MUTCD STANDARDS OR AS DIRECTED BY THE LOCAL AUTHORITY.
2. ALL STRIPING AND MARKINS INSIDE PUBLIC RIGHT OF WAY SHALL BE PER LOCAL AUTHORITY STANDARDS.
3. ALL STRIPING SHALL MEET ADA REQUIREMENTS.

GRADING NOTES

1. DEQ 1200-C PERMIT IS REQUIRED.
2. UNLESS DIRECTED OTHERWISE, REMOVE CLEARED AND GRUBBED MATERIAL FROM THE SITE AND DISPOSE AT AN APPROVED LOCATION.
3. PRIOR TO THE START OF CONSTRUCTION, VERIFY GRADES AT SAWCUT LOCATIONS AND MATCHING OF EXISTING GRADE LOCATIONS.
4. MINIMIZE TRAFFIC ON SOIL AREAS DURING WET WEATHER. IF THE SITE SOILS ARE EXPOSED DURING WET WEATHER, THE USE OF CRUSHED ROCK PLACED AS ENGINEERED FILL IN THE BOTTOM OF THE EXCAVATIONS MAY BE NECESSARY TO PROTECT THE SUBGRADE. TAKE ALL PRECAUTIONS TO LIMIT SURFACE DISTURBANCE AND PROTECT THE SITE GRADING AREA FROM EROSION AND RUNOFF.
5. UNLESS OTHERWISE NOTED, THE SAMPLING AND TESTING OF MATERIALS FOR USE ON THE JOBSITE SHALL BE AT THE EXPENSE OF THE CONTRACTOR. ALL TESTING OF MATERIALS AND WORKMANSHIP SHALL BE PERFORMED BY A CERTIFIED TESTER. RESULTS OF THE TESTS SHALL BE SENT DIRECTLY TO THE PROJECT ENGINEER AS WELL AS THE CONTRACTOR, BY THE LABORATORY. LOCATION AND FREQUENCY OF TESTS SHALL BE DESIGNATED BY THE GENERAL CONTRACTOR.
6. ALL CUT AND FILL SLOPES SHALL BE MAXIMUM OF 2:1.

STORM DRAIN NOTES

1. ALL STORM SEWER PIPE SHALL MEET THE OREGON STATE PLUMBING SPECIALTY CODE.
2. ALL PIPE SHALL BE PLACED ON STABLE EARTH, OR IF IN THE OPINION OF THE PROJECT ENGINEER THE EXISTING FOUNDATION IS UNSATISFACTORY, THEN IT SHALL BE EXCAVATED BELOW GRADE AND BACKFILLED WITH A GRAVEL MATERIAL TO SUPPORT THE PIPE.
3. THE BACKFILL SHALL BE PLACED EQUALLY ON BOTH SIDES OF THE PIPE IN LAYERS WITH A LOOSE AVERAGE DEPTH OF 6", MAXIMUM DEPTH 8"-9", THOROUGHLY TAMPING EACH LAYER. THESE COMPACTED LAYERS MUST EXTEND FOR ONE DIAMETER ON EACH SIDE OF THE PIPE OR TO THE SIDE OF THE TRENCH. MATERIALS TO COMPLETE THIS FILL OVER PIPE SHALL BE THE SAME AS DESCRIBED.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING ALL MANHOLE, INLET, AND CATCH BASIN FRAMES AND GRATES TO GRADE JUST PRIOR TO PAVING. MANHOLE GRATE SLOPES SHALL MATCH SLOPE OF FINISHED GRADE ASPHALT.
5. CULVERT ENDS AT OUTFALLS SHALL BE BEVELED TO MATCH SIDE SLOPES. FIELD CUT OF CULVERT ENDS IS PERMITTED WHEN APPROVED BY THE CITY ENGINEER OR HIS DESIGNATED REPRESENTATIVE. CULVERT OUTFALLS SHALL BE RIP RAPPED WITH A PAD MINIMUM OF 12" THICK, EXTENDING MINIMUM OF 6' FROM DISCHARGE POINT.
6. ALL STEEL PIPES, CULVERTS, TANKS AND OTHER STEEL PARTS OF ANY STORM DRAINAGE SYSTEM SHALL BE GALVANIZED OR HAVE A TREATMENT 1 ASPHALT COATING OR BETTER AS SPECIFIED IN THE ODOT STANDARD SPECIFICATIONS. ALUMINUM AND CONCRETE PIPES AND STRUCTURES DO NOT REQUIRE A TREATMENT 1 COATING.
7. STORM WATER RETENTION/DETENTION FACILITIES, STORM DRAINAGE PIPE AND CATCH BASINS SHALL BE FLUSHED AND CLEANED PRIOR TO CITY ACCEPTANCE.
8. ALL PIPES SHALL HAVE A MINIMUM OF 18" COVER AT THE TOP OF THE BELL, OR SHALL HAVE MINIMUM COVER PER THE MANUFACTURER'S SPECIFICATIONS, WHICHEVER IS GREATER.
9. CATCH BASIN STATIONS AND OFFSETS ARE MEASURED TO CENTER OF GRATE.
10. 100-FT MAX LINEAR RUN BETWEEN CLEANOUTS. 135° MAX AGGREGATE HORIZONTAL CHANGE IN DIRECTION WITHOUT CLEANOUT.

SANITARY SEWER NOTES

1. ALL PRIVATE SANITARY SEWER PIPE SHALL MEET THE OREGON STATE PLUMBING SPECIALTY CODE.
2. ALL PIPE SHALL BE PLACED ON STABLE EARTH, OR IF IN THE OPINION OF THE PROJECT ENGINEER THE EXISTING FOUNDATION IS UNSATISFACTORY, THEN IT SHALL BE EXCAVATED BELOW GRADE AND BACKFILLED WITH A GRAVEL MATERIAL TO SUPPORT THE PIPE.
3. THE BACKFILL SHALL BE PLACED EQUALLY ON BOTH SIDES OF THE PIPE IN LAYERS WITH A LOOSE AVERAGE DEPTH OF 6", MAXIMUM DEPTH 8"-9", THOROUGHLY TAMPING EACH LAYER. THESE COMPACTED LAYERS MUST EXTEND FOR ONE DIAMETER ON EACH SIDE OF THE PIPE OR TO THE SIDE OF THE TRENCH. MATERIALS TO COMPLETE THIS FILL OVER PIPE SHALL BE THE SAME AS DESCRIBED.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING ALL MANHOLE GRATES TO GRADE JUST PRIOR TO PAVING. MANHOLE GRATE SLOPES SHALL MATCH SLOPE OF FINISHED GRADE ASPHALT.
5. ALL PRIVATE SEWER PIPES SHALL HAVE A MINIMUM OF 36" COVER AT THE TOP OF THE BELL, OR SHALL HAVE MINIMUM COVER PER THE MANUFACTURER'S SPECIFICATIONS, WHICHEVER IS GREATER.
6. MANHOLE STATIONS AND OFFSETS ARE MEASURED TO CENTER OF STRUCTURE.
7. 100-FT MAX LINEAR RUN BETWEEN CLEANOUTS. 135° MAX AGGREGATE HORIZONTAL CHANGE IN DIRECTION WITHOUT CLEANOUT.
8. MINIMUM SLOPE ON 4" SEWER LATERALS IS 2%. MINIMUM SLOPE ON 6" SEWER LATERALS IS 1%. MINIMUM SLOPE ON 8" SEWER LATERALS IS 0.50%.

ASPHALT NOTES

1. NOTES APPLY TO ALL TYPICAL SECTIONS SHOWN ON THIS SHEET.
2. CONTRACTOR TO SUBMIT ASPHALT MIX TO ENGINEER FOR REVIEW AND APPROVAL PRIOR TO PAVING. MIX SHALL CONSIST OF AN ODOT LEVEL 2, 1/2" DENSE GRADED MIX WITH A BINDER GRADE OF PG 70-22.
3. ASPHALT SUBMITTAL SHALL ENSURE MAXIMUM RECLAIMED ASPHALT PAVEMENT (RAP) OF 20%.
4. CONSTRUCTION OF ASPHALT SHALL BE COMPLETED IN CONFORMANCE WITH THE CURRENT OREGON DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR CONSTRUCTION, INCLUDING SECTION 00745.
5. AGGREGATE BASE AND SUBBASE SHALL BE INSTALLED IN MAXIMUM 6" LIFTS AND MECHANICALLY COMPACTED TO MINIMUM 95% OF THE MAXIMUM DENSITY IN ACCORDANCE WITH THE AASHTO T-99 METHOD.
6. AGGREGATE BASE SHALL MEET ODOT SPECIFICATIONS FOR DENSE-GRADED AGGREGATE BASE ROCK.
7. JUST PRIOR TO INSTALLING AGGREGATE BASE ROCK, CONTRACTOR SHALL COMPACT THE EXISTING SUBGRADE TO 90% OF THE MAXIMUM DENSITY. PROOF ROLL TEST IF ADEQUATE SPACE IS AVAILABLE.

ADA NOTES

1. ALL ADA ACCESSIBLE FACILITIES SHALL BE INSTALLED PER THE CURRENT ADA REQUIREMENTS AND SHALL COMPLY WITH 405 ANSI ICC A117.1.
2. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THAT THE ACCESSIBLE PATH OF TRAVEL AND ACCESSIBLE PARKING STALLS AND ACCESS AISLES COMPLIES WITH AMERICAN DISABILITIES ACT AND ALL LOCAL CODES.
3. THE ACCESSIBLE PATH OF TRAVEL AS INDICATED ON PLANS IS A BARRIER FREE ACCESS ROUTE WITHOUT ANY ABRUPT LEVEL CHANGES EXCEEDING ½" BEVELED AT 1:2 MAX SLOPE, OR VERTICAL CHANGES NOT EXCEEDING ¼" MAX AND AT LEAST 48" WIDE. SURFACE IS SLIP RESISTANT, STABLE, FIRM, AND SMOOTH. CROSS SLOPE DOES NOT EXCEED 2% AND SLOPE IN THE DIRECTION OF TRAVEL IS LESS THAN 5% UNLESS OTHERWISE NOTED.
4. ALL ADA PARKING STALLS AND ACCESS AISLES SHALL BE CONSTRUCTED WITH A SLOPE NOT TO EXCEED 1.5% IN ANY DIRECTION. PARKING STALLS AND ACCESS AISLES WITH AS-BUILT SLOPES EXCEEDING 2.0% IN ANY DIRECTION WILL NOT PASS FINAL INSPECTION.
5. IF SPOT ELEVATIONS ON PLANS ARE NOT CONSISTENT WITH THESE ADA REQUIREMENTS, NOTIFY ENGINEER OF RECORD PRIOR TO PLACEMENT OF ACCESSIBLE ROUTE.

LEGEND:

	EXIST. FIRE HYDRANT		FIRE HYDRANT
	EXIST. WATER VALVE		WATER VALVE
JRV	EXIST. BLOW OFF		WATER METER
WM	EXIST. WATER METER		BACKFLOW DEVICE
HB	EXIST. HOSE BIB		IRRIGATION WATER METER
	EXIST. IRRIGATION VALVE		AIR RELEASE VALVE
AV	EXIST. AIR RELEASE VALVE		BLOWOFF DEVICE ASSEMBLY
D	EXIST. STORM DRAIN MANHOLE		FIRE DEPARTMENT CONNECTION
CO	EXIST. CLEANOUT		END PLUG
S	EXIST. SANITARY SEWER MANHOLE		TEE
MB	EXIST. MAILBOX	SSCO	SANITARY SEWER CLEANOUT
	HANDICAP PARKING SYMBOL		CONCENTRIC MANHOLE
	PARALLEL PARKING STRIPING	SDCO	STORM DRAIN CLEANOUT
	BICYCLE LANE SYMBOL		CONTROL STRUCTURE MANHOLE
EX SS	EXIST. SANITARY SEWER		ATRIUM DRAIN / BUBBLER
EX SD / EX SD	EXIST. STORM DRAIN		AREA DRAIN
EX WTR / EX WTR	EXIST. WATER		CATCH BASIN INLET
EX GAS / EX GAS	EXIST. GAS		CURB INLET
EX ELEC / EX ELEC	EXIST. ELECTRIC		
EX OHU	EXIST. OVERHEAD POWER		LIGHTS
EX TEL	EXIST. TELEPHONE		SIGN (TRAFFIC, INFORMATION)
EX FOL / EX FOL	EXIST. FIBER OPTIC		BOLLARD
	EXIST. CURB AND GUTTER		CONCRETE
	EXIST. CENTERLINE		
	EXIST. RIGHT OF WAY		HMAC PAVING
1398	EXIST. CONTOUR		
1398	PROPOSED CONTOUR		NEW RIP RAP
SS	SANITARY SEWER		
SD	STORM DRAIN		CURB AND GUTTER
W	WATER		PROPOSED RIGHT OF WAY
GAS / GAS	GAS		FLOW LINE
ELEC / ELEC	ELECTRIC		PROPERTY LINE

CONCRETE NOTES

1. PROVIDE A MINIMUM 8' TRANSITION SECTION WHEN JOINING CURBS OF DIFFERENT CROSS SECTIONS.
2. CONCRETE SHALL NOT BE PLACED UNTIL FORMS HAVE BEEN INSPECTED AND APPROVED.
3. CONCRETE SHALL BE COMMERCIAL GRADE RETAINING THE FOLLOWING CHARACTERISTICS: ENTRAINED AIR – 4.0% TO 7.0%; SLUMP – 5 INCHES OR LESS; COMPRESSIVE STRENGTH – MINIMUM 3,300 PSI AT 28 DAYS; TEMPERATURE – MINIMUM 50°F TO MAXIMUM 90°F.
4. ALL CONCRETE STRUCTURES REINFORCED WITH REBAR SHALL BE VIBRATED TO REMOVE VOIDS.
5. SURFACE SHALL HAVE A FINISHED TEXTURE THAT WILL NOT BE SLICK WHEN WET (MEDIUM BROOM FINISH). CURING COMPOUND MAY BE APPLIED IMMEDIATELY AFTER CONCRETE IS FINISHED. WHITE PIGMENT RECOMMENDED, CLEAR ACCEPTABLE.
6. AN EDGING TOOL SHALL BE USED ON ALL EDGES AND JOINTS.
7. PROVIDE CONTRACTION JOINTS AT 15' INTERVALS AND "DUMMY" TOOLED JOINTS AT 5' INTERVALS ON CURBS, SIDEWALKS AND APPROACHES. CONTRACTION JOINT GROOVES SHALL BE AT MINIMUM, 1 ½" DEEP OR ONE-THIRD THE THICKNESS OF THE CONCRETE.
8. PROVIDE EXPANSION JOINTS OPPOSITE ABUTTING EXPANSION JOINTS IN ABUTTING CONCRETE, AT EACH POINT OF TANGENCY IN THE STRUCTURE ALIGNMENT, BETWEEN DRIVEWAYS AND CONCRETE PAVEMENT, AROUND POLES, POSTS, BOXES AND OTHER FIXTURES WHICH PROTRUDE THROUGH OR AGAINST THE STRUCTURES, AT ALL BCR'S AND ECR'S, AT MAXIMUM OF 100' INTERVALS. EXPANSION JOINT MATERIAL SHALL BE OF THE BITUMINOUS, PREFORMED FILLER TYPE NOT LESS THAN ½" WIDE, PLACED FLUSH OR NO MORE THAN 1/8" BELOW THE CONCRETE SURFACE.
9. STRAIGHT LINE EDGES SHALL NOT VARY MORE THAN ¼" UNDER A TWELVE-FOOT STRAIGHT EDGE.
10. CURE AND PROTECT CONCRETE AFTER PLACING AND FINISHING. KEEP STRUCTURES FREE FROM CONTACT, STRAIN AND PUBLIC TRAFFIC FOR AT LEAST SEVEN DAYS OR LONGER AS DIRECTED. MIXES TO EXPEDITE CURING MAY BE USED WITH APPROVAL OF CITY ENGINEER.
11. CONCRETE SHALL BE REMOVED TO THE NEAREST CONTRACTION JOINT, COLD JOINT OR CRACK WITHIN 4' OF THE REPLACEMENT AREA. CONCRETE SHALL BE SAW CUT WITH A SMOOTH, UNIFORM JOINT PROVIDED.
12. EXISTING A/C SHALL BE REMOVED/REPLACED ALONG ENTIRE CURB SECTION TO A MINIMUM 18" WIDTH UNLESS APPROVED BY ENGINEER OF RECORD.

APPLICABLE CODES

ALL WORK SHALL BE IN CONFORMANCE WITH ALL FEDERAL, STATE, AND SOCIAL CODES. SPECIFICATIONS AND STANDARDS SHALL MEAN, AND ARE INTENDED TO BE, THE LATEST EDITION, AMENDMENT OR REVISION OF SUCH REFERENCE STANDARD IN EFFECT AS OF THE DATE OF THE CONTRACT DOCUMENTS, INCLUDING BUT NOT LIMITED TO TO FOLLOWING:

OREGON STANDARD DRAWINGS AND SPECIFICATONS (ODOT)

CITY OF ASHLAND ADOPTED STANDARD DETAILS AND SPECIFICATIONS

OPSC: OREGON PLUMBING SPECIALTY CODE, LATEST EDITION

ABBREVIATIONS:

AC	ASPHALT
APWA	AMERICAN PUBLIC WORKS ASSOCIATION
ASTM	AMERICAN STANDARD TEST METHOD
AWWA	AMERICAN WATER WORKS ASSOCIATION
BC	BACK OF CURB
BR	BOTTOM OF RAMP
BS	BOTTOM OF STAIRS
BW	BOTTOM OF WALL
CMP	CORRUGATED METAL PIPE
CO	CLEANOUT RISER
C	CONCRETE
DEQ	DEPARTMENT OF ENVIRONMENTAL QUALITY
DIP	DUCTILE IRON PIPE
DWG	DRAWING
(E)	EXISTING
EG	EXISTING GRADE
EOC	EDGE OF CONCRETE
EOP	EDGE OF PAVEMENT
FF	FINISHED FLOOR
FG	FINISHED GRADE
FL	FLOW LINE
G	GAS
GB	GRADE BREAK
GC	GENERAL CONTRACTOR
GRD	GROUND
GRVL	GRAVEL
HDPE	HIGH-DENSITY POLYETHYLENE
HP	HIGH POINT
IE	INVERT ELEVATION
LP	LOW POINT
MAX	MAXIMUM
ME	MATCH EXISTING
MIN	MINIMUM
MUTCD	MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES
(N)	NEW
NAVD	NORTH AMERICAN VERTICAL DATUM
ODOT	OREGON DEPARTMENT OF TRANSPORTATION
P	PROPOSED
PERF	PERFORATED PIPE
PLY	PLAYGROUND SURFACE
PVC	POLYVINYL CHLORIDE
PVR	PAVER
RCP	REINFORCED CONCRETE PIPE
RE	RIM ELEVATION
REQ'D	REQUIRED
ROW	RIGHT-OF-WAY
SD	STORM DRAIN
SDMH	STORM DRAIN MANHOLE
SS	SANITARY SEWER
SSMH	SANITARY SEWER MANHOLE
STD	STANDARD
SW	SIDEWALK
TBR	TO BE REMOVED
TC	TOP OF CURB
TR	TOP OF RAMP
TOW	TOP OF WALL
TYP	TYPICAL
UPC	UNIFORM PLUMBING CODE
W	WATER

Know what's **below.** **Call** before you dig.

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 THESE RULES FROM THE CENTER BY CALLING 1-800-522-2404. IF YOU HAVE ANY QUESTIONS ABOUT THE RULES, YOU MAY CONTACT THE CENTER. YOU MUST NOTIFY THE CENTER AT LEAST TWO BUSINESS DAYS, BEFORE COMMENCING AN EXCAVATION.

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REGISTERED PROFESSIONAL ENGINEER
56425PE
NOT FOR CONSTRUCTION
OREGON
JULY 13, 2004
TODD D. POWELL
EXPIRES: 12/31/2626

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GRAND TERRACE
AN APARTMENT DEVELOPMENT

PUBLIC IMPROVEMENT PLANS

MAP 38-1E-32
SOUTH PACIFIC HWY BETWEEN JACKSON RD AND SCHOFIELD ST

NO.	REVISION DESCRIPTION	DATE

DRAWN BY:	TDP
DESIGNED BY:	TDP
CHECKED BY:	TDP
ISSUE DATE:	10/02/24
LAND USE SET	
JOB NO.	GENERAL NOTES
22-002	C7.0.1

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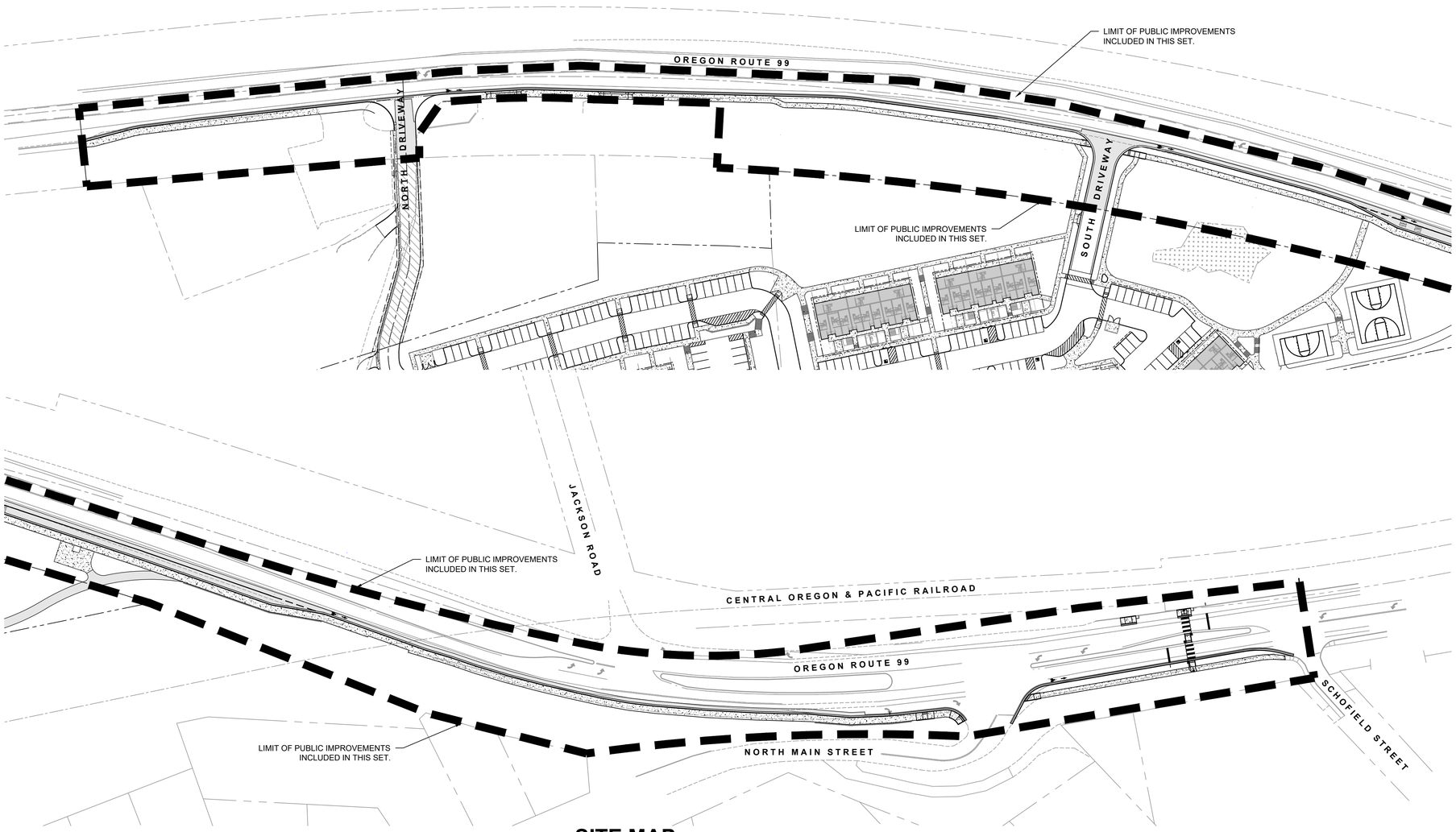
PUBLIC IMPROVEMENT PLANS FOR

GRAND TERRACE APARTMENTS

LOCATED IN:
SECTION 32, T.38S, R.1E, W.M.
MAP 38-1E-32, TAX LOT 1702

CITY OF ASHLAND
JACKSON COUNTY, OREGON

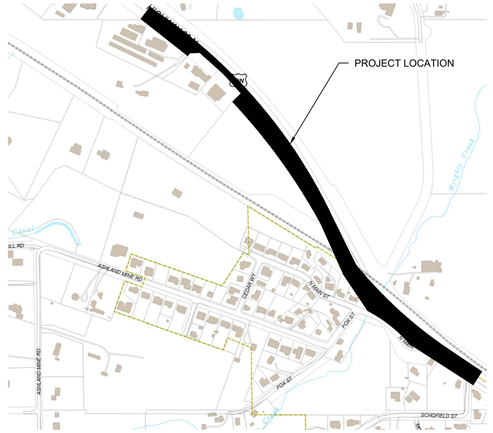


SITE MAP

SCALE: 1" = 70' - 0" (22x34)

NOTE: PRIVATE IMPROVEMENTS SHOWN AS A REFERENCE ONLY. SEE BUILDING PERMIT PLANS FOR ALL IMPROVEMENTS OUTSIDE OF THE PUBLIC RIGHT OF WAY.

CONTRACTOR SHALL OBTAIN A BUILDING PERMIT FOR PRIVATE UTILITY CONSTRUCTION.



VICINITY MAP

SCALE: NTS

CONTACT INFO:

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ASHLAND, OR 97520

DEVELOPER
KENDRICK ENTERPRISES LLC
ROBERT KENDRICK
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ASHLAND OR 97520

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(541) 488-5305
(ELECTRIC, WATER, STORM, PLANNING, BUILDING)

NATURAL GAS COMPANY
AVISTA UTILITIES
580 BUSINESS PARK DR.
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(800) 227-9187

TELEPHONE COMPANY
CENTURYLINK
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MEDFORD, OR 97501
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CIVIL ENGINEER
POWELL ENGINEERING AND CONSULTING
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LAND SURVEYOR
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LANDSCAPE ARCHITECT
KENCAIRN LANDSCAPE ARCHITECTURE
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SANITARY SEWER AGENCY
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(541) 779-4140

DRAWING INDEX:

C7.0	COVER SHEET
C7.0.1	GENERAL NOTES
C7.1	TYPICAL SECTIONS
C7.2.1	FRONTAGE IMPROVEMENT PLAN & PROFILE
C7.2.2	FRONTAGE IMPROVEMENT PLAN & PROFILE
C7.2.3	FRONTAGE IMPROVEMENT PLAN & PROFILE
C7.2.4	FRONTAGE IMPROVEMENT PLAN & PROFILE
C7.2.5	FRONTAGE IMPROVEMENT PLAN & PROFILE
C7.2.6	FRONTAGE IMPROVEMENT PLAN & PROFILE
C7.2.7	FRONTAGE IMPROVEMENT PLAN & PROFILE
C7.3.1	UTILITY, ILLUMINATION, & STRIPING PLAN
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C7.3.3	UTILITY, ILLUMINATION, & STRIPING PLAN
C7.4.1	CURB RAMP DETAILS
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C7.4.3	RRFB PLAN DETAILS
C7.5	DRAINAGE POND DETAIL
C7.6.1	RD300 SERIES ODOT DETAILS
C7.6.2	RD700 SERIES ODOT DETAILS
C7.6.3	RD900 SERIES ODOT DETAILS
C7.6.4	ODOT TRAFFIC DETAILS

UTILITY STATEMENT:

EXISTING UNDERGROUND UTILITIES ILLUSTRATED IN THESE PLANS ARE APPROXIMATED BASED ON MAPS OBTAINED FROM THE CITY OF ASHLAND PUBLIC WORKS, OR HAVE BEEN LOCATED BY A UTILITY LOCATE COMPANY. LAYOUT INDICATED IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. ALL LINES WITHIN PROJECTED WORK ZONE SHALL BE FIELD VERIFIED AS REQUIRED PRIOR TO CONSTRUCTION.

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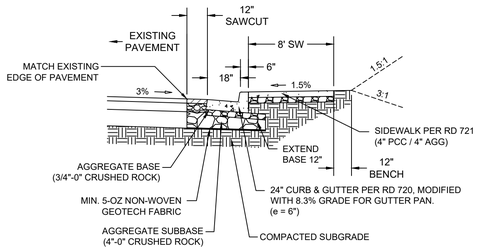
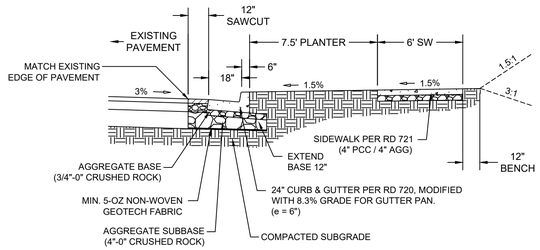


SECTION A - CURB LINE SIDEWALK

SCALE: NTS



SECTION B - SEPARATED SIDEWALK

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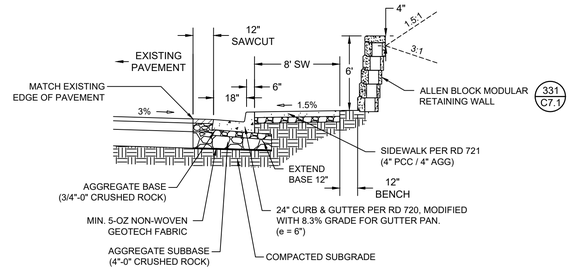

SECTION C - RETAINING WALL

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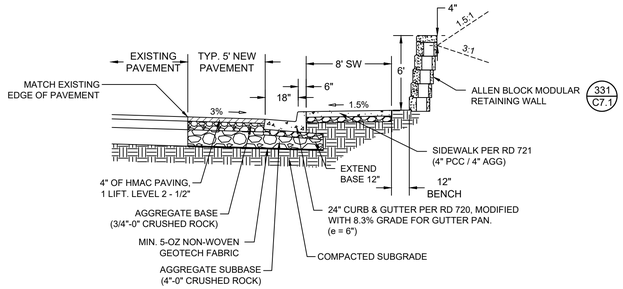
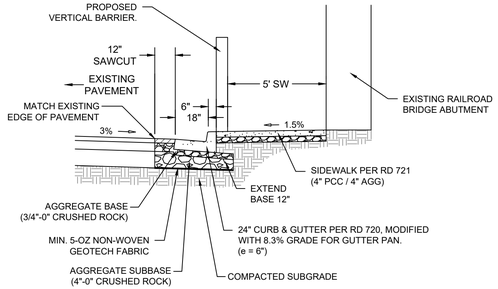


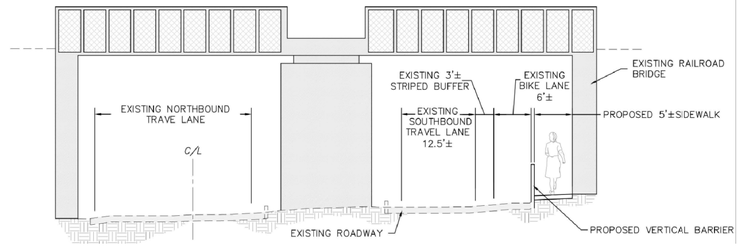
SECTION D - BUS PULL OUT LANE

SCALE: NTS



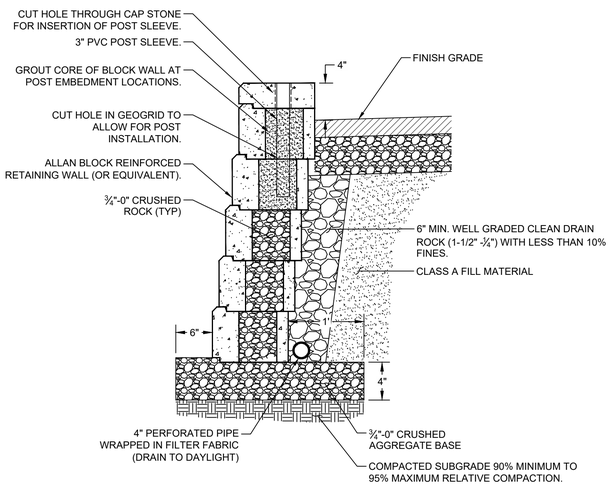
SECTION E - BRIDGE ABUTMENT

SCALE: NTS



SECTION E - FULL SECTION @ BRIDGE ABUTMENT

SCALE: NTS



NOTES

1. ALLAN BLOCK, KEYSTONE WALL, LOCK-BLOCK OR OTHER APPROVED SOURCE BUILT TO MANUFACTURERS SPECIFICATIONS.
2. WALL HEIGHT VARIES PER PLAN.

331 MODULAR BLOCK WALL

SCALE: NTS

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MAP 38-1E-32
SOUTH PACIFIC HWY BETWEEN JACKSON RD AND SCHOFIELD ST

PRELIMINARY - NOT FOR CONSTRUCTION

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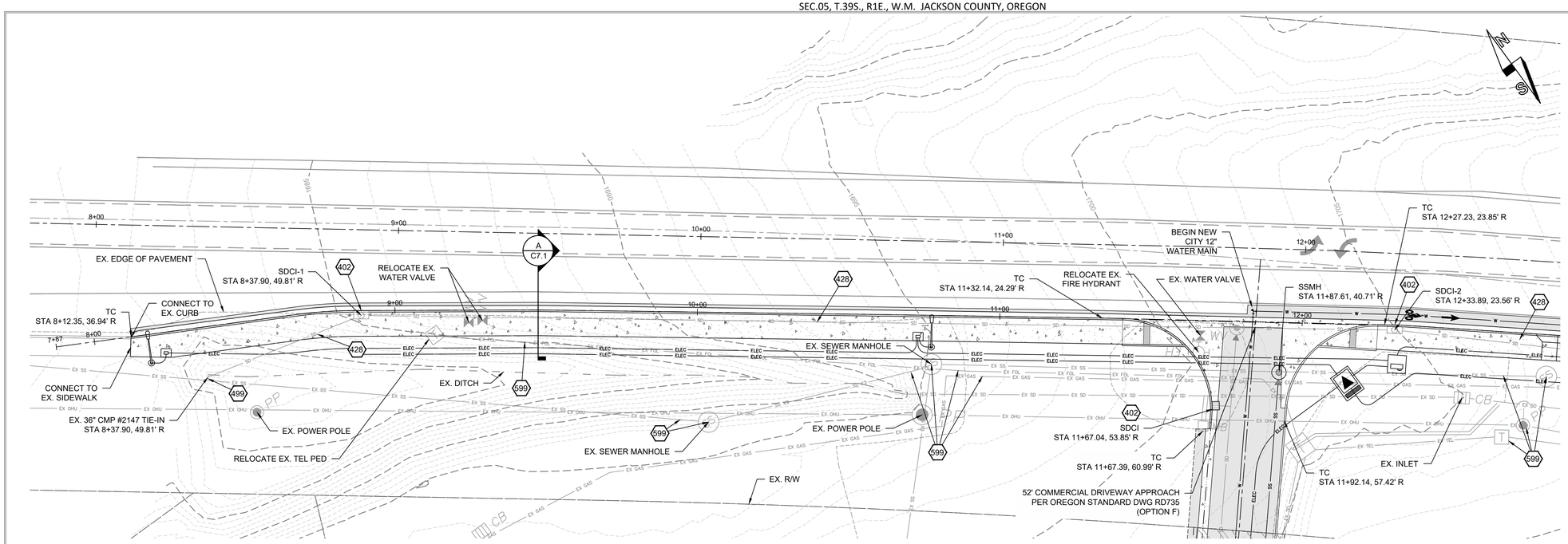
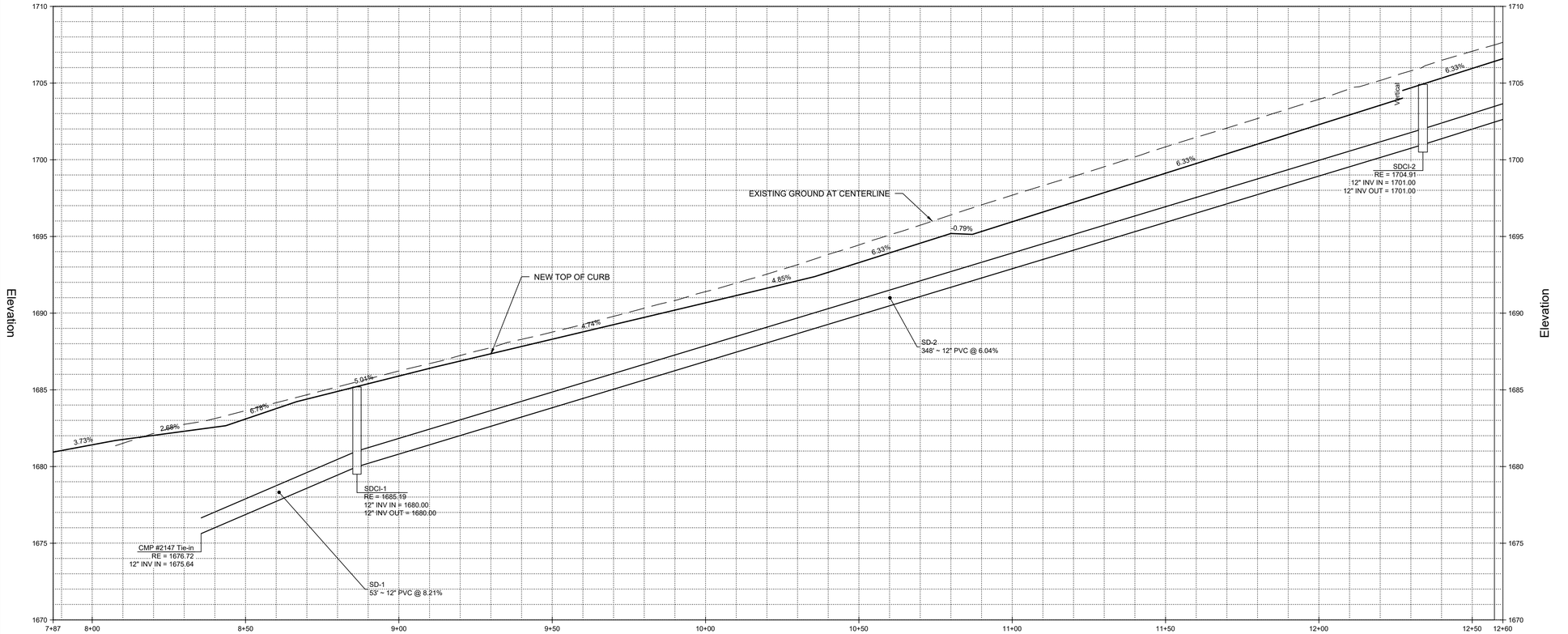


PLAN VIEW - S. PACIFIC HWY RIGHT-OF-WAY IMPROVEMENTS (STA. 7+87 TO 12+50)

SCALE: 1" = 20' - 0" (24x36)



PROFILE VIEW - TOP FACE OF CURB (STA. 7+87 TO 12+50)

SCALE: 1" = 20' - 0" (HORIZ)
1" = 4' - 0" (VERT)

0 20 40
1" = 20'

KEYNOTES

- 399 REMOVE EX. ITEM
- 402 CURB INLET (371 / 7.6.1) (372 / 7.6.1)
- 428 12" PVC STORM DRAIN PIPE
- 499 STORM DRAIN CONNECTION TO EXISTING
- 599 PROTECT EX. ITEM IN PLACE

GENERAL NOTES

1. SEE SHEET 7.4.1 FOR CURB RAMP DETAILS.

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MAP 38-1E-32
SOUTH PACIFIC HWY BETWEEN JACKSON RD AND SCHOFIELD ST

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JOB NO.	FRONTAGE IMPROV. PLAN
22-002	C7.2.1

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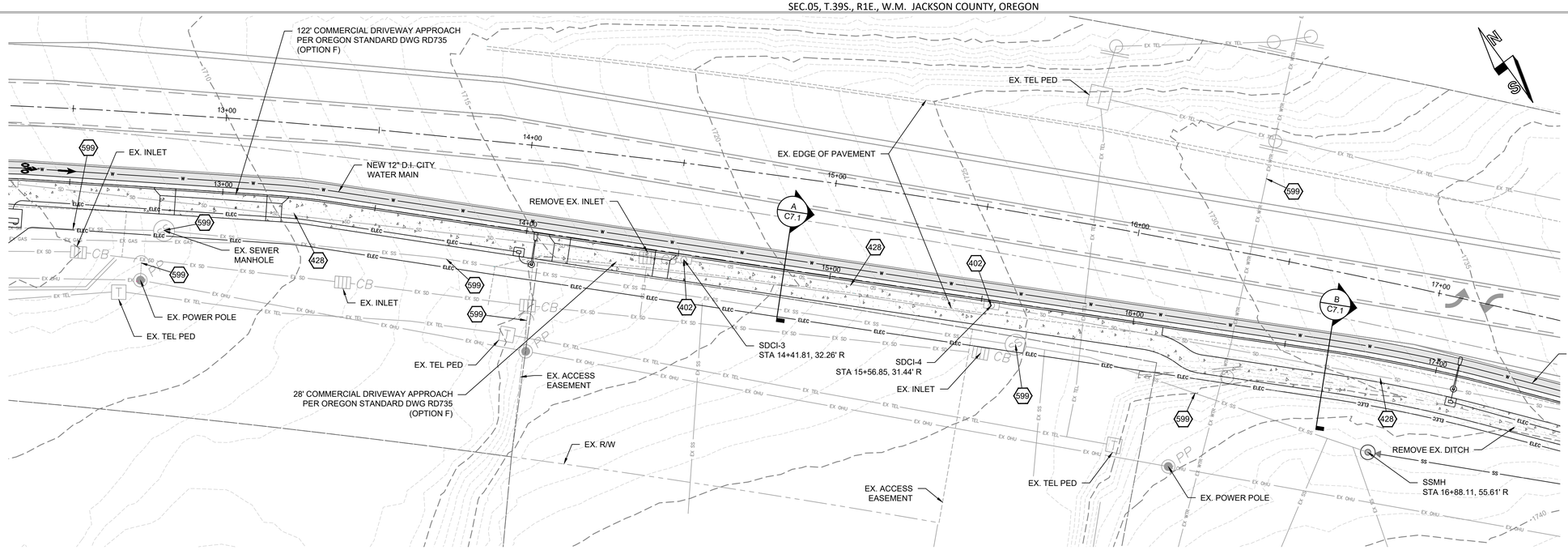
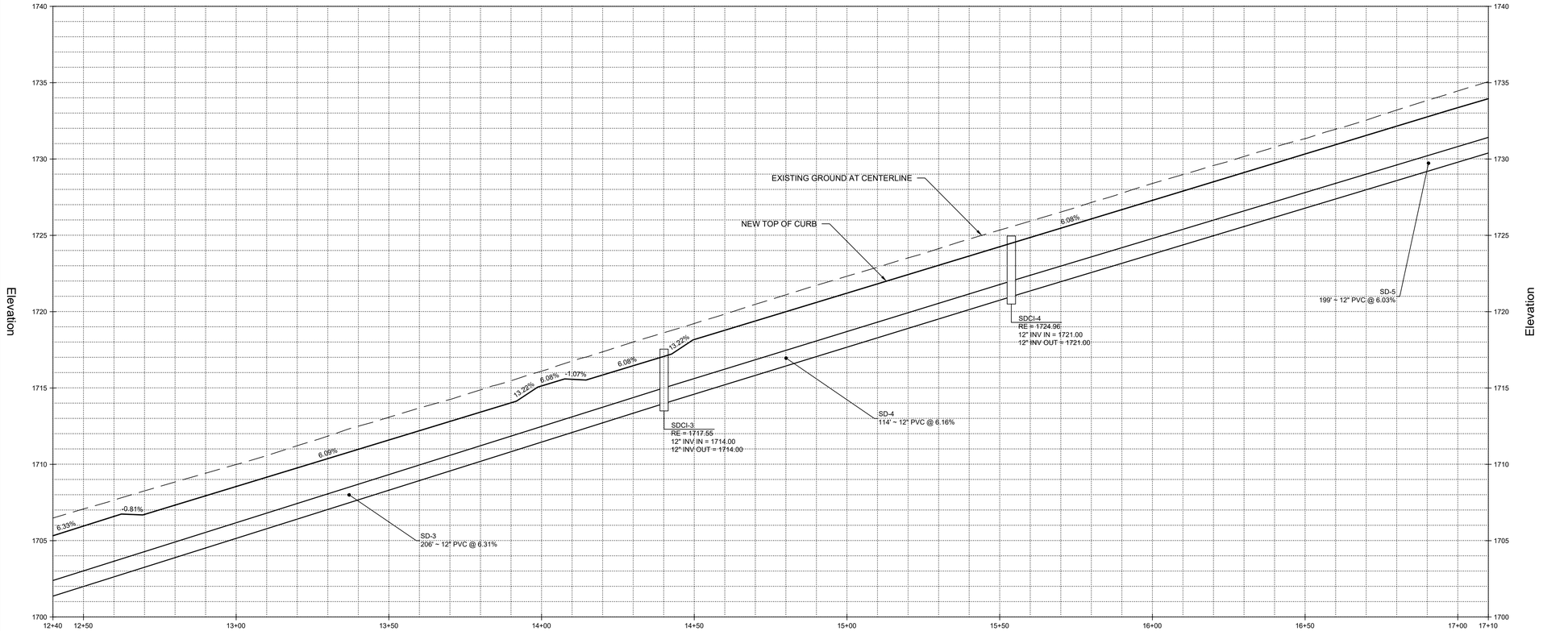


KEYNOTES

- 399 REMOVE EX. ITEM
- 402 CURB INLET (371 7.6.1) (372 7.6.1)
- 428 12" PVC STORM DRAIN PIPE
- 599 PROTECT EX. ITEM IN PLACE

PLAN VIEW - S. PACIFIC HWY RIGHT-OF-WAY IMPROVEMENTS (STA. 12+50 TO 17+00)

SCALE: 1" = 20' - 0" (24x36)



PROFILE VIEW - TOP FACE OF CURB (STA. 12+50 TO 17+00)

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1" = 4' - 0" (VERT)

0 20 40
1" = 20'

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MAP 38-1E-32
SOUTH PACIFIC HWY BETWEEN JACKSON RD AND SCHOFIELD ST

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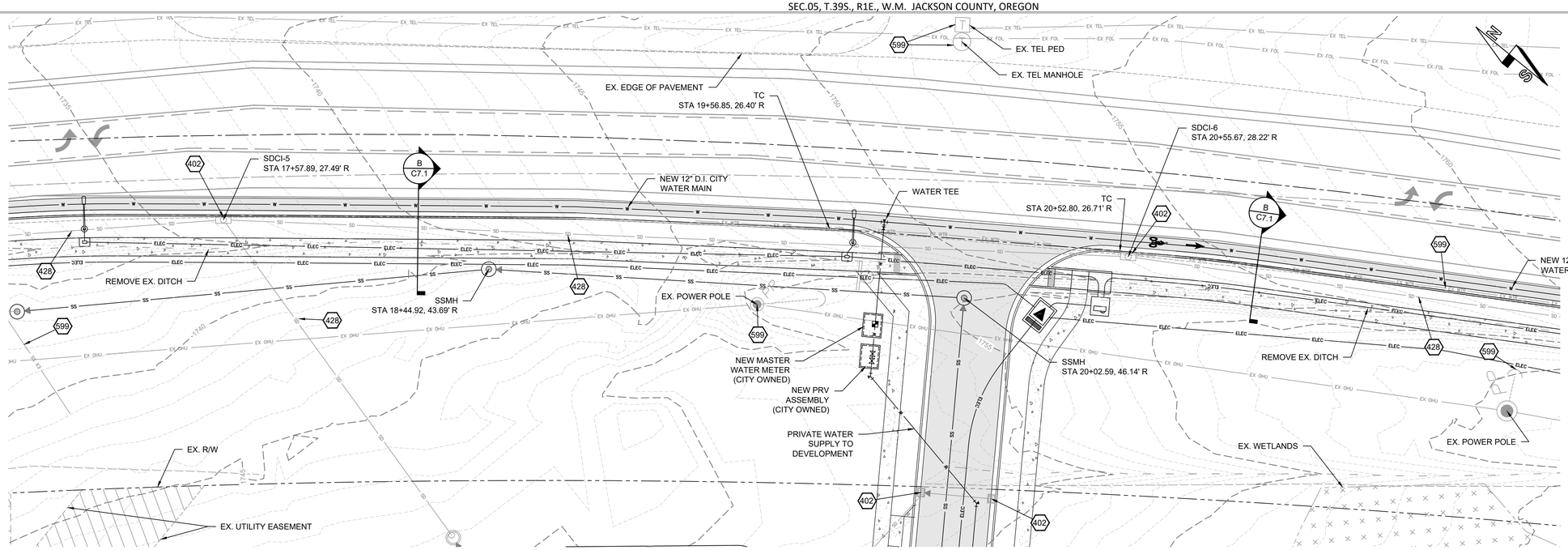
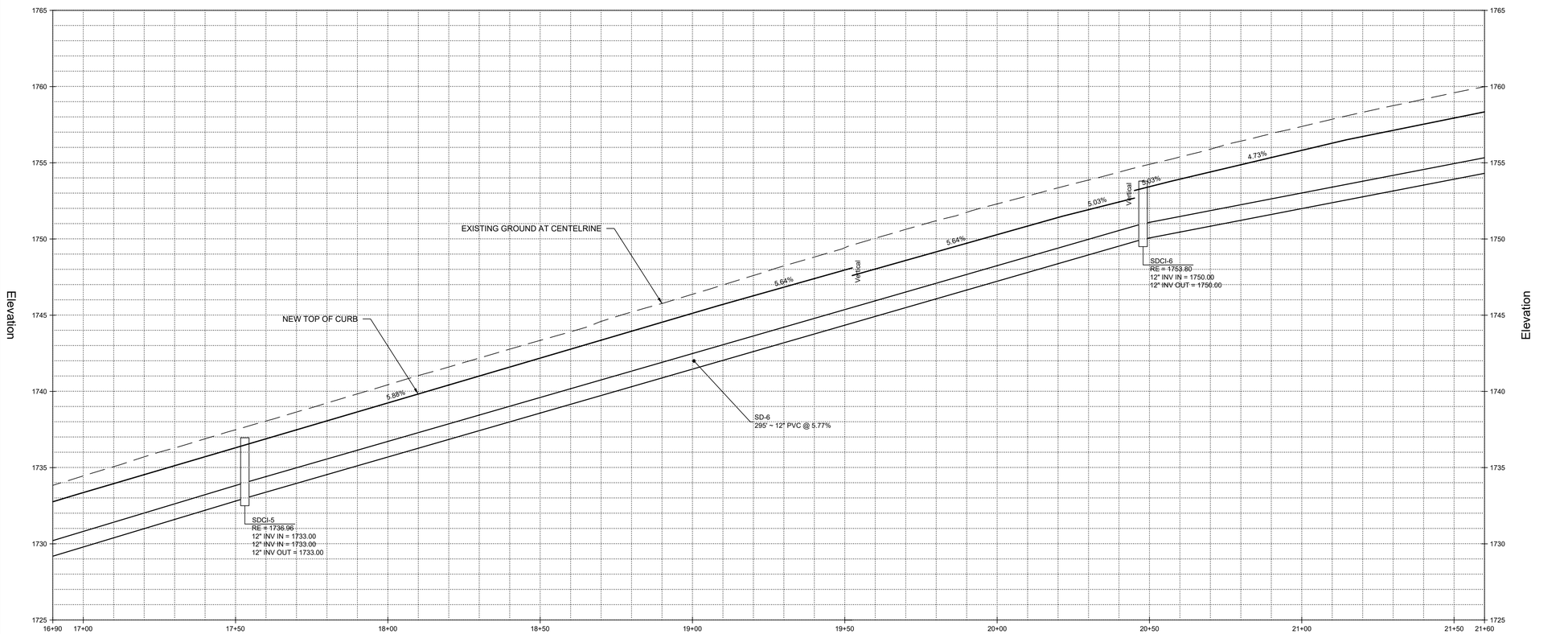


PLAN VIEW - S. PACIFIC HWY RIGHT-OF-WAY IMPROVEMENTS (STA. 17+00 TO 21+50)

SCALE: 1" = 20' - 0" (24x36)



PROFILE VIEW - TOP FACE OF CURB (STA. 17+00 TO 21+50)

SCALE: 1" = 20' - 0" (HORIZ)
1" = 4' - 0" (VERT)

KEYNOTES

- 402 CURB INLET (371 / 7.6.1) (372 / 7.6.1)
- 428 12" PVC STORM DRAIN PIPE
- 599 PROTECT EX. ITEM IN PLACE

GENERAL NOTES

1. SEE SHEET 7.4.1 FOR CURB RAMP DETAILS.

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MAP 38-1E-32
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0 20 40
1" = 20'

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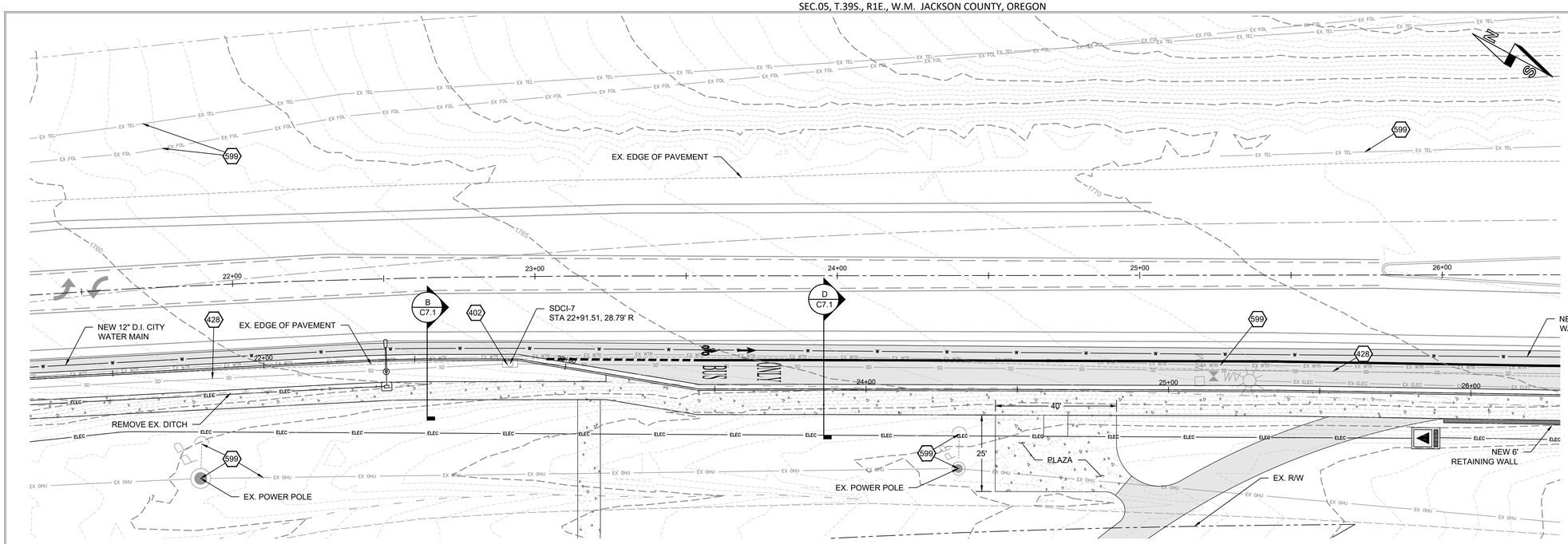
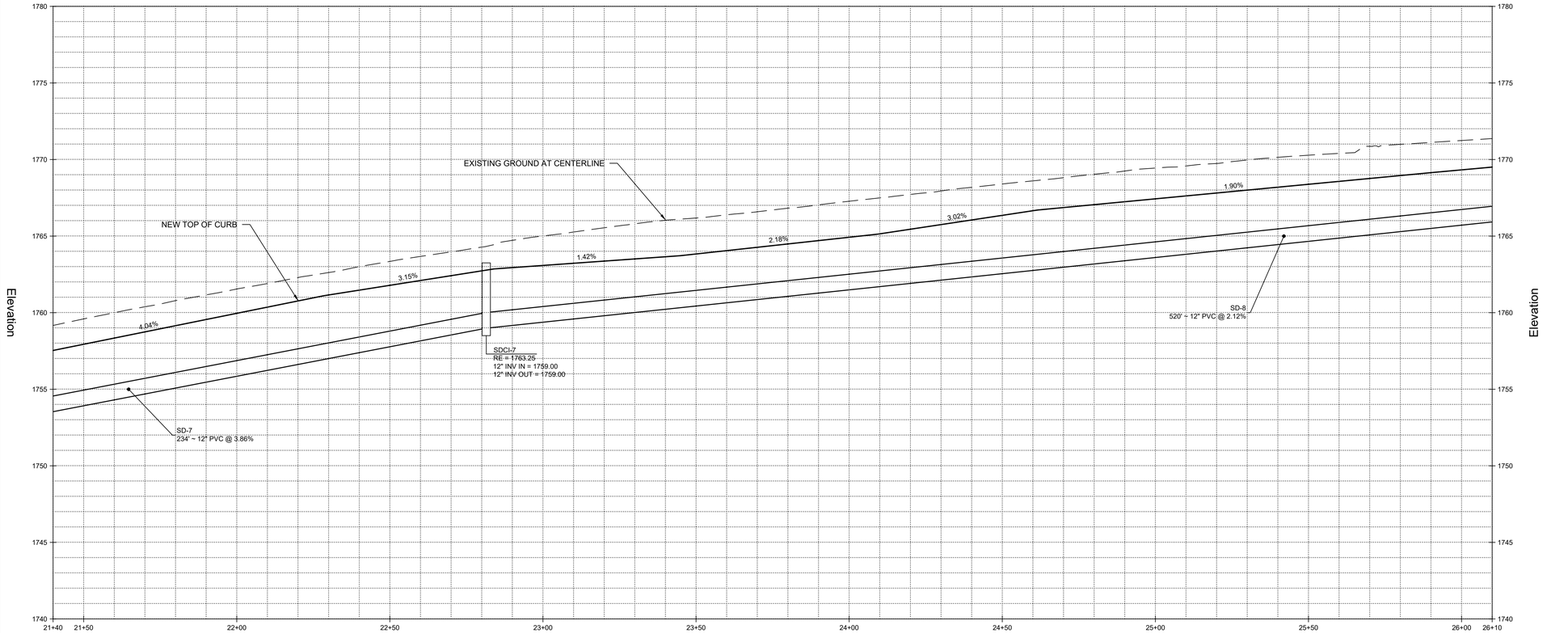


PLAN VIEW - S. PACIFIC HWY RIGHT-OF-WAY IMPROVEMENTS (STA. 21+50 TO 26+00)

SCALE: 1" = 20' - 0" (24x36)



PROFILE VIEW - TOP FACE OF CURB (STA. 21+50 TO 26+00)

SCALE: 1" = 20' - 0" (HORIZ)
1" = 4' - 0" (VERT)

0 20 40
1" = 20'

KEYNOTES

- 402 CURB INLET (371 / 7.6.1) (372 / 7.6.1)
- 428 12" PVC STORM DRAIN PIPE
- 599 PROTECT EX. ITEM IN PLACE

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MAP 38-1E-32
SOUTH PACIFIC HWY BETWEEN JACKSON RD AND SCHOFIELD ST

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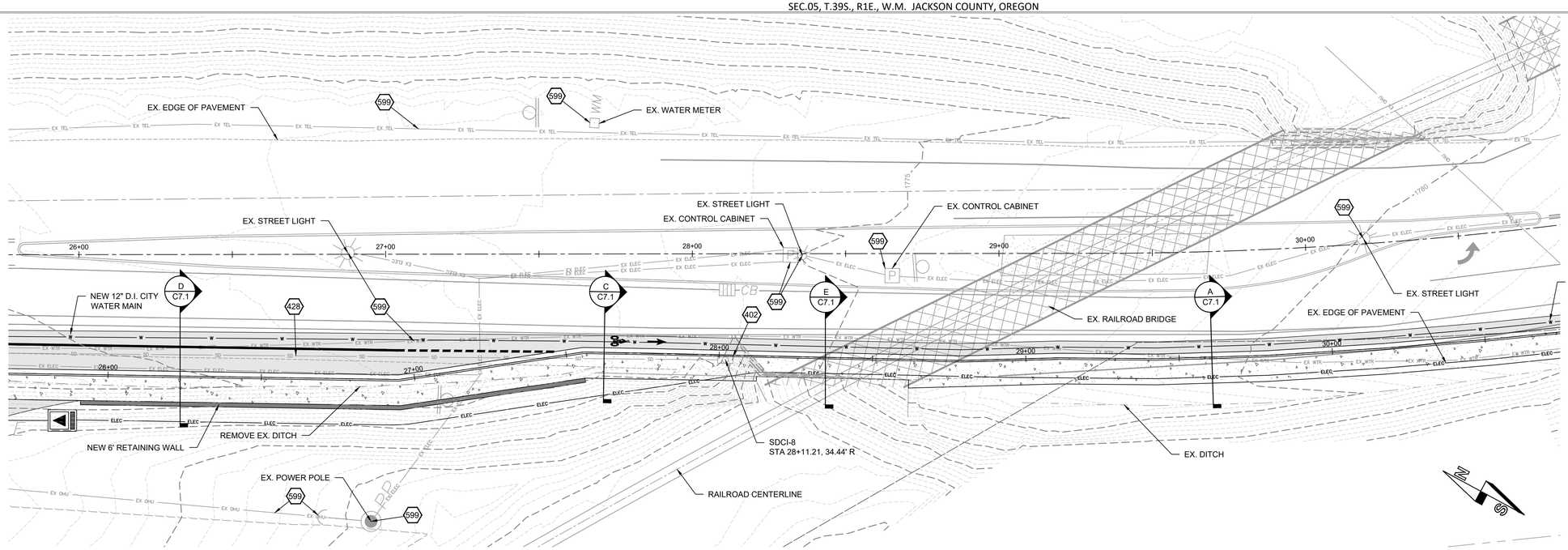
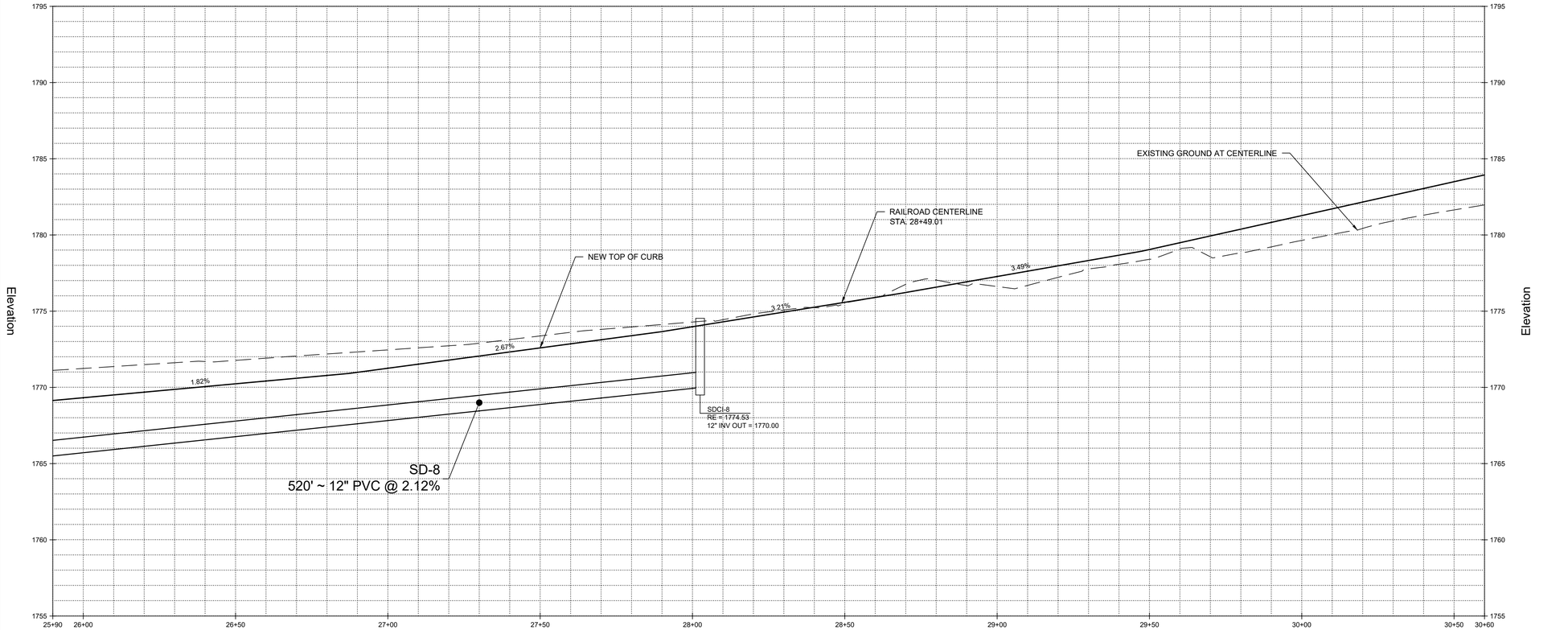


KEYNOTES

- 402 — CURB INLET (371 / 7.6.1) (372 / 7.6.1)
- 428 — 12" PVC STORM DRAIN PIPE
- 599 — PROTECT EX. ITEM IN PLACE

PLAN VIEW - S. PACIFIC HWY RIGHT-OF-WAY IMPROVEMENTS (STA. 26+00 TO 30+50)

SCALE: 1" = 20' - 0" (24x36)



PROFILE VIEW - TOP FACE OF CURB (STA. 26+00 TO 30+50)

SCALE: 1" = 20' - 0" (HORIZ)
1" = 4' - 0" (VERT)

0 20 40
1" = 20'

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MAP 38-1E-32
SOUTH PACIFIC HWY BETWEEN JACKSON RD AND SCHOFIELD ST

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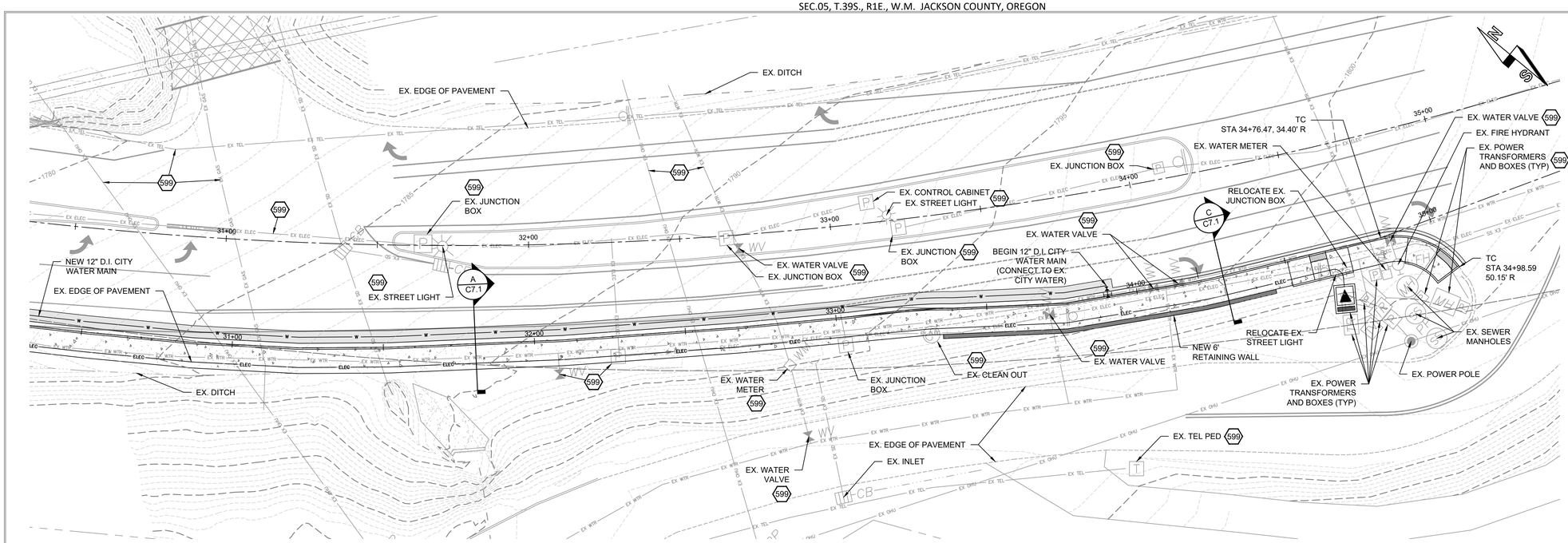
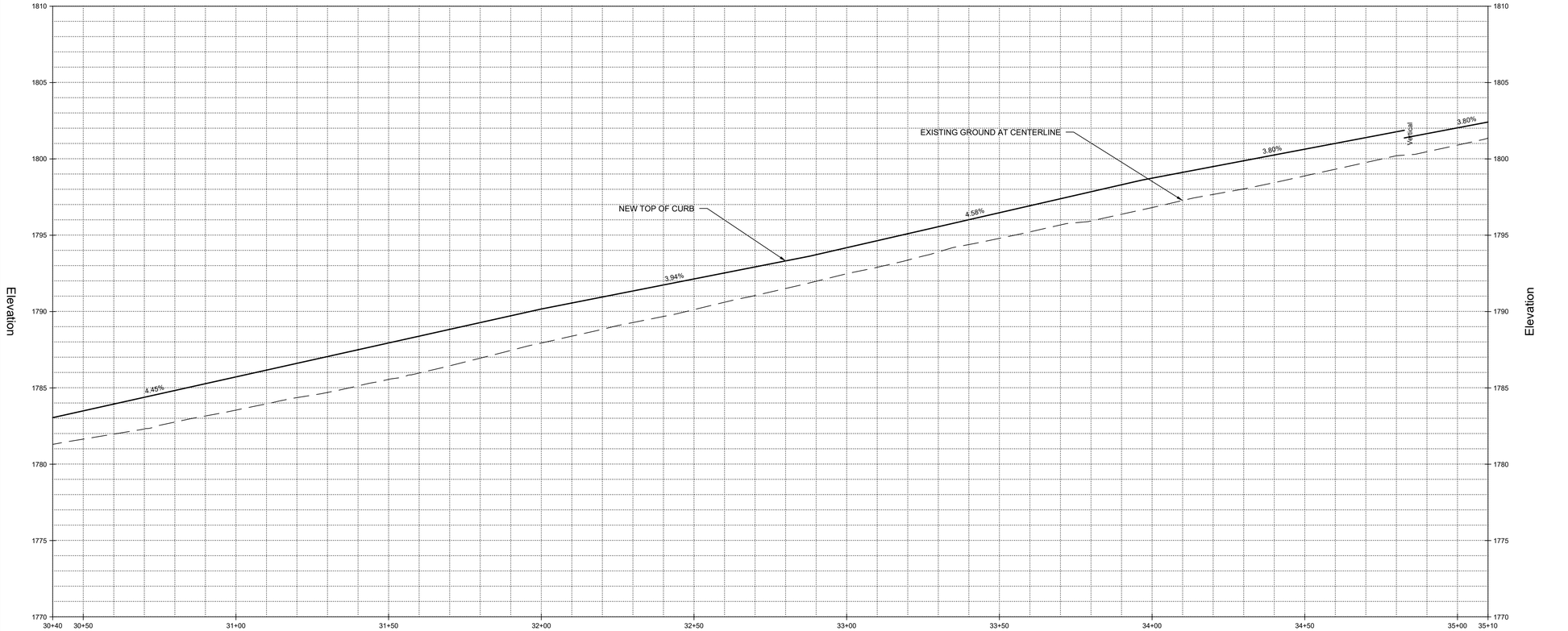


PLAN VIEW - S. PACIFIC HWY RIGHT-OF-WAY IMPROVEMENTS (STA. 30+50 TO 35+00)

SCALE: 1" = 20' - 0" (24x36)



PROFILE VIEW - TOP FACE OF CURB (STA. 30+50 TO 35+00)

SCALE: 1" = 20' - 0" (HORIZ)
1" = 4' - 0" (VERT)

0 20 40
1" = 20'

KEYNOTES

599 PROTECT EX. ITEM IN PLACE

GENERAL NOTES

1. SEE SHEET 7.4.2 FOR CURB RAMP DETAILS.

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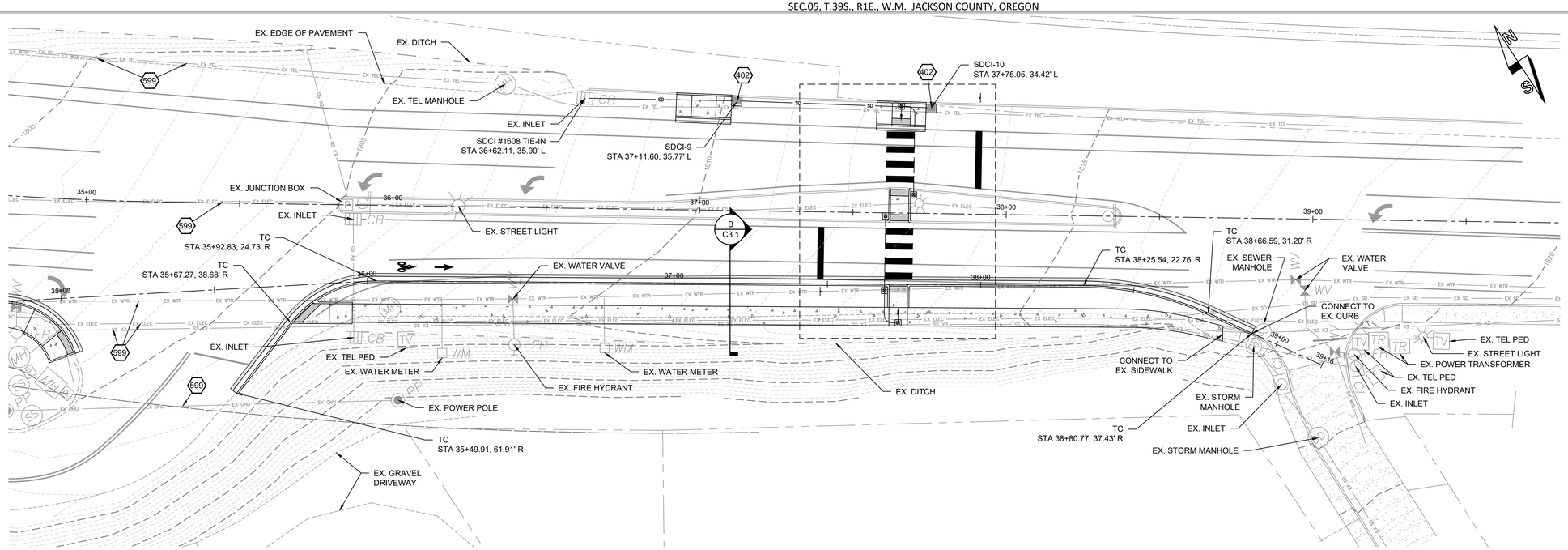
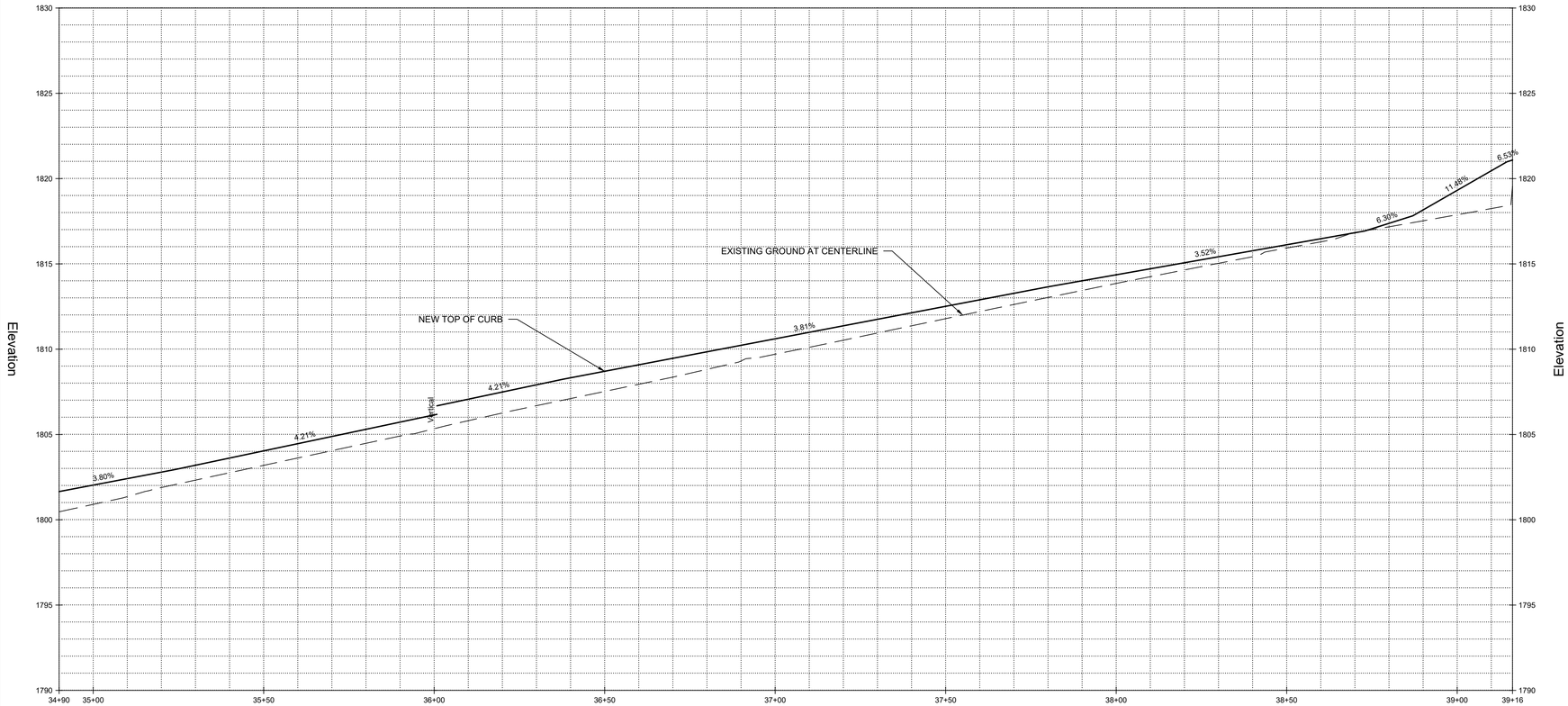


PLAN VIEW - S. PACIFIC HWY RIGHT-OF-WAY IMPROVEMENTS (STA. 35+00 TO 39+16)

SCALE: 1" = 20' - 0" (24x36)



PROFILE VIEW - TOP FACE OF CURB (STA. 35+00 TO 39+16)

SCALE: 1" = 20' - 0" (HORIZ)
1" = 4' - 0" (VERT)

0 20 40
1" = 20'

KEYNOTES

402	CURB INLET (371 7.6.1) (372 7.6.1)
599	PROTECT EX. ITEM IN PLACE

GENERAL NOTES

1. SEE SHEET 7.4.2 FOR CURB RAMP DETAILS.

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MAP 38-1E-32
SOUTH PACIFIC HWY BETWEEN JACKSON RD AND SCHOFIELD ST

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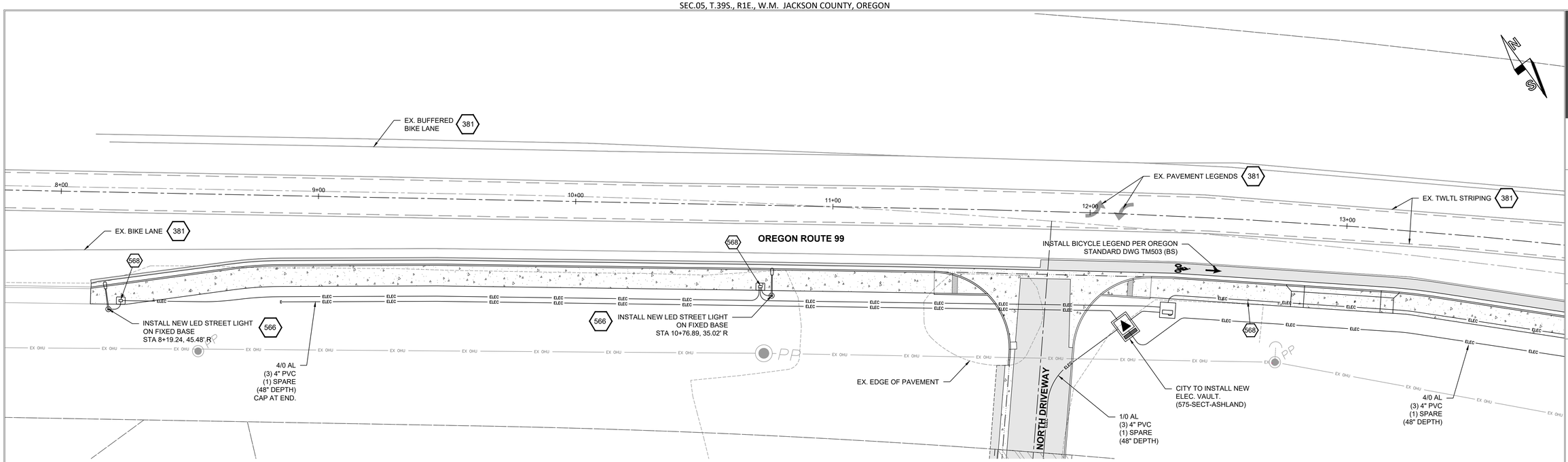
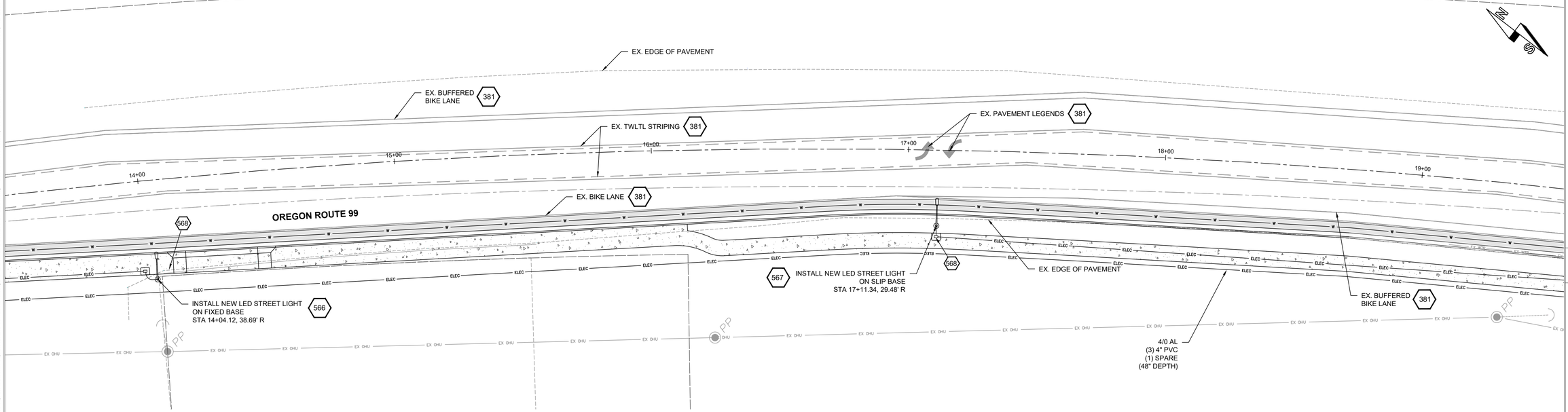


PLAN VIEW - ILLUMINATION, UTILITIES, SIGNAGE & STRIPING (STA. 8+00 TO 13+50)

SCALE: 1" = 20' - 0" (24x36)



PLAN VIEW - ILLUMINATION, UTILITIES, SIGNAGE & STRIPING (STA. 13+50 TO 19+50)

SCALE: 1" = 20' - 0" (24x36)

0 20 40
1" = 20'

KEYNOTES

381 EXISTING STRIPING TO REMAIN. CONTRACTOR TO REPLACE IN KIND ALL EXISTING TRAFFIC MARKINGS DAMAGED BY CONSTRUCTION.

566 STREET LIGHT ON FIXED BASE 629 7.6.4 / 630 7.6.4

567 STREET LIGHT ON SLIP BASE 629 7.6.4 / 631 7.6.5

568 INSTALL NEW JB-2 CONCRETE JUNCTION BOX WITH 12" CONCRETE APRON PER OREGON STANDARD DWG TM472. 472 7.6.4

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PUBLIC IMPROVEMENT PLANS

MAP 38-1E-32
SOUTH PACIFIC HWY BETWEEN JACKSON RD AND SCHOFIELD ST

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JOB NO.	ILLUM. UTIL. & STRIPING PLAN
22-002	C7.3.1

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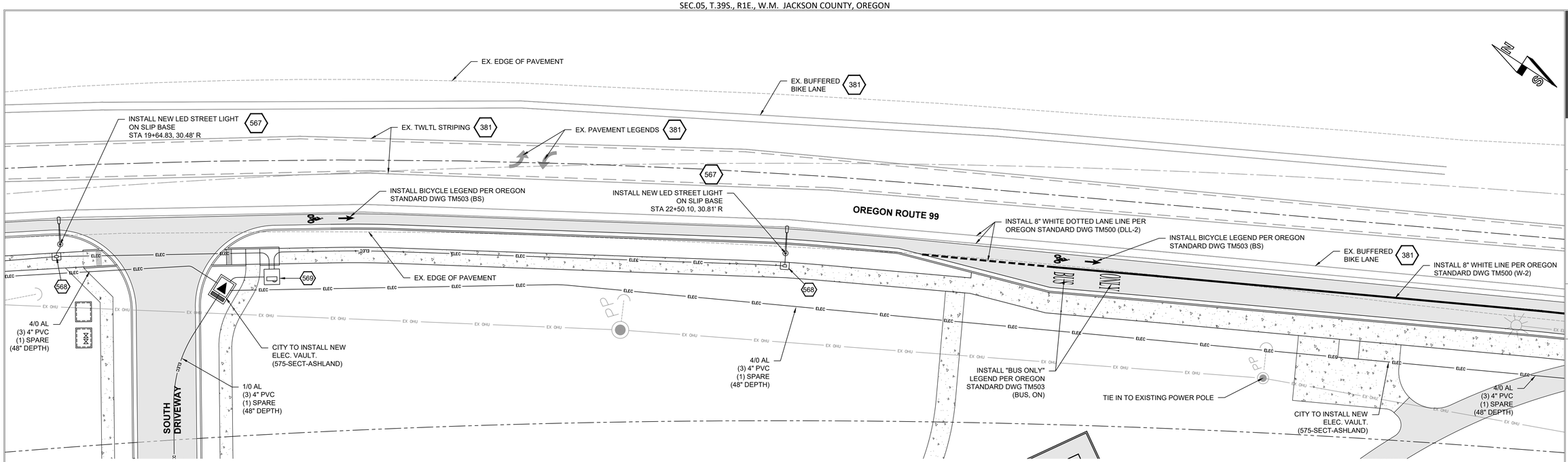
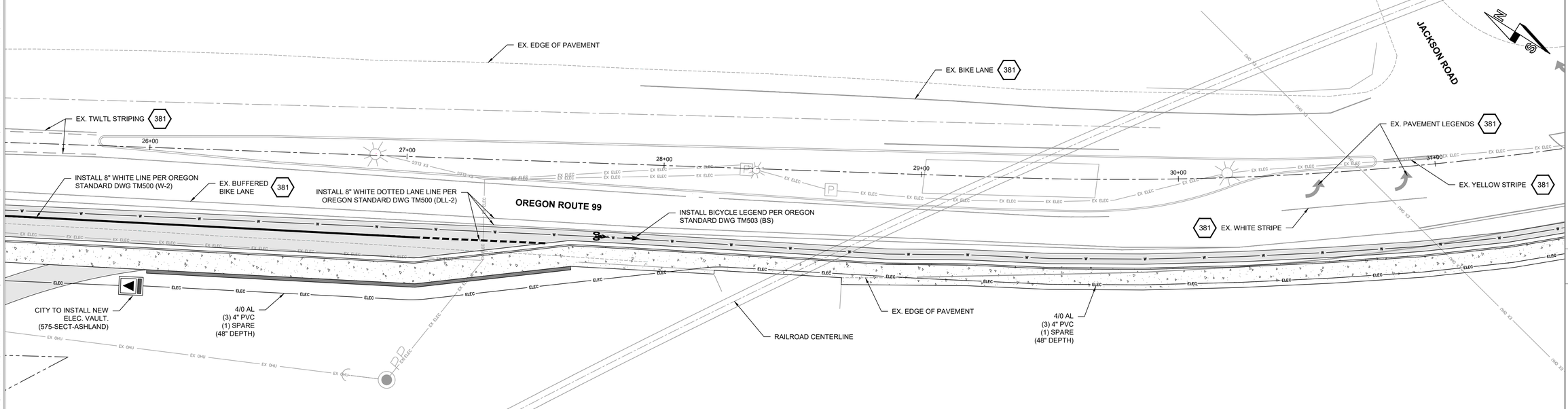


PLAN VIEW - ILLUMINATION, UTILITIES, SIGNAGE & STRIPING (STA. 19+50 TO 25+50)

SCALE: 1" = 20' - 0" (24x36)



PLAN VIEW - ILLUMINATION, UTILITIES, SIGNAGE & STRIPING (STA. 25+50 TO 31+00)

SCALE: 1" = 20' - 0" (24x36)

0 20 40
1" = 20'

KEYNOTES

381 EXISTING STRIPING TO REMAIN. CONTRACTOR TO REPLACE IN KIND ALL EXISTING TRAFFIC MARKINGS DAMAGED BY CONSTRUCTION.

567 STREET LIGHT ON SLIP BASE (629 7.6.4) (631 7.6.5)

568 INSTALL NEW JB-2 CONCRETE JUNCTION BOX WITH 12" CONCRETE APRON PER OREGON STANDARD DWG TM472. (472 7.6.4)

569 INSTALL NEW PAD MOUNTED CONTROL CABINET PER OREGON STANDARD DRAWING TM302. (302 7.6.4)

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OREGON
JAN. 13, 2006
TODD D. POWELL
EXPIRES: 12/31/2626

VERIFY SCALES
ORIGINAL DRAWING BAR IS ONE INCH
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

GRAND TERRACE
AN APARTMENT DEVELOPMENT
PUBLIC IMPROVEMENT PLANS
MAP 38-1E-32
SOUTH PACIFIC HWY BETWEEN JACKSON RD AND SCHOFIELD ST

NO.	REVISION DESCRIPTION	DATE

DRAWN BY:	TDP
DESIGNED BY:	TDP
CHECKED BY:	TDP
ISSUE DATE:	10/02/24
LAND USE SET	
JOB NO.	ILLUM. UTIL. & STRIPING PLAN
22-002	C7.3.2

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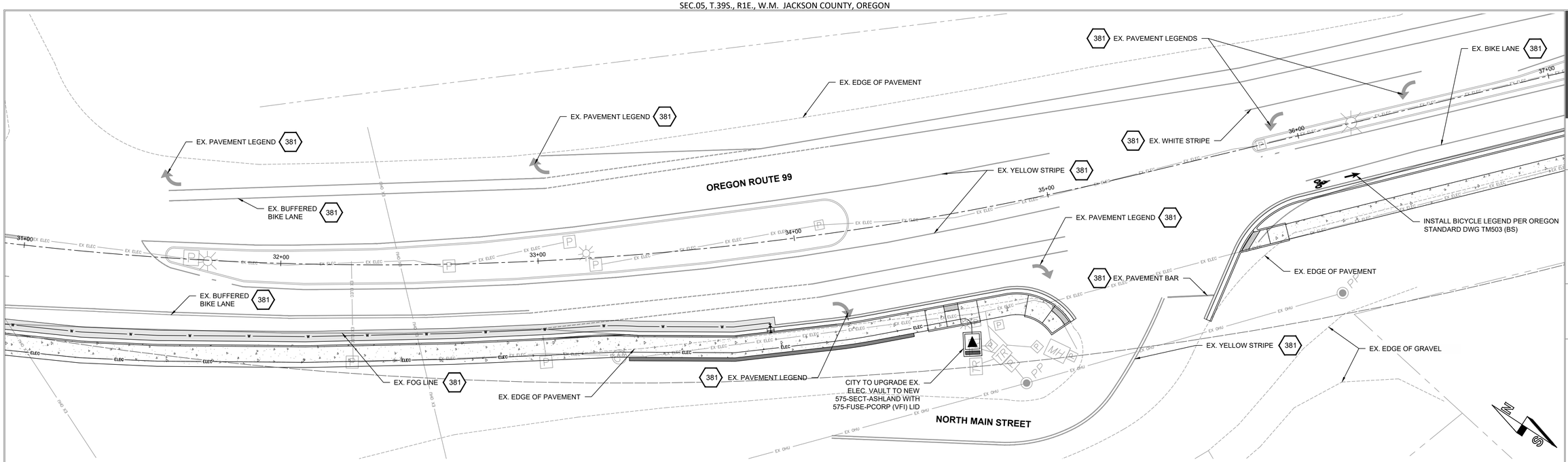
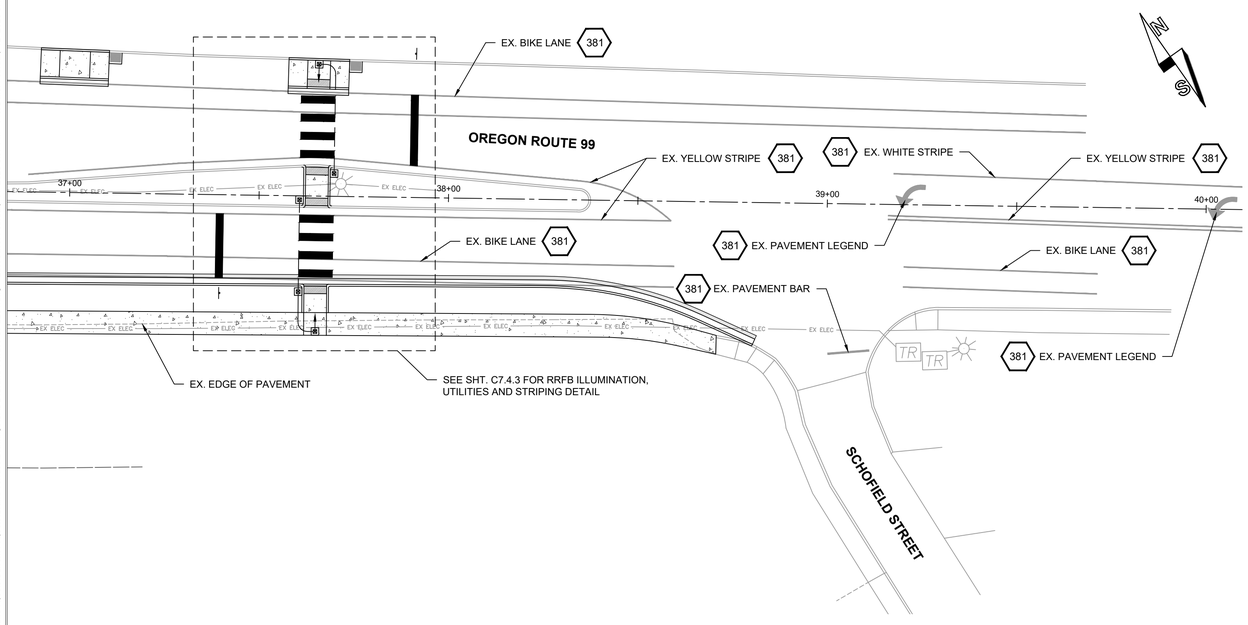


PLAN VIEW - ILLUMINATION, UTILITIES, SIGNAGE & STRIPING (STA. 31+00 TO 37+00)

SCALE: 1" = 20' - 0" (24x36)



PLAN VIEW - ILLUMINATION, UTILITIES, SIGNAGE & STRIPING (STA. 37+00 TO 40+00)

SCALE: 1" = 20' - 0" (24x36)

0 20 40

1" = 20'

KEYNOTES

381 EXISTING STRIPING TO REMAIN. CONTRACTOR TO REPLACE IN KIND ALL EXISTING TRAFFIC MARKINGS DAMAGED BY CONSTRUCTION.

ELECTRIC NOTES

1. APPLICABLE STANDARDS: SEPTEMBER 2021 OREGON DEPARTMENT OF TRANSPORTATION LIGHTING POLICY AND GUIDELINES.
2. CONTRACTOR TO COORDINATE WITH CITY OF ASHLAND ELECTRIC PRIOR TO INSTALLATION.
3. ELECTRICAL SERVICE FACILITIES SHOWN WITHIN THIS PLAN SET ARE FOR REFERENCE ONLY. SEE UTILITY COMPANY PLANS FOR ELECTRICAL PLANS AND SPECIFIC ELECTRICAL FACILITY REQUIREMENTS.
4. CONTRACTOR SHALL RECORD ALL FIELD CHANGES AS THE JOB PROGRESSES AND PROVIDE ENGINEER, OWNER, AND CITY AS-BUILT DRAWINGS PRIOR TO FINAL ACCEPTANCE.
5. ALL WIRING SHALL BE COPPER UNLESS NOTED OTHERWISE. ALL UNDERGROUND PVC CONDUIT SHALL BE SCHEDULE 40 UNLESS NOTED OTHERWISE. ALL PVC CONDUIT EXPOSED TO POSSIBLE DAMAGE SHALL BE SCHEDULE 80. ALL ELBOWS AND CONDUIT IN FOUNDATION TO BE PVC.
6. ALL WIRING AND CONDUIT SHALL BE SIZED APPROPRIATELY FOR CIRCUITS PER N.E.C. UNLESS NOTED OTHERWISE.
7. WHERE STREET CROSSINGS OCCUR, ALL STREET LIGHTING CONDUIT SHALL BE 2" SCHEDULE 40.
8. ALL JUNCTION BOXES SHALL BE 17"x24"x12".
9. ALL JUNCTION BOXES SHALL BE CONCRETE.

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GRAND TERRACE
AN APARTMENT DEVELOPMENT

PUBLIC IMPROVEMENT PLANS

MAP 38-1E-32
SOUTH PACIFIC HWY BETWEEN JACKSON RD AND SCHOFIELD ST

NO.	REVISION DESCRIPTION	DATE

DRAWN BY:	TDP
DESIGNED BY:	TDP
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JOB NO.	ILLUM. UTIL. & STRIPING PLAN
22-002	C7.3.3

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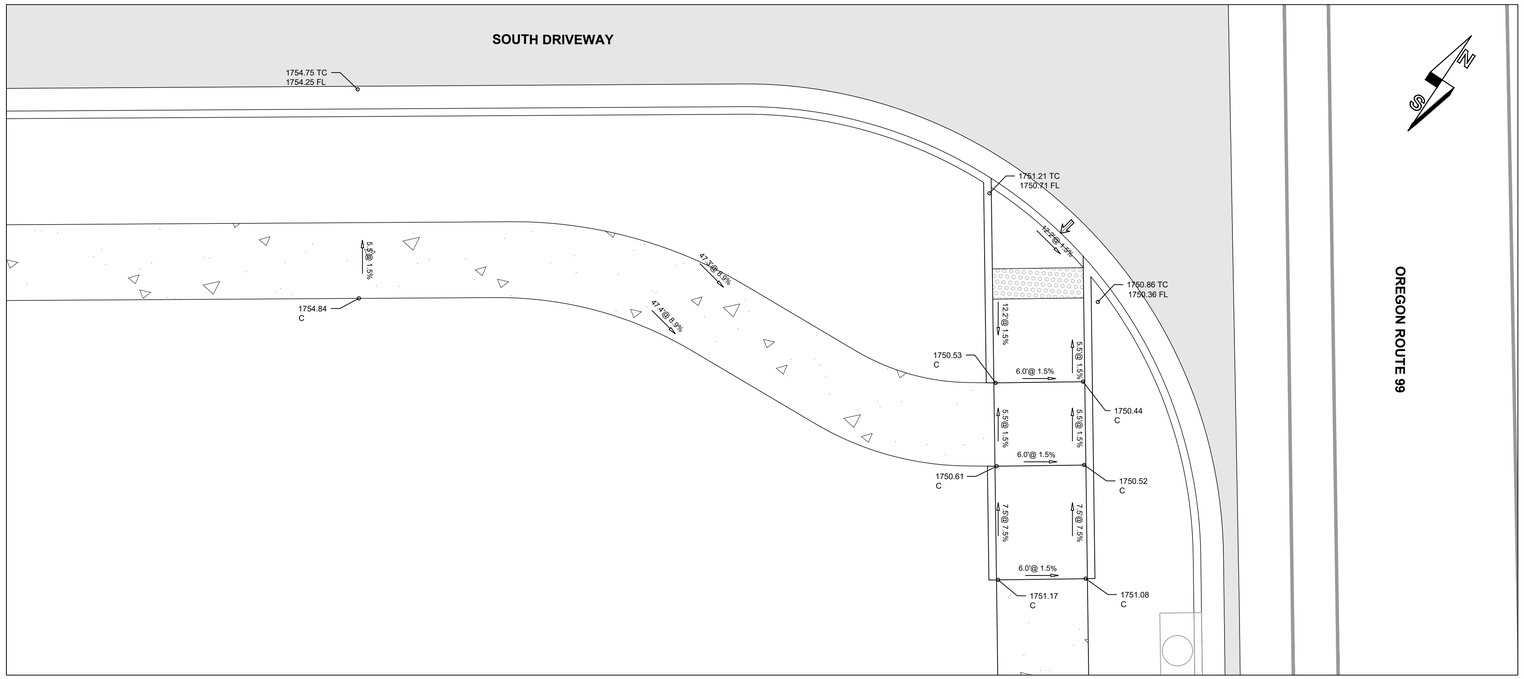
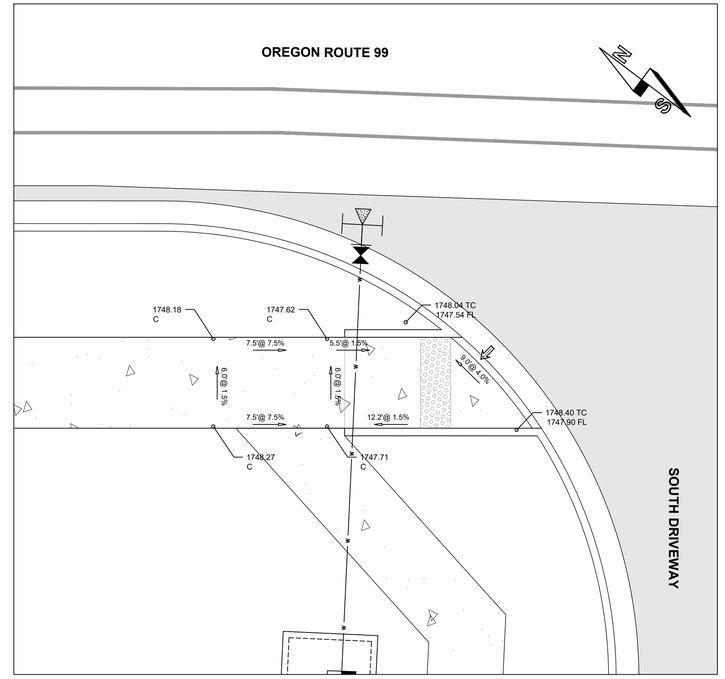


PLAN VIEW - SOUTH DRIVEWAY @ OR 99 - SW CORNER

SCALE: 1" = 5' - 0" (30x42)



PLAN VIEW - SOUTH DRIVEWAY @ OR 99 - NW CORNER

SCALE: 1" = 5' - 0" (30x42)

LEGEND

Brick red detectable warning surface (DWS)

Counter slope 4.0% max. ascending or descending
(Max. 5.0% finished surface slope)
Slope as required for drainage

0 20 40
1" = 20'

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PUBLIC IMPROVEMENT PLANS

MAP 38-1E-32
SOUTH PACIFIC HWY BETWEEN JACKSON RD AND SCHOFIELD ST

NO.	REVISION DESCRIPTION	DATE

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JOB NO.	CURB RAMP DETAILS
22-002	C7.4.1

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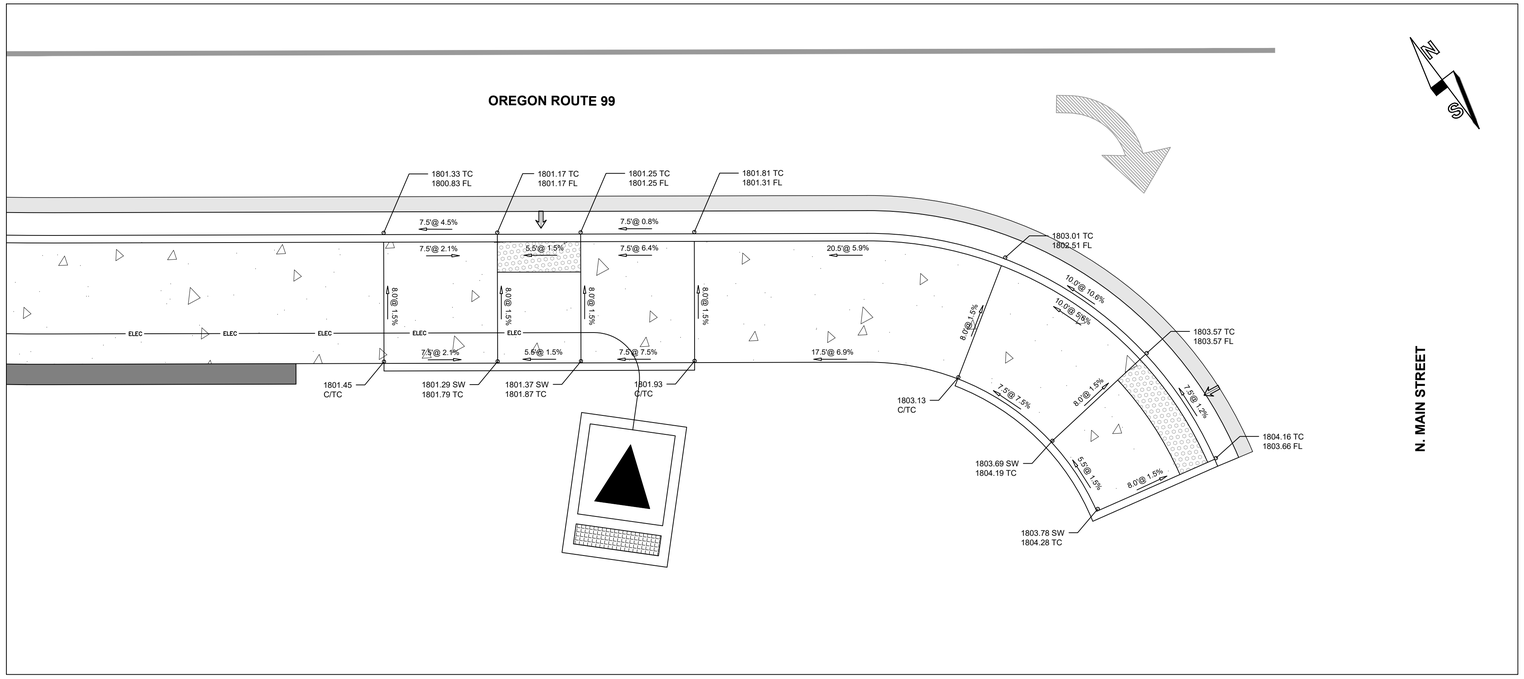
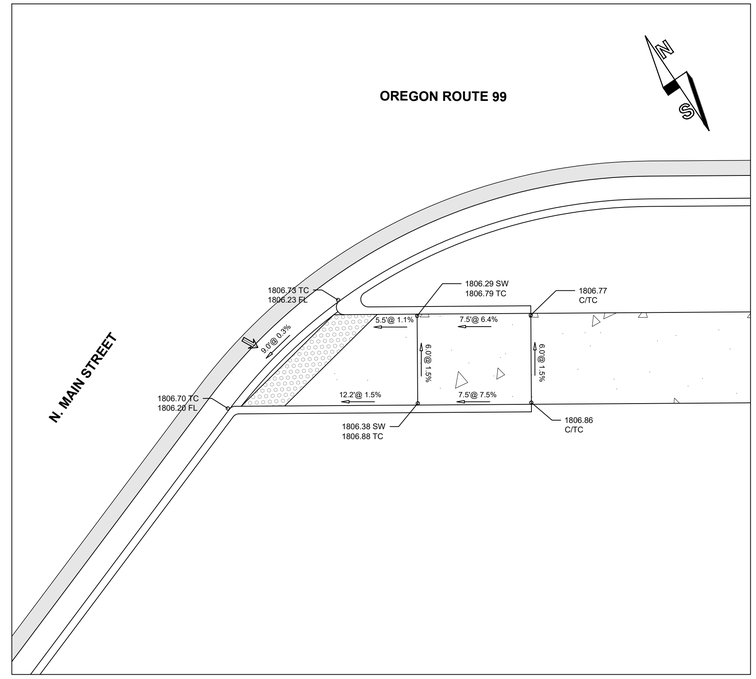


PLAN VIEW - N. MAIN STREET & OR 99 - NW CORNER

SCALE: 1" = 5' - 0" (30x42)



PLAN VIEW - N. MAIN STREET & OR 99 - SW CORNER

SCALE: 1" = 5' - 0" (30x42)

LEGEND

Brick red detectable warning surface (DWS)

⇦ Counter slope 4.0% max. ascending or descending
(Max. 5.0% finished surface slope)
Slope as required for drainage

0 20 40
1" = 20'

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AN APARTMENT DEVELOPMENT
PUBLIC IMPROVEMENT PLANS
MAP 38-1E-32
SOUTH PACIFIC HWY BETWEEN JACKSON RD AND SCHOFIELD ST

NO.	REVISION DESCRIPTION	DATE

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JOB NO. 22-002
CURB RAMP DETAILS
C7.4.2

Drawing Name: S:\PEC Shared - Documents\All Staff\Projects\Current Projects\Grand Terrace\Drawings\CADD\Grand Terrace C7.2234.dwg Last Save: October 2, 2024 5:14 PM Plot Date: October 3, 2024 9:46 AM By: Nancy

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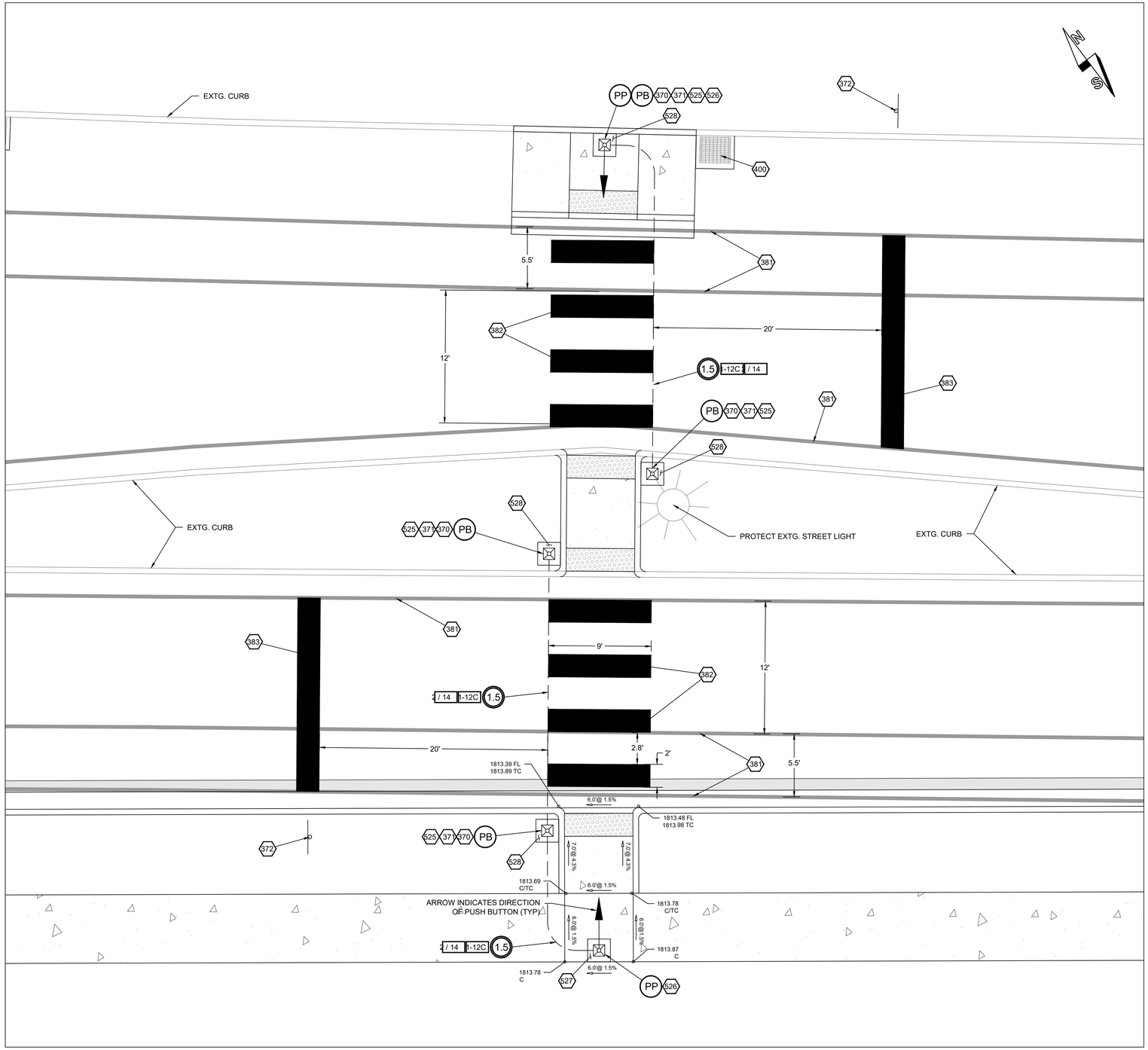

PLAN VIEW - OR 99 BETWEEN N MAIN STREET & SCHOFIELD STREET - MIDBLOCK CROSSING WITH RRFB

SCALE: 1" = 5' - 0" (30x42)

CURB RAMP LEGEND

Brick red detectable warning surface (DWS)

Counter slope 4.0% max. ascending or descending (Max. 5.0% finished surface slope) Slope as required for drainage

SIGNAL PLAN LEGEND

- PP — INSTALL PEDESTAL FOUNDATION WITH FRANGIBLE BASE AND PUSH BUTTON ASSEMBLY
- PB — INSTALL PEDESTAL FOUNDATION WITH FRANGIBLE BASE AND RECTANGULAR RAPID FLASHING BEACON ASSEMBLY
- 1.5 — INSTALL 1 ½ INCH CONDUIT (471 / 7.6.4)
- N-12C — INSTALL (N = NUMBER) NO. 12 AWG THWN (PEDESTAL AND PUSH BUTTON ASSEMBLY COMMON)
- N / G — INSTALL (N = NUMBER) NO. (G = AWG WIRE SIZE) THWN WIRES

KEYNOTES

- 370 — INSTALL W11-2 PEDESTRIAN CROSSING SIGN ON RRFB PEDESTAL ASSEMBLY. (493 / 7.6.4)
- 371 — INSTALL W16-7P DIAGONAL DOWNWARD POINTING ARROW SIGN ON RRFB PEDESTAL ASSEMBLY. (493 / 7.6.4)
- 372 — INSTALL R1-5B "STOP HERE FOR PEDESTRIANS" SIGN ON NEW POLE.
- 381 — EXISTING STRIPING TO REMAIN. SEE GENERAL NOTE 1.
- 382 — STAGGERED CONTINENTAL CROSSWALK, 2' WHITE BARS PER OREGON STANDARD DWGS TM503 (CW-SC) AND TM530 (503 / 7.6.4)
- 383 — STOP BAR, LARGE 2' WHITE BAR PER OREGON STANDARD DWGS TM503 (S-2) AND TM530 (503 / 7.6.4)
- 400 — INSTALL TYPE G-2 INLET. CONSTRUCT NEW 12" STORM SEWER 170' TO EXISTING INLET #1608 WITH TRENCH RESURFACING. (364 / 7.6) (365 / 7.6)
- 525 — INSTALL RECTANGULAR RAPID FLASHING BEACON (RRFB) PEDESTAL ASSEMBLY ON FRANGIBLE BASE PER ODOT STANDARD DRAWING TM493. (493 / 7.6.4)
- 526 — INSTALL 4" DIAMETER PIPE ON FRANGIBLE BASE. MOUNT PEDESTRIAN PUSHBUTTON 3' - 6" TO 4' - 0" ABOVE TOP OF PEDESTAL FOUNDATION. INSTALL SLIP FIT METALLIC CAP WITH THREE SET SCREWS 2" ABOVE TOP OF PUSHBUTTON ASSEMBLY. (457 / 7.6.4) (467 / 7.6.4)
- 527 — PEDESTAL FOUNDATION NO. 1 2' - 0" DEPTH (457 / 7.6.4)
- 528 — PEDESTAL FOUNDATION NO. 3 8' - 0" DEPTH, 8-#6 VERTICAL REBAR (457 / 7.6.4)

GENERAL NOTES

1. CONTRACTOR TO REPLACE IN KIND ALL EXISTING TRAFFIC MARKINGS DAMAGED BY CONSTRUCTION.

UTILITY STATEMENT

EXISTING UNDERGROUND UTILITIES ILLUSTRATED IN THESE PLANS ARE APPROXIMATED BASED ON MAPS OBTAINED FROM THE CITY OF ASHLAND PUBLIC WORKS, OR HAVE BEEN LOCATED BY A UTILITY LOCATE COMPANY. LAYOUT INDICATED IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. ALL LINES WITHIN PROJECTED WORK ZONE SHALL BE FIELD VERIFIED AS REQUIRED PRIOR TO CONSTRUCTION.

0 20 40
1" = 5'

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GRAND TERRACE
AN APARTMENT DEVELOPMENT
PUBLIC IMPROVEMENT PLANS
MAP 38-1E-32
SOUTH PACIFIC HWY BETWEEN JACKSON RD AND SCHOFIELD ST

NO.	REVISION DESCRIPTION	DATE

DRAWN BY:	TDP
DESIGNED BY:	TDP
CHECKED BY:	TDP
ISSUE DATE:	10/02/24
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JOB NO.	RRFB PLAN DETAILS
22-002	C7.4.3

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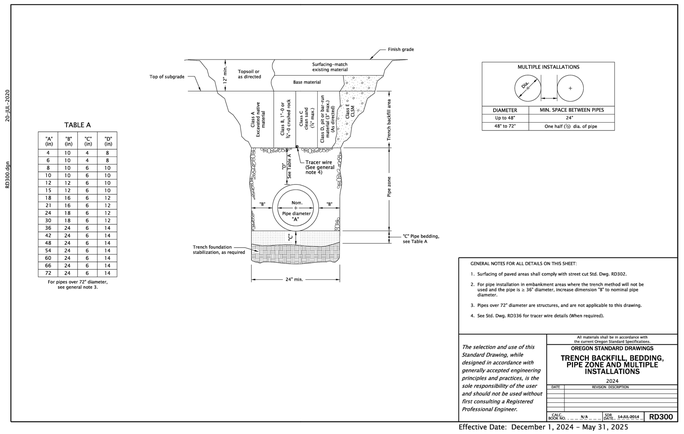


TABLE A

"A" (in)	"B" (in)	"C" (in)	"D" (in)
4	10	4	8
6	10	4	8
8	10	6	10
10	10	6	10
12	12	6	10
15	12	6	10
18	16	6	12
21	16	6	12
24	18	6	12
30	18	6	12
36	24	6	14
42	24	6	14
48	24	6	14
54	24	6	14
60	24	6	14
66	24	6	14
72	24	6	14

For pipes over 72" diameter, see general note 3.

MULTIPLE INSTALLATIONS

DIAMETER	MIN. SPACE BETWEEN PIPES
Up to 48"	24"
48" to 72"	One half (½) dia. of pipe

GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:

1. Surfacing of paved areas shall comply with street cut Std. Dwg. RD302.
2. For pipe installation in embankment areas where the trench method will not be used and the pipe is ≥ 36" diameter, increase dimension "B" to nominal pipe diameter.
3. Pipes over 72" diameter are structures, and are not applicable to this drawing.
4. See Std. Dwg. RD336 for tracer wire details (When required).

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

All materials shall be in accordance with the current Oregon Standard Specifications.

OREGON STANDARD DRAWINGS

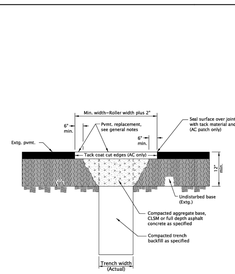
TRENCH BACKFILL, BEDDING, PIPE ZONE AND MULTIPLE INSTALLATIONS

2024

DATE	REVISION DESCRIPTION

ACAD NO. N/A | DATE 14.01.0054 | **RD300**

Effective Date: December 1, 2024 – May 31, 2025



GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:

1. All existing AC or PCC pavement shall be sawcut prior to repaving.
2. Concrete pavement shall be replaced with concrete to a minimum thickness of 8" or to the thickness of removed pavement, whichever is greater.
3. For joining new concrete to existing concrete, see contract plans for specific details.
4. Place AC mix minimum thks. of 8" or the thkn. of the removed pavement, whichever is greater. Compact as specified.

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

All materials shall be in accordance with the current Oregon Standard Specifications.

OREGON STANDARD DRAWINGS

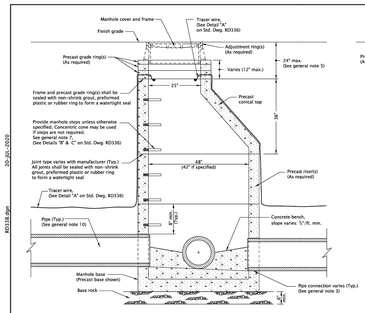
STREET CUT

2024

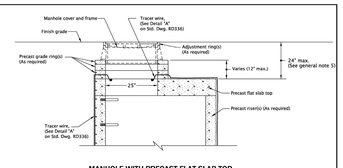
DATE	REVISION DESCRIPTION

ACAD NO. N/A | DATE 20.01.0020 | **RD302**

Effective Date: December 1, 2024 – May 31, 2025



MANHOLE WITH PRECAST CONICAL TOP



MANHOLE WITH PRECAST FLAT SLAB TOP

GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:

1. All precast products shall conform to requirements of ASTM C478.
2. Standard precast manhole section diameter shall be 48". Use 42" if specified by the Engineer.
3. See Std. Dwgs. RD345 for pipe to manhole connections.
4. See Std. Dwg. RD344 for manhole base section.
5. Adjust 24" maximum.
6. All connecting pipes shall have a tracer wire, or approved alternate.
7. See Std. Dwg. RD336 for manhole steps.
8. See Std. Dwg. RD336 for details not shown.
9. See Std. Dwg. RD356 for manhole covers and frames, manhole adjustment rings, etc.
10. Max. pipe diameter varies with pipe material.
11. See Std. Dwg. RD342 for shallow manholes.
12. Location, elevation, diameter, slope, and number of pipe(s) varies, see project plans.
13. This detail limited to interior drop of 24". See Std. Dwgs. RD350 or RD352 for drop manhole details for drops in excess of 24".

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

All materials shall be in accordance with the current Oregon Standard Specifications.

OREGON STANDARD DRAWINGS

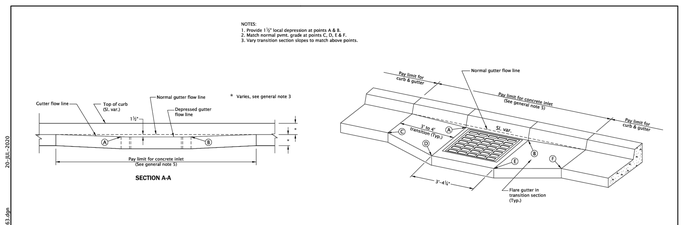
STANDARD SANITARY SEWER MANHOLE

2024

DATE	REVISION DESCRIPTION

ACAD NO. N/A | DATE 20.01.0010 | **RD338**

Effective Date: December 1, 2024 – May 31, 2025



GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:

1. For inlet details, see appropriate inlet standard drawing(s).
2. For frame and grate details, see Std. Dwg. RD365.
3. For curb details, see Std. Dwgs. RD700 & RD701.
4. All concrete shall be commercial grade concrete.
5. Pay limit for inlet is expanded when curb and gutter are monolithic.

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

All materials shall be in accordance with the current Oregon Standard Specifications.

OREGON STANDARD DRAWINGS

GUTTER TRANSITION AT INLET

2024

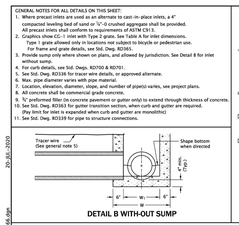
DATE	REVISION DESCRIPTION

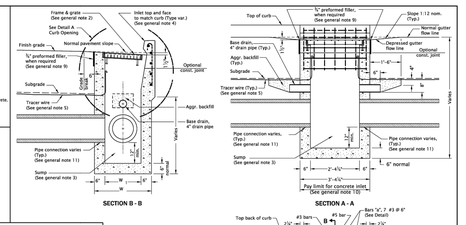
ACAD NO. N/A | DATE 25.01.0010 | **RD363**

Effective Date: December 1, 2024 – May 31, 2025

GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:

1. Where precast inlets are used as an alternate to cast–in–place inlets, a 4" compacted leveling bed of sand or ¾"–0 crushed aggregate shall be provided. All precast inlets shall conform to requirements of ASTM C913.
2. Graphics show CG–1 inlet with Type 2 grate. See Table A for inlet dimensions. Type 1 grate allowed only in locations not subject to bicycle or pedestrian use. For frame and grate details, see Std. Dwg. RD365.
3. Provide sump only where shown on plans, and allowed by jurisdiction. See Detail B for inlet without sump.
4. For curb details, see Std. Dwgs. RD700 & RD701.
5. See Std. Dwg. RD342 for shallow manhole, or approved alternate.
6. Max. pipe diameter varies with pipe material.
7. Location, elevation, diameter, slope, and number of pipe(s) varies, see project plans.
8. All concrete shall be commercial grade concrete.
9. ½" preformed filler (in concrete pavement or gutter only) to extend through thickness of concrete.
10. See Std. Dwg. RD363 for gutter transition section, when curb and gutter are required. (Pay limit for inlet is expanded when curb and gutter are monolithic)
11. See Std. Dwg. RD339 for pipe to structure connections.





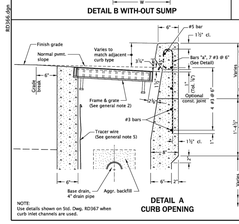
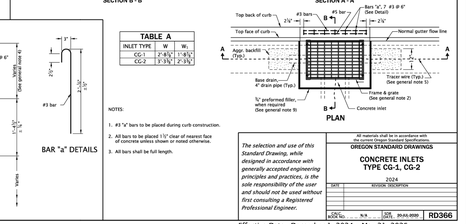


TABLE A

INLET TYPE	W	W1
CG-1	2'-4½"	1'-8½"
CG-2	3'-3½"	2'-3½"

NOTES:

1. #3 "A" bars to be placed during curb construction.
2. All bars to be placed 1½" clear of nearest face of concrete unless shown or noted otherwise.
3. All bars shall be full length.



GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:

1. All concrete shall be commercial grade concrete.
2. Inlet top may be cast–in–place or precast. Where precast inlet base is used as an alternate, a 4" compacted leveling bed of sand or ¾"–0 crushed aggregate shall be provided. All precast inlets shall conform to requirements of ASTM C913.
3. All reinforcement shall be 2" clear of nearest face of conc., unless otherwise shown.
4. Vary anchor bolt length and embedding bar placement as required by curb exposure E (See note 7 below).
5. See Std. Dwg. RD371 for inlet base details.
6. See Std. Dwg. RD371 for inlet pay limit.
7. See Std. Dwgs. RD700 & RD701 for curb and gutter details.
8. See Std. Dwg. RD356 for cast iron manhole adjustment ring and cover.

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

All materials shall be in accordance with the current Oregon Standard Specifications.

OREGON STANDARD DRAWINGS

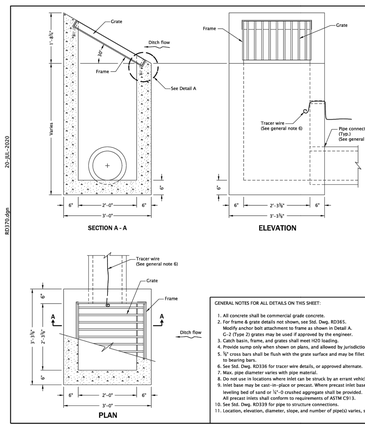
CONCRETE INLETS TYPE CG-1, CG-2

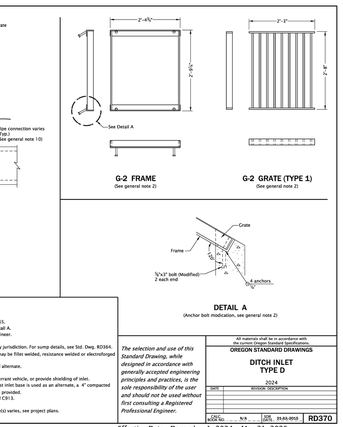
2024

DATE	REVISION DESCRIPTION

ACAD NO. N/A | DATE 20.01.0020 | **RD366**

Effective Date: December 1, 2024 – May 31, 2025





GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:

1. All concrete shall be commercial grade concrete.
2. Inlet top may be cast–in–place or precast. See Std. Dwg. RD365.
3. Modify anchor bolt attachment to frame as shown in Detail A. G–2 (Type 2) grates may be used if approved by the engineer.
4. Provide sump only when shown on plans, and allowed by jurisdiction. For sump details, see Std. Dwg. RD364.
5. ¾" cross bars shall be flush with the grate surface and may be fillet welded, resistance welded or electrolurged to bearing bars.
6. See Std. Dwg. RD336 for tracer wire details, or approved alternate.
7. Max. pipe diameter varies with pipe material.
8. Do not use in locations where inlet can be struck by an errant vehicle, or provide shielding of inlet.
9. Inlet base may be cast–in–place or precast. Where precast inlet base is used as an alternate, a 4" compacted leveling bed of sand or ¾"–0 crushed aggregate shall be provided. All precast inlets shall conform to requirements of ASTM C913.
10. See Std. Dwg. RD339 for pipe to structure connections.
11. Location, elevation, diameter, slope, and number of pipe(s) varies, see project plans.

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

All materials shall be in accordance with the current Oregon Standard Specifications.

OREGON STANDARD DRAWINGS

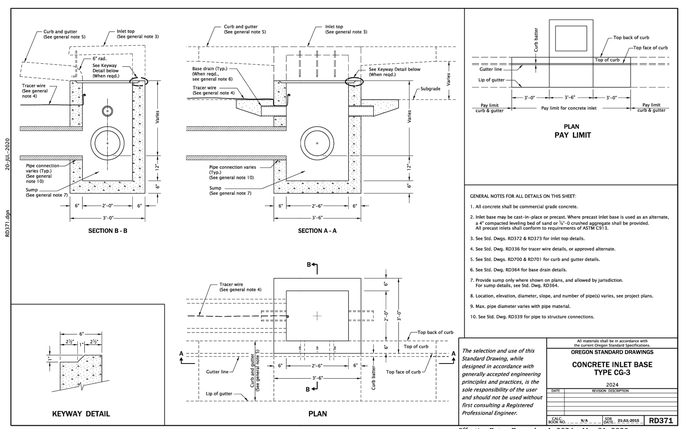
DITCH INLET TYPE D

2024

DATE	REVISION DESCRIPTION

ACAD NO. N/A | DATE 25.01.0010 | **RD370**

Effective Date: December 1, 2024 – May 31, 2025



GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:

1. All concrete shall be commercial grade concrete.
2. Inlet base may be cast–in–place or precast. Where precast inlet base is used as an alternate, a 4" compacted leveling bed of sand or ¾"–0 crushed aggregate shall be provided. All precast inlets shall conform to requirements of ASTM C913.
3. See Std. Dwgs. RD372 & RD373 for inlet top details.
4. See Std. Dwg. RD336 for tracer wire details, or approved alternate.
5. See Std. Dwgs. RD700 & RD701 for curb and gutter details.
6. See Std. Dwg. RD364 for base drain details.
7. Provide sump only where shown on plans, and allowed by jurisdiction. For sump details, see Std. Dwg. RD364.
8. Location, elevation, diameter, slope, and number of pipe(s) varies, see project plans.
9. Max. pipe diameter varies with pipe material.
10. See Std. Dwg. RD339 for pipe to structure connections.

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

All materials shall be in accordance with the current Oregon Standard Specifications.

OREGON STANDARD DRAWINGS

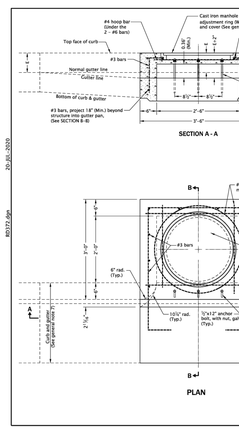
CONCRETE INLET BASE TYPE CG-3

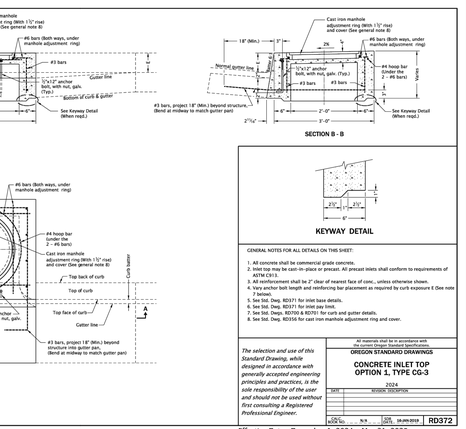
2024

DATE	REVISION DESCRIPTION

ACAD NO. N/A | DATE 25.01.0010 | **RD371**

Effective Date: December 1, 2024 – May 31, 2025





GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:

1. All concrete shall be commercial grade concrete.
2. Inlet top may be cast–in–place or precast. All precast inlets shall conform to requirements of ASTM C913.
3. All reinforcement shall be 2" clear of nearest face of conc., unless otherwise shown.
4. Vary anchor bolt length and embedding bar placement as required by curb exposure E (See note 7 below).
5. See Std. Dwg. RD371 for inlet base details.
6. See Std. Dwg. RD371 for inlet pay limit.
7. See Std. Dwgs. RD700 & RD701 for curb and gutter details.
8. See Std. Dwg. RD356 for cast iron manhole adjustment ring and cover.

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

All materials shall be in accordance with the current Oregon Standard Specifications.

OREGON STANDARD DRAWINGS

CONCRETE INLET TOP OPTION 1, TYPE CG-3

2024

DATE	REVISION DESCRIPTION

ACAD NO. N/A | DATE 09.005.0010 | **RD372**

Effective Date: December 1, 2024 – May 31, 2025

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OREGON
JULY 13, 2004
TODD D. POWELL
EXPIRES: 12/31/2626

VERIFY SCALES
ORIGINAL DRAWING BAR IS ONE INCH
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

GRAND TERRACE
AN APARTMENT DEVELOPMENT

PUBLIC IMPROVEMENT PLANS

MAP 38-1E-32
SOUTH PACIFIC HWY BETWEEN JACKSON RD AND SCHOFIELD ST

NO.	REVISION DESCRIPTION	DATE

DRAWN BY: TDP
DESIGNED BY: TDP
CHECKED BY: TDP
ISSUE DATE: 10/02/24
LAND USE SET

JOB NO. 22-002

RD300 SERIES ODOT DETAILS

C7.6.1

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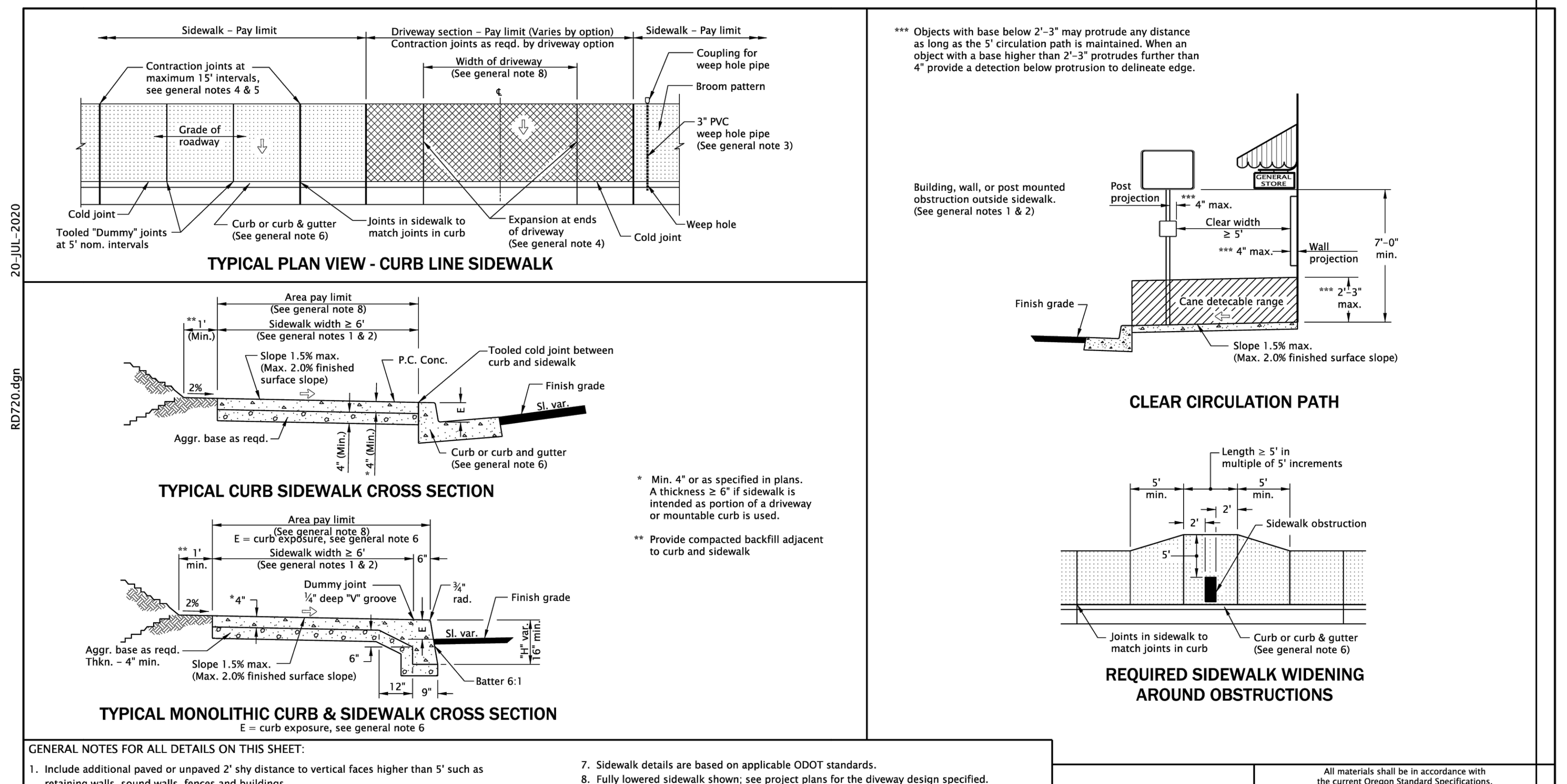
Drawing Name: S:\PEC Shared - Documents\All Staff\Projects\Current Projects\Grand Terrace\Drawings\CADD\Grand Terrace C7 2234.dwg Last Save: October 2, 2024 5:14 PM Plot Date: October 3, 2024 10:06 AM By: Nancy

20-JUL-2020 RD720.dgn



GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:

1. Include additional paved or unpaved 2' shy distance to vertical faces higher than 5' such as retaining walls, sound walls, fences and buildings.
2. Curb type and sidewalk width as shown on plans or as directed. On sidewalks 8' and wider, provide a longitudinal joint at the midpoint.
3. Install 3" pvc weep hole pipes in sidewalks where shown on plans, and allowed by jurisdiction. Place contraction joint over top of pipe. See Std. Dwg. RD700 for weep hole details.
4. Provide expansion joints around poles, posts, boxes, at ends of each driveway, and other fixtures which protrude through or against the structures. For sidewalk, monolithic curb & sidewalk, const. expansion joints at 45' maximum spacing. See Std. Dwg. RD722 for expansion joints details.
5. Const. contraction joints at 15' maximum spacing, and at ends of each curb ramp. See Std. Dwg. RD722 for contraction joints details.
6. For curb details, see Std. Dwgs. RD700 & RD701. ODOT standard E=7".
7. Sidewalk details are based on applicable ODOT standards.
8. Fully lowered sidewalk shown; see project plans for the diveway design specified. For driveway details not shown, see Std. Dwgs. RD725, RD730, RD735, RD740, RD745 & RD750.
9. See project plans for details not shown.

LEGEND
- Sidewalk pay limit.
- Driveway pay limit, varies by option, (See general note 8).
- Cross slope 1.5% max. (Max. 2.0% finished surface slope) (Normal sidewalk cross slope)

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

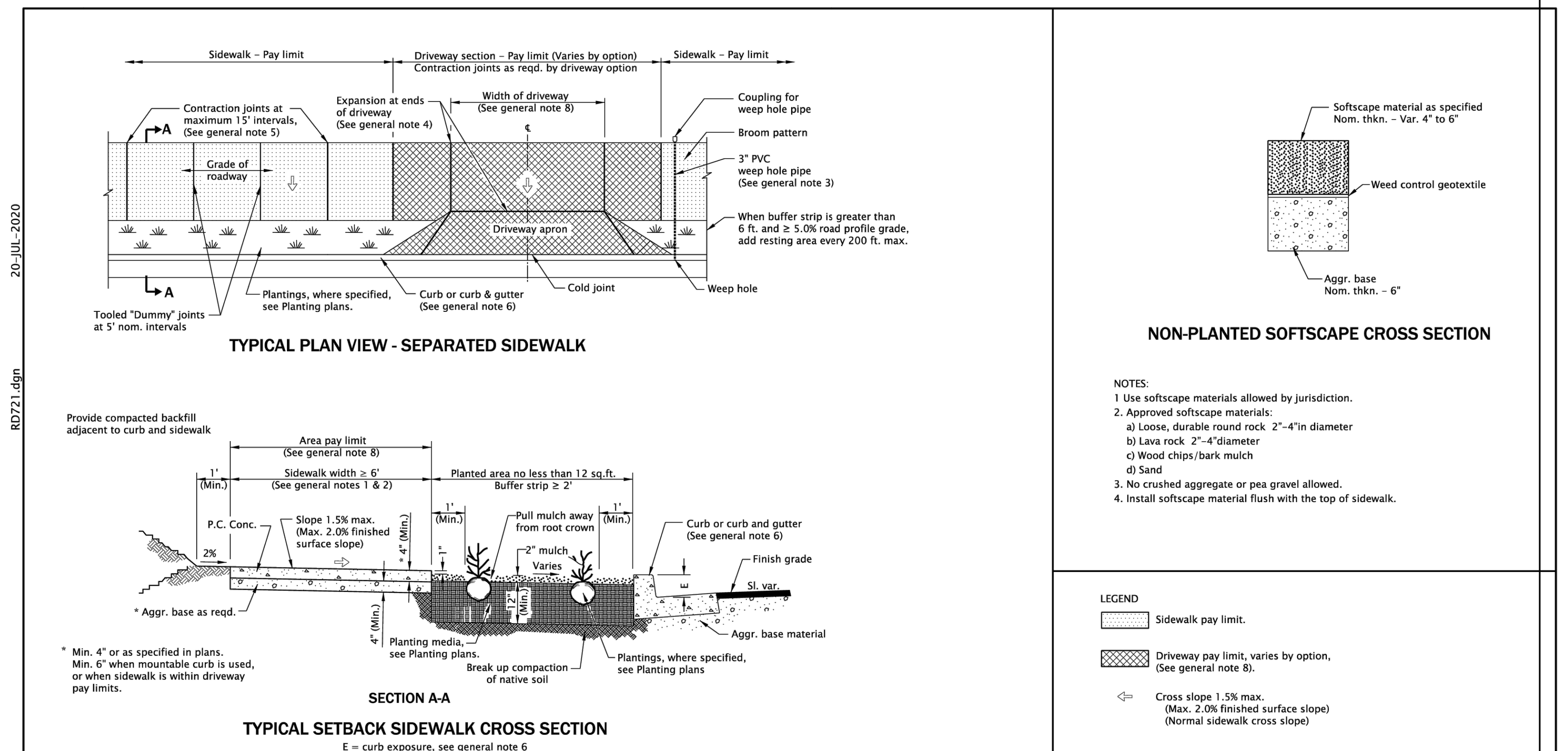
All materials shall be in accordance with the current Oregon Standard Specifications.
OREGON STANDARD DRAWINGS
CURB LINE SIDEWALKS
2024

DATE	REVISION DESCRIPTION

CALC. BOOK NO. N/A — SDR DATE 21-JUN-2019 — **RD720**

Effective Date: December 1, 2024 – May 31, 2025

20-JUL-2020 RD721.dgn



NOTES:
1 Use softscape materials allowed by jurisdiction.
2. Approved softscape materials:
   a) Loose, durable round rock 2"-4"in diameter
   b) Lava rock 2"-4"diameter
   c) Wood chips/bark mulch
   d) Sand
3. No crushed aggregate or pea gravel allowed.
4. Install softscape material flush with the top of sidewalk.

LEGEND
- Sidewalk pay limit.
- Driveway pay limit, varies by option, (See general note 8).
- Cross slope 1.5% max. (Max. 2.0% finished surface slope) (Normal sidewalk cross slope)

GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:

1. Include additional paved or unpaved 2' shy distance to vertical faces higher than 5' such as retaining walls, sound walls, fences and buildings.
2. Curb type and sidewalk width as shown on plans or as directed. On sidewalks 8' and wider, provide a longitudinal joint at the midpoint.
3. Install 3" pvc weep hole pipes in sidewalks where shown on plans, and allowed by jurisdiction. Place contraction joint over top of pipe. See Std. Dwg. RD700 for weep hole details.
4. Provide expansion joints around poles, posts, boxes, at ends of each driveway, and other fixtures which protrude through or against the structures. For sidewalk, monolithic curb & sidewalk, const. expansion joints at 45' maximum spacing. See Std. Dwg. RD722 for expansion joint details.
5. Const. contraction joints at 15' maximum spacing, and at ends of each curb ramp. See Std. Dwg. RD722 for contraction joint details.
6. Curb and gutter shown; see project plans for the curb design specified. For curb details, see Std. Dwgs. RD700 & RD701. ODOT standard E=7".
7. Sidewalk details are based on ODOT applicable standards.
8. Driveway encroaches into sidewalk shown; see project plans for the driveway design specified. For driveway details not shown, see Std. Dwgs. RD725, RD730, RD735, RD740, RD745 & RD750.
9. See project plans for details not shown.
10. Provide plantings in areas 12 SF or greater, as shown or directed. Treat areas less than 12 SF with mulch surfacing.

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

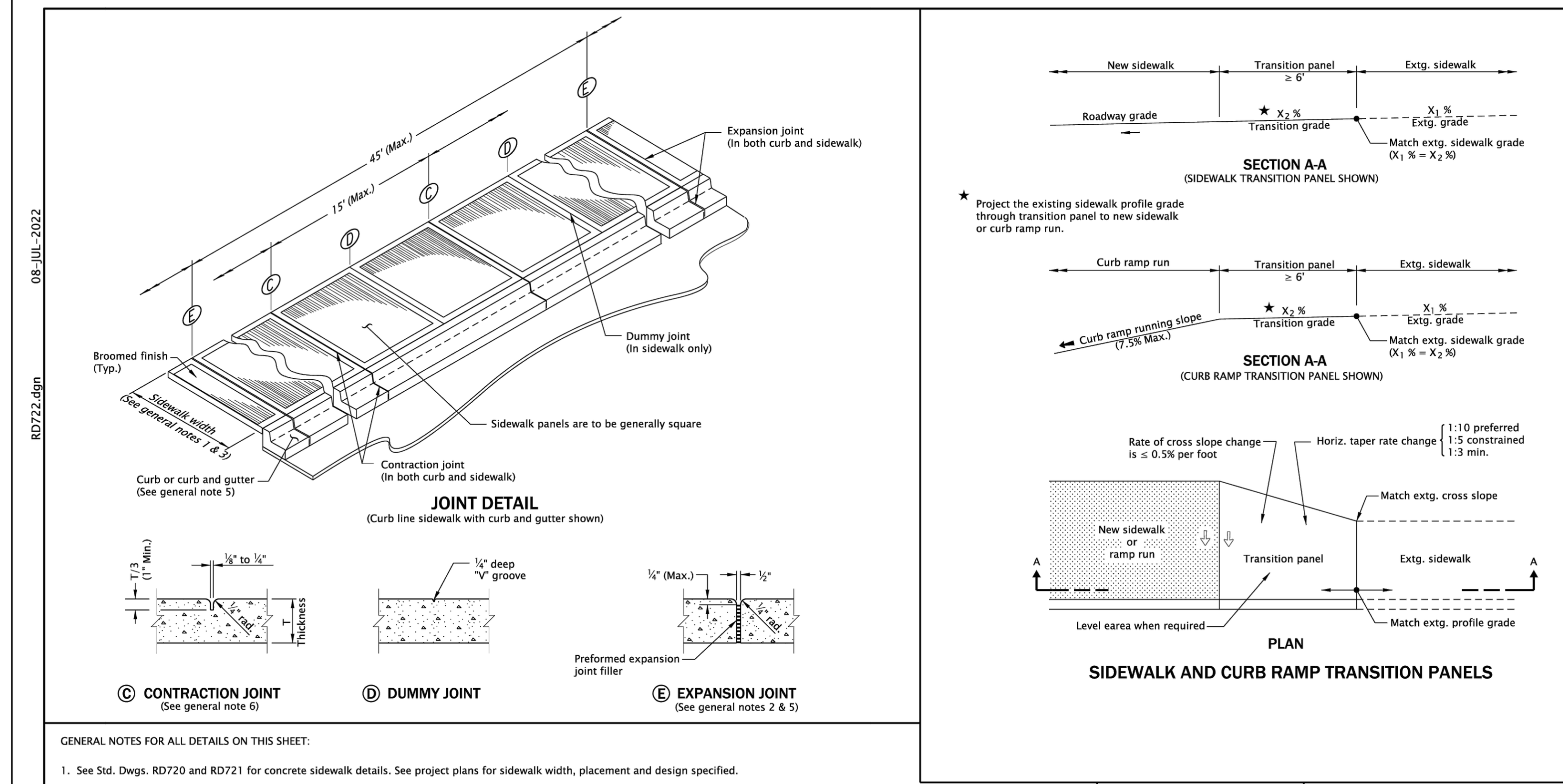
All materials shall be in accordance with the current Oregon Standard Specifications.
OREGON STANDARD DRAWINGS
SEPARATED SIDEWALKS
2024

DATE	REVISION DESCRIPTION

CALC. BOOK NO. N/A — SDR DATE 20-JUL-2020 — **RD721**

Effective Date: December 1, 2024 – May 31, 2025

08-JUL-2022 RD722.dgn



GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:

1. See Std. Dwgs. RD720 and RD721 for concrete sidewalk details. See project plans for sidewalk width, placement and design specified.
2. Provide expansion joints around poles, boxes, at ends of each driveway and other fixtures which protrude through or against the structures. For sidewalk, monolithic curb and sidewalk, provide construction expansion joints at 45 feet maximum spacing.
3. On sidewalks 8 feet and wider, provide a longitudinal joint at the midpoint of sidewalk panel.
4. See Std. Dwgs. RD700 and RD701 for concrete curb details. See project plans for the curb design specified.
5. Do not place expansion joints between separate concrete pours for curb ramp system components construction. Place expansion joints outside of curb ramp runs when required. Install expansion joints flush with surface for structures protruding through the curb ramp system. See Std. Dwg. RD900.
6. Construct contraction joints at 15 feet maximum spacing, and at each curb ramp, driveway, sidewalk and curb.

LEGEND:
- New sidewalk or ramp run
- Slope 1.5% max. (Max. 2.0% finished surface slope) (Normal sidewalk cross slope)
- Slope 7.5% max. (Max. 8.3% finished surface slope)
- Zero exposure

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

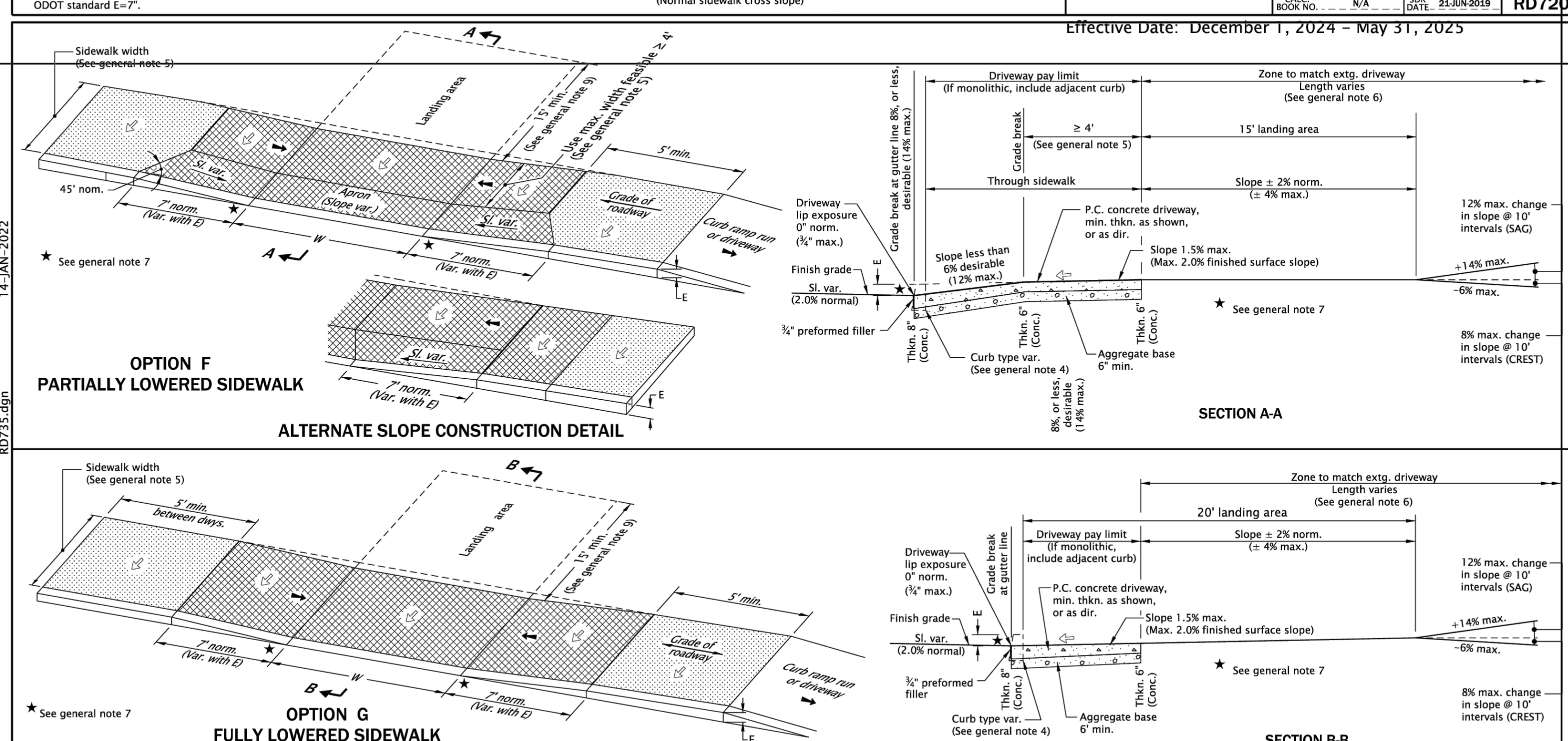
All materials shall be in accordance with the current Oregon Standard Specifications.
OREGON STANDARD DRAWINGS
SIDEWALK JOINTS AND TRANSITION PANELS
2024

DATE	REVISION DESCRIPTION
07-2022	REVISED NOTES

CALC. BOOK NO. N/A — SDR DATE 08-JUL-2022 — **RD722**

Effective Date: December 1, 2024 – May 31, 2025

14-JAN-2022 RD735.dgn



GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:

1. Details are based on applicable ODOT Standards.
2. Only use details allowed by jurisdiction.
3. The following dimensions are as shown on plans, or as directed: driveway width, driveway slope, sidewalk width, curb exposure, driveway lip exposure, landing area length and width. See project plans for details not shown.
4. Curb, gutter, and sidewalk types varies, see plans. See Std. Dwgs. RD700 & RD701 for curb details. See Std. Dwg. RD720 for sidewalk details. See Std. Dwg. RD722 for joint details.
5. A greater than or equal 4' unobstructed clear passage with cross slope 1.5% max. (Max. 2.0% finished surface slope) is required behind driveway apron.
6. Where existing driveway is in good condition, and meets slope requirements, construct only as much landing area as required for satisfactory connection with new work.
7. Check the gutter flow depth at driveway locations to assure that the design flood does not overtop the back of sidewalk at driveway. If overtopping occurs place an inlet at upstream side of driveway or perform other approved design mitigation.
8. Construct a full deph expansion joints with 1#2" (In) preformed joint filler at ends of each driveway. Tooled joints are required at all driveway slope break lines.
9. 15' min. of the driveway behind the sidewalk should be surfaced to prevent tracking of gravel onto the sidewalk.
10. Monolithic curb & sidewalk shall retain thickened edge through lowered profile, to accommodate driveway use. See Std. Dwg. RD720 for details.

LEGEND:
- Sidewalk
- Driveway pay limit (If monolithic, include adjacent curb) (See project plans for details not shown)
- Cross slope 1.5% max. (Max. 2.0% finished surface slope) (Normal sidewalk cross slope)
- Running slope 7.5% max. (Max. 8.3% finished surface slope)
- W Width of driveway
- E Curb exposure

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

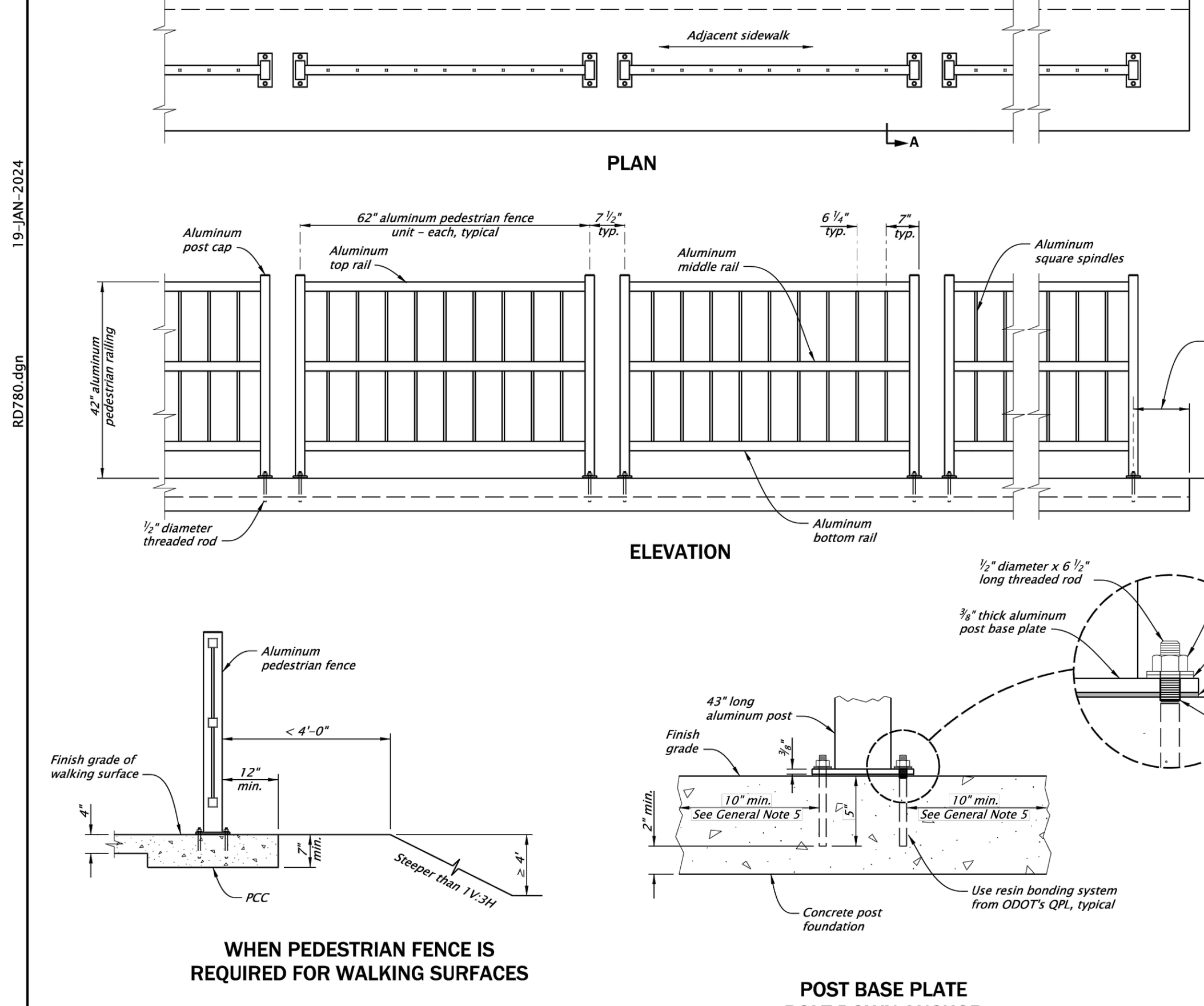
All materials shall be in accordance with the current Oregon Standard Specifications.
OREGON STANDARD DRAWINGS
CURB LINE SIDEWALK DRIVEWAYS OR ALLEYS (OPTIONS F & G) ODOT HIGHWAYS
2024

DATE	REVISION DESCRIPTION

CALC. BOOK NO. N/A — SDR DATE 20-JUL-2020 — **RD735**

Effective Date: December 1, 2024 – May 31, 2025

19-JAN-2024 RD780.dgn



GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:

1. *See Std. Dwgs. RD781 and RD782 for details not shown.*
2. *Structure varies, see project plans.*
3. *All concrete shall be commercial grade concrete.*
4. *See project plans for details not shown.*
5. *10 inch minimum required between threaded rod and outer edge of concrete footing.*

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

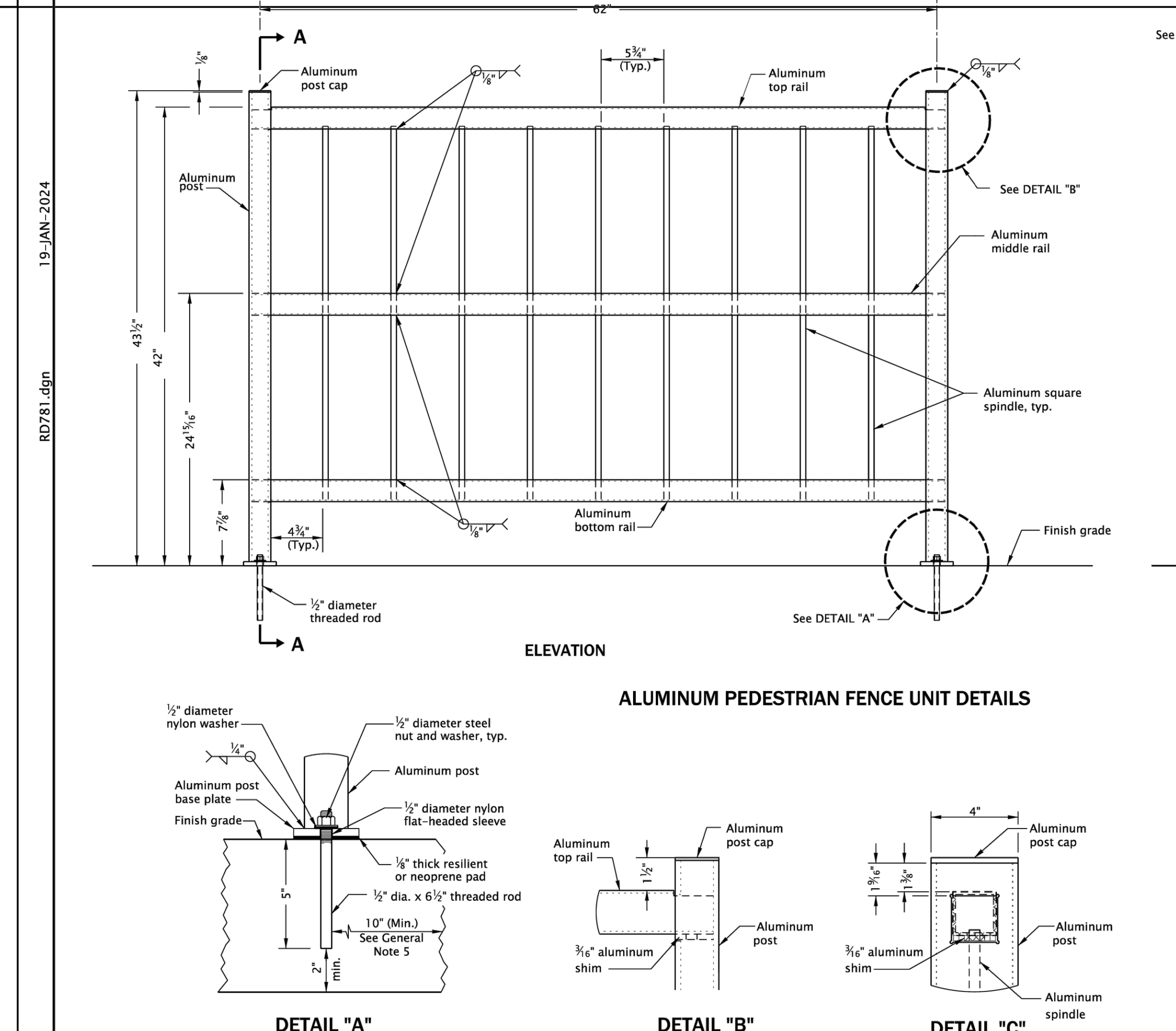
All materials shall be in accordance with the current Oregon Standard Specifications.
OREGON STANDARD DRAWINGS
ALUMINUM PEDESTRIAN FENCE (MASH, TL-2)
2024

DATE	REVISION DESCRIPTION
07-2020	NEW DRAWING CREATED
07-2021	REVISED DETAILS AND NOTES
01-2023	REVISED NOTE
12-2023	REVISED DETAILS AND NOTES, UPDATED CAD DRAWING STANDARDS

CALC. BOOK NO. N/A — SDR DATE 19-JAN-2024 — **RD780**

Effective Date: December 1, 2024 – May 31, 2025

19-JAN-2024 RD781.dgn



GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:

1. See Std. Dwgs. RD780 & RD782 for details not shown.
2. Structure varies, see project plans.
3. All concrete shall be commercial grade concrete.
4. See project plans for details not shown.
5. 10 inch minimum required between threaded rod and outer edge of concrete footing.

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

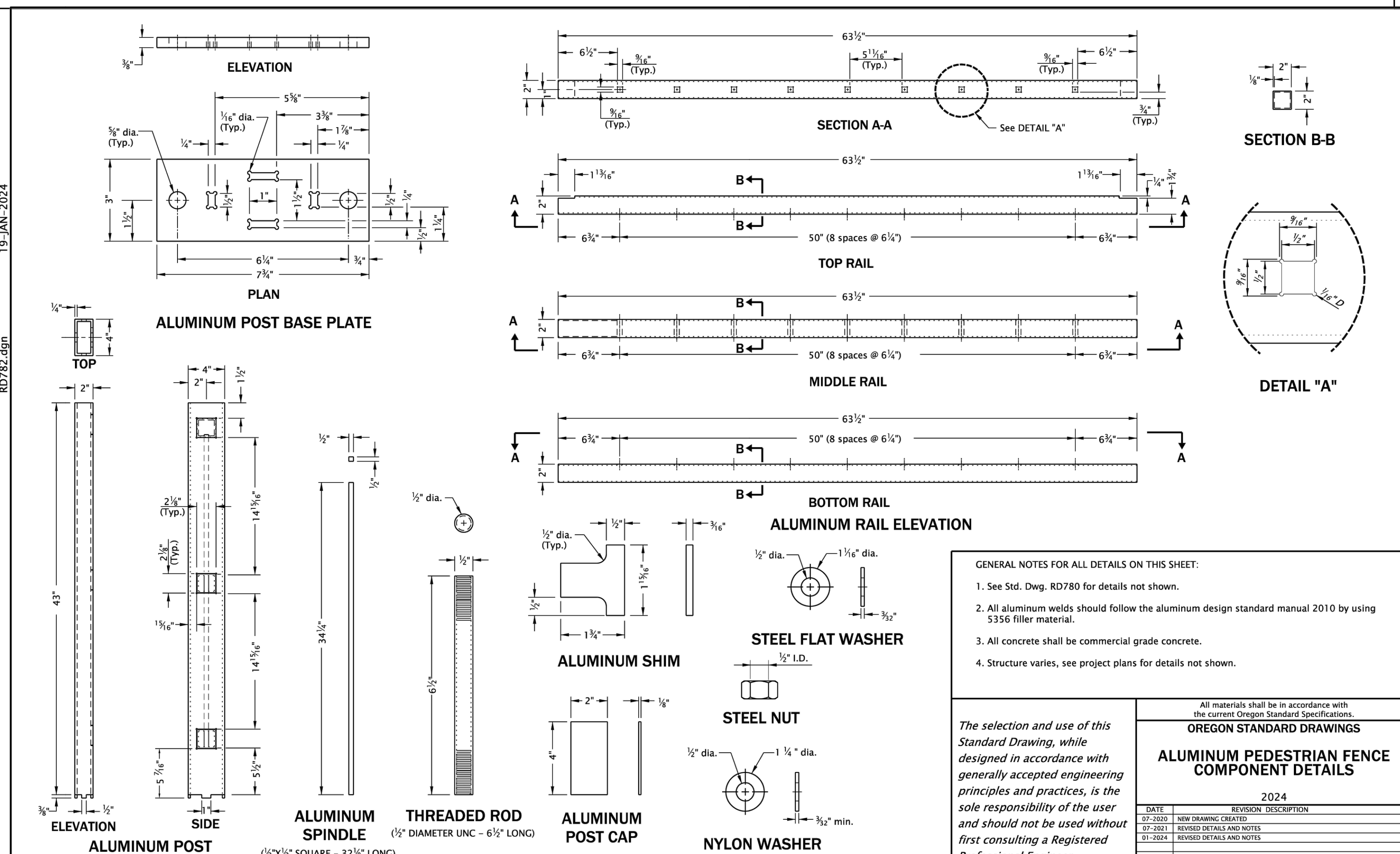
All materials shall be in accordance with the current Oregon Standard Specifications.
OREGON STANDARD DRAWINGS
ALUMINUM PEDESTRIAN FENCE UNIT DETAILS
2024

DATE	REVISION DESCRIPTION
07-2020	NEW DRAWING CREATED
07-2021	REVISED DETAILS AND NOTES
01-2024	REVISED DETAIL A NOTE

CALC. BOOK NO. N/A — SDR DATE 19-JAN-2024 — **RD781**

Effective Date: December 1, 2024 – May 31, 2025

19-JAN-2024 RD782.dgn



GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:

1. See Std. Dwg. RD780 for details not shown.
2. All aluminum welds should follow the aluminum design standard manual 2010 by using 5356 filler material.
3. All concrete shall be commercial grade concrete.
4. Structure varies, see project plans for details not shown.

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

All materials shall be in accordance with the current Oregon Standard Specifications.
OREGON STANDARD DRAWINGS
ALUMINUM PEDESTRIAN FENCE COMPONENT DETAILS
2024

DATE	REVISION DESCRIPTION
07-2020	NEW DRAWING CREATED
07-2021	REVISED DETAILS AND NOTES
01-2024	REVISED DETAILS AND NOTES

CALC. BOOK NO. N/A — SDR DATE 19-JAN-2024 — **RD782**

Effective Date: December 1, 2024 – May 31, 2025

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OREGON
Jan. 13, 2004
TODD D. POWELL
EXPIRES: 12/31/2626

VERIFY SCALES
ORIGINAL DRAWING BAR IS ONE INCH
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

GRAND TERRACE
AN APARTMENT DEVELOPMENT
PUBLIC IMPROVEMENT PLANS
MAP 38-1E-32
SOUTH PACIFIC HWY BETWEEN JACKSON RD AND SCHOFIELD ST

NO.	REVISION DESCRIPTION	DATE

DRAWN BY:	TDP
DESIGNED BY:	TDP
CHECKED BY:	TDP
ISSUE DATE:	10/02/24
LAND USE SET	
JOB NO.	RD700 SERIES ODOT DETAILS
22-002	C7.6.2

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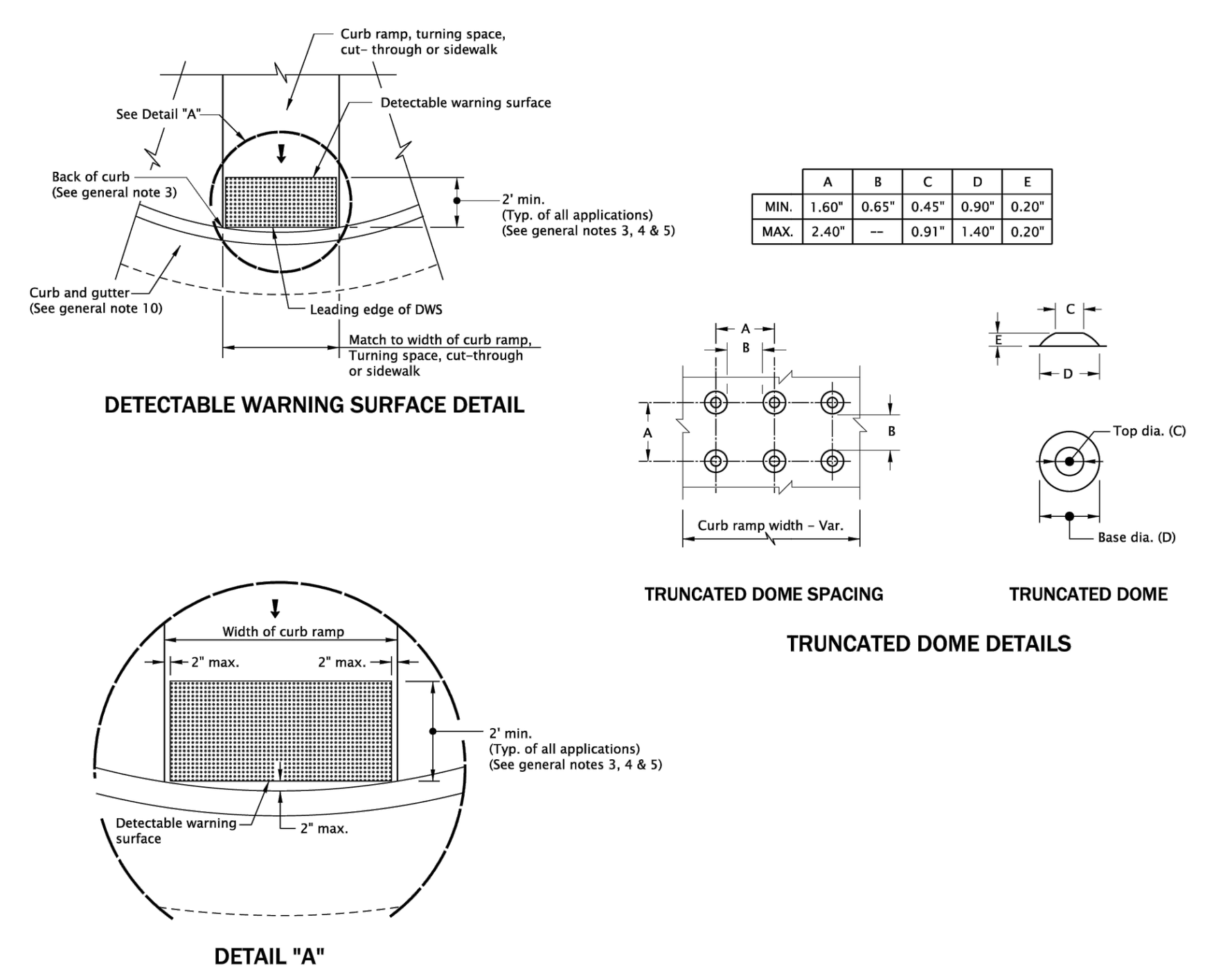


	A	B	C	D	E
MIN.	1.60"	0.65"	0.45"	0.90"	0.20"
MAX.	2.40"	--	0.91"	1.40"	0.20"

GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:

1. Detectable warning surface details & locations are based on applicable ODOT Standards.
2. See project plans for details not shown. See Std. Dwgs. RD700 & RD701 for curbs.
3. The detectable warning surface shall extend the full width of the curb ramp opening, shared use path, blended transition, turning space, or other roadway entrance as applicable. A gap of up to 2 inches on each side of the detectable warning surface is permitted (measured at the leading edge of the detectable warning surface panel as shown in Detail "A").
4. Detectable warning surface shall be placed at the back of curb for a minimum depth of 2 ft. in the direction of pedestrian travel at curb ramps that are adjacent to traffic. Detectable warning surface may be radial or rectangular, but must comply with the truncated dome size and spacing standards. Detectable warning surface may be cut to meet necessary shape as shown in plans. Detectable warning surface across a grade break is prohibited. Place abutting panels within¼ inch of each other and install anchors, as specified by manufacturers, along cut edge.
5. Color to be safety yellow if no color specified in construction note. Alternative colors require a design exception on or along state highways.
6. Detectable warning surface shall be used in the following locations:
   a) Curb ramps at street crossings.
   b) Crossing islands (Accessible Route Islands).
   c) Rail crossings.
7. Where public transportation stations (rail, bus, etc.) use platform boarding, detectable warning surface shall be placed along the full edge length of the station, when not protected by platform screens or guards, (see Std. Dwg. RD908).
8. Detectable warning surface shall not be used on the following locations:
   a) End of sidewalk transitions that are not at a crosswalk, (see Std. Dwgs. RD950, RD952 and RD960).
   b) Driveways, unless constructed with curb return or are signalized.
   c) Parking lots, access aisles and passenger loading zones where curb ramp does not lead to vehicular way.
9. Where no curb is present, the detectable warning surface shall be placed at the edge of the roadway.
10. On or along state highways, curb and gutter is required at curb ramps.

LEGEND:
- Detectable warning surface
- Cross slope 1.5% max. (Max. 2.0% finished surface slope) (Normal sidewalk cross slope)
- Running slope 7.5% max. (Max. 8.3% finished surface slope)

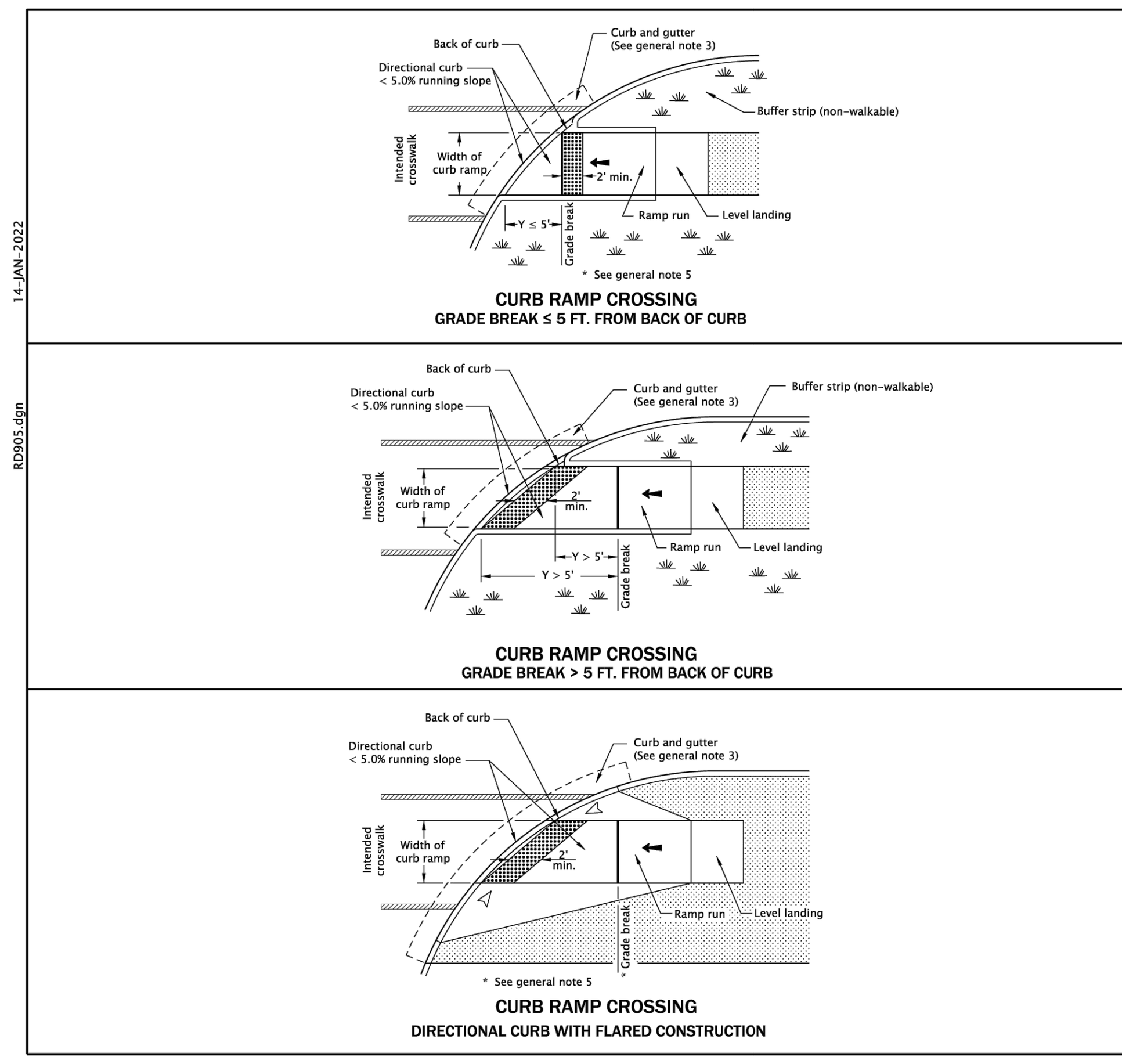
The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

All materials shall be in accordance with the current Oregon Standard Specifications.
OREGON STANDARD DRAWINGS
DETECTABLE WARNING SURFACE DETAILS
2024

DATE	REVISION DESCRIPTION
07-2020	NEW DRAWING CREATED
07-2021	REVISED DETAILS AND NOTES

CALC. BOOK NO. N/A SDR DATE 19-JUL-2021 **RD902**

Effective Date: December 1, 2024 – May 31, 2025



GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:

1. Detectable warning surface details & locations are based on applicable ODOT Standards.
2. See project plans for details not shown. See Std. Dwgs. RD700 & RD701 for curbs. See Std. Dwg. RD902 for detectable warning surface installation details.
3. On or along state highways, curb and gutter is required at curb ramps.
4. Detectable warning surface placement for perpendicular ramps vary as shown.
5. Detectable warning surface placement across the grade break is prohibited.

LEGEND:
- Marked or intended crossing location
- Sidewalk
- Detectable warning surface
- Running slope 7.5% max. (Max. 8.3% finished surface slope)
- Flare slope (Max. 10.0% finished surface slope)

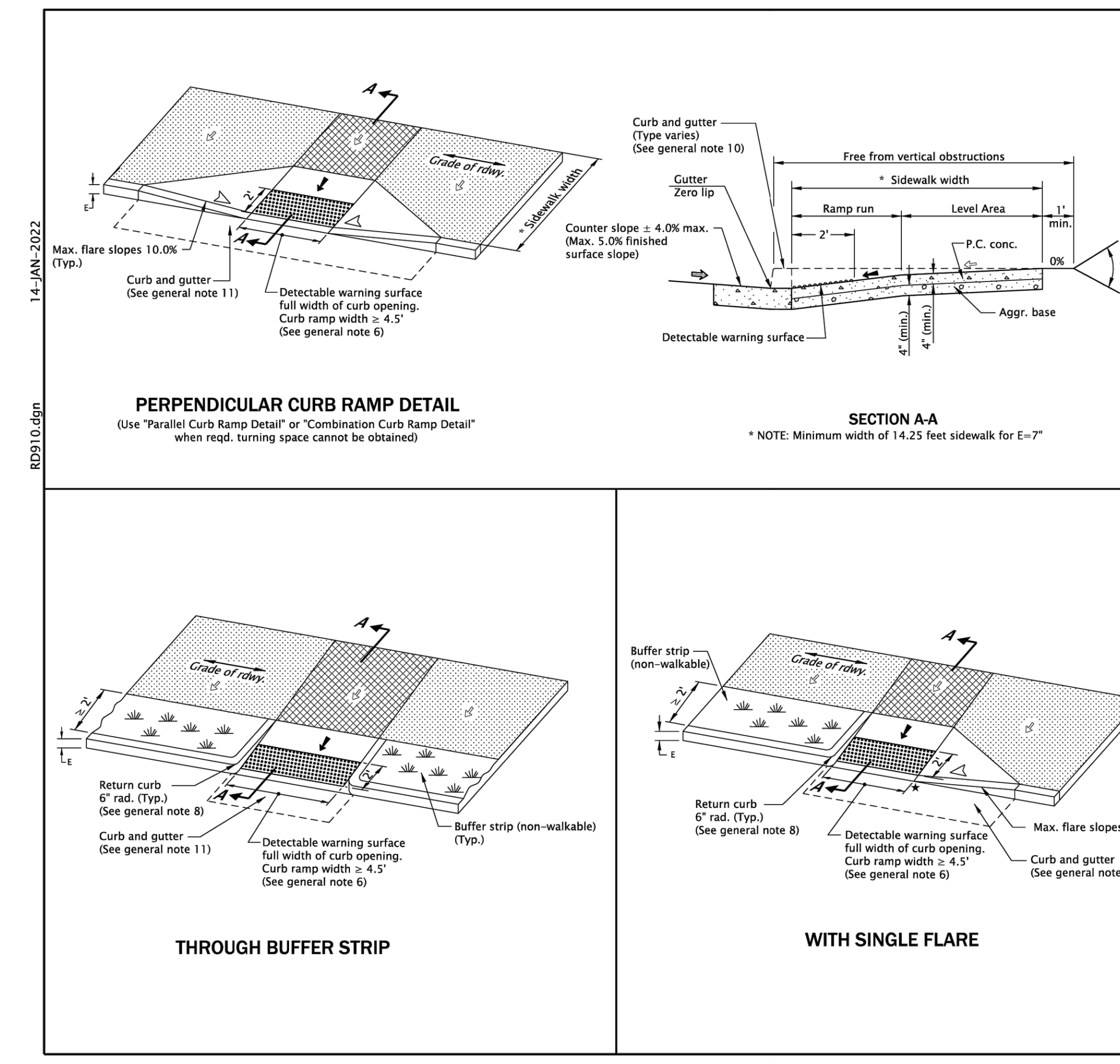
The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

All materials shall be in accordance with the current Oregon Standard Specifications.
OREGON STANDARD DRAWINGS
DETECTABLE WARNING SURFACE PLACEMENT FOR DIRECTIONAL CURBS
2024

DATE	REVISION DESCRIPTION
07-2020	NEW DRAWING CREATED
01-2022	REVISED NOTES

CALC. BOOK NO. N/A SDR DATE 14-JAN-2022 **RD905**

Effective Date: December 1, 2024 – May 31, 2025



GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:

1. Curb ramp details are based on applicable ODOT Standards.
2. See Std. Dwgs. RD700 & RD701 for curbs. See Std. Dwgs. RD720 & RD721 for sidewalks. See Std. Dwgs. RD902 through RD908 for detectable warning surface installation details. See Std. Dwgs. RD912 through RD916 for curb ramp placement options.
3. Site conditions normally require a project specific design. See project plans for details not shown.
4. Tooled dummy joints are required at all curb ramp grade break lines, (see Std. Dwg. RD722).
5. Curb ramp slopes shown are relative to the true level horizon (zero bubble).
6. Place detectable warning surface at the back of curb for a minimum depth of 2' in the direction of pedestrian travel full width of curb ramp opening that is adjacent to traffic.
7. Grade breaks at the top and bottom of curb ramp runs shall be perpendicular to the direction of the ramp run. Grade breaks shall not be permitted on the surface of ramp runs and turning spaces. Surface slopes that meet at grade breaks shall be flush.
8. Return curb may be provided in lieu of flared slope only if protected from traverse travel by landscaping, see Std. Dwg. RD721. Return curb shall not reduce width of approaching sidewalk.
9. Curb ramps for shared use paths intersecting a roadway shall be full width of path, excluding flares. When a curb ramp is used to provide bicycle access from a roadway to a sidewalk, the curb ramp opening will be ≥ 8' wide, (see Std. Dwg. RD909 for additional details).
10. Place an inlet at upstream side of curb ramp or perform other approved design mitigation. Check the gutter flow depth at curb ramp locations to assure that the design flood does not overtop the back of sidewalk.
11. On or along state highways, curb and gutter is required at curb ramps.

LEGEND:
- Sidewalk
- Detectable warning surface
- Level area (Turning space/landing) Unobstructed 4.5' x 4.5' With obstruction 4.5' x 5.5' (Longer dimension in direction of pedestrian street crossing). For the purposes of this application, a max. 2.0% finished surface slope (for drainage) measured perpendicular in two directions is considered level.
- Cross slope 1.5% max. (Max. 2.0% finished surface slope) (Normal sidewalk cross slope)
- Running slope 7.5% max. (Max. 8.3% finished surface slope)
- Counter slope 4.0% max. ascending or descending, (Max. 5.0% finished surface slope) Slope as required for drainage
- Flare slope (Max. 10% finished surface slope)

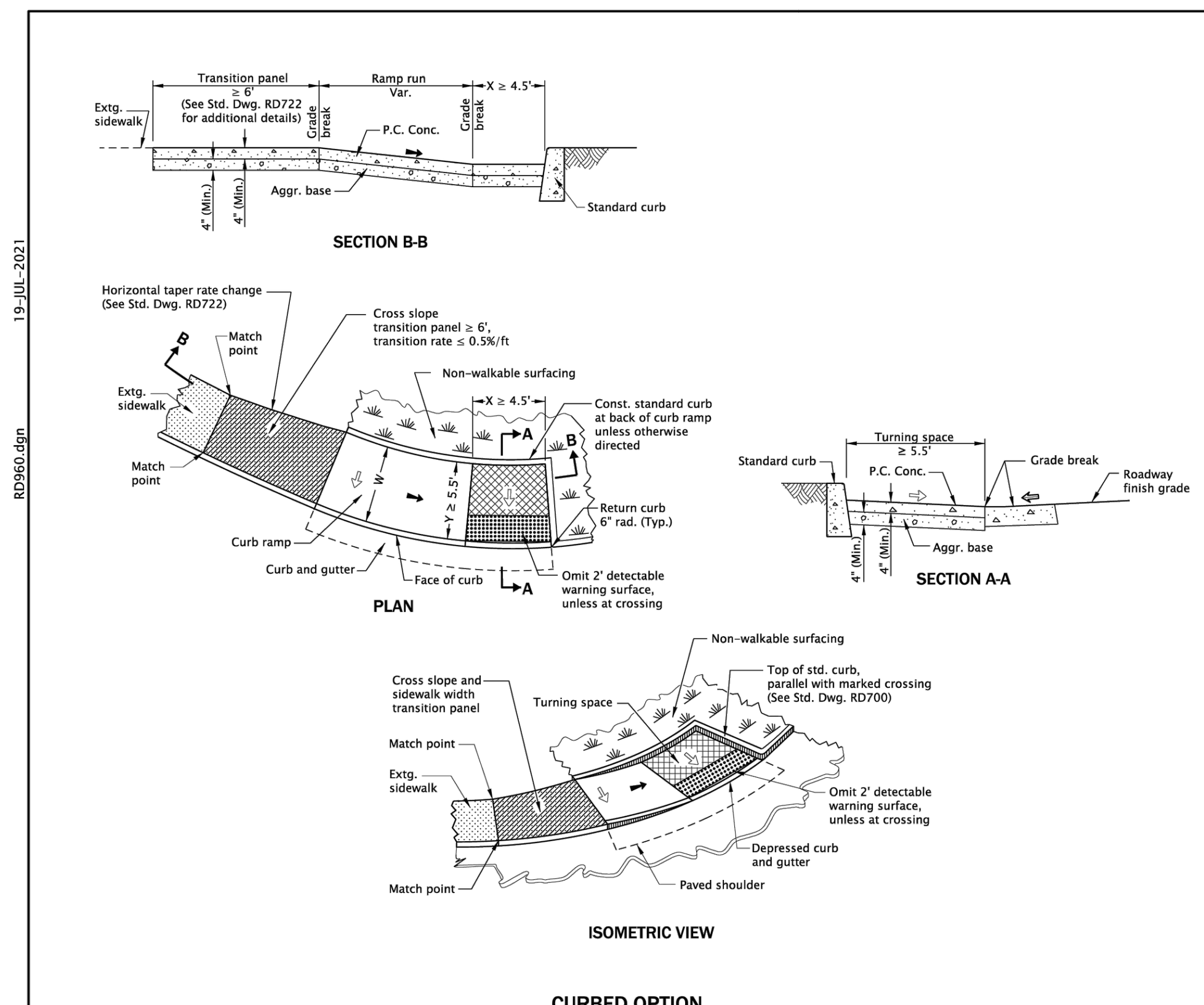
The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

All materials shall be in accordance with the current Oregon Standard Specifications.
OREGON STANDARD DRAWINGS
PERPENDICULAR CURB RAMP
2024

DATE	REVISION DESCRIPTION
12-2021	NEW DRAWING CREATED
01-2022	REVISED NOTES

CALC. BOOK NO. N/A SDR DATE 14-JAN-2022 **RD910**

Effective Date: December 1, 2024 – May 31, 2025



GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:

1. Curb ramp details are based on applicable ODOT applicable Standards.
2. See project plans for details not shown. See Std. Dwgs. RD700 & RD701 for curbs. See Std. Dwgs. RD720 & RD721 for sidewalks. See Std. Dwg. RD722 for transition panel details. See Std. Dwgs. RD902 through RD908 for detectable warning surface installation details. See Std. Dwg. RD920 for parallel curb ramp details.
3. Site conditions normally require a project special design. See project plans for details not shown.
4. Tooled dummy joints are required at all curb ramp grade break lines, (see Std. Dwg. RD722).
5. Curb ramp slopes shown are relative to the true level horizon (zero bubble).
6. Place detectable warning surface at the back of curb for a minimum depth of 2' in the direction of pedestrian travel full width of curb ramp opening that is adjacent to traffic.
7. Place an inlet at upstream side of curb ramp or perform other approved design mitigation. Check the gutter flow depth at curb ramp locations to assure that the design flood does not overtop the back of sidewalk.
8. When a shared use path terminates, the curb ramp shall be the full width of the path, the turning space Y-dimension should be minimum 8' wide to enable bicycles to ride from ramp to shoulder.
9. Grade breaks at the top and bottom of curb ramp runs shall be perpendicular to the direction of the ramp run. Grade breaks shall not be permitted on the surface of ramp runs and turning spaces. Surface slopes that meet at grade breaks shall be flush.
10. On or along state highways, curb and gutter is required at curb ramps.
11. Unique curb ramp option can be used for curved or tangent roadway sections. Superelevated roadways require a site specific detail.

LEGEND:
- Sidewalk
- Transition panel
- Detectable warning surface
- Level area (Turning space/landing) Unobstructed 4.5' x 4.5' With obstruction 4.5' x 5.5' (Longer dimension in direction of pedestrian street crossing). For the purposes of this application, a max. 2.0% finished surface slope (for drainage) measured perpendicular in two directions is considered level.
- Cross slope 1.5% max. (Max. 2.0% finished surface slope) (Normal sidewalk cross slope)
- Running slope 7.5% max. (Max. 8.3% finished surface slope)
- Counter slope 4.0% max. ascending or descending, (Max. 5.0% finished surface slope) Slope as required for drainage
- W New construction sidewalk width. See contract plans for dimension

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

All materials shall be in accordance with the current Oregon Standard Specifications.
OREGON STANDARD DRAWINGS
UNIQUE CURB RAMP
2024

DATE	REVISION DESCRIPTION
07-2020	NEW DRAWING CREATED
07-2021	REVISED DETAILS AND NOTES

CALC. BOOK NO. N/A SDR DATE 19-JUL-2021 **RD960**

Effective Date: December 1, 2024 – May 31, 2025

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REGISTERED PROFESSIONAL ENGINEER
56425PE
NOT FOR CONSTRUCTION
OREGON
Jan. 13, 2004
TODD D. POWELL
EXPIRES: 12/31/2626

VERIFY SCALES
ORIGINAL DRAWING BAR IS ONE INCH
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

GRAND TERRACE
AN APARTMENT DEVELOPMENT
PUBLIC IMPROVEMENT PLANS
MAP 38-1E-32
SOUTH PACIFIC HWY BETWEEN JACKSON RD AND SCHOFIELD ST

NO.	REVISION DESCRIPTION	DATE

DRAWN BY:	TDP
DESIGNED BY:	TDP
CHECKED BY:	TDP
ISSUE DATE:	10/02/24
LAND USE SET	
JOB NO.	RD900 SERIES ODOT DETAILS
22-002	C7.6.3

Drawing Name: S:\PEC Shared - Documents\All Staff\Projects\Current Projects\Grand Terrace\Drawings\CADD\Grand Terrace C7 2234.dwg Last Save: October 2, 2024 5:14 PM Plot Date: October 3, 2024 10:16 AM By: Nancy

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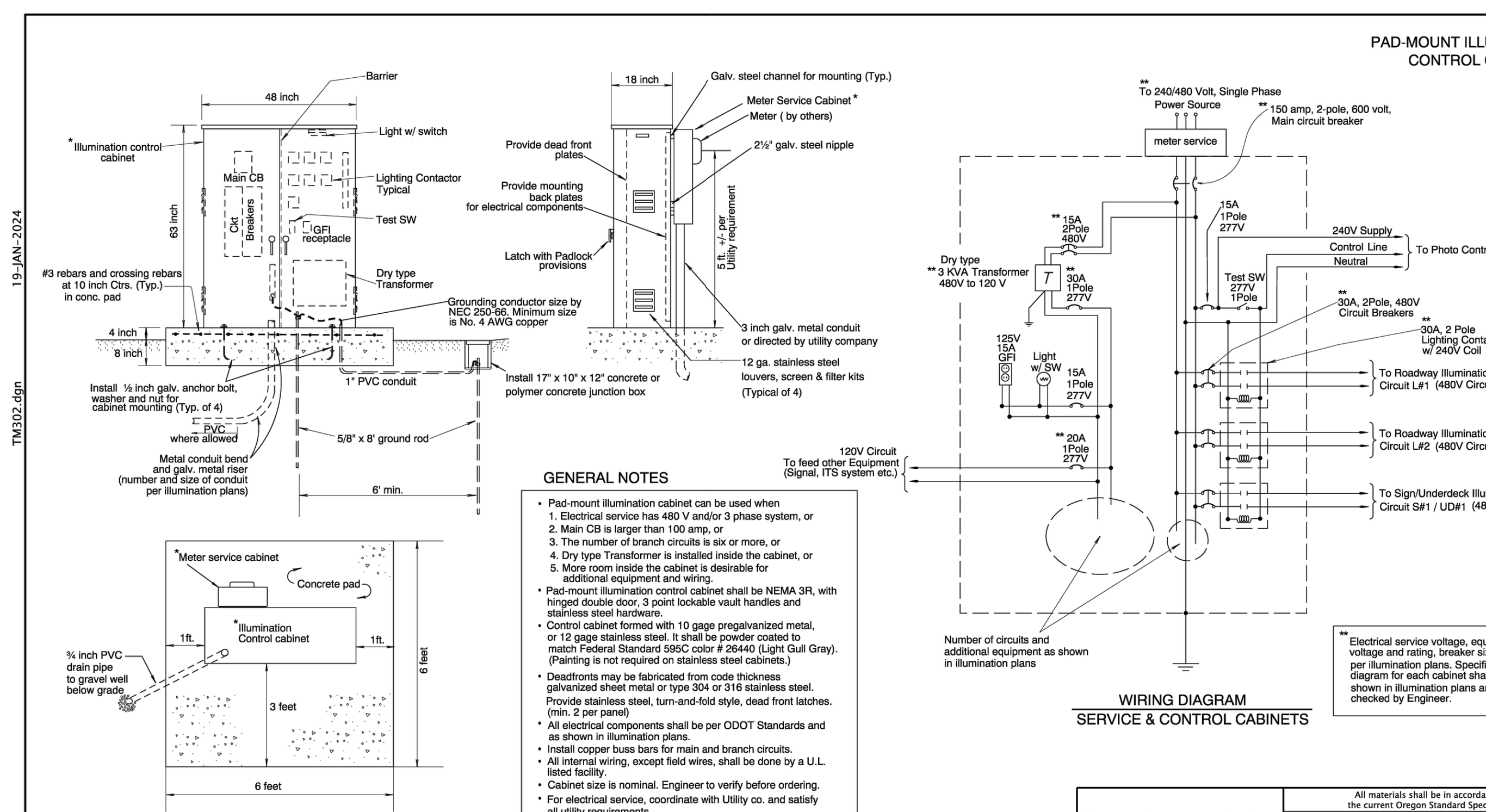


GENERAL NOTES

- Pad-mount illumination cabinet can be used when
  1. Electrical service has 480 V and/or 3 phase system, or
  2. Main CB is larger than 100 amp, or
  3. The number of branch circuits is six or more, or
  4. Dry type Transformer is installed inside the cabinet, or
  5. More room inside the cabinet is desirable for additional equipment and wiring.
- Pad-mount illumination control cabinet shall be NEMA 3R, with hinged double door, 3 point lockable vault handles and stainless steel hardware.
- Control cabinet formed with 10 gage pregalvanized metal, or 12 gage stainless steel. It shall be powder coated to match Federal Standard 595C color # 26440 (Light Gull Gray). (Painting is not required on stainless steel cabinets.)
- Deadfronts may be fabricated from code thickness galvanized sheet metal or type 304 or 316 stainless steel. Provide stainless steel, turn-and-fold style, dead front latches. (min. 2 per panel)
- All electrical components shall be per ODOT Standards and as shown in illumination plans.
- Install copper buss bars for main and branch circuits.
- All internal wiring, except field wires, shall be done by a U.L. listed facility.
- Cabinet size is nominal. Engineer to verify before ordering.
- For electrical service, coordinate with Utility co. and satisfy all utility requirements.
- Meter service cabinet formed with stainless steel 304, NEMA 3R, UL 67 listed, 600 V, 200 amp with natural finish and test/bypass provision (124 TBSS or approved equal)
- C/T cabinet may be required for bigger electrical service such as 250 amp, 277/480 volt, 3 phase.
- Install cabinet in safe location from vehicle traffic, or provide protection such as barrier, guardrail or (2) 4 ft. metal pole barrier

CB = Circuit Breaker
Ckt = Circuit
GFI = Ground Fault Interupt
SW = Switch
C/T = Current Transformer

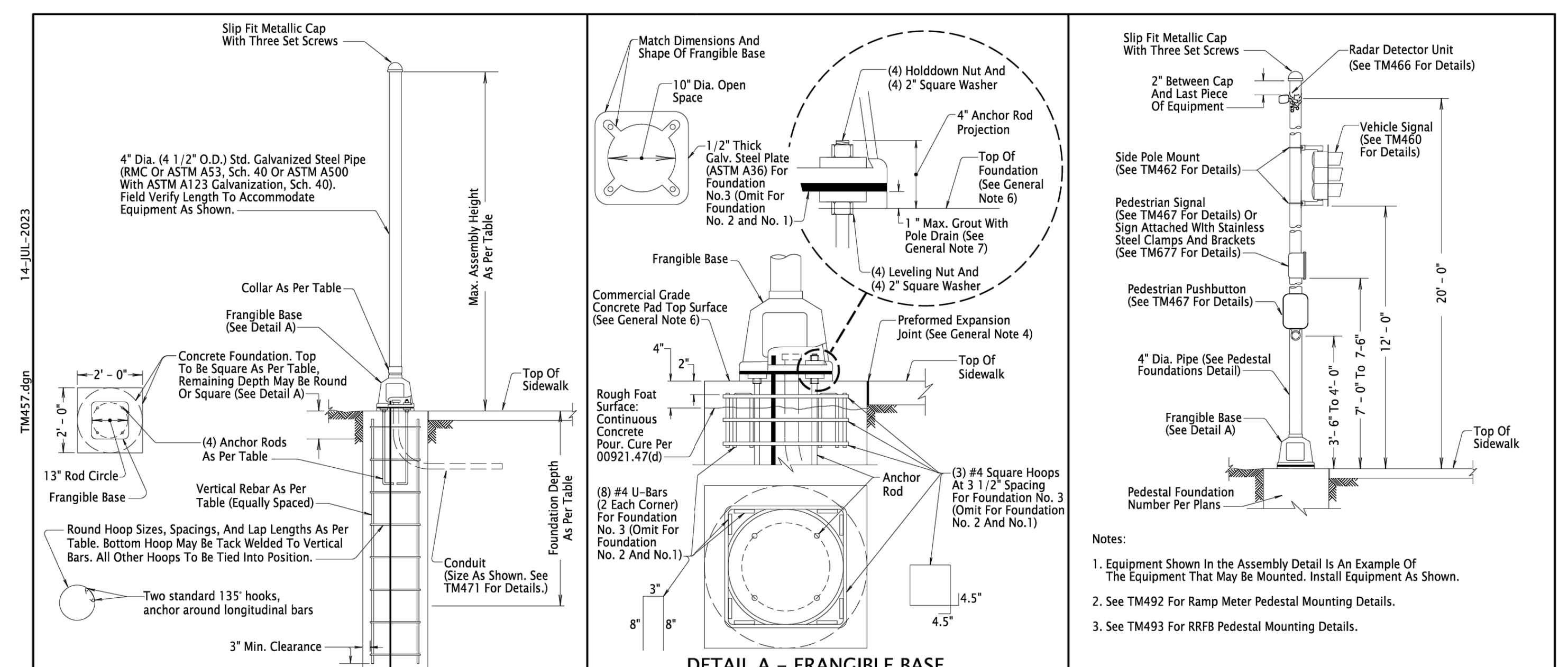
The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

All materials shall be in accordance with the current Oregon Standard Specifications.
OREGON STANDARD DRAWINGS
PAD-MOUNT ILLUMINATION CONTROL CABINET
2024

DATE	REVISION DESCRIPTION
01-2024	REMOVED PE CONTROL WITH NOTE

CALC. BOOK NO. N/A | SDR DATE 19-JAN-2024 | TM302

Effective Date: December 1, 2024 – May 31, 2025



Pedestal Foundation Number	Max. Assembly Height	Foundation Depth	Depth of Square Foundation	Anchor Rods (ASTM F 1554 Grade 36)	Reinforcing Steel: Vertical Rebar	Reinforcing Steel: Hoop Size & Spacing	Reinforcing Steel: Hoop Lap Length	Collar
1	6' – 0"	2' – 0"	4"	3/4" x 18" x 4" (6" Thread)	N/A	N/A	N/A	N/A
2	10' – 0"	3' – 0"	4"	3/4" x 18" x 4" (6" Thread)	N/A	N/A	N/A	N/A
3	20' – 6"	8' – 0"	12"	1" x 36" x 4" (6" Thread)	8–#6	#4–12"	6" with 2 hooks	Req'd

PEDESTAL FOUNDATIONS

General Notes:

1. All Bolts, Nuts And Washers To Conform To 02560.20 And Be Galvanized Steel According To 02560.40 Unless Noted Otherwise.
2. All Anchor Rods To Be Galvanized Steel Conforming To 02560.30.
3. All Pole Entrances Containing Wiring To Be Smooth.
4. Install 1/4" Thick Preformed Expansion Joint Filler Around Footing In Sidewalk Areas.
5. The Entire Foundation To Be Located On A Single Plane With Less Than 2% Slope. The Flat Edge(s) Of The Foundation May Be Adjacent To The Turn Space, Back Of Walk, Or A Curb Ramp Grade Break Line.
6. Install Commercial Grade Concrete Pad Above Rough Float Surface With Top Surface Matching Sidewalk Grade And Less Than 1/4" Vertical Exposure From Adjacent Grade. Clean Rough Float Surface Prior To Placing Fresh Concrete By Removing All Scum, Laitance, Loose Gravel, And Sediment. Pour During Sidewalk Installation After Installing Pipe And Appurtenances.
7. Non-Shrink High Early Strength Grout (Non-Ferrous) with 3/4" Diameter Pole Drain And A Minimum Strength of 5000 psi. Do Not Use Footing Concrete.

Notes:

1. Equipment Shown In The Assembly Detail Is An Example Of The Equipment That May Be Mounted. Install Equipment As Shown.
2. See TM492 For Ramp Meter Pedestal Mounting Details.
3. See TM493 For RRFB Pedestal Mounting Details.

TRAFFIC SIGNAL PEDESTAL ASSEMBLY

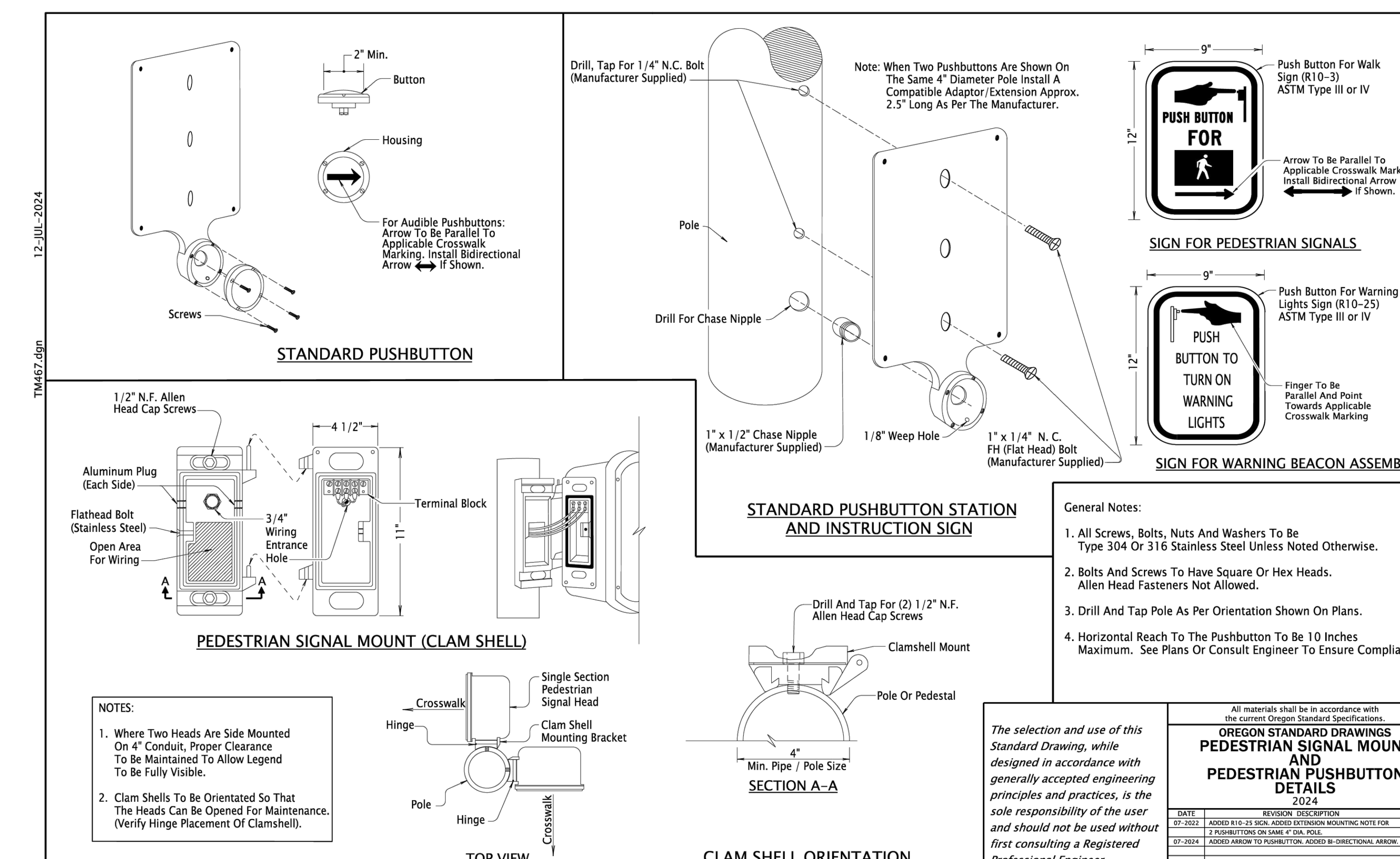
The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

All materials shall be in accordance with the current Oregon Standard Specifications.
OREGON STANDARD DRAWINGS
PEDESTAL FOUNDATION AND TRAFFIC SIGNAL ASSEMBLY
2024

DATE	REVISION DESCRIPTION
01-2021	UPDATED ALL ANCHOR ROD DETAILS. CORRECTED STD. DWG. REFERENCE
07-2022	COMPLETE REDESIGN OF FOUNDATION AND INSTALLATION PROCEDURE
07-2023	NOTE 5 – CHANGED TO 2% SLOPE. ADDED RMC AS PIPE OPTION. MINOR TEXT CHANGES FOR CLARITY.

CALC. BOOK NO. N/A | SDR DATE 14-JUL-2023 | TM457

Effective Date: December 1, 2024 – May 31, 2025



NOTES:

1. Where Two Heads Are Side Mounted On 4" Conduit, Proper Clearance To Be Maintained To Allow Legend To Be Fully Visible.
2. Clam Shells To Be Orientated So That The Heads Can Be Opened For Maintenance. (Verify Hinge Placement Of Clamshell).

General Notes:

1. All Screws, Bolts, Nuts And Washers To Be Type 304 Or 316 Stainless Steel Unless Noted Otherwise.
2. Bolts And Screws To Have Square Or Hex Heads. Allen Head Fasteners Not Allowed.
3. Drill And Tap Pole As Per Orientation Shown On Plans.
4. Horizontal Reach To The Pushbutton To Be 10 Inches Maximum. See Plans Or Consult Engineer To Ensure Compliance.

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

All materials shall be in accordance with the current Oregon Standard Specifications.
OREGON STANDARD DRAWINGS
PEDESTRIAN SIGNAL MOUNT AND PEDESTRIAN PUSHBUTTON DETAILS
2024

DATE	REVISION DESCRIPTION
07-2022	ADDED R10-25 SIGN. ADDED EXTENSION MOUNTING NOTE FOR 2 PUSHBUTTONS ON SAME 4" DIA. POLE.
07-2024	ADDED ARROW TO PUSHBUTTON. ADDED BI-DIRECTIONAL ARROW.

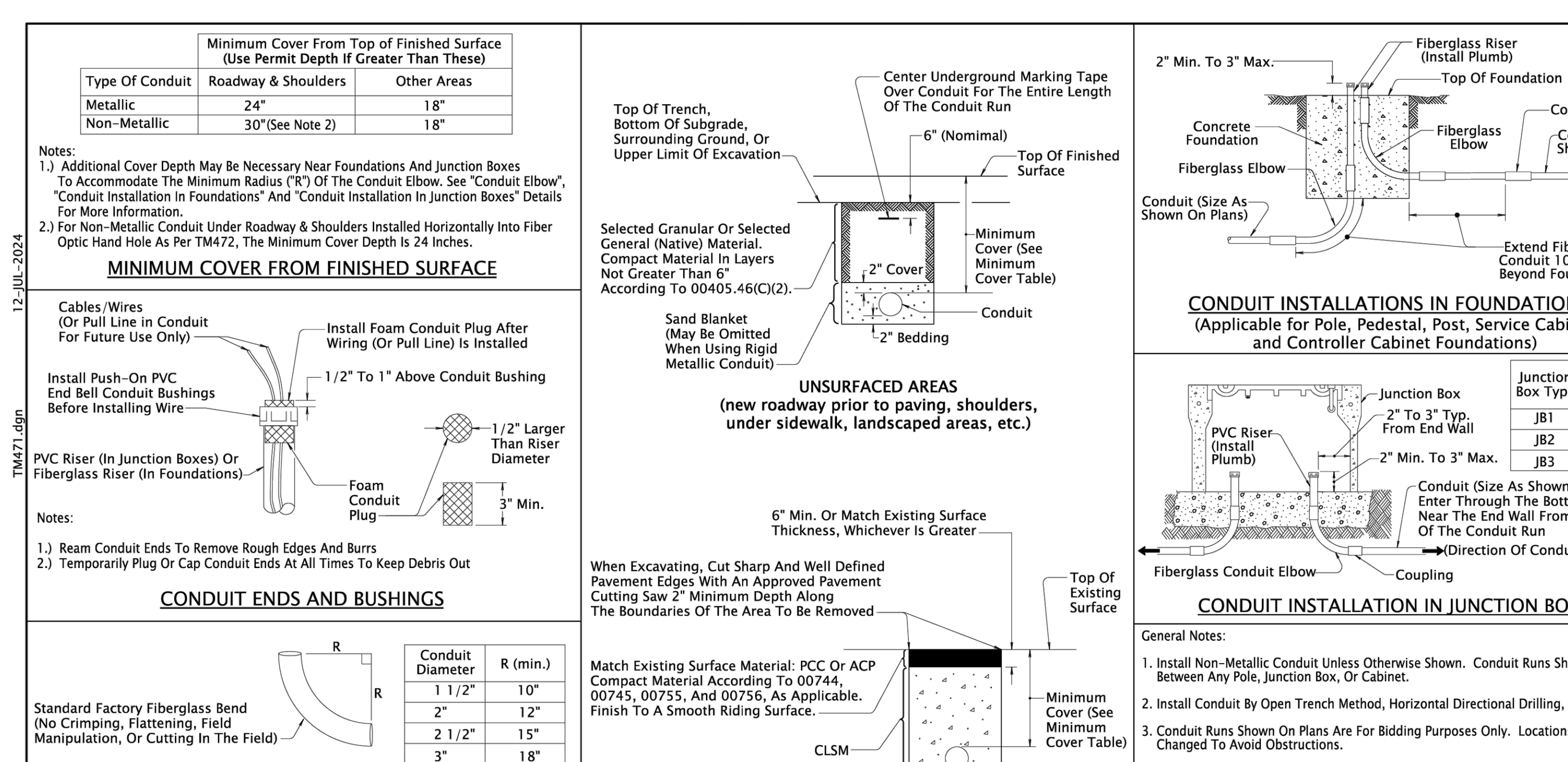
CALC. BOOK NO. N/A | SDR DATE 12-JUL-2024 | TM467

Effective Date: December 1, 2024 – May 31, 2025

Type Of Conduit	Minimum Cover From Top of Finished Surface (Use Permit Depth If Greater Than These): Roadway & Shoulders	Other Areas
Metallic	24"	18"
Non-Metallic	30"(See Note 2)	18"

Notes:
1.) Additional Cover Depth May Be Necessary Near Foundations And Junction Boxes To Accommodate The Minimum Radius ("R") Of The Conduit Elbow. See "Conduit Elbow", "Conduit Installation In Foundations" And "Conduit Installation In Junction Boxes" Details For More Information.
2.) For Non-Metallic Conduit Under Roadway & Shoulders Installed Horizontally Into Fiber Optic Hand Hole As Per TM472, The Minimum Cover Depth Is 24 Inches.

MINIMUM COVER FROM FINISHED SURFACE



Notes:
1.) Ream Conduit Ends To Remove Rough Edges And Burrs
2.) Temporarily Plug Or Cap Conduit Ends At All Times To Keep Debris Out

CONDUIT ENDS AND BUSHINGS

Conduit Diameter	R (min.)
1 1/2"	10"
2"	12"
2 1/2"	15"
3"	18"

CONDUIT ELBOWS

Notes:
1.) Slip Joints, Running Threads Or Reducing Couplings Not Allowed. Use The Same Size Conduit For The Entire Length, Outlet To Outlet.

CONDUIT COUPLINGS

Trenching & Backfill Notes:
1. Excavate According To 00960.40. In Areas To Be Paved Or Landscaped, Place All Conduit Before Paving Or Landscaping.
2. Hold Trench Width To A Practical Minimum
3. Do Not Backfill Trenches Until Inspected By The Engineer
4. Furnish Backfill Materials According To 00960.10

CONDUIT OPEN TRENCH EXCAVATION & BACKFILL

Junction Box Type	Max. Sum Of Conduit Diameters
JB1	12"
JB2	18"
JB3	34"

General Notes:
1. Install Non-Metallic Conduit Unless Otherwise Shown. Conduit Runs Shall Be Continous Between Any Pole, Junction Box, Or Cabinet.
2. Install Conduit By Open Trench Method, Horizontal Directional Drilling, Or As Shown
3. Conduit Runs Shown On Plans Are For Bidding Purposes Only. Locations May Be Changed To Avoid Obstructions.
4. Larger Conduit Than Specified May Be Used At The Option And Cost Of The Contractor If Max. Sum Of Conduit Diameters In Junction Box Is Not Exceeded.

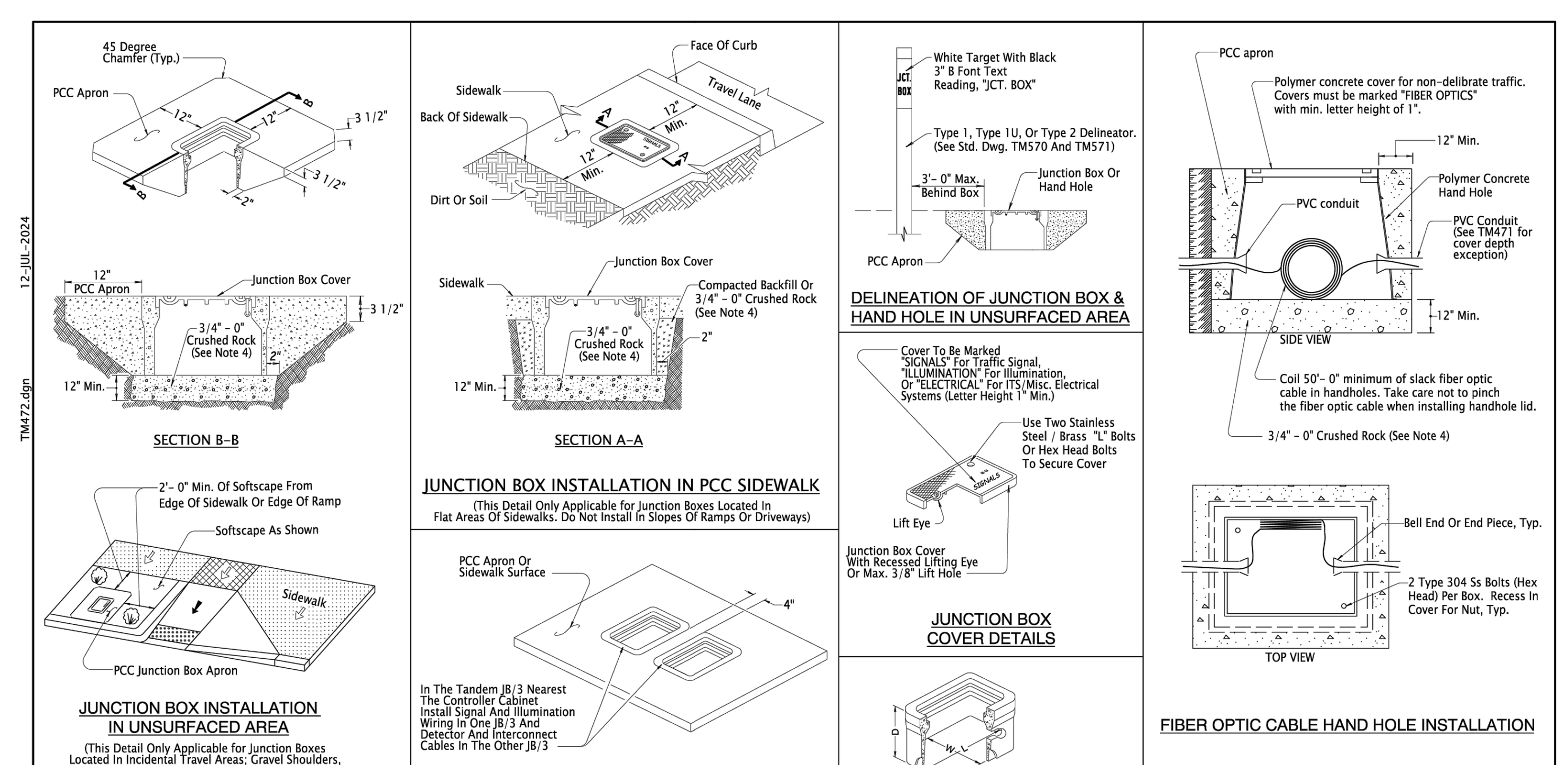
The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

All materials shall be in accordance with the current Oregon Standard Specifications.
OREGON STANDARD DRAWINGS
TRENCHING & CONDUIT INSTALLATION
2024

DATE	REVISION DESCRIPTION
01-2021	ADDED NOTE 1 TO "MINIMUM COVER FROM FINISHED SURFACE" DETAIL
07-2024	ADDED NOTE 2 TO "MINIMUM COVER FROM FINISHED SURFACE" DETAIL

CALC. BOOK NO. N/A | SDR DATE 12-JUL-2024 | TM471

Effective Date: December 1, 2024 – May 31, 2025



GENERAL NOTES:

1. Install Top of Junction Box And Hand Hole Flush With The Sidewalk, Surrounding Grade, Or Top Of Curb. For Hand Holes Installed In The Roadway Or Shoulder, Leave The Top Of The Hand Hole 1/2" Below The Pavement Surface.
2. Install Junction Boxes And Hand Holes At The Approximate Locations Shown, Or If Not Shown, No More Than 300 Feet Apart For Junction Boxes And No More Than 1000 Feet Apart For Hand Holes.
3. More Junction Boxes And Hand Holes Than Specified May Be Installed To Facilitate The Work At The Option And Cost Of The Contractor
4. Use Materials According To 00640.10 and 00640.16. Use Compaction Equipment Suitable For Area And Compact Each Six Inch Layer With Sufficient Coverages To Produce A Firm Unyielding Surface. Do Not Install Conductors Until Surface Has Been Constructed.

Type*	L	W	D
JB1	17"	10"	12"
JB2	22"	12"	12"
JB3	30"	17"	12"
HH-1	24"	30"	24"
HH-2	30"	48"	24"
HH-3	30"	48"	36"

*Junction Box Or Handhole Type As Shown On Plans

DIMENSION TABLE

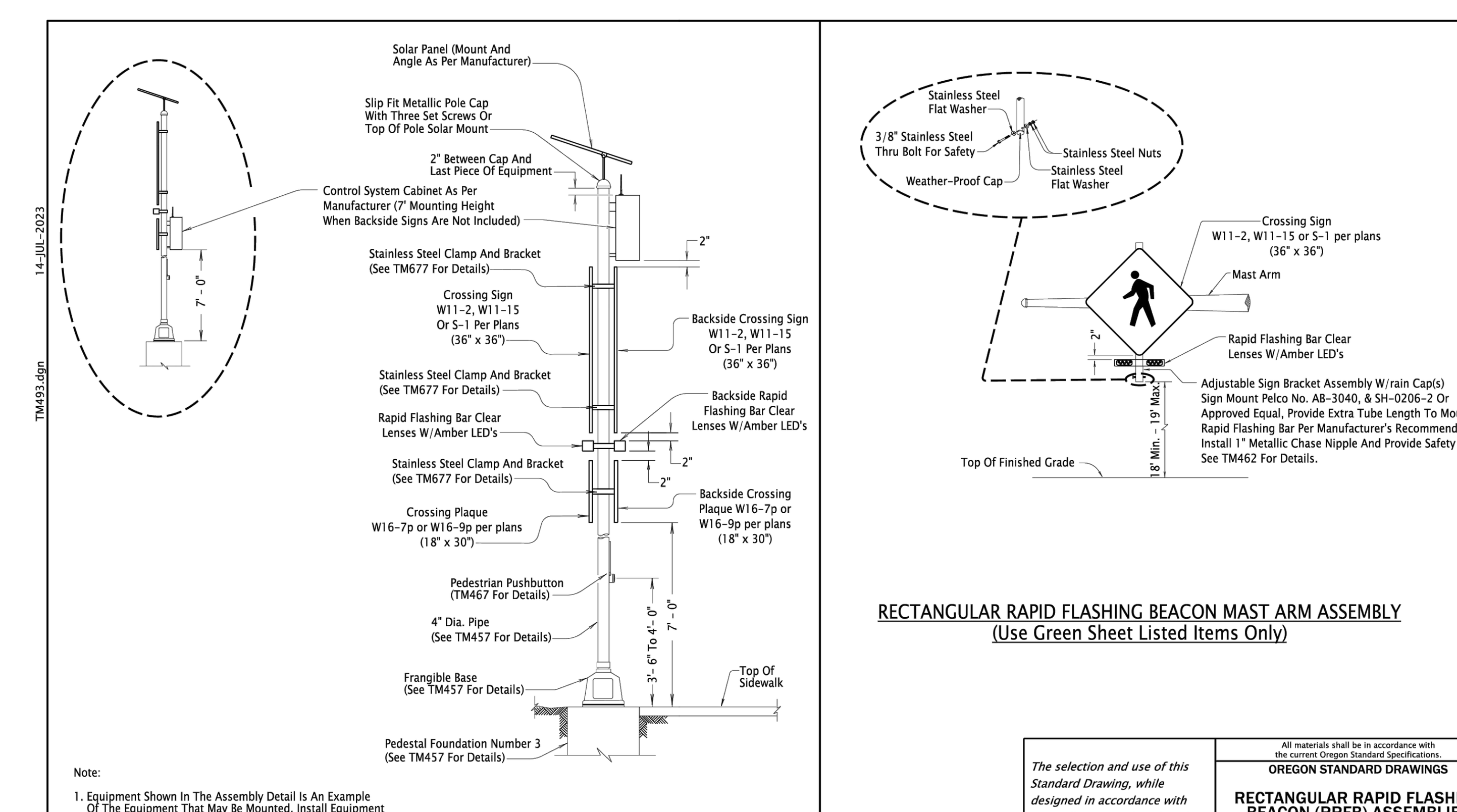
The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

All materials shall be in accordance with the current Oregon Standard Specifications.
OREGON STANDARD DRAWINGS
JUNCTION BOXES/HAND HOLES
2024

DATE	REVISION DESCRIPTION
07-2022	ADDED NEW MARKING (ILLUMINATION & ELECTRICAL) FOR JB COVER
01-2024	CHANGED DIMENSION FOR JB DELINEATION
07-2024	CHANGED SOFTSCAPE MIN. FROM 3' TO 2'. ADDED HAND HOLE CONDUIT NOTE

CALC. BOOK NO. N/A | SDR DATE 12-JUL-2024 | TM472

Effective Date: December 1, 2024 – May 31, 2025



Note:
1. Equipment Shown In The Assembly Detail Is An Example Of The Equipment That May Be Mounted. Install Equipment As Shown.
2. Equipment Mounting Details Shown Are Also Applicable When Mounting Equipment To A Large Signal Pole.

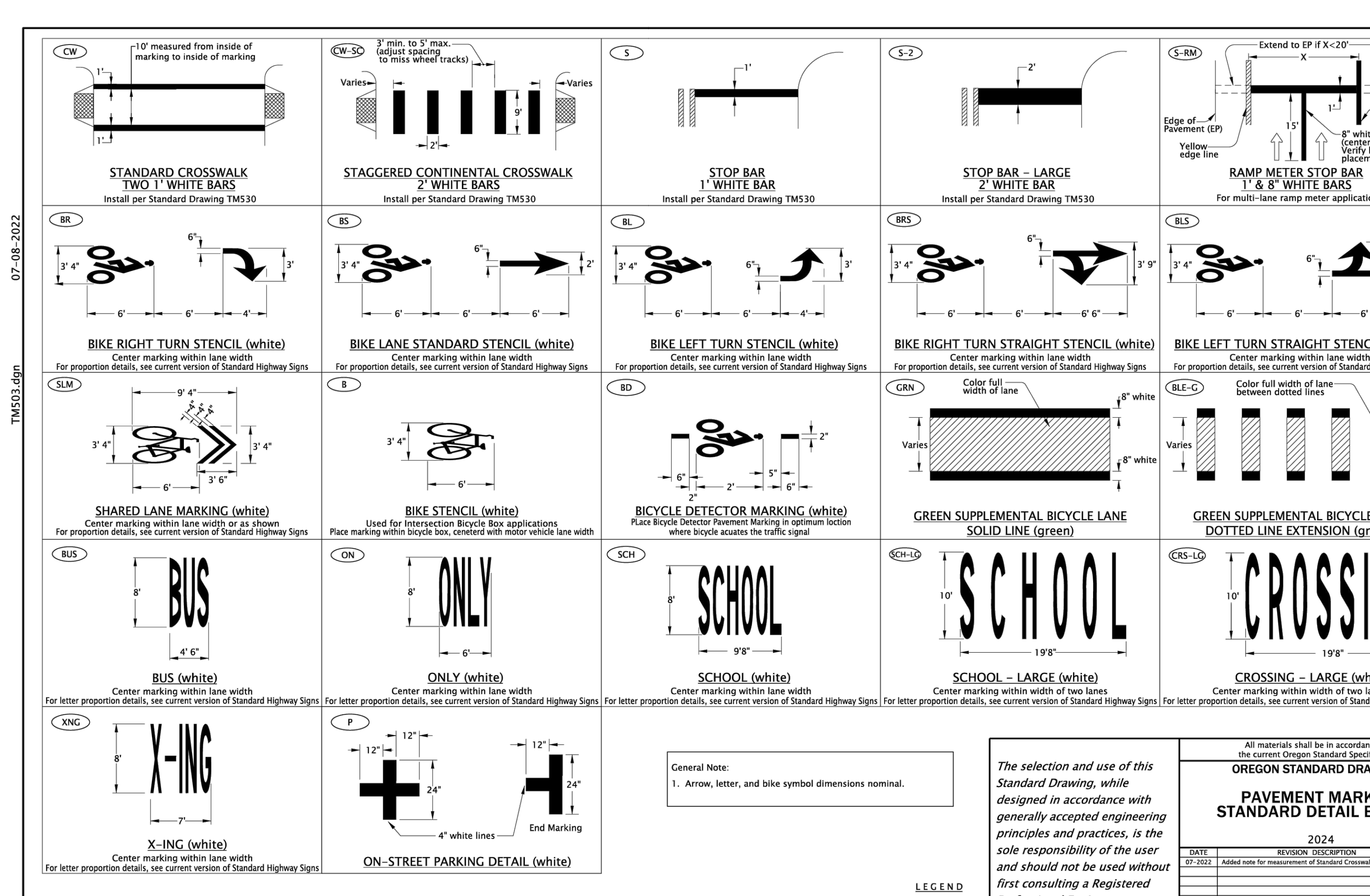
The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

All materials shall be in accordance with the current Oregon Standard Specifications.
OREGON STANDARD DRAWINGS
RECTANGULAR RAPID FLASHING BEACON (RRFB) ASSEMBLIES
2024

DATE	REVISION DESCRIPTION
07-2022	NEW DRAWING
07-2023	MINOR TEXT CHANGES FOR CLARITY

CALC. BOOK NO. N/A | SDR DATE 14-JUL-2023 | TM493

Effective Date: December 1, 2024 – May 31, 2025



General Note:
1. Arrow, letter, and bike symbol dimensions nominal.

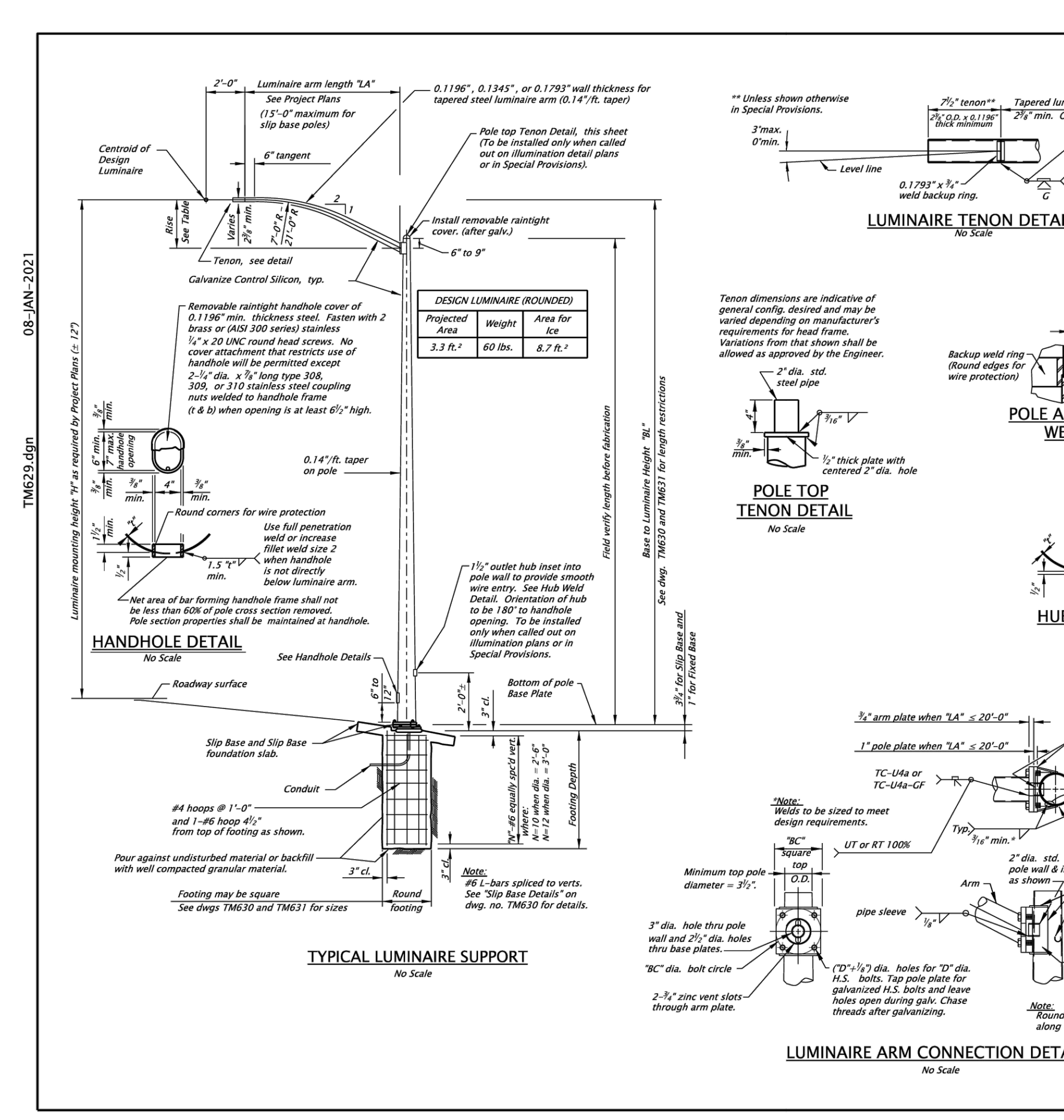
The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

All materials shall be in accordance with the current Oregon Standard Specifications.
OREGON STANDARD DRAWINGS
PAVEMENT MARKING STANDARD DETAIL BLOCKS
2024

DATE	REVISION DESCRIPTION
07-2022	Added note for measurement of Standard Crosswalk

CALC. BOOK NO. N/A | SDR DATE 07-08-2022 | TM503

Effective Date: December 1, 2024 – May 31, 2025



DESIGN LUMINAIRE (ROUNDED)		
Projected Area	Weight	Area for Ice
3.3 ft.²	60 lbs.	8.7 ft.²

GENERAL NOTES:

Luminaire supports shall be designed in accordance with AASHTO LRFD Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals (2015). The design wind velocity shall be 145 mph. The design Mean Recurrence Interval shall be 1,700-year. The design Service wind velocity shall be 91 mph. Use a Kd of 0.85 for round cross section luminaire supports with arms. Fatigue design is not required. All pole shafts shall be round. Steel sheet for poles and arms shall conform to ASTM A595, Grades A or B, or approved equal. All other steel sheet and plate shall conform to AASHTO M223 (ASTM A572), or approved equal. Supplement S18 of ASTM A6 regarding maximum tensile strength shall apply. Anchor rods for Slip Base Luminaire Supports shall be ASTM 449, Type 1. Anchor rods for Fixed Base Luminaire Supports shall be ASTM F1554, Grade 36. Nuts for anchor rods and slip base bolts shall conform to ASTM A563, Grade DH. High strength bolts shall conform to ASTM F3125, Grade A325. All structural steel including fasteners shall be hot-dip galvanized after fabrication unless noted otherwise. Galvanize-Control silicon, typical. Silicon content of the base metal shall be in the range of 0 to 0.06% or 0.13% to 0.25% Footing concrete shall be Commercial Grade Concrete. (f'c = 3000 psi). Grout in grout pads shall be non-shrink high early strength grout (non-ferrous) with a minimum strength of 5000 psi. Reinforcing steel shall conform to AASHTO M31 (ASTM A615), Grade 60. A minimum lap splice of 32 bar diameters shall be used unless shown otherwise. Flat washers shall be hardened steel washers conforming to ASTM F436. Longitudinal seam welds shall be complete penetration within 6" of a circumferential weld. 60 percent minimum penetration required for the remainder of the seam weld. Weld inspection shall comply with the special provisions. The weight of the slip base pole and its attachments above the anchor plate shall be kept to a minimum and shall not exceed 1000 lbs. Pole lengths shall be field verified before fabrication. Top of footing may be substantially above or below roadway surface. Design shall be adjusted as necessary for increase or decreased pole length. The Service II slope at the top of vertical supports with moment load applications shall be limited to 0.35 in./ft (1.67°). Computed deflection (ignoring pole bending and/or rotation) of the luminaire arms shall not exceed that listed in the Luminaire Arm Design Data table. Hubs shall be 3000# threaded forged carbon steel flat weld hubs by Anvil Products Inc., Phoenix Forging Co., Bonney Forge & Tool Works or approved equal. Grounding terminal shall be ½" UNC dia. x 1½" Type 308, 309 or 310 threaded stainless steel weld studs. See dwg. TM635 for guidelines in locating slip base poles. Luminaire pole foundation shall meet minimum embankment requirements shown on TM653. Assemble support and tighten anchor bolts and arm connection bolts according to 00962.46(j)(2). See drawings TM630 and TM631 for charts and details not shown.

LUMINAIRE ARM DESIGN DATA					
Arm Length "LA"	Allowable Dead Load Deflection	Bolt Circle Dia. "BC"	Bolt Dia. "D"	Approx. Rise (Arm fully loaded)
6'-0"	½"	7"	⅝"	1'-6½"
10'-0"	1⅛"	7"	⅝"	3'-5½"
15'-0"	3½"	7"	⅝"	5'-10"
20'-0"	4½"	8"	¾"	7'-9"

15'-0" maximum "LA" for slip base poles.

Accompanied by dwgs. TM630, TM631, TM653

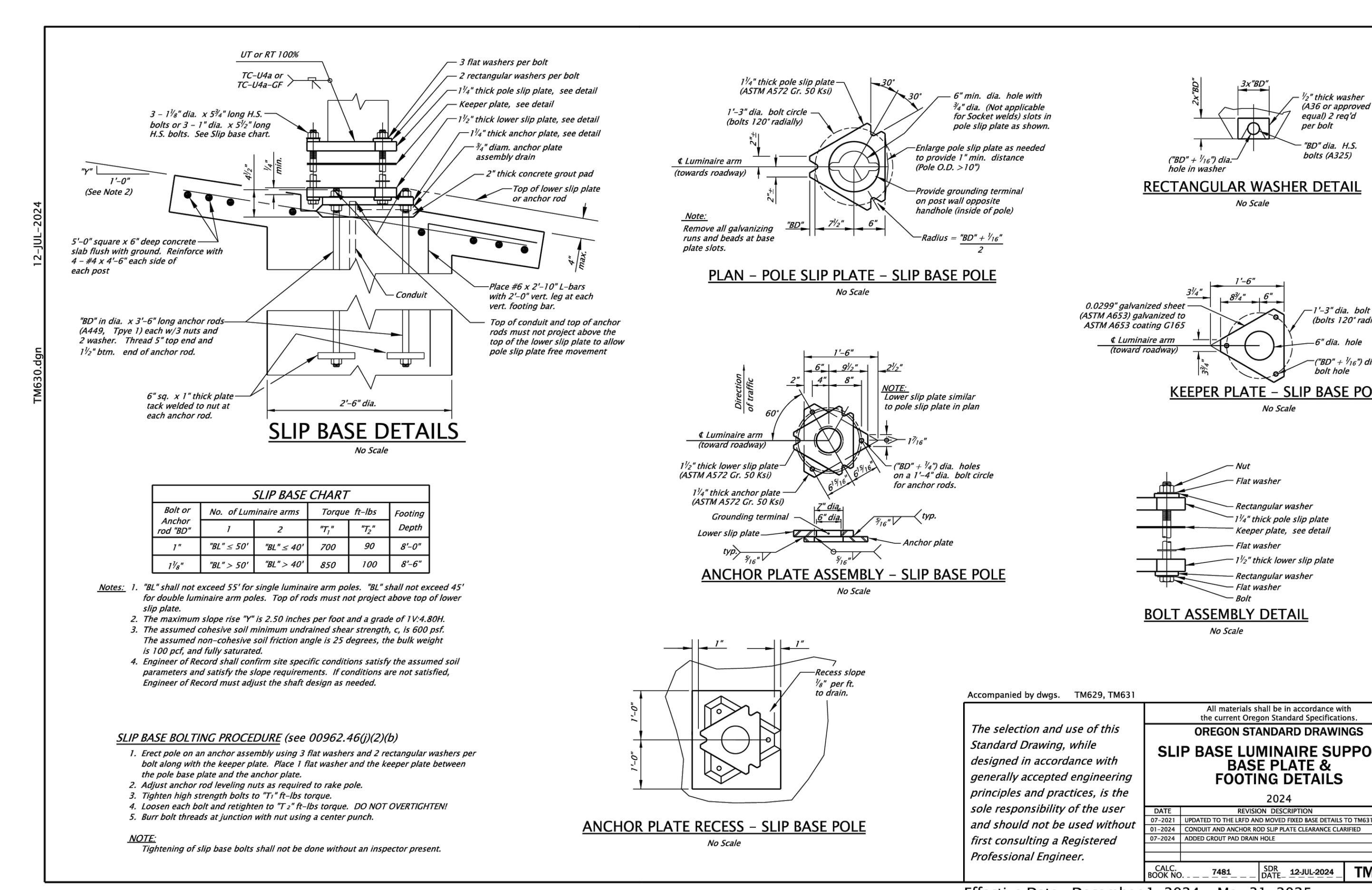
The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

All materials shall be in accordance with the current Oregon Standard Specifications.
OREGON STANDARD DRAWINGS
SLIP BASE AND FIXED BASE LUMINAIRE SUPPORTS GENERAL DETAILS AND DESIGN CRITERIA
2024

DATE	REVISION DESCRIPTION
07-2021	UPDATED TO LRFD DESIGN

CALC. BOOK NO. 7481 | SDR DATE 09-JUL-2021 | TM629

Effective Date: December 1, 2024 – May 31, 2025



SLIP BASE CHART					
Bolt or Anchor rod "BD"	No. of Luminaire arms: 1	No. of Luminaire arms: 2	Torque ft-lbs: "T₁"	Torque ft-lbs: "T₂"	Footing Depth
1"	"BL" ≤ 50'	"BL" ≤ 40'	700	90	8'-0"
1⅛"	"BL" > 50'	"BL" > 40'	850	100	8'-6"

Notes:
1. "BL" shall not exceed 55' for single luminaire arm poles. "BL" shall not exceed 45' for double luminaire arm poles. Top of rods must not project above top of lower slip plate.
2. The maximum slope rise "Y" is 2.50 inches per foot and a grade of 1V:4.80H.
3. The assumed cohesive soil minimum undrained shear strength, c, is 600 psf. The assumed non-cohesive soil friction angle is 25 degrees, the bulk weight is 100 pcf, and fully saturated.
4. Engineer of Record shall confirm site specific conditions satisfy the assumed soil parameters and satisfy the slope requirements. If conditions are not satisfied, Engineer of Record must adjust the shaft design as needed.

SLIP BASE BOLTING PROCEDURE (see 00962.46(j)(2)(b)
1. Erect pole on an anchor assembly using 3 flat washers and 2 rectangular washers per bolt along with the keeper plate. Place 1 flat washer and the keeper plate between the pole base plate and the anchor plate.
2. Adjust anchor rod leveling nuts as required to rake pole.
3. Tighten high strength bolts to "T₁" ft-lbs torque.
4. Loosen each bolt and retighten to "T₂" ft-lbs torque. DO NOT OVERTIGHTEN!
5. Burr bolt threads at junction with nut using a center punch.

NOTE:
Tightening of slip base bolts shall not be done without an inspector present.

Accompanied by dwgs. TM629, TM631

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

All materials shall be in accordance with the current Oregon Standard Specifications.
OREGON STANDARD DRAWINGS
SLIP BASE LUMINAIRE SUPPORTS BASE PLATE & FOOTING DETAILS
2024

DATE	REVISION DESCRIPTION
07-2021	UPDATED TO THE LRFD AND MOVED FIXED BASE DETAILS TO TM631
01-2024	CONDUIT AND ANCHOR ROD SLIP PLATE CLEARANCE CLARIFIED
07-2024	ADDED GROUT PAD DRAIN HOLE

CALC. BOOK NO. 7481 | SDR DATE 12-JUL-2024 | TM630

Effective Date: December 1, 2024 – May 31, 2025

POWELL engineering + consulting
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Medford, OR 97501
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REGISTERED PROFESSIONAL ENGINEER 56425PE
NOT FOR CONSTRUCTION
OREGON Jan. 13, 2004
TODD D. POWELL
EXPIRES: 12/31/2626

VERIFY SCALES
ORIGINAL DRAWING BAR IS ONE INCH
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

GRAND TERRACE
AN APARTMENT DEVELOPMENT
PUBLIC IMPROVEMENT PLANS
MAP 38-1E-32
SOUTH PACIFIC HWY BETWEEN JACKSON RD AND SCHOFIELD ST

NO.	REVISION DESCRIPTION	DATE

DRAWN BY: TDP
DESIGNED BY: TDP
CHECKED BY: TDP
ISSUE DATE: 10/02/24
LAND USE SET
JOB NO. 22-002
ODOT TRAFFIC DETAILS
C7.6.4

Drawing Name: S:\PEC Shared - Documents\All Staff\Projects\Current Projects\Grand Terrace\Drawings\CADD\Grand Terrace C7 2234.dwg Last Save: October 2, 2024 5:14 PM Plot Date: October 3, 2024 10:19 AM By: Nancy

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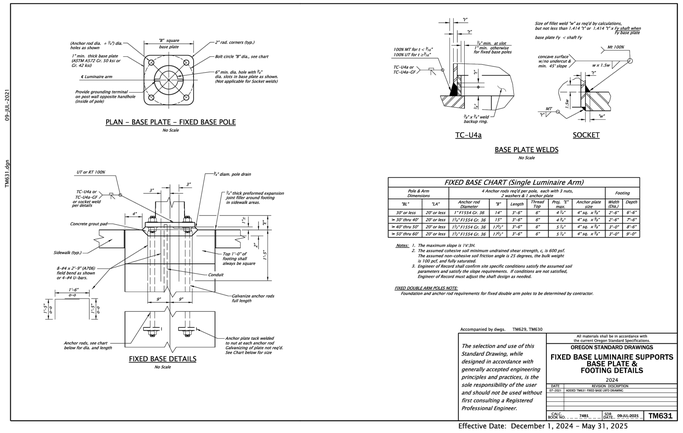

FIXED BASE CHART (Single Luminaire Arm)

Pole & Arm Dimensions		4 Anchor rods req'd per pole, each with 3 nuts, 1" washers & 1 anchor plate						Footing	
"B-1"	"L-A"	Anchor rod Min. Yield Strength	"B"	Length	Thread Length	Proj. "E"	Anchor plate size	Width square	Depth
10" or less	25' or less	1"-F1554 Gr. 36	14"	3'-6"	8"	4.5"	4" sq. x 5/8"	2'-6"	3'-6"
> 10" thru 40"	25' or less	1¼"-F1554 Gr. 36	15"	3'-6"	8"	4.5"	4" sq. x 5/8"	2'-6"	3'-6"
> 40" thru 50"	25' or less	1¼"-F1554 Gr. 36	17½"	3'-6"	8"	3.5"	4" sq. x ¾"	2'-6"	3'-6"
> 50" thru 60"	25' or less	1½"-F1554 Gr. 36	17½"	3'-6"	8"	3.5"	4" sq. x ¾"	2'-6"	3'-6"

Notes: 1. The maximum slope is 1V:3H.
2. The footings are based on a minimum undrained shear strength, c_u = 600 psf. The assumed non-cohesive soil friction angle is 25 degrees, the bulk weight is 150 pcf, and fully saturated.
3. Engineer of Record shall confirm site specific conditions satisfy the assumed soil parameters and satisfy the slope requirements. If conditions are not satisfied, Engineer of Record must adjust the shaft design as needed.

FIXED DOUBLE ARM POLES NOTE:
Foundation and anchor rod requirements for fixed double arm poles to be determined by contractor.

Accompanied by dwgs. TM625, TM630

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

All materials shall be in accordance with the current Standard Specifications.

OREGON STANDARD DRAWINGS

FIXED BASE LUMINAIRE SUPPORTS BASE PLATE & FOOTING DETAILS

2024

DATE	REVISION DESCRIPTION
07-2021	ADDED TM631, TM632 AND LIGHT STANDARDS

STANDARD NO. TM631 DATE 09-JUL-2021 **TM631**

Effective Date: December 1, 2024 – May 31, 2025

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JULY 13, 2004
TODD D. POWELL

NOT FOR CONSTRUCTION

EXPIRES: 12/31/2626

VERIFY SCALES
ORIGINAL DRAWING BAR IS ONE INCH
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

GRAND TERRACE
AN APARTMENT DEVELOPMENT
PUBLIC IMPROVEMENT PLANS
MAP 38-1E-32
SOUTH PACIFIC HWY BETWEEN JACKSON RD AND SCHOFIELD ST

NO.	REVISION DESCRIPTION	DATE

DRAWN BY: TDP
DESIGNED BY: TDP
CHECKED BY: TDP
ISSUE DATE: 10/02/24
LAND USE SET

JOB NO. 22-002

ODOT TRAFFIC DETAILS

C7.6.5

Drawing Name: S:\PEC Shared - Documents\All Staff\Projects\Current Projects\Grand Terrace\Drawings\CADD\Grand Terrace C7 2234.dwg Last Save: October 2, 2024 5:14 PM Plot Date: October 3, 2024 10:20 AM By: Nancy

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PROPOSED FRONT ELEVATION

SCALE: $\frac{1}{4}$"=1'-0"

General Notes

1. ALL WORK SHALL CONFORM TO THE OREGON STRUCTURAL SPECIALTY CODE.
2. ATTIC VENTILATION SHALL BE 1/150TH OF ATTIC AREA.
3. PROVIDE MINIMUM OF 22"x30" READILY ACCESSIBLE ATTIC ACCESS
4. PROVIDE MINIMUM OF 18"x24" CRAWL SPACE ACCESS
5. FOUNDATION VENTS:
   a. PROVIDE A NET VENTILATION AREA OF NOT LESS THAN 1 SQUARE FOOT FOR EACH 150 SQUARE FEET.
   b. PROVIDE ONE VENTILATION OPENING WITHIN 3 FEET OF EACH CORNER OF THE BUILDING.

DESIGN LOADS

SNOW LOAD	25 PSF	
ROOF DEAD LOAD	15 PSF	
FLOOR LIVE LOAD	40 PSF	
FLOOR DEAD LOAD	15 PSF	
WIND PRESSURE	18 PSF	
WIND SPEED	95 MPH	EXP. B
SEISMIC ZONE	D1	

PROJECT DATA

PROPOSED APARTMENT BUILDING

PROPOSED LIVING AREA

BASEMENT	1763 SQ.FT.
MAIN FLOOR	4589 SQ.FT.
UPPER FLOOR	4589 SQ.FT.
TOTAL PROPOSED AREA	10,941 SQ.FT./BLDG.

OWNER: KENDRICK ENTERPRISES, LLC
153 WILL DODGE WAY,
ASHLAND, OR 97520

PROJECT ADDRESS: BUILDING #1
HIGHWAY 99,
ASHLAND, OR 97520
MAP & TAX LOT# 38-1E-32, 1700 & 1702

MINIMUM ENERGY COMPLIANCE NOTES

WALL INSULATION	R-21 INTERMEDIATE
WALL INSULATION---BELOW GRADE	R-21 c.i. / R-21
FLAT CEILINGS	R-49
VAULTED CEILINGS	R-30/R30A
UNDERFLOOR INSULATION	R-30
SLAB FLOOR EDGE INSULATION	R-15
HEATED SLAB INTERIOR	R-10
WINDOW S	U = 0.27
SKYLIGHT CLASS	U = 0.50
EXTERIOR DOORS	U = 0.20
EXTERIOR DOORS > 2.5sqft GLAZING	U = 0.40

CONDITIONED SPACE SHALL COMPLY WITH TABLE N1101.1(1) AND ONE ADDITIONAL MEASURE PICKED FROM TABLE N1101.1(2)

SHEET INDEX

A1.0	PROJECT INFORMATION, BUILDING ELEVATIONS
A1.1	BUILDING ELEVATIONS
A1.2	BUILDING SECTION, FLOOR AND WALL ASSEMBLIES
A2.0	BASEMENT, CRAWLSPACE FLOOR PLAN
A2.1	MAIN FLOOR PLAN
A2.2	UPPER FLOOR PLAN
S1.0	GENERAL NOTES AND STRUCTURAL DETAILS
S1.1	STRUCTURAL DETAILS CONT'D
S1.2	STRUCTURAL DETAILS CONT'D
S1.3	STRUCTURAL DETAILS CONT'D
S2.0	FOUNDATION & CRAWLSPACE PLAN
S3.0	MAIN FLOOR FRAMING PLAN
S3.1	UPPER FLOOR FRAMING PLAN
S3.2	ROOF FRAMING PLAN
S4.0	BASEMENT, CRAWLSPACE WIND AND SEISMIC LATERAL PLAN
S4.1	MAIN FLOOR WIND AND SEISMIC LATERAL PLAN
S4.2	UPPER FLOOR WIND AND SEISMIC LATERAL PLAN



PROPOSED RIGHT ELEVATION

SCALE: $\frac{1}{4}$"=1'-0"

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JANUARY 13, 2009
BRIAN MOCKRIDGE
EXPIRES: 12/2024

GRAND TERRACE
APARTMENT BLDG. #1
HWY 99, Ashland OR
Map & Tax Lot 38-1E-32, 1700 & 1702

Client: Kendrick Enterprises

Phone: 541-944-0131

Drawn By: BM

Checked By: BM

Issue Date: 09/25/2024

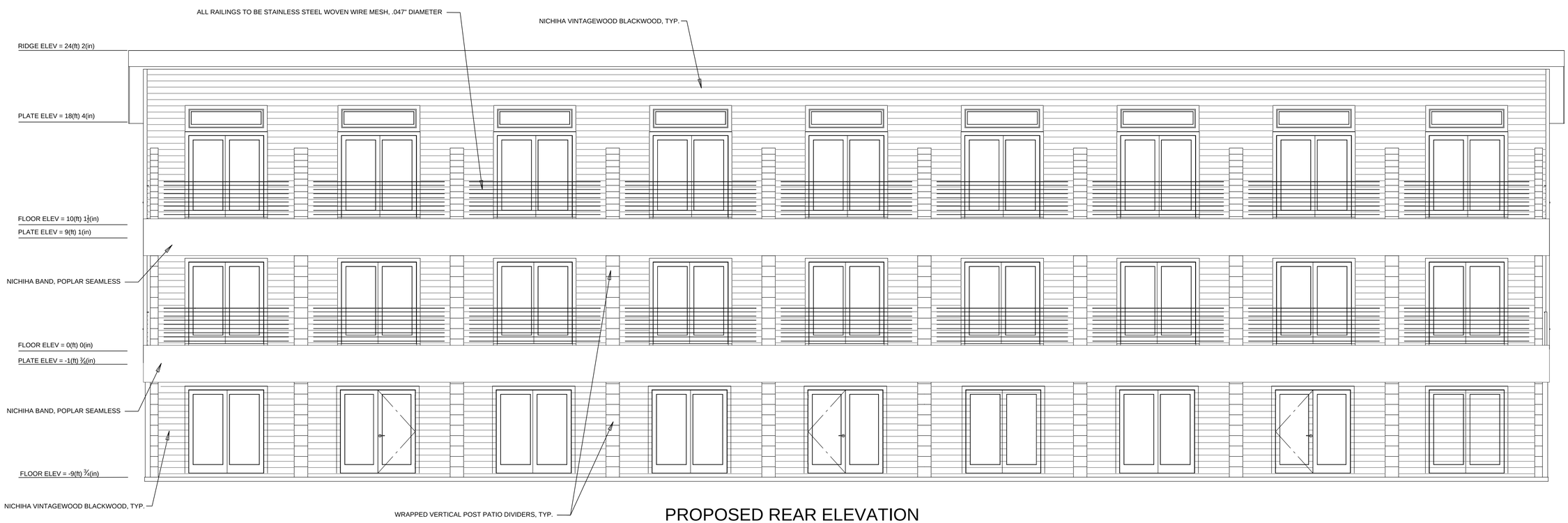
ME Job #: 23-062a

Scale: AS NOTED

Title: ELEVATIONS

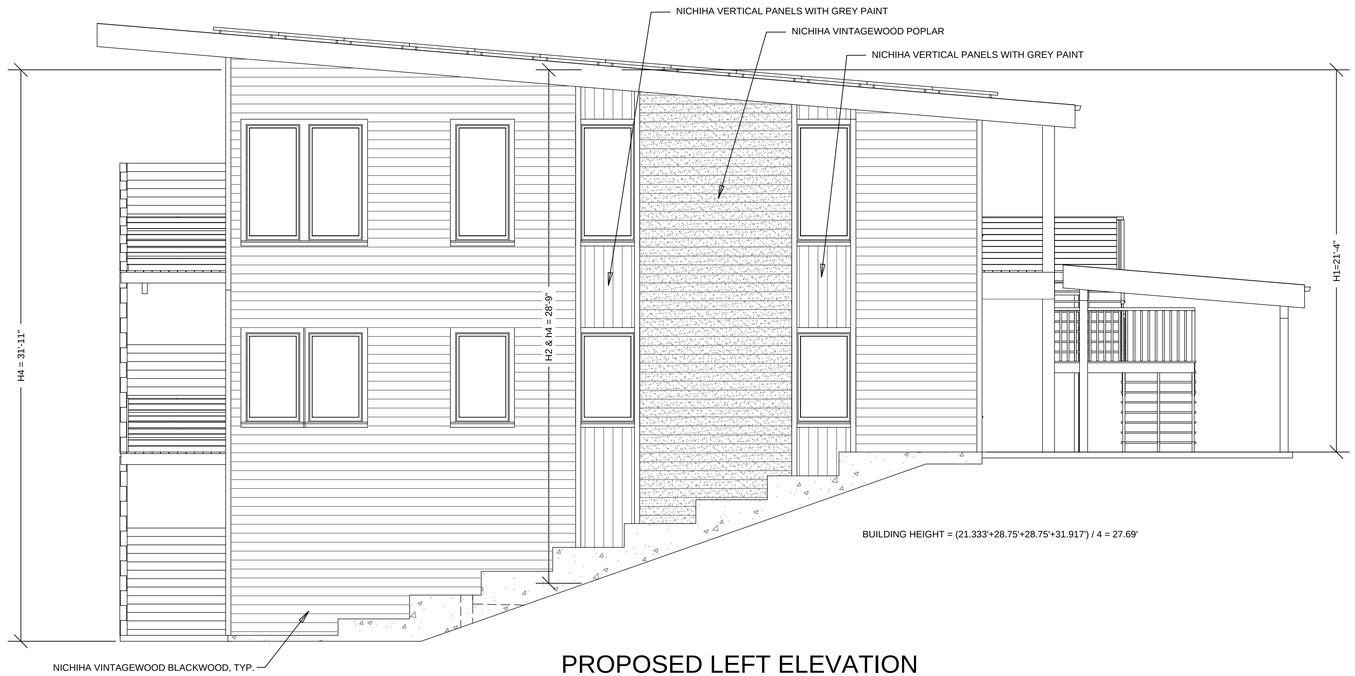
SHEET

A1.0



PROPOSED REAR ELEVATION

SCALE: $\frac{1}{4}$"=1'-0"



PROPOSED LEFT ELEVATION

SCALE: $\frac{1}{4}$"=1'-0"

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EXPIRES: 12/2024

GRAND TERRACE
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HWY 99, Ashland OR
Map & Tax Lot 38-1E-32, 1700 & 1702

Client: Kendrick Enterprises

Phone: 541-944-0131

Drawn By: BM

Checked By: BM

Issue Date: 09/25/2024

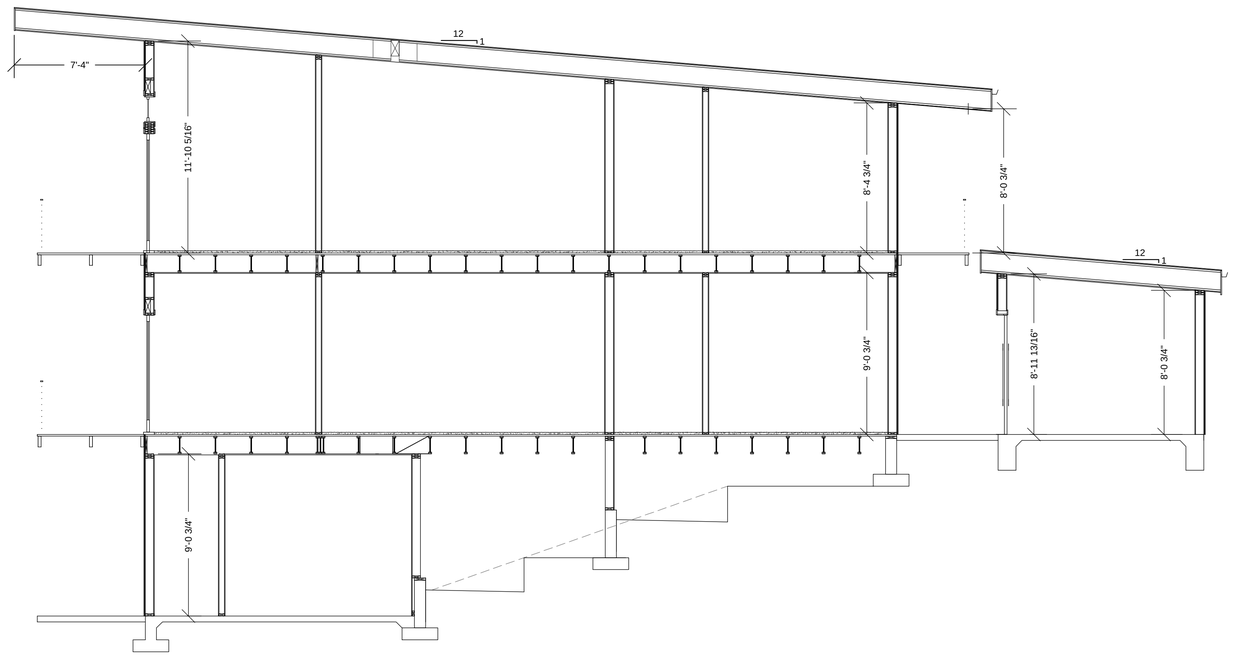
ME Job #: 23-062a

Scale: AS NOTED

Title: ELEVATIONS

SHEET

A1.1



TYPICAL BUILDING / SECTION A

SCALE: $\frac{1}{4}$"=1'-0"

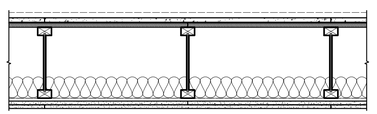
REFERENCE.	FIRE RATING	TEST NO.	STC	OC ASSEMBLY NO.	CONSTRUCTION DESCRIPTION
NBC-W13a (16" o.c.)	1 h, L.B.	NBC-W13a (16" o.c.)	57	SLDWS217	Double 38 mm x 89 mm (1-1/2" x 3-1/2") wood studs spaced 400 mm (16") or 600 mm (24") o.c., on separate 38 mm x 89 mm (1-1/2" x 3-1/2") wood plates set 25 mm (1") apart; single layer 15.9 mm (5/8") type "x" gypsum board each side; two thicknesses, 89 mm (3-1/2") thick EcoTouch™ QuietZone® PINK™ FIBERGLAS® Acoustic Batt Insulation.
NBC-W13a (16" o.c.)	1 h, N.L.B.	NBC-W13a (24" o.c.)	57		
NBC-W13a (24" o.c.)	1 h, L.B.	NRC-TL-93-266 (16" o.c.)	56		
NBC-W13a (24" o.c.)	1 h, N.L.B.	W02985 (24" o.c.)	60		

PROPOSED WALL ASSEMBLY

SCALE: $\frac{1}{4}$"=1'-0"

UL DESIGN NO. L570 2

FIRE RATING:	1 HOUR	IIC:	57
STC:	59	SOUND TEST:	H50048.04
SOUND TEST:	H50048.04		
SYSTEM THICKNESS:	1' 4 3/32"		



ASSEMBLY OPTIONS:

FINISH FLOORING:	
FLOOR TOPPING MIXTURE:	3/4" USG LEVELROCK® BRAND 2500 SERIES UNDERLAYMENT
FLOOR MAT:	1/8" USG LEVELROCK® BRAND SAM-N12™ SOUND ATTENUATION MAT
SUBFLOORING:	23/32" PLYWOOD PANEL
STRUCTURAL WOOD MEMBERS:	11-7/8" WOOD I-JOISTS
INSULATION:	3-1/2" UNFACED GLASS FIBERGLASS INSULATION
RESILIENT CHANNELS:	25 GA. RESILIENT CHANNELS SPACED 16" O.C. (SOUND TESTED WITH RC DELUXE®)
GYPSUM BOARD:	TWO LAYERS 5/8" USG SHEETROCK® BRAND ECOSMART PANELS FIRECODE® X (UL TYPE ULIX™)

PROPOSED FLOOR ASSEMBLY

SCALE: $\frac{1}{4}$"=1'-0"

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OREGON
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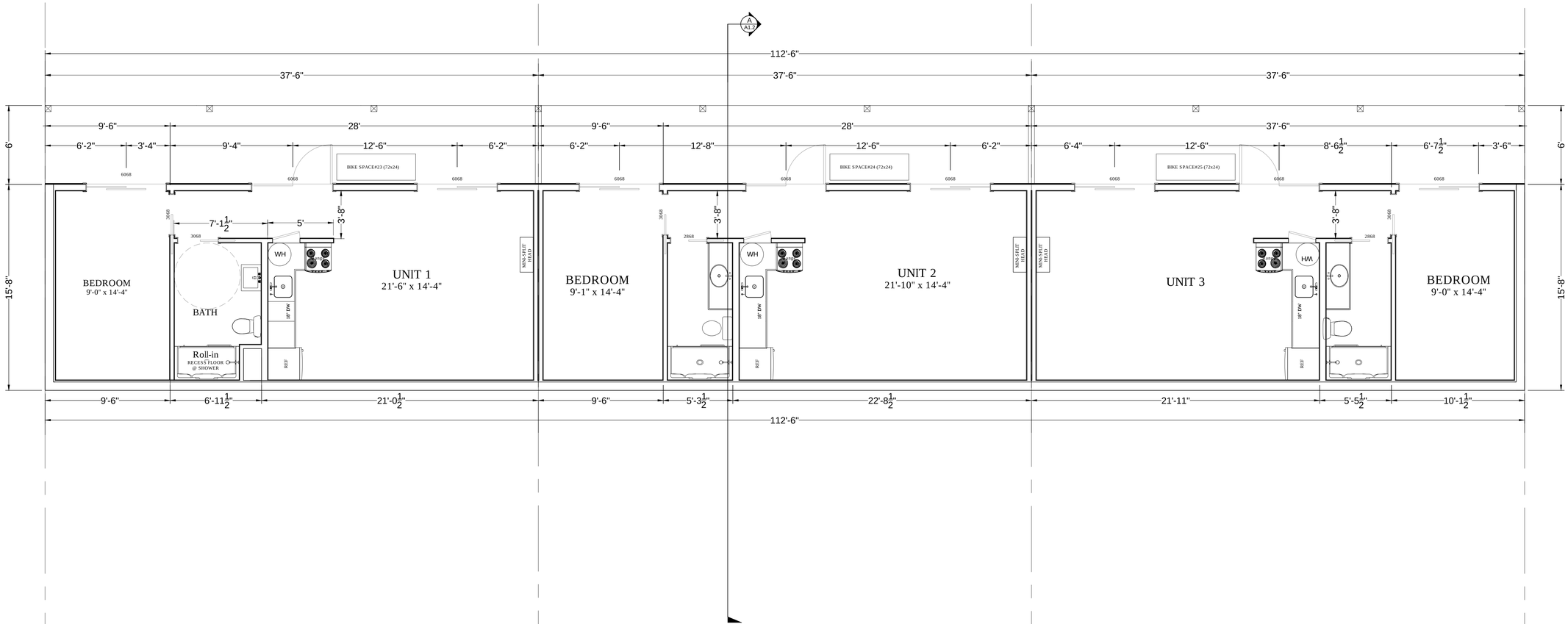
BRIAN MOCKRIDGE
EXPIRES: 12/2024

GRAND TERRACE
APARTMENT BLDG. #1
HWY 99, Ashland OR
Map & Tax Lot 38-1E-32, 1700 & 1702

Client: Kendrick Enterprises
Phone: 541-944-0131
Drawn By: BM
Checked By: BM
Issue Date: 09/25/2024
ME Job #: 23-062a
Scale: AS NOTED
Title: BUILDING SECTIONS
SHEET
A1.2

UNIT SIZE
See Entry Threshold Plan Note#
BUILDING #1
Key See Architectural P A2.1 A2.2
*Plan A >500 One Bd Rm
**Plan B <500 One Bd Rm
*Units #'s 1, 2, 3, 5, 14
** Units #'s 4, 6, 7, 8, 9, 10, 12, 13, 15, 16, 17, 18, 19, 20, 21

OWNER BUILDING UNIT NUMBER LIST



PROPOSED BASEMENT FLOOR PLAN

SCALE: $\frac{1}{4}$"=1'-0" LIVING AREA

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OREGON
JANUARY 13, 2009
BRIAN MOCKRIDGE
EXPIRES: 12/2024

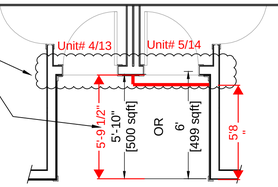
GRAND TERRACE
APARTMENT BLDG. #1
HWY 99, Ashland OR
Map & Tax Lot 38-1E-32, 1700 & 1702

Client: Kendrick Enterprises
Phone: 541-944-0131
Drawn By: BM
Checked By: BM
Issue Date: 09/25/2024
ME Job #: 23-062a
Scale: AS NOTED
Title: Basement Floor Plan
SHEET
A2.0

UNIT SIZE
See Entry Threshold Plan Note#
BUILDING #1
Key See Architectural P A2.1 A2.2
***Plan A >500 One Bd Rm**
****Plan B <500 One Bd Rm**
***Units #'s 1, 2, 3, 5, 14**
****Units #'s 4, 6, 7, 8, 9, 10, 12, 13, 15, 16, 17, 18, 19, 20, 21**

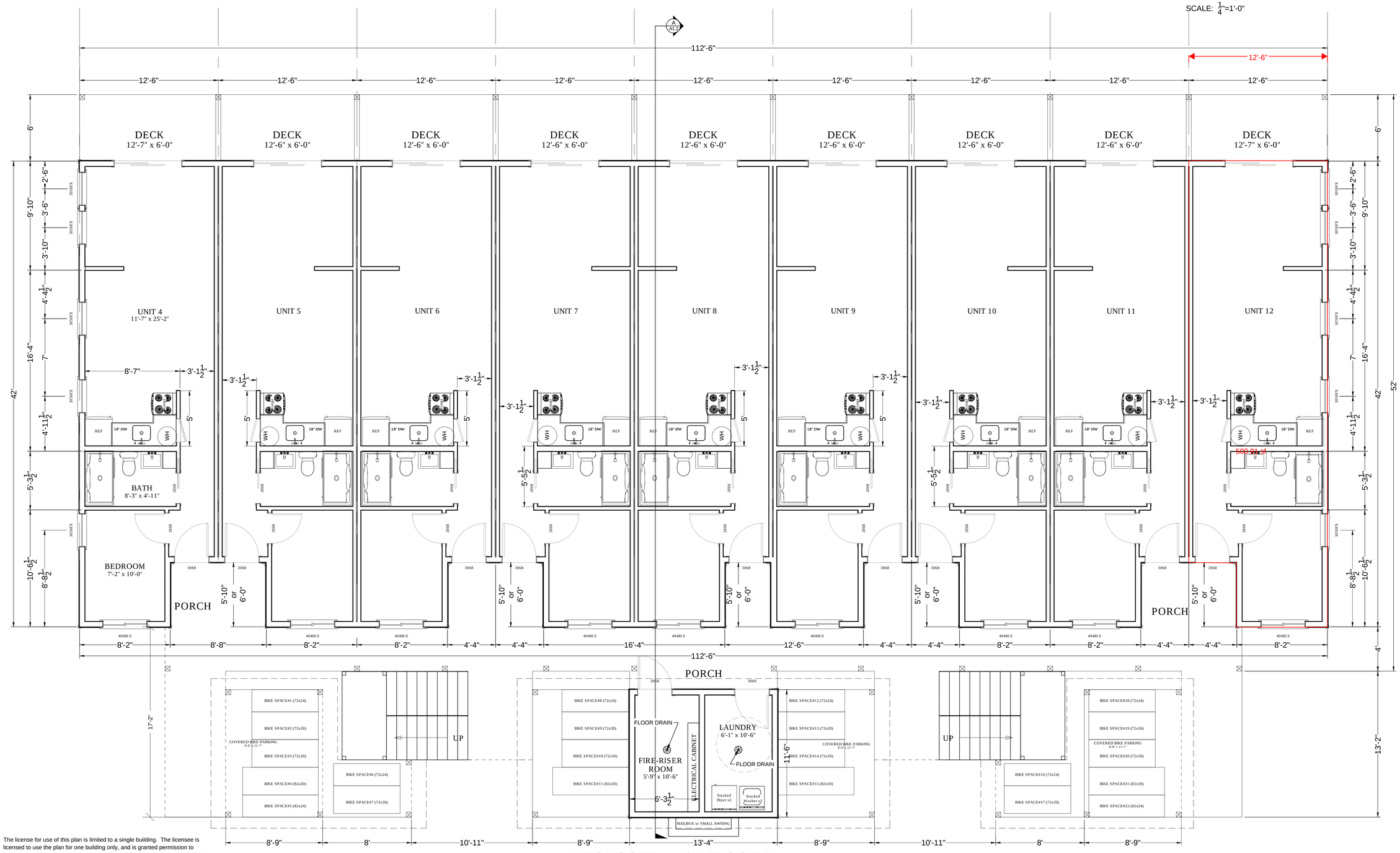
OWNER BUILDING UNIT NUMBER LIST

CONTRACTOR TO ADJUST THRESHOLD FOR EACH UNIT TO PLAN A>500sqft OR PLAN B<500sqft PER OWNERS BUILDING UNIT NUMBER LIST. ADJUSTMENTS ARE REQUIRED FROM THE FOUNDATION THRU THE ROOF, TYP.



ENTRY THRESHOLD PLAN

SCALE: 1/4"=1'-0"



PROPOSED MAIN FLOOR PLAN

SCALE: 1/4"=1'-0" LIVING AREA

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REVISIONS

NO.	BY	DESCRIPTION	DATE

Mockridge Engineering
PO Box 1395 Merlin, OR 97532
Phone: 541-892-3289;

Stamp:

REGISTERED PROFESSIONAL ENGINEER
82248PE
OREGON
JANUARY 13, 2006
BRIAN MOCKRIDGE
EXPIRES: 12/2024

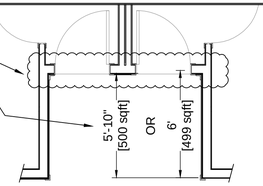
GRAND TERRACE
APARTMENT BLDG. #1
HWY 99, Ashland OR
Map & Tax Lot 38-1E-32, 1700 & 1702

Client: Kendrick Enterprises	
Phone: 541-944-0131	
Drawn By:	**BM**
Checked By:	**BM**
Issue Date:	**09/25/2024**
ME Job #:	**23-062a**
Scale:	**AS NOTED**
Title:	**Main Floor Plan**
SHEET	
A2.1	

UNIT SIZE
See Entry Threshold Plan Note#
BUILDING #1
Key See Architectural P A2.1 A2.2
***Plan A >500 One Bd Rm**
****Plan B <500 One Bd Rm**
***Units #'s 1, 2, 3, 5, 14**
****Units #'s 4, 6, 7, 8, 9, 10, 12, 13, 15, 16, 17, 18, 19, 20, 21**

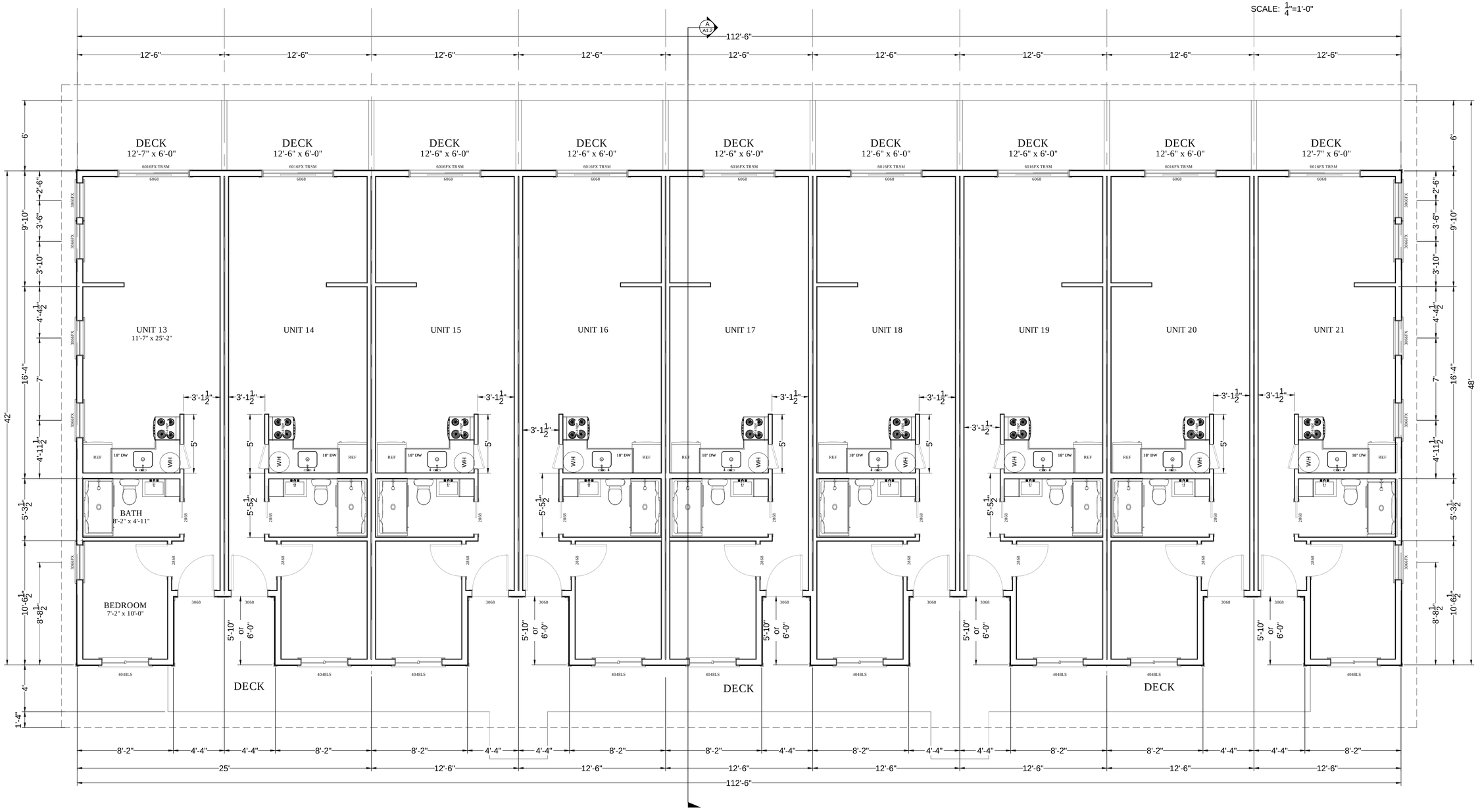
OWNER BUILDING UNIT NUMBER LIST

CONTRACTOR TO ADJUST THRESHOLD FOR EACH UNIT TO PLAN A>500sqft OR PLAN B<500sqft PER OWNERS BUILDING UNIT NUMBER LIST. ADJUSTMENTS ARE REQUIRED FROM THE FOUNDATION THRU THE ROOF, TYP.



ENTRY THRESHOLD PLAN

SCALE: $\frac{1}{4}$"=1'-0"



PROPOSED UPPER FLOOR PLAN

SCALE: $\frac{1}{4}$"=1'-0" LIVING AREA

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REVISIONS

NO.	BY	DESCRIPTION	DATE

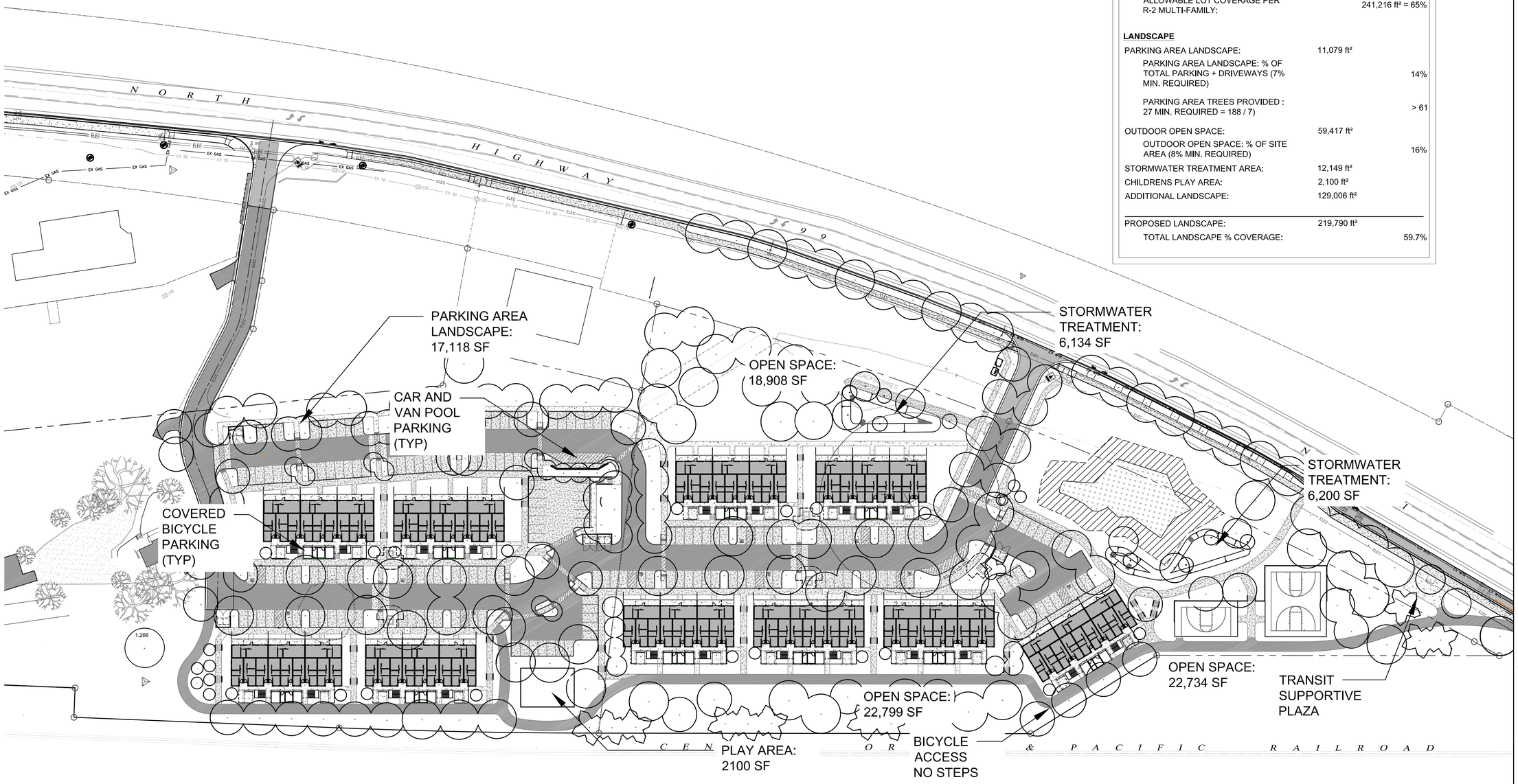
Mockridge**E**ngineering
PO Box 1395 Merlin, OR 97532
Phone: 541-892-3289;

Stamp:

REGISTERED PROFESSIONAL ENGINEER
82248PE
OREGON
JANUARY 13, 2006
BRIAN MOCKRIDGE
EXPIRES: 12/2024

GRAND TERRACE
APARTMENT BLDG. #1
HWY 99, Ashland OR
Map & Tax Lot 38-1E-32, 1700 & 1702

Client: Kendrick Enterprises
Phone: 541-944-0131
Drawn By: BM
Checked By: BM
Issue Date: 09/25/2024
ME Job #: 23-062a
Scale: AS NOTED
Title: Upper Floor Plan
SHEET
A2.2



SCALE: 1" = 50'-0"

0' 25' 50' 100' 150'

NORTH

LOT COVERAGE

MAP & TAX LOT NUMBER:	381E32 1700 & 1702	
PROPOSED LOT SIZE:	375,792 ft² = 8.627 Ac	
IMPERVIOUS COVERAGE		
TOTAL STRUCTURE AREA COVERAGE: = (6,251.5 ft² * 10)	62,202 ft²	
PARKING SPACES:	32,160 ft²	
DRIVEWAYS:	49,555 ft²	
SIDEWALKS:	37,791 ft²	
BIKE PED PATH	19,148	
PROPOSED TOTAL LOT COVERAGE:	201,169 ft²	
TOTAL % COVERAGE:		53.53%
ALLOWABLE LOT COVERAGE PER R-2 MULTI-FAMILY:		241,216 ft² = 65%
LANDSCAPE		
PARKING AREA LANDSCAPE:	11,079 ft²	
PARKING AREA LANDSCAPE: % OF TOTAL PARKING + DRIVEWAYS (7% MIN. REQUIRED)		14%
PARKING AREA TREES PROVIDED : 27 MIN. REQUIRED = 188 / 7)		> 61
OUTDOOR OPEN SPACE:	59,417 ft²	
OUTDOOR OPEN SPACE: % OF SITE AREA (8% MIN. REQUIRED)		16%
STORMWATER TREATMENT AREA:	12,149 ft²	
CHILDRENS PLAY AREA:	2,100 ft²	
ADDITIONAL LANDSCAPE:	129,006 ft²	
PROPOSED LANDSCAPE:	219,790 ft²	
TOTAL LANDSCAPE % COVERAGE:		59.7%

KenCairn
Landscape Architecture

www.KenCairnLandscape.com

545 A ST, STE 3, ASHLAND, OR 97520
541.488.3194

REGISTERED STATE OF OREGON REG. # 493
Kerry KenCairn 11/12/99
LANDSCAPE ARCHITECT

DRAWN BY:
KK

SCALE
1"= 50'-0"

GRAND TERRACE
HIGHWAY 99
ASHLAND, OR 97520

JOB NO. 2155
REVISION DATE
1.4.24
4.10.25

LANDSCAPE SITE PLAN

ISSUE DATE:
07.19.24

L 1.0

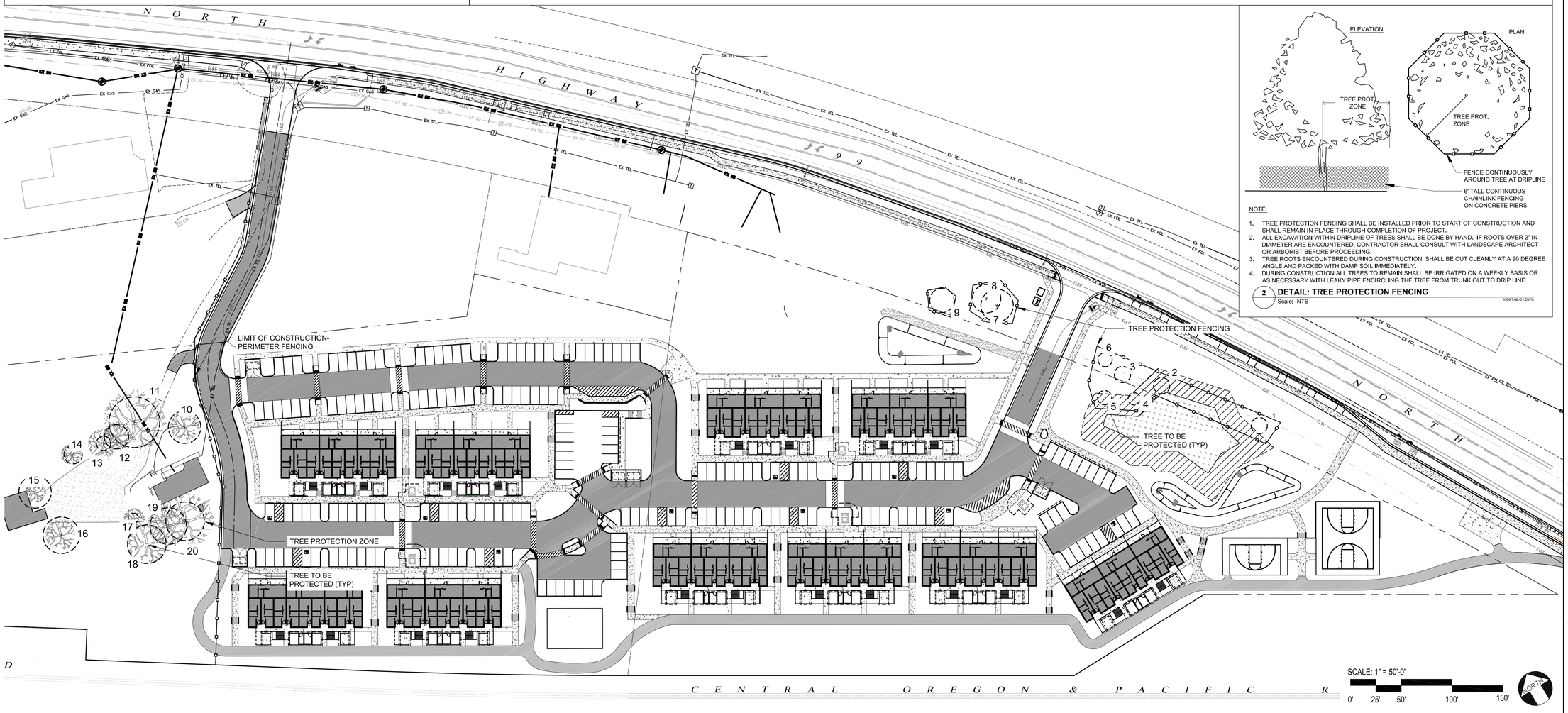
TREE LEGEND

#	Species	DBH (Inches)	Height (Feet)	Crown Radius (Feet)	Tree Protection Zone Radius (Feet)	Tolerance to Construction	Condition	Notes
1	Populus sp.	8" (x2)	30'	10'	8	Poor	FAIR	
2	Populus sp.	8"	30'	5'	8	Poor	FAIR	
3	Populus sp.	8"	30'	5'	8	Poor	FAIR	
4	Populus sp.	6"	30'	5'	6	Poor	FAIR	
5	Populus sp.	7" (x2)	30'	5'	7	Poor	FAIR	
6	Populus sp.	7"	30'	5'	7	Poor	FAIR	
7	Populus sp.	16"	40'	10'	16	Poor	FAIR	
8	Populus sp.	14"	40'	10'	14	Poor	FAIR	
9	Populus sp.	12"	40'	10'	12	Poor	FAIR	
10	Acer negundo	21"	20'	10'	16	Good	GOOD	
11	Fraxinus sp.	33"	50'	25'	25	Good	GOOD	
12	Acer platanoides	16"	25'	15'	12	Moderate-Good	GOOD	
13	Acer platanoides	9"	25'	15'	7	Moderate-Good	GOOD	
14	Calocedrus decurrens	12"	40'	10'	9	Moderate	GOOD	
15	Calocedrus decurrens	21"	60'	15'	16	Moderate	GOOD	
16	Juglans regia	18"	25'	15'	18	Poor-Moderate	GOOD	
17	Malus domestica	6"	15'	15'	5	Good	GOOD	
18	Ulmus crassifolia	25"	50'	20'	19	Good	GOOD	
19	Ulmus crassifolia	25"	50'	20'	19	Good	GOOD	
20	Ulmus crassifolia	24"	50'	20'	18	Good	GOOD	

THE TREE PROTECTION ZONE FOR EACH TREE IS BASED ON THE GUIDELINES ESTABLISHED BY:
Matheny, N. & Clark, J. 1998. *Trees and Development: A Technical Guide to Preservation of Trees During Land Development.* p. 72.

TREE PROTECTION AND REMOVAL NOTES

1. PRIOR TO DELIVERING EXCAVATION EQUIPMENT OR COMMENCING ANY CONSTRUCTION ACTIVITIES ON THE SITE, THE GENERAL CONTRACTOR SHALL CONTACT THE LANDSCAPE ARCHITECT FOR A PRE-CONSTRUCTION MEETING WITH THE LANDSCAPE ARCHITECT AND EXCAVATION SUPERVISOR PRIOR TO COMMENCING ANY WORK ON THE SITE. THE LANDSCAPE ARCHITECT SHALL BE NOTIFIED BY THE CONTRACTOR 48 HRS. IN ADVANCE FOR ALL SITE VISITS REQUESTED. CONTRACTOR SHALL OBTAIN WRITTEN APPROVAL FROM THE OWNER'S REPRESENTATIVE THAT CONSTRUCTION MAY BEGIN AFTER ALL OF THE DESCRIBED FENCING IS IN PLACE. FENCING SHALL REMAIN IN PLACE UNTIL THE PROJECT IS COMPLETED.
2. FENCES MUST BE ERECTED TO PROTECT TREES TO BE PRESERVED AS SHOWN IN DIAGRAM. FENCING SHALL BE 6' TALL TEMPORARY CHAIN LINK PANELS INSTALLED WITH METAL CONNECTIONS TO ALL PANELS AREA INTEGRATED, THESE FENCES SHALL BE INSTALLED SO THAT IT DOES NOT ALLOW PASSAGE OF PEDESTRIANS AND/ OR VEHICLES THROUGH IT. FENCES DEFINE A SPECIFIC PROTECTION ZONE FOR EACH TREE OR GROUP OF TREES. FENCES ARE TO REMAIN UNTIL ALL SITE WORK HAS BEEN COMPLETED. FENCES MAY NOT BE RELOCATED OR REMOVED WITHOUT THE PERMISSION OF THE LANDSCAPE ARCHITECT.
3. CONSTRUCTION TRAILERS, TRAFFIC AND STORAGE AREAS MUST REMAIN OUTSIDE FENCED TREE PROTECTION ZONES AT ALL TIMES.
4. ALL PROPOSED UNDERGROUND UTILITIES AND DRAIN OR IRRIGATION LINES SHALL BE ROUTED OUTSIDE THE TREE PROTECTION ZONE. IF LINES MUST TRANSVERSE THE PROTECTION AREA, THEY SHALL BE TUNNELED OR BORED UNDER THE TREE ROOTS. NOTIFY THE LANDSCAPE ARCHITECT IMMEDIATELY IF ANY PROJECT PLANS CONFLICT WITH THIS REQUIREMENT.
5. NO MATERIALS, EQUIPMENT, SPOIL, OR WASTE OR WASHOUT WATER MAY BE DEPOSITED, STORED, OR PARKED WITHIN THE TREE PROTECTION ZONE (FENCED AREA).
6. NOTIFY THE LANDSCAPE ARCHITECT IF TREE PRUNING IS REQUIRED CONSTRUCTION CLEARANCE .
7. ANY HERBICIDES PLACED UNDER PAVING MATERIALS MUST BE SAFE FOR USE AROUND TREES AND LABELED FOR THAT USE.
8. IF INJURY SHOULD OCCUR TO ANY TREE DURING CONSTRUCTION, NOTIFY THE LANDSCAPE ARCHITECT IMMEDIATELY. ALL DAMAGE CAUSED BY CONSTRUCTION TO EXISTING TREES SHALL BE COMPENSATED FOR BY THE OFFENDING PARTY, BEFORE THE PROJECT WILL BE CONSIDERED COMPLETE.
10. WATERING SCHEDULE: WATERING PROTECTED TREES SHALL FOLLOW THESE STANDARDS, HOWEVER PERIODS OF EXTREME HEAT, WIND, RAINFALL OR DROUGHT MAY REQUIRE MORE OR LESS WATER THAN RECOMMENDED IN THESE NOTES.
    A. MOST SPECIES: 1 TIME PER MONTH DURING IRRIGATION SEASON (USUALLY MARCH THROUGH SEPTEMBER)
    B. QUERCUS/OAK: DEEP WATER IN MAY AND SEPTEMBER, DO NOT WATER DURING OTHER MONTHS. FOR OAKS ALREADY IN THE VICINITY OF IRRIGATED CONDITIONS, AUTOMATIC SPRINKLERS OR REGULAR WATERING SHALL NOT BE ALLOWED TO SPRAY ON OR WITHIN 3 FEET OF THE TRUNK. THE WATER SHALL NOT BE ALLOWED TO POOL OR DRAIN TOWARDS THE TRUNK.
    C. WATERING METHOD: HAND WATERING SYSTEMS, RECOMMENDED FOR TREES THAT ARE PART OF A DEVELOPMENT PROJECT THAT MUST BE WATERED TO INSURE TREE SURVIVAL DURING THE COURSE OF CONSTRUCTION UNTIL AUTOMATIC IRRIGATION IS INSTALLED.
11. EROSION CONTROL DEVICES SUCH AS SILT FENCING, DEBRIS BASINS, AND WATER DIVERSION STRUCTURES SHALL BE INSTALLED ON THE UPHILL SIDE OF THE TREE PROTECTION ZONE TO PREVENT SILTATION AND/ OR EROSION WITHIN THE TREE PROTECTION ZONE.
12. BEFORE GRADING, PAD PREPARATION, OR EXCAVATION FOR THE FOUNDATIONS, FOOTINGS, WALLS, OR TRENCHING, ANY TREES WITHIN THE SPECIFIC CONSTRUCTION ZONE SHALL BE ROOT PRUNED 1 FOOT OUTSIDE THE TREE PROTECTION ZONE BY CUTTING ALL ROOTS CLEANLY AT A 90 DEGREE ANGLE TO A DEPTH OF 24 INCHES. ROOTS SHALL BE CUT BY MANUALLY DIGGING A TRENCH AND CUTTING EXPOSED ROOTS WITH A SAW, VIBRATING KNIFE, ROCK SAW, NARROW TRENCHER WITH SHARP BLADES, OR OTHER APPROVED ROOT-PRUNING EQUIPMENT.
13. ANY ROOTS DAMAGED DURING GRADING OR CONSTRUCTION SHALL BE EXPOSED TO SOUND TISSUE AND CUT CLEANLY AT A 90 DEGREE ANGLE TO THE ROOT WITH A SAW. PLACE DAMP SOIL AROUND ALL CUT ROOTS TO A DEPTH EQUALING THE EXISTING FINISH GRADE WITHIN 4 HOURS OF CUTS BEING MADE.
14. IF TEMPORARY HAUL OR ACCESS ROADS MUST PASS OVER THE ROOT AREA OF TREES TO BE RETAINED, A ROAD BED OF 6 INCHES OF MULCH OR GRAVEL SHALL BE CREATED TO PROTECT THE SOIL. THE ROAD BED MATERIAL SHALL BE REPLENISHED AS NECESSARY TO MAINTAIN A 6 INCH DEPTH.
15. SPOIL FROM TRENCHES, BASEMENTS, OR OTHER EXCAVATIONS SHALL NOT BE PLACED WITHIN THE TREE PROTECTION ZONE, EITHER TEMPORARILY OR PERMANENTLY.
16. NO BURN PILES OR DEBRIS PILES SHALL BE PLACED WITHIN THE TREE PROTECTION ZONE. NO ASHES, DEBRIS, OR GARBAGE MAY BE DUMPED OR BURIED WITHIN THE TREE PROTECTION ZONE.
17. MAINTAIN FIRE-SAFE AREAS AROUND FENCED AREA. ALSO, NO HEAT SOURCES, FLAMES, IGNITION SOURCES, OR SMOKING IS ALLOWED NEAR MULCH OR TREES.
18. DO NOT RAISE THE SOIL LEVEL WITHIN THE DRIP LINES TO ACHIEVE POSITIVE DRAINAGE, EXCEPT TO MATCH GRADES WITH SIDEWALKS AND CURBS, AND IN THOSE AREAS, FEATHER THE ADDED TOPSOIL BACK TO EXISTING GRADE AT APPROXIMATELY 3:1 SLOPE.
19. REMOVE THE ROOT WAD FOR EACH TREE THAT IS INDICATED ON THE PLAN AS BEING REMOVED.
20. EXCEPTIONS TO THE TREE PROTECTION SPECIFICATIONS MAY ONLY BE GRANTED IN EXTRAORDINARY CIRCUMSTANCES WITH WRITTEN APPROVAL FROM THE LANDSCAPE ARCHITECT PRIOR TO ANY WORK COMMENCING.
21. AS A PROTECTIVE MEASURE TO COMPENSATE FOR CONSTRUCTION IMPACTS, TWO TO SIX WEEKS PRIOR TO CONSTRUCTION, ALL RETAINED TREES SHOWN ON THIS PLAN SHALL RECEIVE AN APPLICATION OF MYCOAPPLY ALL PURPOSE SOLUBLE PER MANUFACTURER'S INSTRUCTIONS. THIS MYCORRHIZAE PRODUCT IS A SPECIALLY FORMULATED NATURAL ROOT BIOSTIMULANT WHICH ENHANCES THE ABSORPTIVE SURFACE AREA OF THE TREES' ROOT SYSTEMS. THIS PROMOTES AND IMPROVES NUTRIENT AND WATER UPTAKE CAPABILITIES OF THE REMAINING ROOT STRUCTURE. DISTRIBUTE MYCOAPPLY EVENLY WITHIN THE ACTIVE ROOT ZONE OF RETAINED TREES. APPLY 30 GALS. OF SOLUTION PER TREE 6" DBH AND GREATER. A MINIMUM OF 4" BELOW SOIL SURFACE IN QUANTITIES OF 1/2 GALLON AT EACH POINT OF APPLICATION. LOCATE THE ACTIVE ROOT ZONES WITH LANDSCAPE ARCHITECT PRESENT. MYCOAPPLY IS AVAILABLE FROM MYCORRHIZAL APPLICATION, INC., PHONE (541) 476-3985.



NOTE:

1. TREE PROTECTION FENCING SHALL BE INSTALLED PRIOR TO START OF CONSTRUCTION AND SHALL REMAIN IN PLACE THROUGH COMPLETION OF PROJECT.
2. ALL EXCAVATION WITHIN DRIPLINE OF TREES SHALL BE DONE BY HAND. IF ROOTS OVER 2" IN DIAMETER ARE ENCOUNTERED, CONTRACTOR SHALL CONSULT WITH LANDSCAPE ARCHITECT OR ARBORIST BEFORE PROCEEDING.
3. TREE ROOTS ENCOUNTERED DURING CONSTRUCTION, SHALL BE CUT CLEANLY AT A 90 DEGREE ANGLE AND PACKED WITH DAMP SOIL IMMEDIATELY.
4. DURING CONSTRUCTION ALL TREES TO REMAIN SHALL BE IRRIGATED ON A WEEKLY BASIS OR AS NECESSARY WITH LEAKY PIPE ENCIRCLING THE TREE FROM TRUNK OUT TO DRIP LINE.

2 DETAIL: TREE PROTECTION FENCING
Scale: NTS
X-DETAIL-01.DWG

KenCairn
Landscape Architecture
www.KenCairnLandscape.com
545 A ST, STE 3, ASHLAND, OR 97520
541.488.3194

REGISTERED
STATE OF
OREGON
REG. # 493
Kerry KenCairn
11/12/99
LANDSCAPE ARCHITECT

DRAWN BY:
IC/KK

SCALE
1"= 50'-0"

GRAND TERRACE
HIGHWAY 99
ASHLAND, OR 97520

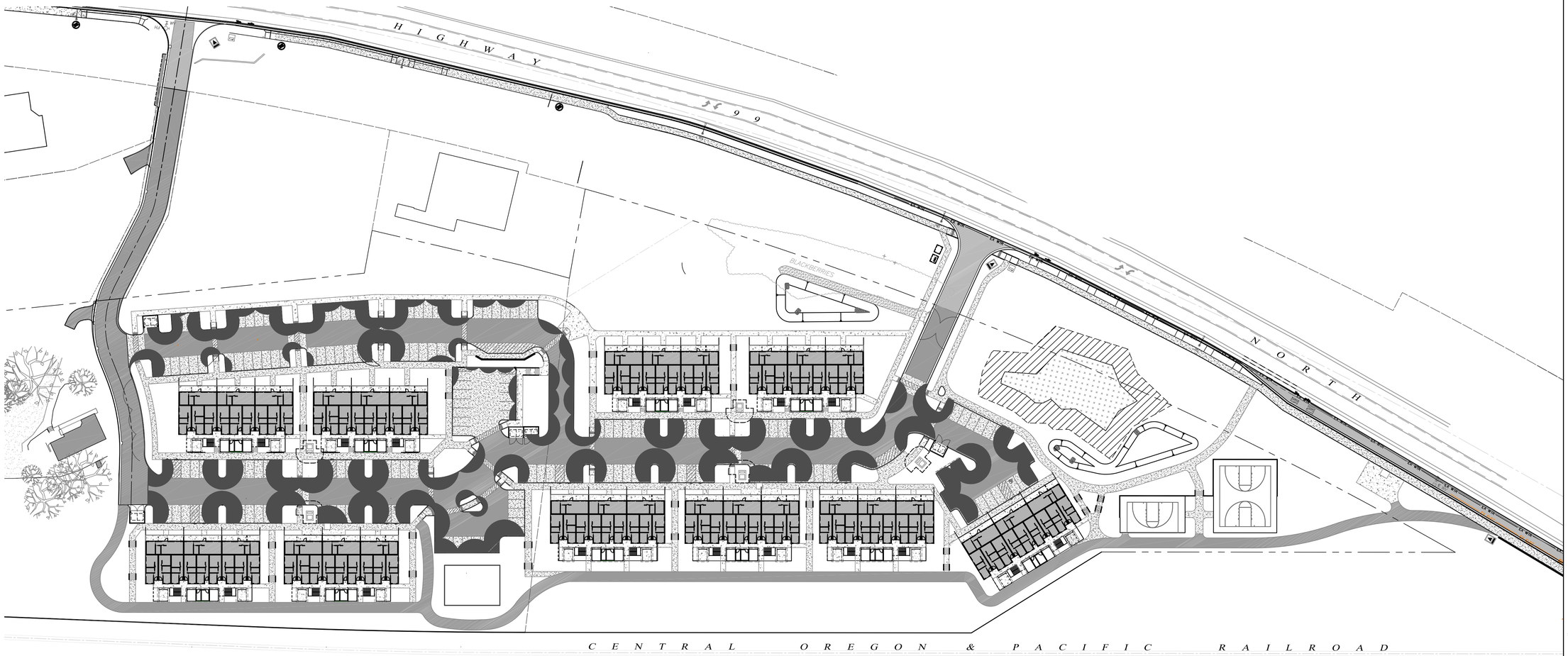
JOB NO. 2155
REVISION DATE
11/05/24
4.10.25

TREE PROTECTION PLAN

ISSUE DATE:
07.19.24

L 1.1

PARKING LOT COOLING STRATEGIES	
PAVING COVER IN PARKIGN LOTS	
CONCRETE	38,112 ft²
ASPHALT	37,569 ft²
SHADE COVER FROM MATURE TREES	30,296 ft²
TOTAL PAVING PARKING AREAS	75,681 ft²
TOTAL PERCENT SHADED BY TREES	40.0%
TOTAL PERCENT IN CONCRETE	50.3%



SCALE: 1" = 50'-0"

0' 25' 50' 100' 150'

NORTH

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541.488.3194

REGISTERED
STATE OF
OREGON
REG. # 493
Kerry KenCairn
11/12/99
LANDSCAPE ARCHITECT

DRAWN BY:

KK

SCALE
1"= 50'-0"

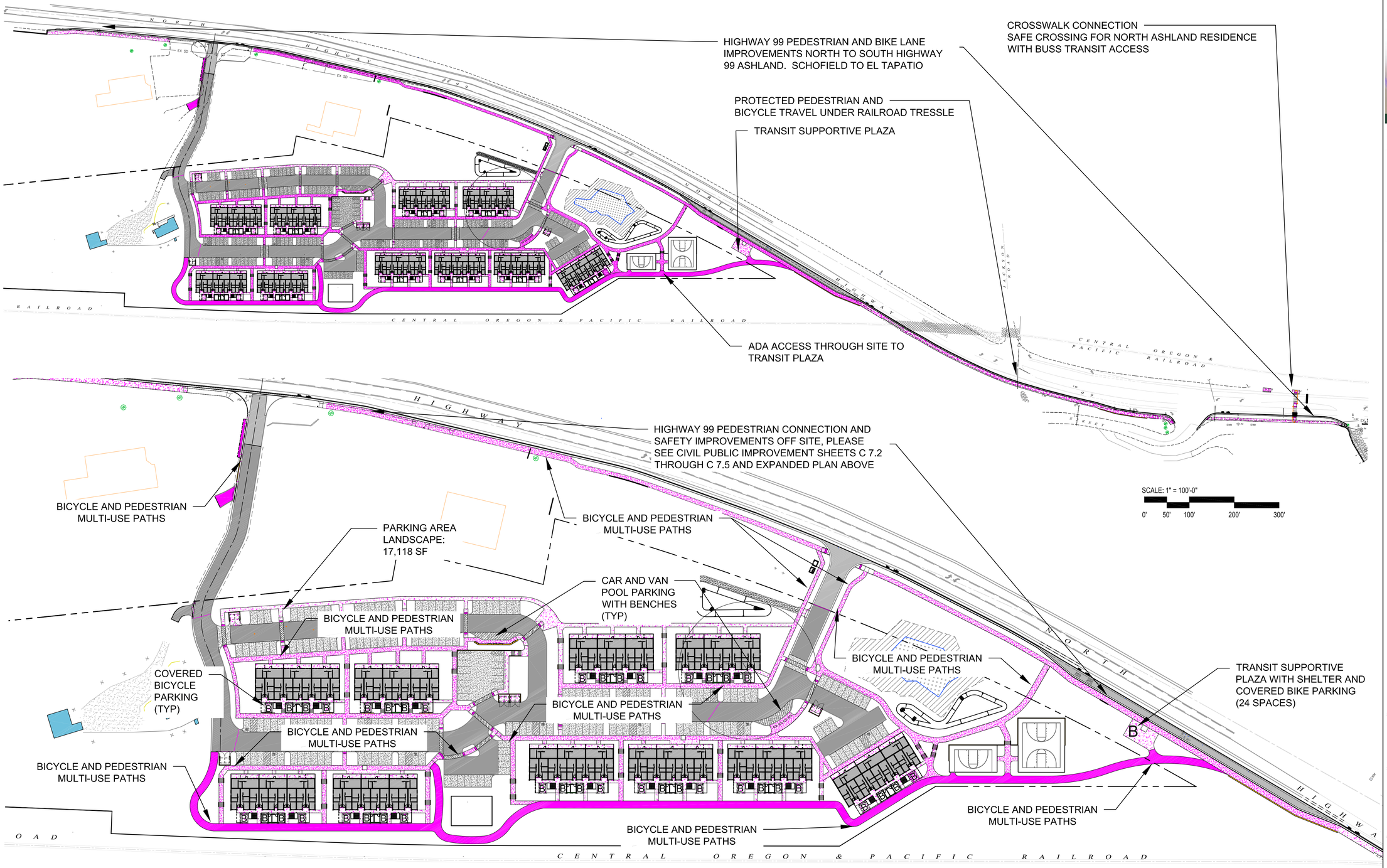
GRAND TERRACE
HIGHWAY 99
ASHLAND, OR 97520

JOB NO. 2155
REVISION DATE
1.4.24
4.10.25

PARKING LOT COOLING STRATEGY

ISSUE DATE:
07.19.24

L 1.2



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REGISTERED STATE OF OREGON REG. # 493
Kerry KenCairn 11/12/99
LANDSCAPE ARCHITECT

DRAWN BY:
KK

SCALE
1"= 50'-0"

GRAND TERRACE
HIGHWAY 99
ASHLAND, OR 97520

JOB NO. 2155
REVISION DATE
4.10.25

PEDESTRIAN AND BICYCLE CONNECTIVITY PLAN

ISSUE DATE:
07.19.24

L 1.0

KenCairn
Landscape Architecture

147 Central Ave, Ashland Oregon. 541 488-3194 kerry@kencairnlandscape.com

November 5, 2024
Re: Grand Terrace Compliance with ANSI A300 Tree Care Standards

This is to confirm that all practices outlined in ANSI A300 have been incorporated into the design of this project. Further, the project Landscape Architect confirmed with the City of Ashland Electrical utility representative (Rick Barton) that the electrical layout and design of the project has been done in consultation with him from the beginning, and that since all electrical utilities are underground, there are no potential conflicts from trees within this proposed project.

The design of trees within the parking lots and drive lanes complies with ANSI A300 through the use of appropriate species for urban environments, and the choice of species per specific location: tougher trees with no surface roots in parking lot islands, trees that require more soil depth and breadth placed adjacent to the parking lots in large soil volume areas. An automatic irrigation system has been design as part of this project and all trees are on a separate irrigation zone that provides deep water delivery to the roots of all trees. This system is designed to respond to the most stringent water conservation situations so that trees will survive and are prioritized over other plantings on the project.

The tree canopy plan is represented in sheet L1.2 the Parking Lot Cooling St4rategy Plan. This plan shows that canopies of the proposed trees. The proposed plan was coordinated with the City of Ashland Electrical Department, it has been determined that there are no issues with the plan in relations to the electrical plan and the proposed trees.

The project Landscape Architect will inspect the project and the implementation of the tree planting prior to issuance of occupancy approval.

Sincerely,
Kerry Kencairn
Registered Landscape Architect

KenCairn
Landscape Architecture

147 Central Ave, Ashland Oregon. 541 488-3194 kerry@kencairnlandscape.com

November 5, 2024
Re: Grand Terrace Parking Lot Tree Choices

The following trees are identified on the Grand Terrace Planting plan to be plnted within the parking lots and parking drive aisles of the project:

Acer saccharum 'Bonfire'	**Bonfire Sugar Maple**
Acer x Freemanii 'Armstrong'	**Armstrong Maple**
Carpinus Betula 'Fastigiata'	**Collumnar Eurpoean Hornbeam**
Chilopsis linearis	**Desert Willow**
Fraxinus oxycarpa 'Raywood'	**Raywood Ash**
Gymnocladus diocus	**Kentucky Coffee Tree**
Lagerstromea 'Natchez'	**Natchez Crapemyrtle**
Maackia amerensis	**Amur Mackii**
Prunus 'Snow Goose'	**Snow Goose Ornamental Cherry**
Pyrus calleriana 'Aristocrat'	**Aristocrat Flowering Pear**
Zelkova serrata 'Village Green'	**Village Green Zelkova**

Of the above, those in the approved parking lot tree list are highlighted in Yellow. The remainder are all trees that do well in urban environments and in many cases are very similar to the varieties on the approved list and/or perform better that those in the list (Bonfire Sugar Maple, Armstrong Maple, Snowgoose Cherry). The other two trees were not common when the parking lot tree list was developed, Amur Mackii is still not common, but tough as nails and very tidy. Desert Willow is more common now, and also a very tough drought tolerant and urban condition tolerant tree.

Oregon
Kate Brown, Governor

Department of Transportation
Region 3 Planning and Programming
100 Antelope Drive
White City, Oregon 97503
Phone: (541) 774-6299

June 15, 2020

Mr. Derek Severson
City of Ashland – Community Development
51 Winburn Way
Ashland, OR 97529

RE: PA-T3-2019-00001, 1511 Highway 99 North

Dear Mr. Severson,

ODOT has no objection to an annexation of Highway 99 to provide contiguity between the Grand Terrace Development and the City of Ashland boundary. We would ask that the entire width of the Highway 99 Right of Way be annexed, as this would simplify future operations and maintenance of the roadway.

Please feel free to contact me at Micah.HOROWITZ@odot.state.or.us or 541-774-6331 should you have any questions or concerns.

Sincerely,

Micah Horowitz

Micah Horowitz, AICP
Senior Transportation Planner

Oregon
Kate Brown, Governor

Department of Transportation
Region 3 Planning and Programming
100 Antelope Drive
White City, Oregon 97503
Phone: (541) 774-6299

December 6, 2022

Mr. Derek Severson
City of Ashland – Community Development
51 Winburn Way
Ashland, OR 97529

RE: PA-T3-2022-00004, 1511 Highway 99 North

Dear Mr. Severson,

Thank you for providing the Oregon Department of Transportation ("ODOT") with the opportunity to provide comments associated with the proposed annexation and zone change of approximately 16.86 acres at 1511 Highway 99 North ("Subject Property").

When evaluating development proposals adjacent to ODOT managed transportation facilities, we assess the existing and proposed conditions of the site. This evaluation includes review of the proposed use in relation to the local jurisdiction Transportation System Plan ("TSP"). Standards defining pedestrian and bicycle improvements are identified in the City's TSP and in ODOT's Highway Design Manual. ODOT

In review of proposals for development within Urban Growth Boundaries ODOT typically recommends that the local jurisdiction require curb, sidewalk and bikeway frontage improvements consistent with the local transportation system plan along the site's highway frontage.

In this instance, bicycle facilities were installed along the Highway 99 corridor during the roadway reconfiguration which restriped the 4 lane Highway cross section to a 3 lane configuration with buffered bike lanes and striped shoulder facilities a few years ago. Pedestrian sidewalk facilities currently do not exist along the parcel frontage and ODOT has recommended the City require installation of frontage improvements consistent with the City code and the TSP, a southbound transit stop and a RRFB and striped crossing to connect with a northbound transit stop south of the Subject Property.

Please feel free to contact me at Micah.HOROWITZ@odot.state.or.us or 541-774-6331 should you have any questions or concerns.

Sincerely,

Micah Horowitz

Micah Horowitz, AICP
Senior Transportation Planner

RAILROAD COMPANIES
FILE No.

AGREEMENT

THIS AGREEMENT, made and entered into this 20th day of April, 1934, by and between SOUTHERN PACIFIC COMPANY, a corporation, first party, herein called "Railroad", and STATE OF OREGON, by and through its State Highway Commission, second party, herein called "State";

WITNESSETH THAT:

1. Railroad hereby grants to the State, subject to the conditions and limitations hereinafter contained, the right to construct, maintain, and use a highway over and across Railroad's right of way and beneath its tracks and appurtenances now or hereafter existing thereon by means of a concrete and steel subway upon that certain piece or parcel of land lying and being in the County of Jackson, State of Oregon, which said parcel of land is more particularly described as follows, to-wit:

> A parcel of land lying and being in the Northeast Quarter (NE¼) of the Northwest Quarter (NW¼) of Section 5, Twp. 39 South, Range 1 East, W. M., Jackson County, Oregon, said parcel being described as follows:
>
> Beginning at a point in the northeasterly line of the right of way of the Southern Pacific Company that bears South 73° 23' West 846.9 feet from the north quarter corner of said Section 5, said point being also 100 feet northeasterly at right angles from the center line of main track of said Southern Pacific Company at Survey Station 1098+49.2, and also 50 feet southwesterly at right angles from the newly located center line of the Oregon State Highway, Ashland to Talent, at Survey Station 13+45.6; thence South 29° 09' East parallel with said center line of highway 334.79 feet; thence southeasterly concentric with said center line of highway on a curve to the left of radius of 1482.5 feet (long chord of said curve bears South 31° 40' 20" East 130.46 feet) to a point in the southwesterly line of the right of way of the Southern Pacific Company; thence along said line of right of way on a curve to the right of radius of 3337.78 feet (long chord of said curve bears South

50° 44' 30" East 121.39 feet) to a point; thence South 49° 42' East along said southwesterly line of right of way 34.66 feet to a point in the West line of Donation Land Claim No. 38 distant thereon North 0° 01' West 1162.56 feet from the southwest corner of said Land Claim; thence North 0° 01' West along said west line of Land Claim 102.72 feet to a point distant 50 feet northeasterly at right angles from said located center line of highway; thence northwesterly concentric with said located center line on a curve to the right of radius of 1382.50 feet (long chord of said curve bears North 33° 00' 50" West 186.35 feet) to a point; thence parallel with said located center line North 29° 09' West 145.74 feet to a point in said northeasterly line of right of way of Southern Pacific Company; thence along said northeasterly line of right of way on a curve to the left of radius of 3537.78 feet (long chord of said curve bears North 56° 48' 45" West 183.67 feet) to a point; thence North 58° 18' West along said northeasterly line of right of way 30.22 feet to the point of beginning, containing 1.060 acres, more or less.

The location of said piece or parcel of land is shown tinted blue on the photostat hereto attached, marked Exhibit "A", and made a part hereof.

2. Said subway upon and across said right of way shall be constructed in accordance with plans and designs which shall be prepared by Railroad and shall be subject to the approval of State, the Public Utilities Commissioner of the State of Oregon, and the United States Bureau of Public Roads.

3. State shall at its own cost and expense

(a) excavate the section of the highway across the railroad right of way and immediately adjacent thereto not heretofore excavated, which excavation shall be done to the standard highway roadbed width, grade, alignment, and excavation slopes, except as modified by the necessity for conforming to the abutments for the subway structure;

(b) do all excavation work necessary for the abutments to the subway structure and construct the concrete abutments for the said subway structure.

The work herein provided to be done by the State shall be done either by contract or by state forces in whole or in part, as the State may elect.

4. Railroad shall furnish all labor, materials, tools, and implements, and perform, on a force account basis, the following work:

(a) Construct and install shoofly track necessary and required for the maintenance of traffic during the period of construction of the subway and shall remove said shoofly track upon the completion of the said subway; provided, however, that the trestle for the said shoofly track shall be subject to approval by the State as to vertical clearance, length of trestle spans, and location of trestle bents, and factors and elements of public safety upon the highway shall be subject to approval by the State where the said trestle crosses the existing highway approaching to and passing under the existing undercrossing structure;

(b) Construct the said subway, including the deck thereof and such necessary removal and replacement of the railroad main line tracks, ties, and ballast as may be required for the construction of the subway structure;

(c) Reconstruct, relocate, and rearrange any signal, telephone, telegraph, or other pole or wire lines on Railroad's right of way required to provide necessary clearances for said subway;

(d) Make such repairs and restoration of tracks during construction and furnish such inspectors, engineers, and superintendents as may be deemed necessary to supervise the prosecution of the work required in this agreement to be done by Railroad.

5. All expenses incurred by Railroad in connection with the construction of said subway and which are herein defined as being chargeable to the cost of the subway shall be the amounts actually and necessarily expended or incurred by Railroad in connection with labor, equipment, and materials used, furnished, or expended in the performance of said work to be done in fulfillment of its obligations hereunder, plus commercial tariff freight charges in accordance with rates published and in effect on all materials in the job from the most reasonable and economical point of securing said materials and hauled over the most economical routes, class and quality of

of materials considered. Ten (10) per centum of all labor charges incurred by Railroad for work done by its own forces shall be added to provide for compensation for supervision and overhead. It is understood and agreed, however, that all bills for expenses incurred by Railroad shall be subject to approval by the State as to accuracy and propriety and as to being in accordance with the regulations of the Bureau of Public Roads pertaining to cooperation in the construction of subway undercrossing structures of the nature covered by this agreement. It is understood and agreed that State shall apply to the United States Bureau of Public Roads for Federal cooperation under the National Industrial Recovery Act, and that the work shall be carried on by Railroad under the Bureau of Public Roads' regulations as to Federal cooperation. It is further understood and agreed that Railroad will submit detailed estimates of cost of the various items of work to be done, including supporting cost analysis data, and will submit bills supporting the expenditures on the work in such form as may be required by the State in order to secure reimbursement from the Federal Government. It is the intention that in general and in so far as the method is applicable the estimates of cost and submission of bills shall be handled upon the same basis as was followed by Railroad in the construction of the Lakeside undercrossing on the Coast Highway in Coos County during the year 1929, and it is the further intention and understanding that Railroad shall limit its expenditures on the work to items covered by the detailed estimate of cost hereinabove referred to. This agreement is predicated upon the Federal Government participating to the extent of 100% in the cost of the work herein provided to be done by Railroad under the terms of the National Industrial Recovery Act and regulations issued thereunder, and in the event that the said work and this agreement are

not approved by the Bureau of Public Roads as satisfactory for such cooperation then and in that event this agreement shall be of no force and effect.

6. At the close of each month during progress of construction work settlement shall be made between State and Railroad whereby all expenses incurred by Railroad for items (a) to (d), inclusive, set forth in Section 4 hereof shall be paid by State to Railroad, subject to the conditions and limitations of Paragraph 5; the intent being that the entire cost of constructing said subway shall be borne by the State, except the ordinary track maintenance of the shoofly track and the cost of such watchmen as may be deemed necessary by the Railroad to safeguard property and the movement of trains, which said expense shall be borne by Railroad. It is further understood that in no event whatsoever shall the total cost to be borne by State for the work herein provided to be done by Railroad exceed the sum of $22,800.00.

7. After the completion of the work herein contemplated the cost of maintenance of the grade separation shall be borne as follows: (1) Railroad shall bear the cost of maintenance of the structure, which includes the girders, deck, and track structure, and the abutments thereto; (2) State shall bear the cost of the maintenance of the highway roadbed, slopes, pavement, surfacing, shoulders and drainage.

8. The books, papers, records, and accounts of Railroad and State, in so far as they relate to the items of expense for labor or materials, or are in any way connected with the work herein contemplated by this agreement to be paid for by the parties hereto, shall at all reasonable times be mutually open to the inspection of the agents and representatives of Railroad and State.

9. In the event that any work upon or in connection with the excavation work herein provided to be done by State shall be let to contractors by State, such contractors before beginning work shall enter into a written agreement with Railroad satisfactory to it and indemnifying Railroad from any and all claims, demands, loss, and liability growing out of the performance of the work to be done by such contractors, and such contractors shall furnish at no expense to Railroad a good and sufficient bond in the amount of $10,000.00, of a reliable surety company, in form and conditions satisfactory to Railroad, guaranteeing the true and full performance of all the terms, conditions, and stipulations contained in said agreement to be entered into with Railroad by said contractors, as in this paragraph provided. Should State at any time abandon said highway, Railroad shall have the right to resume and retake exclusive possession of its said right of way hereinabove described, and thereafter in the event that Railroad should desire to vacate said crossing as a public highway crossing the same shall be done upon petition to and order of the Public Utilities Commissioner of the State of Oregon, or such other board or commission as may have jurisdiction thereof, and in compliance with the terms and conditions of such order or orders as may be issued.

10. Nothing herein contained shall impair or restrict the right of first party to at any time or times construct, maintain, use and operate on the present or other grade existing or additional railroad tracks and appurtenances thereto, including water and fuel pipe lines and conduits and telephones and telephone, telegraph, signal, power, and other electric lines and other facilities upon, along, or across any and all parts of said land herein described, all or any of which may be freely done at any time or times by Railroad, or its successors, without liability to State or any one else for

Applicant Submittal: 176 Total Page Number: 238

compensation or damage, provided, however, that in no event shall such work be done so as to obstruct or prevent the full and free flow of highway traffic upon the highway, nor shall any such work be allowed or permitted to introduce danger or hazard to the said highway traffic.

11. State shall not grant or consent to any franchise, right, privilege, or easement upon, over, or under Railroad's right of way of a private and non-public purpose. It is not the intention hereby to limit the right and privilege granted by the statutes of the State of Oregon to telegraph, telephone, and power companies to erect, operate, and maintain lines, poles, and wires along the public highways of the State of Oregon, and the said rights and privileges shall apply to the parcel of land hereinabove described, provided, however, that any such telephone, telegraph or power lines shall be constructed in accordance with the requirements of Railroad as to standards of construction and workmanship and quality of materials.

12. State or Railroad at the expense of the State shall record this agreement in the office of the Recording Officer of the County of Jackson, State of Oregon.

13. This instrument is subject to all valid and existing contracts, leases, liens, or encumbrances which may affect the said property hereinabove described, and the word "grant" as used herein shall not be construed as a covenant against the existence of any thereof.

14. This agreement shall inure to the benefit of and be binding upon the successors and assigns of the Railroad and upon the successors in interest of the State.

IN WITNESS WHEREOF, the parties hereto have caused this agreement to be executed in triplicate by their officers thereunto duly authorized,

and their corporate seals to be hereunto affixed, as of the day and year first herein written.

SOUTHERN PACIFIC COMPANY,

By _____
Vice President

Attest _____
Assistant Secretary

STATE OF OREGON, by and through its State Highway Commission

By _____
As Chairman

ATTEST:

_____
Secretary

By _____
As Commissioner

By _____
As Commissioner

COUNTERSIGNED
T. L. McCAFFERY
Assistant Attorney General

Form Approved:

_____
Contract Attorney

STATE OF CALIFORNIA,)
: ss.
CITY AND COUNTY OF SAN FRANCISCO.)

On this 25th day of April, 1934, before me, Anne F. Hanley, a Notary Public in and for the City and County of San Francisco, State of California, personally appeared J. H. DYER - - - - - - - - and D. P. EWING, known to me to be the Vice President and Assistant Secretary, respectively, of SOUTHERN PACIFIC COMPANY, the corporation that executed the within instrument, and known to me to be the persons who executed the within instrument on behalf of Southern Pacific Company; and each of them acknowledged to me that such corporation executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal, at my office, in the said City and County of San Francisco, State of California, on the day and year in this certificate first above written.

Anne F. Hanley
Notary Public in and for the City and County of San Francisco, State of California.

My Commission Expires January 22, 1935

STATE OF OREGON,)
: ss.
COUNTY OF MARION.)

On this 4th day of May, 1934, before me appeared L. M. Scott, _____ and Earl J. Washburne, to me personally known, who being each duly sworn did say: that he, the said L. M. Scott is Chairman of the State Highway Commission of the State of Oregon, and that he, the said Earl J. Washburne is State Highway Commissioner of the State of Oregon, ~~and that he, the said _____ is State Highway Commissioner of the State of Oregon,~~ and that the seal affixed to the within instrument is the seal of the State Highway Commission, and that the said instrument was signed and sealed in behalf of the State of Oregon by authority of the State Highway Commission, and the said Chairman and the said Commissioners each acknowledged said instrument to be the free act and deed of said State of Oregon by said State Highway Commission.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my official seal the day and year first above written.

W. W. De Souza
Notary Public for Oregon

My Commission Expires:

Aug 9 1936

December 12, 1934

Mr. G. R. Carter
County Clerk
Medford, Oregon

Dear Sir:

We hand you herewith for recording an agreement dated April 20, 1934 by and between the State of Oregon and the Southern Pacific Company. When placed of record, kindly return to this office.

Enclosed you will find a photostat copy of the map attached to the agreement which you may retain for your files.

Very truly yours

R. H. BALDOCK
State Highway Engineer

By

S. H. Probert
Office Engineer

Dict. by W. C. Crews/GS

Encl.

OFFICE OF THE

PUBLIC UTILITIES COMMISSIONER OF OREGON

STATE OF OREGON)
) SS
COUNTY OF MARION)

I, JOHN J. HANLON, Secretary to the Public Utilities Commissioner of Oregon, and custodian of his seal, do hereby certify that I have carefully compared the annexed copy of ORDER with the original thereof, filed in the office of the said Public Utilities Commissioner of Oregon and that it is a full, true and correct transcript therefrom and of the whole thereof.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seal of the said Public Utilities Commissioner of Oregon in his office at Salem, Oregon, this 21st day of May, 1934.

John J. Hanlon
Secretary

PUBLIC UTILITIES COMMISSIONER OF OREGON

P.U.C. OREGON ORDER NO. 2255

BEFORE THE PUBLIC UTILITIES COMMISSIONER OF OREGON

In the matter of the application of the STATE OF OREGON through its STATE HIGHWAY COMMISSION for an order permitting and authorizing a crossing of the Pacific Highway under the tracks of Southern Pacific Company at a point near the north city limits of the City of Ashland.

F-1694

On October 5, 1933 Order No. 2154 was entered, authorizing the alteration and construction of the undergrade crossing herein proposed in accordance with the plans advanced by the railroad company and ordered an allocation of the costs of said improvement to be made on a basis of fifty per cent (50%) to the petitioner, the Oregon State Highway Commission, and fifty per cent (50%) to the Southern Pacific Company.

Due to the receipt of numerous protests against the plans adopted by said order and subsequent negotiations between and studies made by the Highway Commission and railroad company of revised plans of the said proposed improvement and the allocation of the costs thereof, the commission on January 2, 1934 entered Supplemental Order No. 2205, withdrawing and revoking Order No. 2154 originally entered herein, and the proceeding was reopened for further investigation and determination.

Agreement having been reached between the Oregon State Highway Commission and the Southern Pacific Company and joint motion and stipulation in accordance therewith having been made, the commissioner now makes and enters its findings and order as follows:

FINDINGS

That jurisdiction in this matter is conferred upon the commissioner by Section 68-703, Oregon Code, 1930;

That in the interest of the public necessity, safety and convenience the construction of the said undergrade crossing at the site and on the location proposed by the original petition of the Oregon State Highway Commission, as shown in this record and made a part of said Agreement (marked "Exhibit A"), is desirable and necessary;

That the design, preparation of plans, work, construction, maintenance, operation and all other details in connection with the said undergrade crossing, highway and structures appertaining thereto, also, the allocation of the costs thereof, shall be in accordance with the terms and conditions of the Agreement between the parties hereinbefore referred to, a true copy of which said Agreement being appended hereto and made a part hereof.

ORDERED, THEREFORE, that the undergrade crossing as aforesaid shall be constructed and the costs thereof be allocated as in the findings hereinbefore set out, which said findings by this reference are made a part hereof.

Dated at Salem, Oregon, this 15th day of May, 1934.

CHARLES M. THOMAS

Commissioner of Public Utilities
of Oregon

ATTEST:

JOHN J. HANLON

Secretary.

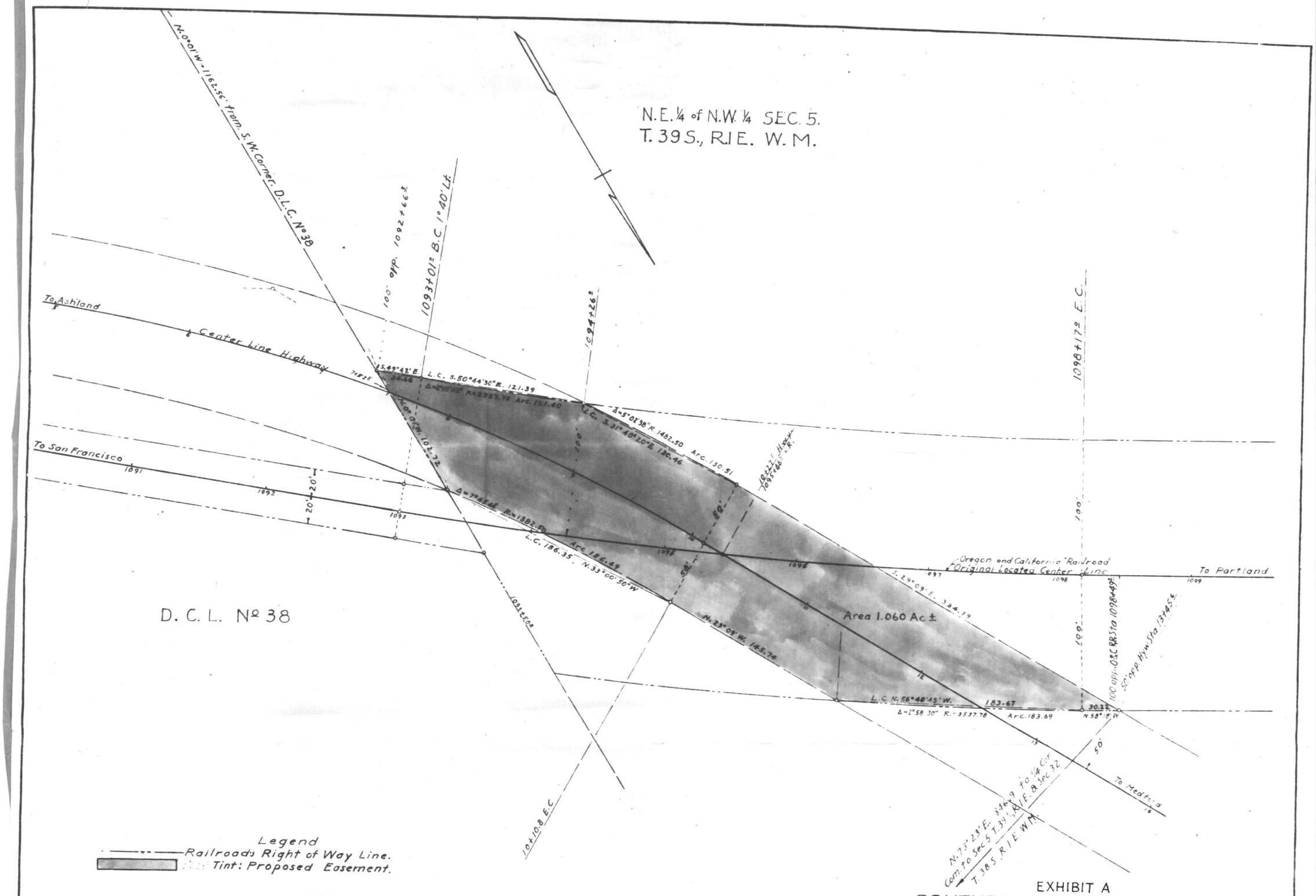


EXHIBIT A

SOUTHERN PACIFIC COMPANY

PACIFIC LINES

ASHLAND

Easement for Proposed Grade Separation for Oregon State Highway

Shasta Dist.

Sacramento DIV. N

A.G.M.

DRAWING 5544.

SHEET NO. 6

Scale 1" = 50' Jan. 1933

Rev. 1/26/33

DRAWER

Oregon
Kate Brown, Governor

Department of Transportation
Region 3 Planning and Programming
100 Antelope Drive
White City, Oregon 97503
Phone: (541) 774-6299

March 7, 2020

Mr. Derek Severson
City of Ashland – Community Development
51 Winburn Way
Ashland, OR 97529

RE: PA-T3-2019-00001, 1511 Highway 99 North

Dear Mr. Severson,

Thank you for providing the Oregon Department of Transportation (the "Department" or "ODOT") with the opportunity to provide comments associated with the zone change and annexation of approximately 16.87 acres at 1511 Highway 99 North ("Subject Property"). ODOT has worked with the City and the applicant to try to find solutions which work for all parties. Please find our comments below regarding this proposal.

i. ODOT has reviewed the Traffic Impact Analysis ("TIA") prepared by the Sandow Engineering and believe that it satisfies the requirements of the Transportation Planning Rule (OAR 660-012).
ii. The proposed southbound bus pullout has satisfactory width, striping, and exit taper. The entrance taper requires an 8:1 taper rate and should be extended slightly from the 65'on sheet C.4 to approximately 80'.
iii. ODOT is amenable to the proposed median cut north of the intersection of N Main St. and Highway 99. A striped crosswalk would not be appropriate at this location given traffic speed and sight visibility.
iv. ODOT will require a hydraulic report demonstrating the proposal will not adversely affect State facilities. We understand this will be conducted during the final engineering phase of the project, after Planning Commission. As such, approval of PA-T3-2019-00001 should be conditioned on written approval from ODOT of a satisfactory hydraulics report.
v. ODOT is satisfied with the proposed sidewalk and bike facilities with the exception of the sidewalk under the trestle which should be at least 6' in width.
vi. Approval should be conditioned on the applicant obtaining a reservation indenture, access permits and misc./utility permits from ODOT. The applicant may begin these processes by contacting Julee Scruggs at Julee.Y.Scruggs@odot.state.or.us.

Please feel free to contact me at Micah.HOROWITZ@odot.state.or.us or 541-774-6331 should you have any questions or concerns.

Sincerely,

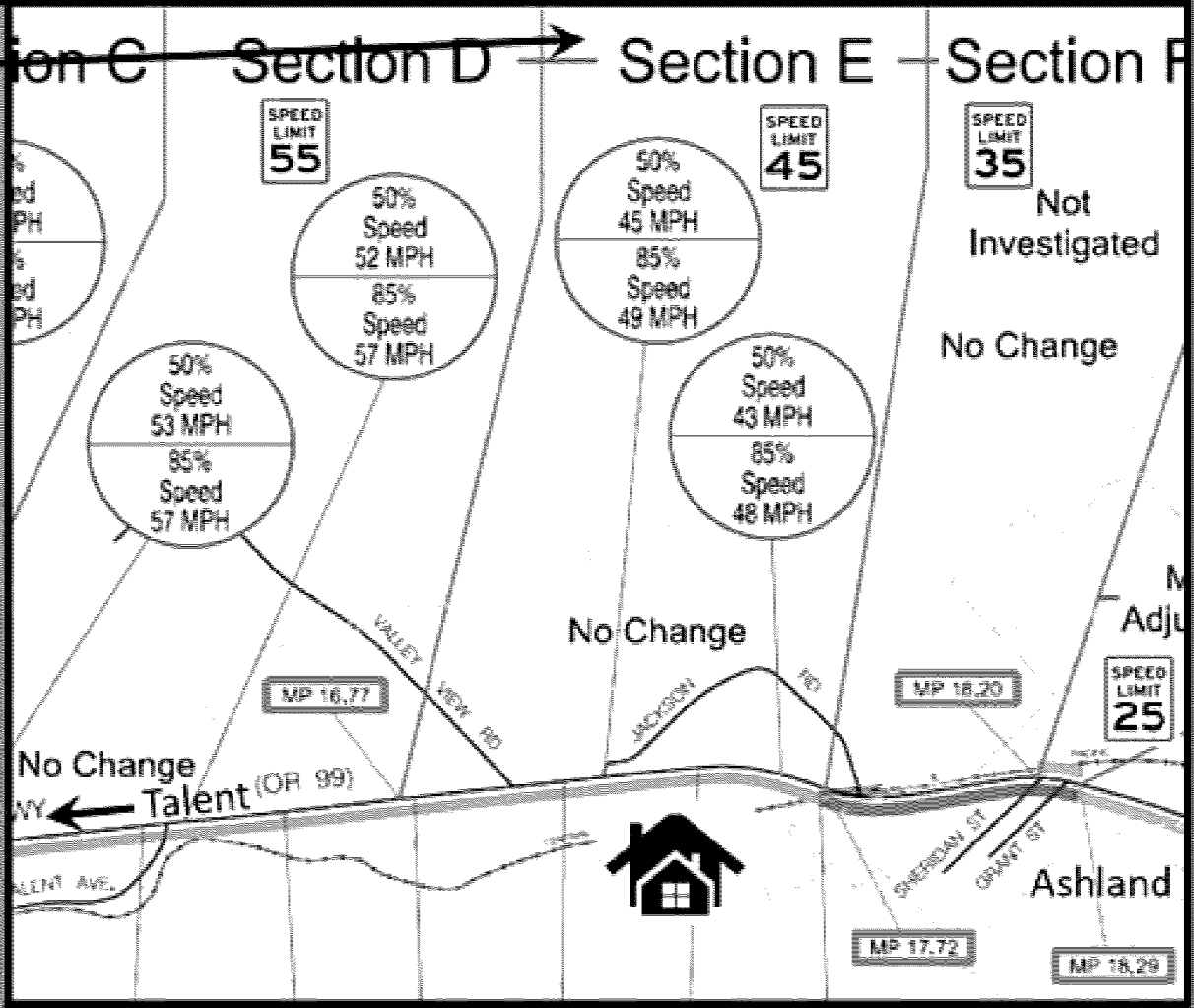
Micah Horowitz

Micah Horowitz, AICP
Senior Transportation Planner

The 2021 Speed Zone Investigation (SZI) was requested by ODOT District 8 Maintenance Management for the reason, "District 8 has received numerous complaints about the safety of this section of roadway and is requesting a SZI to see if a slower speed is warranted and due to the context of roadway changing near the intersection of Sheridan Street the speed change of 25/35 should be placed according to this context change. ".

Investigation:	Investigated Section E
Section Length	0.95 mile
50% Speed	44 MPH
85% Speed	49 MPH
2016-2018 Crash Rate*	1.07
2018 Average Daily Traffic	16,100
Context	Suburban fringe
Culture Type and Density	Light business to rural
Horizontal Alignment	1 Curve
Vertical Alignment	Steady grade
Curve Signs & Speed Riders	None
Existing Posted Speed	45 MPH
Recommended Speed	45 MPH

*Crashes per Million Vehicle Miles



LEGEND

20 MPH
25 MPH
30 MPH
35 MPH
40 MPH
45 MPH
50 MPH
55 MPH
60 MPH
65 MPH
70 MPH
City Limits

Denotes development area

2021 investigation resulted in no changes to speed zones in vicinity of proposed development as shown in the summary diagram above.

PRELIMINARY MAP
PROPERTY LINE ADJUSTMENT

LOCATED AT

1511 North Highway 99
Ashland, Oregon

LYING SITUATE WITHIN

NORTHWEST QUARTER OF SECTION 5
TOWNSHIP 39 SOUTH, RANGE 1 EAST, WILLAMETTE MERIDIAN
AND
SOUTHEAST QUARTER OF SECTION 31
& SOUTHWEST QUARTER OF SECTION 32
TOWNSHIP 38 SOUTH, RANGE 1 EAST, WILLAMETTE MERIDIAN
JACKSON COUNTY, OREGON

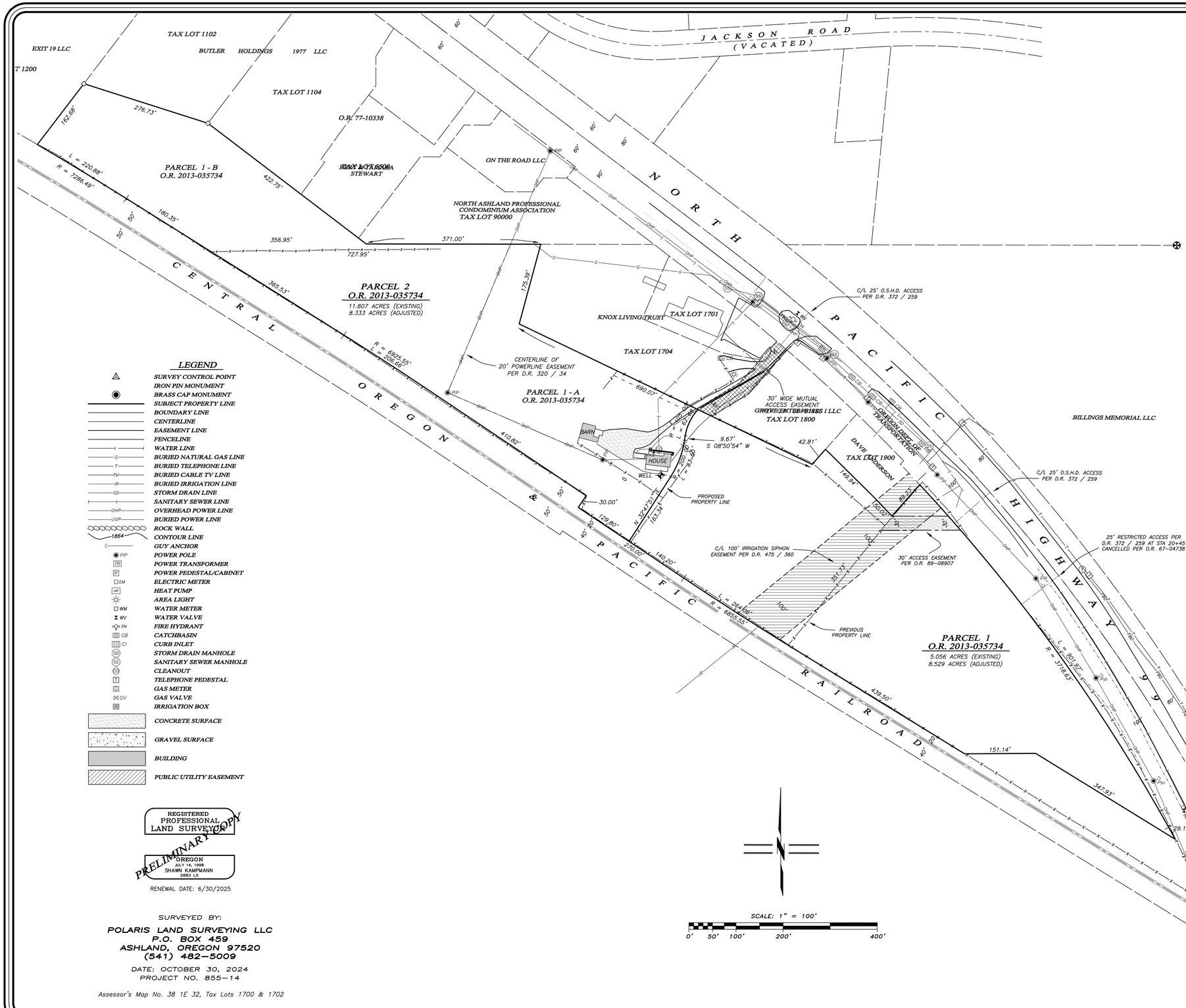
FOR

Cassita Developments LLC
716 North Laurel Street
Ashland, Oregon 97520

SURVEY NOTES

THE BASIS OF VERTICAL CONTROL FOR THIS SURVEY IS A CITY OF ASHLAND BENCHMARK, BEING A 3" BRONZE DISK IN A MONUMENT WELL LOCATED IN THE CENTERLINE INTERSECTION OF SISKIYOU BOULEVARD AND WALKER AVENUE. BENCHMARK ELEVATION = 2031.90', BASED ON THE NATIONAL GEODETIC VERTICAL DATUM OF 1929, ADJUSTED IN 1956 (NGVD 29/56).

EXPOSED UTILITY STRUCTURES SHOWN HEREON WERE FIELD LOCATED DURING THE PERFORMANCE OF THIS SURVEY. BURIED UTILITY LOCATIONS WERE DETERMINED BY UTILIZING A COMBINATION OF FIELD SURVEYED PAINT MARKS AND "AS-BUILT" RECORD DRAWINGS FURNISHED BY THE RESPECTIVE UTILITY COMPANY REPRESENTATIVES, ARE APPROXIMATE AND SHOWN HEREON FOR GRAPHIC PURPOSES ONLY. FIELD VERIFICATION OF ALL BURIED UTILITIES MUST BE PERFORMED PRIOR TO ANY EXCAVATION OR CONSTRUCTION ACTIVITIES.



LEGEND

- SURVEY CONTROL POINT
- IRON PIN MONUMENT
- BRASS CAP MONUMENT
- SUBJECT PROPERTY LINE
- BOUNDARY LINE
- CENTERLINE
- EASEMENT LINE
- FENCELINE
- W — WATER LINE
- G — BURIED NATURAL GAS LINE
- T — BURIED TELEPHONE LINE
- TV — BURIED CABLE TV LINE
- IR — BURIED IRRIGATION LINE
- SD — STORM DRAIN LINE
- SS — SANITARY SEWER LINE
- OHP — OVERHEAD POWER LINE
- UGP — BURIED POWER LINE
- ROCK WALL
- 1864 — CONTOUR LINE
- GUY ANCHOR
- PP — POWER POLE
- TR — POWER TRANSFORMER
- P — POWER PEDESTAL/CABINET
- EM — ELECTRIC METER
- HP — HEAT PUMP
- AREA LIGHT
- WM — WATER METER
- WV — WATER VALVE
- FH — FIRE HYDRANT
- CB — CATCHBASIN
- CI — CURB INLET
- SD — STORM DRAIN MANHOLE
- SS — SANITARY SEWER MANHOLE
- CO — CLEANOUT
- T — TELEPHONE PEDESTAL
- G — GAS METER
- GV — GAS VALVE
- IR — IRRIGATION BOX
- CONCRETE SURFACE
- GRAVEL SURFACE
- BUILDING
- PUBLIC UTILITY EASEMENT

REGISTERED
PROFESSIONAL
LAND SURVEYOR

PRELIMINARY COPY

OREGON
JULY 14, 1998
SHAWN KAMPMANN
2883 LS

RENEWAL DATE: 6/30/2025

SURVEYED BY:

POLARIS LAND SURVEYING LLC
P.O. BOX 459
ASHLAND, OREGON 97520
(541) 482-5009

DATE: OCTOBER 30, 2024
PROJECT NO. 855-14

Assessor's Map No. 38 1E 32, Tax Lots 1700 & 1702

POLARIS LAND SURVEYING

PRELIMINARY SUBDIVISION MAP

LOCATED AT

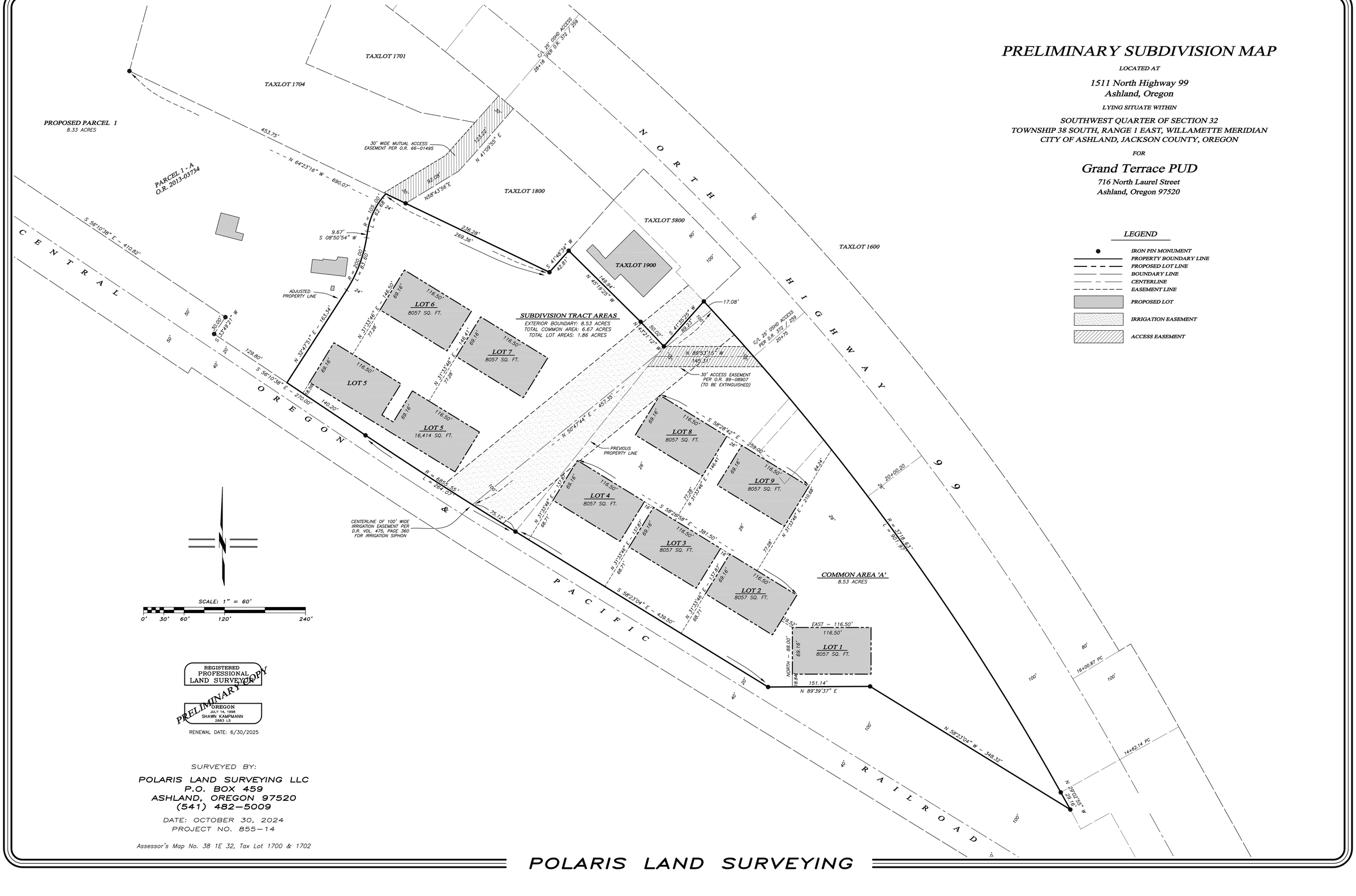
1511 North Highway 99
Ashland, Oregon

LYING SITUATE WITHIN

SOUTHWEST QUARTER OF SECTION 32
TOWNSHIP 38 SOUTH, RANGE 1 EAST, WILLAMETTE MERIDIAN
CITY OF ASHLAND, JACKSON COUNTY, OREGON

FOR

Grand Terrace PUD
716 North Laurel Street
Ashland, Oregon 97520



LEGEND

- IRON PIN MONUMENT
- PROPERTY BOUNDARY LINE
- PROPOSED LOT LINE
- BOUNDARY LINE
- CENTERLINE
- EASEMENT LINE
- PROPOSED LOT
- IRRIGATION EASEMENT
- ACCESS EASEMENT

REGISTERED PROFESSIONAL LAND SURVEYOR
OREGON
JULY 14, 1998
SHAWN KAMPMANN
2883 LS

PRELIMINARY COPY

RENEWAL DATE: 6/30/2025

SURVEYED BY:

POLARIS LAND SURVEYING LLC
P.O. BOX 459
ASHLAND, OREGON 97520
(541) 482-5009

DATE: OCTOBER 30, 2024
PROJECT NO. 855-14

Assessor's Map No. 38 1E 32, Tax Lot 1700 & 1702

POLARIS LAND SURVEYING

ALTA / ACSM LAND TITLE SURVEY

LOCATED AT

1511 North Highway 99
Ashland, Oregon

LYING SITUATE WITHIN

SOUTHEAST 1/4 OF SECTION 31 & SOUTHWEST 1/4 OF SECTION 32
TOWNSHIP 38 SOUTH, RANGE 1 EAST, WILLAMETTE MERIDIAN
& THE NORTHWEST QUARTER OF SECTION 5
TOWNSHIP 39 SOUTH, RANGE 1 EAST, WILLAMETTE MERIDIAN
JACKSON COUNTY, OREGON

FOR

Cassita Developments LLC
153 Will Dodge Way
Ashland, Oregon 97520

LEGAL DESCRIPTION

THOSE TRACTS OF LAND DESCRIBED WITHIN INSTRUMENT NO. 2013-035734 OF THE OFFICIAL RECORDS IN JACKSON COUNTY, OREGON, LYING SITUATE WITHIN THE SOUTHEAST QUARTER OF SECTION 31 AND THE SOUTHWEST QUARTER OF SECTION 32 IN TOWNSHIP 38 SOUTH, RANGE 1 EAST, AND THE NORTHWEST QUARTER OF SECTION 5 IN TOWNSHIP 39 SOUTH, RANGE 1 EAST OF THE WILLAMETTE MERIDIAN IN JACKSON COUNTY, OREGON, BEING MORE PARTICULARLY DESCRIBED AND BOUNDED AS FOLLOWS, TO WIT;

PARCEL 1, TRACT "A"

COMMENCING AT THE SOUTHEAST CORNER OF DONATION LAND CLAIM NO. 48 IN TOWNSHIP 38 SOUTH, RANGE 1 EAST OF THE WILLAMETTE MERIDIAN, JACKSON COUNTY, OREGON; THENCE SOUTH 46°27'46" WEST, 834.96 FEET [DEED RECORD SOUTH 46° 28' 51" WEST, 835.06 FEET] TO A 1/2 INCH IRON PIPE AT THE TRUE POINT OF BEGINNING; THENCE SOUTH 38°40'29" WEST [SOUTH 38° 38' 29" WEST], 351.73 FEET TO A 1/2 INCH IRON PIPE SITUATED ON THE NORTHEASTERLY LINE OF THE CENTRAL OREGON & PACIFIC RAILROAD (FORMERLY SOUTHERN PACIFIC RAILROAD); THENCE ALONG SAID NORTHEASTERLY LINE THE FOLLOWING COURSES: 264.06 FEET ALONG THE ARC OF A 6855.55 FOOT RADIUS CURVE TO THE RIGHT, HAVING A CENTRAL ANGLE OF 02° 12' 23" (LONG CHORD BEARING NORTH 57° 16' 51" WEST, 264.05 FEET), TO A 5/8 INCH IRON PIN AT A POINT OF TANGENCY; THENCE NORTH 56° 10' 38" WEST, 270.00 FEET TO A 5/8 INCH IRON PIN; THENCE NORTH 33° 49' 22" EAST, AT RIGHT ANGLES TO SAID NORTHEASTERLY LINE, 30.00 FEET TO A 5/8 INCH IRON PIN; THENCE NORTH 56° 10' 38" WEST, 410.82 FEET TO A 5/8 INCH IRON PIN AT A POINT OF CURVATURE; THENCE 206.66 FEET ALONG THE ARC OF A 6925.55 FOOT RADIUS CURVE TO THE LEFT, HAVING A CENTRAL ANGLE OF 01° 42' 35" (LONG CHORD BEARING NORTH 57° 01' 56" WEST, 206.65 FEET) TO A 5/8 INCH IRON PIN AT THE POINT OF TANGENCY; THENCE NORTH 57° 53' 13" WEST, 365.53 FEET TO THE SOUTH LINE OF SAID DONATION LAND CLAIM NO. 48; THENCE SOUTH 89° 54'00" EAST, ALONG SAID SOUTH LINE, 727.94 FEET [DEED RECORD 727.81 FEET] TO A 1/2 INCH IRON PIPE; THENCE SOUTH 15°09'14" WEST [DEED RECORD SOUTH 15° 08' 35" WEST], LEAVING SAID SOUTH LINE, 175.395 FEET TO A 1/2 INCH IRON PIPE; THENCE SOUTH 64°23'16" EAST [DEED RECORD SOUTH 64° 23' 25" EAST] 690.07 FEET TO A 5/8 INCH IRON PIN; THENCE NORTH 41°48'34" EAST [NORTH 41° 36' 44" EAST] 42.81 FEET TO A 1/2 INCH IRON PIPE; THENCE SOUTH 44°49'51" EAST, 149.94 FEET [DEED RECORD SOUTH 45° 18' 45" EAST, 149.99 FEET] TO A 1/2 INCH IRON PIPE; THENCE SOUTH 43° 23' 17" EAST, 50.02 FEET [DEED RECORD 49.99 FEET] TO THE POINT OF BEGINNING.

CONTAINING 9.23 ACRES, MORE OR LESS.

PARCEL 1, TRACT "B"

COMMENCING AT THE SOUTHEAST CORNER OF DONATION LAND CLAIM NO. 48 IN TOWNSHIP 38 SOUTH, RANGE 1 EAST OF THE WILLAMETTE MERIDIAN, JACKSON COUNTY, OREGON; THENCE NORTH 89°54'00" WEST, ALONG THE SOUTH LINE OF SAID CLAIM, 1638.78 FEET [DEED RECORD NORTH 89° 54' 37" WEST, 1638.78 FEET]; THENCE NORTH 37° 19' 04" EAST, 349.22 FEET [DEED RECORD 348.46 FEET] TO THE SOUTHWESTERLY LINE OF RELOCATED HIGHWAY NO. 99; THENCE NORTH 52° 40' 56" WEST, ALONG SAID SOUTHWESTERLY LINE, 449.82 FEET TO THE MOST EASTERLY CORNER OF THAT TRACT DESCRIBED IN DOCUMENT NO. 77-10338, OFFICIAL RECORDS OF SAID COUNTY; THENCE SOUTH 37° 20' 46" WEST, 399.73 FEET [DEED RECORD 400.00 FEET] TO THE MOST SOUTHERLY CORNER OF SAID TRACT FOR THE TRUE POINT OF BEGINNING; THENCE SOUTH 52°40'25" EAST, 383.59 FEET [DEED RECORD SOUTH 52° 40' 56" EAST, 383.50 FEET] TO A 5/8 INCH IRON PIN ON THE SOUTH LINE OF SAID CLAIM NO. 48; THENCE NORTH 89°54 00" WEST, ALONG SAID SOUTH LINE, 356.95 FEET [DEED RECORD NORTH 89° 54' 37" WEST, 345 FEET, MORE OR LESS] TO A 5/8 INCH IRON PIN ON THE NORTHEASTERLY LINE OF THE CENTRAL OREGON & PACIFIC RAILROAD (FORMERLY SOUTHERN PACIFIC RAILROAD); THENCE NORTH 57°53'13" WEST, ALONG SAID NORTHEASTERLY LINE, 180.35 FEET TO A 5/8 INCH IRON PIN; THENCE 220.88 FEET ALONG THE ARC OF A 7286.49 FOOT RADIUS CURVE TO THE LEFT, HAVING A CENTRAL ANGLE OF 01°44'13" (LONG CHORD BEARING NORTH 58°45'19" WEST, 220.87 FEET) TO A POINT WHICH BEARS SOUTH 37°21'19" WEST [DEED RECORD SOUTH 37° 20' 46" WEST] FROM A 5/8 INCH IRON PIN AT THE MOST NORTHERLY CORNER OF THAT TRACT OF LAND DESCRIBED IN DOCUMENT NO. 89-01177 OF SAID OFFICIAL RECORDS, FROM WHICH A 3/4 INCH CRIMPED TOP IRON PIPE BEARS NORTH 37°21'19" EAST, 0.55 FEET; THENCE NORTH 37°21'19" EAST, ALONG THE NORTHWESTERLY LINE OF SAID DESCRIBED TRACT, 162.68 FEET [DEED RECORD NORTH 37° 20' 46" EAST, 162.0 FEET, MORE OR LESS], TO A 5/8 INCH IRON PIN WHICH BEARS SOUTH 37°21'19" WEST, 93.04 FEET [DEED RECORD SOUTH 37° 20' 46" WEST, 93.00 FEET] FROM SAID MOST NORTHERLY CORNER; THENCE SOUTH 72°19'01" EAST, LEAVING SAID NORTHWESTERLY LINE, 276.73 FEET [DEED RECORD SOUTH 72° 19' 01" EAST, 276.77 FEET] TO A 5/8 INCH IRON PIN SITUATED ON THE NORTHEASTERLY LINE OF SAID DESCRIBED TRACT; THENCE SOUTH 52°40'25" EAST, ALONG SAID NORTHEASTERLY LINE, 39.16 FEET [DEED RECORD SOUTH 52°40'56" EAST, 39.37 FEET] TO THE POINT OF BEGINNING.

CONTAINING 2.58 ACRES, MORE OR LESS.

PARCEL 2

COMMENCING AT THE SOUTHEAST CORNER OF DONATION LAND CLAIM NO. 48 IN TOWNSHIP 38 SOUTH, RANGE 1 EAST OF THE WILLAMETTE MERIDIAN, JACKSON COUNTY, OREGON; THENCE SOUTH 46°27'46" WEST, 834.96 FEET [DEED RECORD SOUTH 46° 28' 51" WEST, 835.06 FEET] TO A 1/2 INCH IRON PIPE AT THE TRUE POINT OF BEGINNING; THENCE NORTH 41°35'25" EAST, 89.24 FEET [DEED RECORD NORTH 41° 34' 29" EAST, 89.28 FEET] TO A 1/2 INCH IRON PIPE SITUATED ON THE SOUTHWESTERLY LINE OF RELOCATED PACIFIC HIGHWAY NO. 99; THENCE FOLLOWING SAID SOUTHWESTERLY LINE OF SAID HIGHWAY THE FOLLOWING COURSES: 901.97 FEET [DEED RECORD 901.77 FEET] SOUTHEASTERLY ALONG THE ARC OF A 3718.63 FOOT RADIUS CURVE TO THE RIGHT, HAVING A CENTRAL ANGLE OF 13°53'51" [DEED RECORD 13° 53' 40"] TO A 5/8 INCH IRON PIN AT THE POINT OF TANGENCY; THENCE SOUTH 29°02'55" EAST, 29.16 FEET [DEED RECORD SOUTH 28°49'42" EAST, 29.39 FEET], MORE OR LESS, TO A 5/8 INCH IRON PIN ON THE NORTHEASTERLY LINE OF THE CENTRAL OREGON & PACIFIC RAILROAD (FORMERLY SOUTHERN PACIFIC RAILROAD); THENCE LEA VING SAID SOUTHEASTERLY LINE OF HIGHWAY 99 AND ALONG THE NORTHEASTERLY LINE OF SAID RAILROAD THE FOLLOWING COURSES: NORTH 58°23'04" WEST, 347.93 FEET [DEED RECORD NORTH 58° 23' 04" WEST, 348.09 FEET] TO A 5/8 INCH IRON PIN ON THE SOUTH LINE OF SECTION 32, IN SAID TOWNSHIP 38 SOUTH, RANGE 1 EAST; THENCE SOUTH 89°39'37" WEST [DEED RECORD SOUTH 89°39'27" WEST], ALONG SAID SOUTH LINE, 151.14 FEET TO A 5/8 INCH IRON PIN, BEING 20.00 FEET NORTHEASTERLY FROM AND AT RIGHT ANGLES TO THE CENTERLINE OF SAID RAILROAD; THENCE NORTH 58°23'04" WEST, 439.50 FEET TO A 1/2 INCH IRON PIPE AT A POINT OF CURVATURE; THENCE NORTH 38°40'29" EAST [DEED RECORD NORTH 38°38'29" EAST], LEAVING SAID NORTHEASTERLY LINE OF RAILROAD, 351.73 FEET TO THE POINT OF BEGINNING.

CONTAINING 5.06 ACRES, MORE OR LESS.

FLOOD NOTE

SUBJECT PROPERTY LIES OUTSIDE OF THE FLOOD HAZARD BOUNDARY AS SHOWN ON THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM), COMMUNITY PANEL NO. 41029C2203F, EFFECTIVE DATE MAY 3, 2011.

ACCESS NOTES

PUBLIC VEHICULAR ACCESS POINTS TO SUBJECT PROPERTY ARE RESTRICTED BY THE OREGON DEPARTMENT OF TRANSPORATION (O.D.O.T.) ALONG THE SOUTHWESTERLY FRONTAGE OF NORTH HIGHWAY 99 TO THE LOCATIONS SHOWN AT ENGINEER'S STATION 20+75 AND 28+18.

IMPROVEMENTS

ALL EXISTING IMPROVEMENTS AT THE TIME OF THIS SURVEY ARE SHOWN HEREON, EXCEPT AS OTHERWISE DENOTED, ALONG WITH VISIBLE ENCROACHMENTS WITHIN OR ADJACENT TO SUBJECT PROPERTY. (SEE STATEMENT OF ENCROACHMENTS)

NOTES CORRESPONDING TO EXCEPTIONS

THE FOLLOWING SPECIAL EXCEPTIONS, EXCLUSIONS, AND STIPULATIONS CONTAINED IN THE PRELIMINARY TITLE REPORT ISSUED BY FIRST AMERICAN TITLE COMPANY OF OREGON, ORDER NO. 7161-2932440, HAVING AN EFFECTIVE DATE OF NOVEMBER 17, 2017, ARE BLANKET IN NATURE OR OTHERWISE INSUFFICIENTLY DESCRIBED, CAN NOT BE SHOWN GRAPHICALLY ON THIS MAP.

6. EASEMENT FOR THE TRANSMISSION AND DISTRIBUTION OF ELECTRICITY, INCLUDING TERMS AND PROVISIONS CONTAINED THEREIN TO CALIFORNIA OREGON POWER COMPANY, DESCRIBED WITHIN IN VOLUME 182, PAGES 203 & 295, VOLUME 214, PAGE 475 AND VOLUME 320, PAGE 34 OF THE DEED RECORDS IN JACKSON COUNTY, OREGON.

7. EASEMENT FOR IRRIGATION PURPOSES, INCLUDING TERMS AND PROVISIONS CONTAINED THEREIN TO TALENT IRRIGATION DISTRICT, RECORDED ON APRIL 9, 1956 IN VOLUME 424, PAGE 371 OF THE DEED RECORDS IN JACKSON COUNTY, OREGON.

13. EASEMENT FOR DITCHES AND CANAL PURPOSES, INCLUDING TERMS AND PROVISIONS CONTAINED THEREIN TO UNITED STATES OF AMERICA, RECORDED ON JULY 15, 1959 IN VOLUME 547, PAGE 464 OF THE DEED RECORDS IN JACKSON COUNTY, OREGON.

14. 20' WIDE EASEMENT FOR THE TRANSMISSION AND DISTRIBUTION OF ELECTRICITY AND AND RELATED MATTERS TO PACIFIC POWER & LIGHT COMPANY, RECORDED ON AUGUST 26, 1977 IN DOCUMENT NO. 77-17662 OF THE OFFICIAL RECORDS IN JACKSON COUNTY, OREGON.

STATEMENT OF ENCROACHMENTS

PHYSICAL ENCROACHMENTS AS SHOWN HEREON ARE NOTED AS FOLLOWS:

1. AN ASHALT DRIVEWAY AND FENCELINE ENCROACHES UP TO 14.1 FEET OUTSIDE OF A MUTUAL ACCESS EASEMENT DESCRIBED IN O.R. 66-01495.
2. A BURIED NATURAL GAS LINE SERVICING AN ADJACENT PARCEL ENCROACHES UP TO 8.4 FEET INTO THE SUBJECT PARCEL.
3. A POSSIBLE ENCROACHMENT OF A PRIVATE SEWER LINE SERVICING THE SUBJECT PARCEL CROSSES THROUGH THE ADJACENT KNOX LIVING TRUST PARCEL AS INDICATED BY THE CURRENT TENANT OF THE SUBJECT PARCEL, AS SHOWN HEREON.
4. VARIOUS FENCELINE ENCROACHMENTS ON BOTH SIDES OF THE SUBJECT PROPERTY LINES WERE FOUND ALONG THE EXTERIOR PRPERTY AND RIGHT OF WAY BOUNDARIES.

GENERAL NOTES

1. NO OBSERVABLE EVIDENCE WAS FOUND INDICATING THAT THE SITE HAS BEEN PREVIOUSLY USED AS A SOLID WASTE DUMP, SUMP OR SANITARY LANDFILL.
2. WETLAND AREAS HAVE BEEN OBSERVED AND DELINEATED ON THIS SITE BY PACIFIC HABITAT SERVICES, INC. IN WILSONVILLE, OREGON. THE DELINEATED WETLAND BOUNDARIES, AS MARKED BY PACIFIC HABITAT SERVICES, WERE LOCATED AND FIELD SURVEYED AS DENOTED ON SHEET 2 OF THIS SURVEY.

Assessor's Map No. 38 1E 32, Tax Lots 1700 & 1702

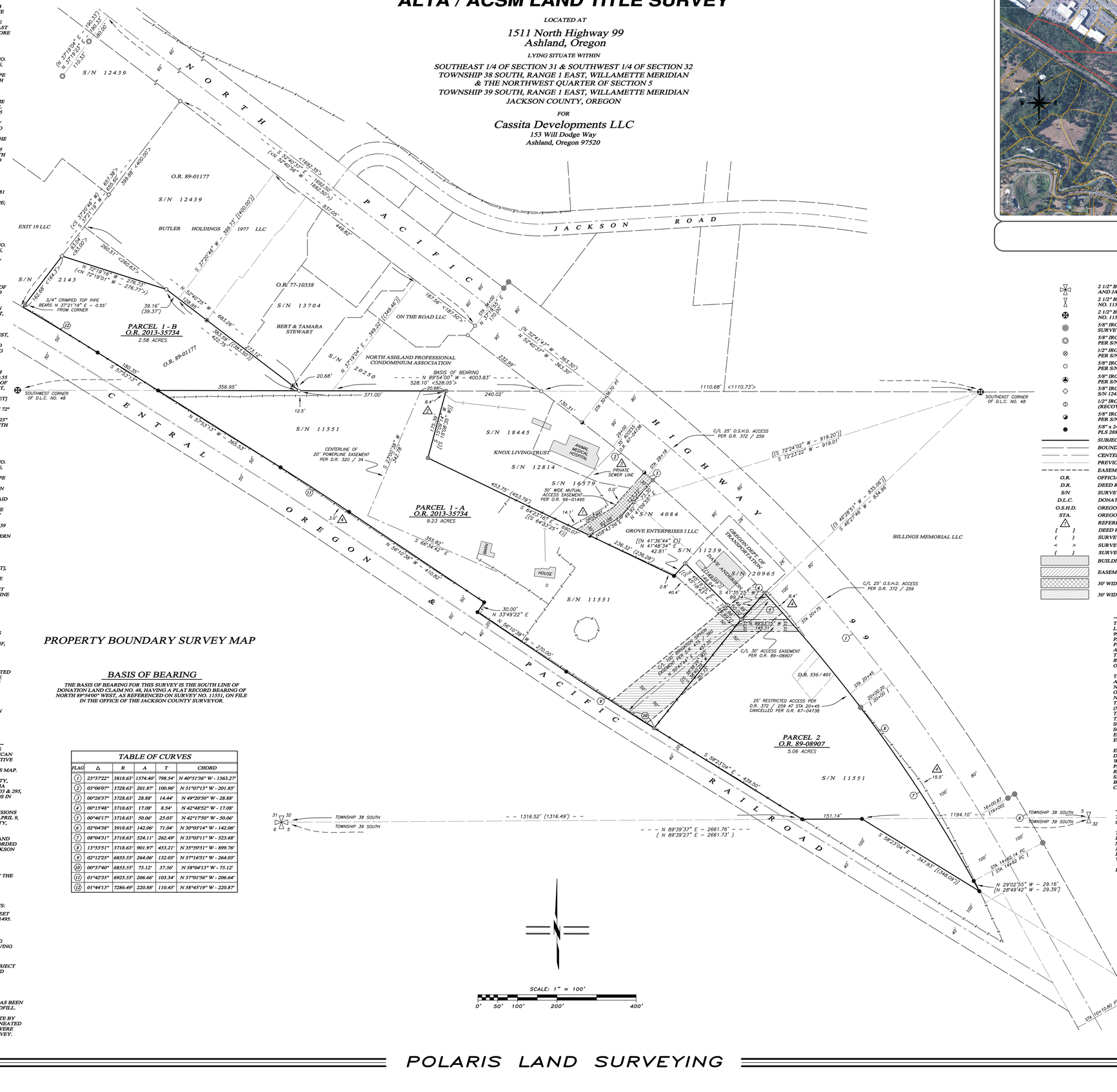
PROPERTY BOUNDARY SURVEY MAP

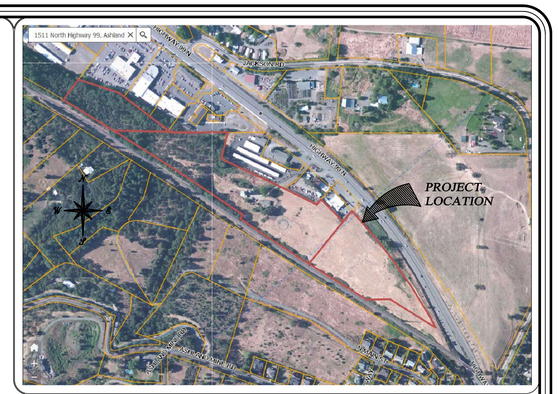
BASIS OF BEARING

THE BASIS OF BEARING FOR THIS SURVEY IS THE SOUTH LINE OF DONATION LAND CLAIM NO. 48, HAVING A PLAT RECORD BEARING OF NORTH 89°54'00" WEST, AS REFERENCED ON SURVEY NO. 11551, ON FILE IN THE OFFICE OF THE JACKSON COUNTY SURVEYOR.

TABLE OF CURVES

FLAG	Δ	R	A	T	CHORD
(1)	23°37'22"	3818.63'	1574.40'	798.54'	N 40°51'36" W - 1563.27'
(2)	03°06'07"	3728.63'	201.87'	100.96'	N 51°07'13" W - 201.85'
(3)	00°26'37"	3728.63'	28.88'	14.44'	N 49°20'50" W - 28.88'
(4)	00°15'48"	3718.63'	17.08'	8.54'	N 42°48'52" W - 17.08'
(5)	00°46'17"	3718.63'	50.06'	25.03'	N 42°17'50" W - 50.06'
(6)	02°04'38"	3918.63'	142.06'	71.04'	N 30°05'14" W - 142.06'
(7)	08°04'31"	3718.63'	524.11'	262.49'	N 33°05'11" W - 523.68'
(8)	13°53'51"	3718.63'	901.97'	453.21'	N 35°59'51" W - 899.76'
(9)	02°12'25"	6855.55'	264.06'	132.05'	N 57°16'51" W - 264.05'
(10)	00°37'40"	6855.55'	75.12'	37.56'	N 58°04'13" W - 75.12'
(11)	01°42'35"	6925.55'	206.66'	103.34'	N 57°01'56" W - 206.64'
(12)	01°44'13"	7286.49'	220.88'	110.45'	N 58°45'19" W - 220.87'





VICINITY MAP

NOT TO SCALE

LEGEND

- 2 1/2" BRASS CAPPED IRON PIPE SECTION CORNER PER SURVEY NO. 11551 AND JACKSON COUNTY SURVEYOR RE-ESTAB. NOTES (RECOVERED)
- 2 1/2" BRASS CAPPED IRON PIPE QUARTER SECTION CORNER PER SURVEY NO. 11551 & JACKSON COUNTY SURVEYOR RE-ESTAB. NOTES (RECOVERED)
- 2 1/2" BRASS CAPPED IRON PIPE DONATION LAND CLAIM CORNER PER SURVEY NO. 11551 & JACKSON COUNTY SURVEYOR RE-ESTAB. NOTES (RECOVERED)
- 5/8" IRON PIN - NO OTHER MARKINGS - PER O.S.H.D. 1952 RIGHT-OF-WAY SURVEY & S/N 7620, 11551 & 18445 (RECOVERED)
- 5/8" IRON PIN w/ 2" ALUMINUM CAP STAMPED "SWAIN LS 759 1990" PER S/N 12047 (RECOVERED)
- 1/2" IRON PIPE w/ YELLOW PLASTIC PLUG STAMPED "SWAIN LS 759" PER S/N 11551, 11551, 12814 (RECOVERED)
- 5/8" IRON PIN w/ RED PLASTIC CAP STAMPED "D. HUCK LS 2023 " PER S/N 17105 & 20250 (RECOVERED)
- 5/8" IRON PIN w/ ORANGE PLASTIC CAP STAMPED "R. ROBERTS LS 1656" PER S/N 13704 (RECOVERED)
- 5/8" IRON PIN w/ RED PLASTIC CAP STAMPED "RPLS-2339" PER S/N 12439 (RECOVERED)
- 1/2" IRON PIPE - NO OTHER MARKINGS - PER BURRELL S/N 4084 (RECOVERED)
- 5/8" IRON PIN w/ ORANGE PLASTIC CAP STAMPED "KAMPMANN PLS 2883" PER S/N 16579 & 18445 (RECOVERED)
- 5/8" x 24" IRON PIN w/ ORANGE PLASTIC CAP STAMPED "KAMPMANN PLS 2883" (ESTABLISHED)
- SUBJECT PROPERTY LINE
- BOUNDARY LINE
- CENTERLINE
- PREVIOUS DEED LINE
- EASEMENT LINE
- O.R. OFFICIAL RECORDS, JACKSON COUNTY CLERK
- D.R. DEED RECORD VOLUME / PAGE, JACKSON COUNTY CLERK
- S/N SURVEY FILE NUMBER, JACKSON COUNTY SURVEYOR
- D.L.C. DONATION LAND CLAIM, AS DESCRIBED
- O.S.H.D. OREGON STATE HIGHWAY DEPARTMENT (O.D.O.T.)
- STA. OREGON DEPT. OF TRANSPORTATION HIGHWAY STATION NUMBER
- [ ] REFERENCE TO TITLE REPORT ITEM NUMBER (SEE EXCEPTIONS NOTE)
- [ ] DEED RECORD DATA PER 2013-035734
- ( ) SURVEY RECORD DATA PER S/N 11551, 12047, 12814 (SWAIN)
- < > SURVEY RECORD DATA PER S/N 12439 & 13704 (EDWARDS)
- ( ) SURVEY RECORD DATA PER OREGON STATE HIGHWAY DEPTARTMENT
- BUILDING FOOTPRINT
- EASEMENT FOR 36" TALENT IRRIGATION DISTRICT SIPHON PER D.R. 475 / 360
- 30' WIDE MUTUAL ACCESS EASEMENT PER O.R. 66-01495
- 30' WIDE ACCESS EASEMENT PER O.R. 89-08907

SURVEY NOTES

THE BASIS OF HORIZONTAL CONTROL FOR THIS SURVEY WAS THE SOUTH LINE OF DONATION LAND CLAIM NO. 48, OREGON NORTH PACIFIC HIGHWAY 99, CENTRAL OREGON AND PACIFIC RAILROAD (FORMERLY "SOUTHERN PACIFIC RAILROAD") BASED ON A LOCAL SURVEY CONTROL NETWORK PREVIOUSLY ESTABLISHED BY THIS OFFICE, IN CONJUNCTION WITH ADDITIONAL FIELD SURVEYS TO ESTABLISH ON-SITE SURVEY CONTROL FOR THIS PROJECT UTILIZING A LEICA TCRP 1203 ROBOTIC TOTAL STATION WITH RANGING PRISMS AND A LEICA 1200 GNSS SMART ROVER OPERATING ON THE OREGON REAL-TIME GEODETIC NETWORK (ORGN).

THE BASIS OF VERTICAL CONTROL FOR THIS SURVEY IS THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) AS DERIVED FROM GLOBAL NETWORK SATELLITE STSTEM (GNSS) OBSERVATIONS OPERATING ON THE OREGON REAL-TIME GEODETIC NETWORK (ORGN). THE CONVERSION FROM NAVD 88 TO THE CITY OF ASHLAND VERTICAL CONTOL NETWORK BASED ON THE NATIONAL GEODETIC VERTICAL DATUM OF 1929, ADJUSTED 1956 (NGVD 29/56) IS MINUS 3.42 FEET FROM NAVD 88, BASED ON OBSERVATIONS TAKEN ON U.S.C. & G.S. BENCHMARK V 548, A BRONZE DISC LOCATED ON THE RAILROAD BRIDGE CROSSING HIGHWAY 99 IN THE TOP OF THE SOUTHEAST END OF THE SOUTHWEST CONCRETE ABUTMENT, 7.4 FEET SOUTHEAST OF THE SOUTHEAST RAIL. THE PUBLISHED NGVD 29/56 DATUM ELEVATION OF BENCHMARK V 548 IS 1798.182 FEET. THE NAVD 88 DATUM ELEVATION IS 1801.60 FEET.

EXPOSED UTILITY STRUCTURES SHOWN HEREON WERE FIELD LOCATED DURING THE PERFORMANCE OF THIS SURVEY. BURIED UTILITY LOCATIONS WERE DETERMINED BY UTILIZING A COMBINATION OF FIELD SURVEYED PAINT MARKS AND "AS-BUILT" RECORD DRAWINGS FURNISHED BY THE RESPECTIVE UTILITY COMPANY REPRESENTATIVES, ARE APPROXIMATE AND SHOWN HEREON FOR GRAPHIC PURPOSES ONLY. FIELD VERIFICATION OF ALL BURIED UTILITIES MUST BE PERFORMED PRIOR TO ANY EXCAVATION OR CONSTRUCTION ACTIVITIES.

SURVEYORS CERTIFICATE

TO CASSITA DEVELOPMENTS LLC & FIRST AMERICAN TITLE COMPANY OF OREGON:

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2016 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 5, 8, 11, 13, 18, 19 & 20 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON MARCH 20, 2018.

DATE: MARCH 20, 2018 OREGON REGISTRATION NO. PLS 2883

REGISTERED PROFESSIONAL LAND SURVEYOR
OREGON
JULY 14, 1998
SHAWN KAMPMANN
2883 LS

ELECTRONIC COPY

RENEWAL DATE: 6/30/2019

SURVEYED BY:

POLARIS LAND SURVEYING LLC
P.O. BOX 459
ASHLAND, OREGON 97520
(541) 482-5009

DATE: MARCH 26, 2018
PROJECT NO. 855-14

ALTA / ACSM LAND TITLE SURVEY

TOPOGRAPHIC SITE SURVEY MAP

LOCATED AT

1511 North Highway 99
Ashland, Oregon

LYING SITUATE WITHIN

SOUTHEAST 1/4 OF SECTION 31 & SOUTHWEST 1/4 OF SECTION 32
TOWNSHIP 38 SOUTH, RANGE 1 EAST, WILLAMETTE MERIDIAN
& THE NORTHWEST QUARTER OF SECTION 5
TOWNSHIP 39 SOUTH, RANGE 1 EAST, WILLAMETTE MERIDIAN
JACKSON COUNTY, OREGON

FOR

Cassita Developments LLC
153 Will Dodge Way
Ashland, Oregon 97520

TABLE OF CURVES					
FLAG	Δ	R	A	T	CHORD
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(12)	01°44'13"	7286.49'	220.88'	110.45'	N 58°45'19" W - 220.87'

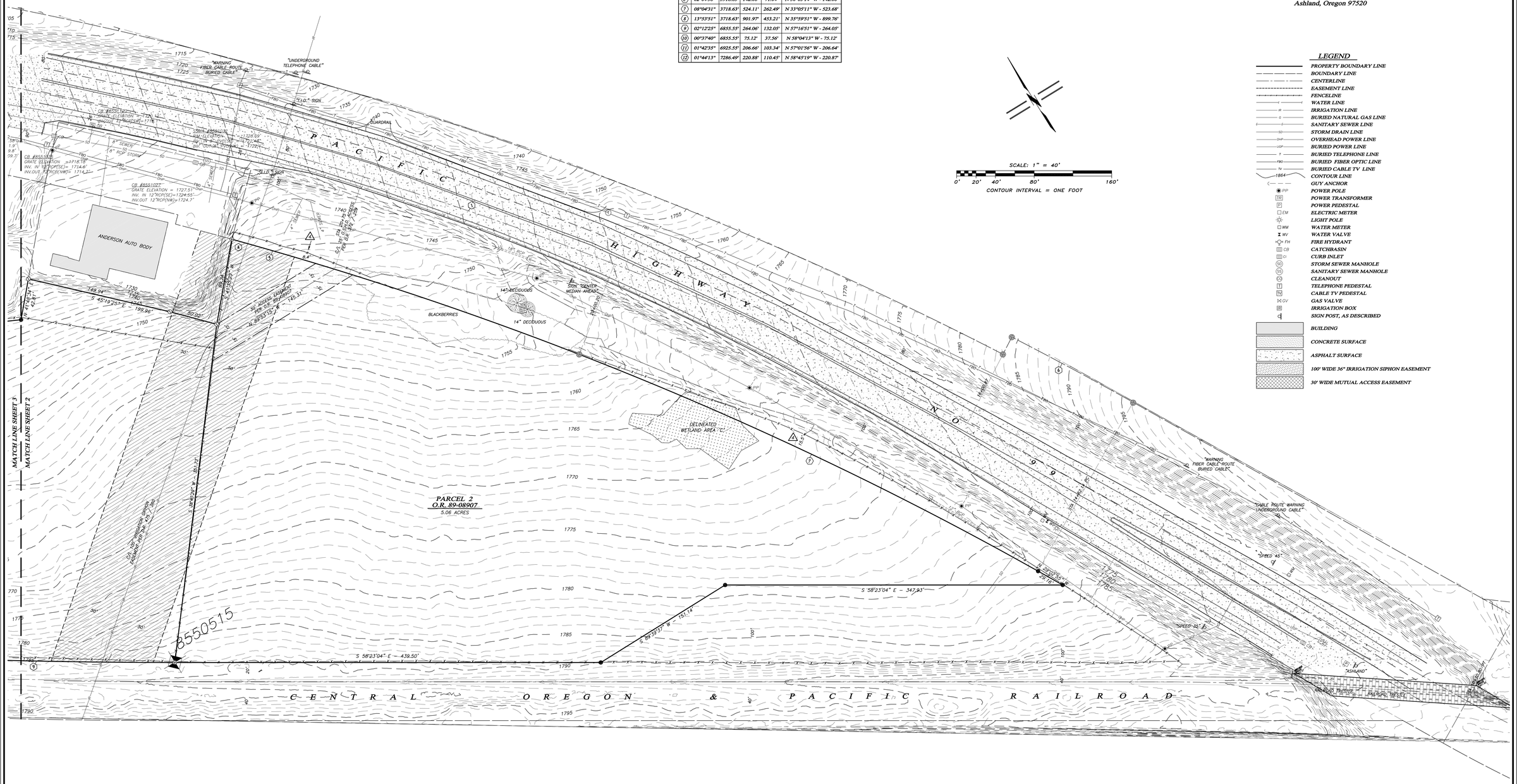
SCALE: 1" = 40'

0' 20' 40' 80' 160'

CONTOUR INTERVAL = ONE FOOT

LEGEND

- PROPERTY BOUNDARY LINE
- BOUNDARY LINE
- CENTERLINE
- EASEMENT LINE
- FENCELINE
- W — WATER LINE
- IR — IRRIGATION LINE
- G — BURIED NATURAL GAS LINE
- S — SANITARY SEWER LINE
- SD — STORM DRAIN LINE
- OHP — OVERHEAD POWER LINE
- UGP — BURIED POWER LINE
- T — BURIED TELEPHONE LINE
- FBO — BURIED FIBER OPTIC LINE
- TV — BURIED CABLE TV LINE
- 1864 — CONTOUR LINE
- GUY ANCHOR
- PP — POWER POLE
- TR — POWER TRANSFORMER
- PED — POWER PEDESTAL
- EM — ELECTRIC METER
- LIGHT POLE
- WM — WATER METER
- WV — WATER VALVE
- FH — FIRE HYDRANT
- CB — CATCHBASIN
- CI — CURB INLET
- SD — STORM SEWER MANHOLE
- SS — SANITARY SEWER MANHOLE
- CO — CLEANOUT
- T — TELEPHONE PEDESTAL
- TV — CABLE TV PEDESTAL
- GV — GAS VALVE
- IRRIGATION BOX
- SIGN POST, AS DESCRIBED
- BUILDING
- CONCRETE SURFACE
- ASPHALT SURFACE
- 100' WIDE 36" IRRIGATION SIPHON EASEMENT
- 30' WIDE MUTUAL ACCESS EASEMENT



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OREGON
JULY 14, 1998
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ELECTRONIC COPY

RENEWAL DATE: 6/30/2019

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DATE: MARCH 26, 2018
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Assessor's Map No. 38 1E 32, Tax Lots 1700 & 1702

POLARIS LAND SURVEYING

Applicant Submittal: 193 Total Page Number: 255

ALTA / ACSM LAND TITLE SURVEY

LOCATED AT

1511 North Highway 99
Ashland, Oregon

LYING SITUATE WITHIN

SOUTHEAST 1/4 OF SECTION 31 & SOUTHWEST 1/4 OF SECTION 32
TOWNSHIP 38 SOUTH, RANGE 1 EAST, WILLAMETTE MERIDIAN
& THE NORTHWEST QUARTER OF SECTION 5
TOWNSHIP 39 SOUTH, RANGE 1 EAST, WILLAMETTE MERIDIAN
JACKSON COUNTY, OREGON

FOR

Cassita Developments LLC
153 Will Dodge Way
Ashland, Oregon 97520

TOPOGRAPHIC SITE SURVEY MAP

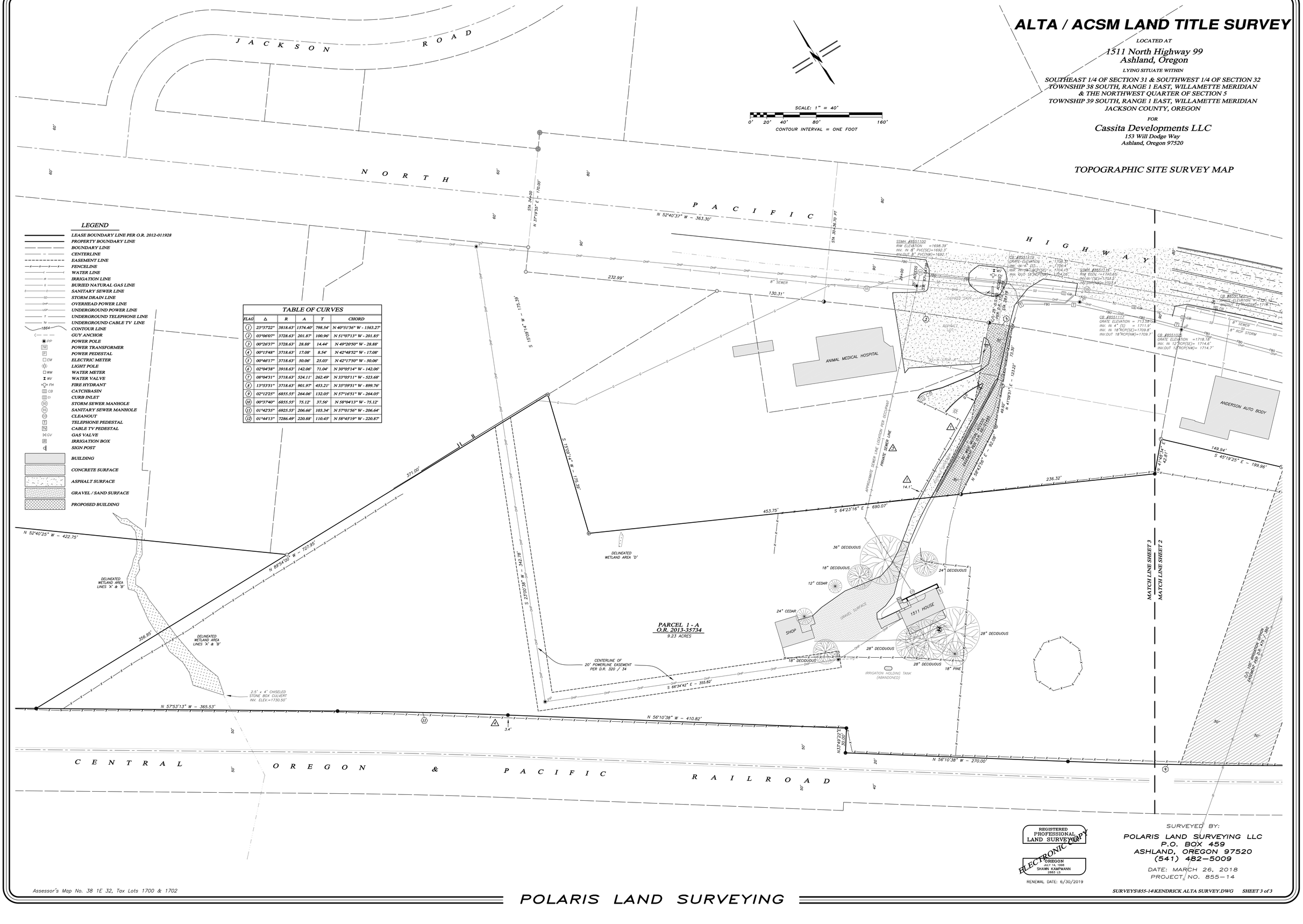
SCALE: 1" = 40'
0' 20' 40' 80' 160'
CONTOUR INTERVAL = ONE FOOT

LEGEND

- LEASE BOUNDARY LINE PER O.R. 2012-011928
- PROPERTY BOUNDARY LINE
- BOUNDARY LINE
- CENTERLINE
- EASEMENT LINE
- FENCELINE
- WATER LINE
- IRRIGATION LINE
- BURIED NATURAL GAS LINE
- SANITARY SEWER LINE
- STORM DRAIN LINE
- OVERHEAD POWER LINE
- UNDERGROUND POWER LINE
- UNDERGROUND TELEPHONE LINE
- UNDERGROUND CABLE TV LINE
- 1864 CONTOUR LINE
- GUY ANCHOR
- PP POWER POLE
- TR POWER TRANSFORMER
- P POWER PEDESTAL
- EM ELECTRIC METER
- LIGHT POLE
- WM WATER METER
- WV WATER VALVE
- FH FIRE HYDRANT
- CB CATCHBASIN
- CI CURB INLET
- SD STORM SEWER MANHOLE
- SS SANITARY SEWER MANHOLE
- CO CLEANOUT
- T TELEPHONE PEDESTAL
- TV CABLE TV PEDESTAL
- GV GAS VALVE
- IR IRRIGATION BOX
- SIGN POST
- BUILDING
- CONCRETE SURFACE
- ASPHALT SURFACE
- GRAVEL / SAND SURFACE
- PROPOSED BUILDING

TABLE OF CURVES

FLAG	Δ	R	A	T	CHORD
(1)	23°37'22"	3818.63'	1574.40'	798.54'	N 40°51'36" W - 1563.27'
(2)	03°06'07"	3728.63'	201.87'	100.96'	N 51°07'13" W - 201.85'
(3)	00°26'37"	3728.63'	28.88'	14.44'	N 49°20'50" W - 28.88'
(4)	00°15'48"	3718.63'	17.08'	8.54'	N 42°48'52" W - 17.08'
(5)	00°46'17"	3718.63'	50.06'	25.03'	N 42°17'50" W - 50.06'
(6)	02°04'38"	3918.63'	142.06'	71.04'	N 30°05'14" W - 142.06'
(7)	08°04'31"	3718.63'	524.11'	262.49'	N 33°05'11" W - 523.68'
(8)	13°53'51"	3718.63'	901.97'	453.21'	N 35°59'51" W - 899.76'
(9)	02°12'25"	6855.55'	264.06'	132.05'	N 57°16'51" W - 264.05'
(10)	00°37'40"	6855.55'	75.12'	37.56'	N 58°04'13" W - 75.12'
(11)	01°42'35"	6925.55'	206.66'	103.34'	N 57°01'56" W - 206.64'
(12)	01°44'13"	7286.49'	220.88'	110.45'	N 58°45'19" W - 220.87'



REGISTERED PROFESSIONAL LAND SURVEYOR
OREGON
JULY 14, 1999
SHAWN KAMPMANN
2853 LS
RENEWAL DATE: 6/30/2019

ELECTRONIC COPY

SURVEYED BY:
POLARIS LAND SURVEYING LLC
P.O. BOX 459
ASHLAND, OREGON 97520
(541) 482-5009

DATE: MARCH 26, 2018
PROJECT NO. 855-14

Assessor's Map No. 38 1E 32, Tax Lots 1700 & 1702

POLARIS LAND SURVEYING

April 17, 2025

Derek Severson
Ashland Planning Division
1175 East Main Street
Ashland, OR 97520

Re: PA-T3-2019-00001
1511 Hwy 99 Annexation
Map 38 1W 32, Tax Lots 1700 and 1702

Dear Mr. Severson,

I have received a revised layout for the above-mentioned project showing an increase in the number of units from 196 to 210 residential units. The existing sewer system has adequate capacity to serve the additional units.

All new sewer construction must be designed and constructed in accordance with RVSS standards.

RVSS does not operate or maintain storm drainage systems in this area. All new drainage systems would be under the jurisdiction of the City of Ashland.

Stormwater quality requirements would also be under the jurisdiction of the City of Ashland.

Feel free to call me if you have any questions regarding this project.

Sincerely,

Carl Tappert, PE
Manager

ROGUE VALLEY SEWER SERVICES

Location: 138 West Vilas Road, Central Point, OR - Mailing Address: P.O. Box 3130, Central Point, OR 97502-0005
Tel. (541) 664-6300, Fax (541) 664-7171 www.RVSS.us

October 3, 2019

Derek Severson
Ashland Planning Division
1175 East Main Street
Ashland, OR 97520

Re: PA-T3-2019-00001
1511 Hwy 99 Annexation
Map 38 1W 32, Tax Lots 1700 and 1702

Dear Mr. Severson,

I have received a copy of the staff report for the above-mentioned project wherein the City is asking for confirmation that the existing sewer system has adequate capacity to serve the proposed development.

The sewer main abutting the subject property has adequate capacity to serve the proposed development of 196 residential units.

Feel free to call me if you have any questions regarding this project.

Sincerely,

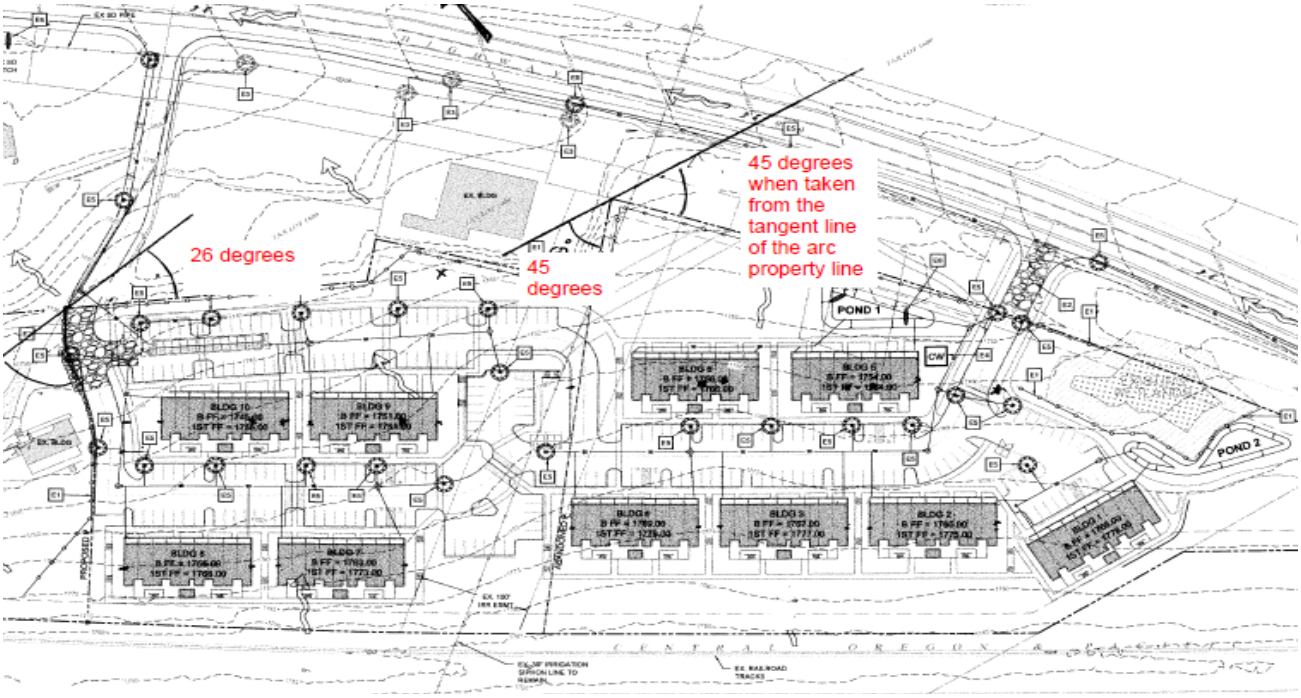
Carl Tappert, PE
Manager

Cc: Amy Gunter, Rogue Planning & Development Services

Solar Setback Performance Standard

18.4.8.040.B: Solar Envelope

Lot #	Slope of Lot to N	Required SSB	Proposed SSB
1	N/A - parking area to N		
2	-0.083	52.48'	90'
3	-0.079	54.64'	90'
4	-0.078	60.11'	90'
5	N/A - openspace and Hwy to N		
6	N/A - openspace and Hwy to N		
7	-0.089		86'
8	-0.113		86'
9	-0.091	N/A - parking & JC GC zone to N	
10	-0.166	N/A - parking & JC GC zone to N	



Northern Lot Line. Any lot line or lines less than 45 degrees southeast or southwest of a line drawn east-west and intersecting the northernmost point of the lot. If the northern lot line adjoins any unbuildable area (e.g., street, alley, public right-of-way, parking lot, or common area) other than a required yard area, the northern lot line is that portion of the northerly edge of the unbuildable area which is due north from the actual northern edge of the applicant's property. See Figure below.

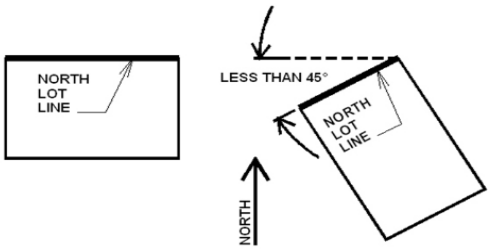


Figure 9. Northern Lot Line.

GRAND TERRACE
Owner: Casita Developments LLC
Developer: KENDRICK ENTERPRISE LLC
716 N Laurel St, Ashland Oregon 97520

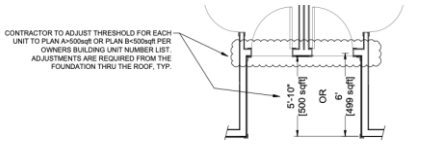
Project Location
Highway 99, Ashland Or
Map & Tax Lot# 381E 1702

TABULATION SITE PLAN COVERAGE SUMMARY		
Sheet 1	Sheet 2	Sheet 3
Lot	BONUS CALCULATIONS	IMPERVIOUS AREAS
ZONING	OPEN SPACE	LANDSCAPE AREAS
SUBDIVISION	CONSERVATION BONUS	PRIVATE AREAS
COMMON AREA HOA	AFFORDABLE HOUSING BONUS	Parking Spaces 18.4.3.040
Subdivision Tract Area	DENSITY CALCULATION WITH BONUS AWARD	Driveways & Parking Material
Proposed Unit Mix Density	DENSITY STANDARDS	Bike Parking Covered 18.4.3.040
Bonus Density Proposed		Van Pool Parking Areas
AFFORDABLE UNITS REQUIRED		ADA Parking
		Electric Vehicle Charging Stations

TABULATION SITE PLAN COVERAGE SUMMARY

LOT				**SHEET 1**				
Lot							**Area Acres**	**Sq Feet**
Map & Tax Lot# 381E 1702							**8.53**	**371566.80**
ZONING						Units Per Acre	Land Area Size	**Base Density**
R-2 Low Density MFR						13.5	8.53	115.155
SUBDIVISION			Size	Lots	Sq Ft	Acres	Lots	Lots
Lot No's			Lot	Total	Area	Of Area	Permitted	Proposed
1 ,2 ,3 ,4 ,6 ,7 ,8 , 9			8057.00	8	64456.00	1.48		
5			16414.00	1	16414.00	0.38		
Totals				9	80870.00	1.86	9	9
COMMON AREA HOA							Sq Ft	Acres
							Area	Of Area
AREA							290545.20	6.67
Subdivision Tract Area						Lots	Sq Ft	Acres
						Total	Area	Of Area
Lot Areas						9	80870.00	1.86
Common Area							290545.20	6.67
Subdivision Tract Area							371415.20	8.53
Proposed				Proposed	Equivalency	Proposed	Base	Density Units
Unit Mix Density				Unit Mix	Factor	Density	Density	Needed
Plan A Units >500 sq ft				50	1	50		
Plan B Units <500 sq ft				160	0.75	120		
Totals				210		170	115	55
Bonus Density				Base	Open Space	Affordable	Conservation	Base Density
				Density	Bonus	Unit Bonus	Bonus	Change
Proposed				115	12	40	17	184
If the bonus points are denied the applicant will have to reduce the number of units.								
If only Affordable Bonus point are given the applicant would build 198 units with 24 Affordable >500 sq ft units and 174 <500 sq ft units.								
EXAMPLE	Equivalency	Unit Mix	Equivalency	Base and		Revised	Equivalency	Base +
	Factor	Revised		Affordable Bonus		Total Units		Affordable
Plan A Units >500 sq ft	1	24	24			198	154.5	155
Plan B Units <500 sq ft	0.75	174	130.5					
Unit Density		198	154.5	155				
AFFORDABLE UNITS REQUIRED								
Unit Formula	% Required	Base	Base	80% AMI	29/1.25	Rounded	Total Units	Total
25% x Base Density	X Base Density	Density	Density	100%/80%=1.25		Up	Required	Provided
	25%	115.155	29	23.031	24	24	24	24

BONUS CALCULATIONS			SHEET 2					
18.3.9.050 B.2.a. Open space may be natural areas, wetlands, playgrounds, active or passive rec areas in common owenership, significant amenity, residents use & enjoy.								
OPEN SPACE	Open Space 18.2.5.030.					SIZE OF	Required %	Provided
AREAS						AREA	Site Min	% of Site
Wetland B Lot 1702 On Site						4606		
Land Scaped Common						59417	**8%**	16%
Other Open Area (seating, conversation, meditation, sports, tennis & bb courts)						129006		
Kid Play Area Only						2100		
Mutual Bike & Pedestrian Path						19148		
Total Open Space of Site Area						**214277**		58%
OPEN SPACE BONUS								
18.3.9.050 B.2.a. Open space may be natural areas, wetlands, playgrounds, active or passive rec areas in common owenership, significant amenity, residents use & enjoy.								
		1% per pt	Open	Base	Pt's over	Maximum	BASE	NO
		over 8%	Space		base of 8%	Allowed	DENSITY	EARNED
			58%	0.08	50	10%	115.16	12
CONSERVATION BONUS								
18.3.9.050 B.1. **Conservation Housing**. A maximum 15% bonus for 100% of units shall meet minimum Earth Advantage program.								
						BONUS	BASE	NO
							DENSITY	EARNED
Conservation ErthAdvantage						15%	115.16	17
AFFORDABLE HOUSING BONUS								
18.3.9.050 B.3 Affordable Housing A maximum bonus of 35% is allowed. Development shall receive a density bonus of two unit for each affordable unit provided.								
			No Affordable	Bonus	Max Bonus	Base	% Bonus	NO
			Units	2 per unit	x Base Density	Density	Amount	EARNED
			24	48	35%	115.16	40	40
DENSITY CALCULATION WITH BONUS AWARD			Base	Open Space	Conservation	Affordable	Revised Base	Proposed
			Density	Bonus	Bonus	Housing Bonus	Density	Density
			115	12	17	40	184	170
DENSITY STANDARDS						Density	BASE	DENSITY
Allowed						Allowed	DENSITY	ALLOWED
Minimum						90%	115.16	104
Maximum						160%	115.16	184
Proposed Density								170
The applicant can change the size of a unit from 500 sq ft to 499 sq ft by adjusting the Threshold Entry of the unit. The plans note how to adjust the unit size. Architectual Plans Sheet A.2.1 "Entry Threshold Plan" directs how to adjust units size. The applicant Builidng Unit Number List is adjustable and changes unit size.								



ENTRY THRESHOLD PLAN

SCALE: $\frac{1}{4}$"=1'-0"

UNIT SIZE
See Entry Threshold Plan Note#
BUILDING #1
Key See Architectural P A2.1 A2.2
***Plan A >500 One Bd Rm**
****Plan B <500 One Bd Rm**
***Units #'s 1, 2, 3, 5, 14**
**** Units #'s 4, 6, 7, 8, 9, 10, 12, 13, 15, 16, 17, 18, 19, 20, 21**

OWNER BUILDING UNIT NUMBER LIST

TRAFFIC IMPACT ANALYSIS

"Grand Terrace"
Residential Development

August 5, 2019

160 Madison Street, Suite A
Eugene, Oregon 97402
541.513.3376

SANDOW ENGINEERING

Traffic Impact Analysis

Grand Terrace Development



RENEWAL 06/30/26

Ashland, Oregon
August 5, 2019

Kelly Sandow PE

SANDOW
ENGINEERING
160 Madison Street, Suite A
Eugene Oregon 97402
541.513.3376
sandowengineering.com

project # 5703

EXECUTIVE SUMMARY

This report describes the Traffic Impact Analysis and findings prepared for the proposed Grand Terrace residential development, located along Rogue Valley Highway north of Ashland, Oregon. The property is described as Tax Lots 1700 and 1702 of Assessor's Map 38-1E-3. The subject property is within the Urban Growth Boundary (UGB) of Ashland but outside of the city limits. The current zoning is Jackson County Rural Residential (RR-5). The site will require annexation into the City of Ashland and will be annexed in as Low-Density Multiple Family Residential (R-2) consistent with the City of Ashland Comprehensive Plan.

The applicant estimates that the actual development will include approximately 196 residential units. However, the maximum density allowed under the proposed zoning is 251 multifamily residential units. Consistent with the Transportation Planning Rule, the evaluation has been prepared for the maximum density.

Additionally, the applicant is proposing 2 full movement accesses from Rogue Valley Highway (Highway 99).

The analysis evaluates the intersection operations during the AM peak hour for the existing year and year of completion and the PM peak hour for the existing year, year of completion, and the City of Ashland Transportation System Plan planning horizon year. Study area intersections included in the analysis are:

- Rogue Valley Highway at S. Valley View Road
- Rogue Valley Highway at Jackson Road
- Main Street at Jackson Road
- Maple Street at Main Street
- Project access points at Rogue Valley Highway

Findings

The analysis concludes the following findings and recommendations:

- The analysis shows all studied intersections will meet the mobility standards through the Year 2034 with the addition of development traffic.
- The addition of development traffic will not substantially increase queueing conditions over the background conditions.
- All site driveways are projected to operate safely and efficiently.
- It is recommended that Highway 99 be restriped to include a left turn lane for entering vehicles into the site access.
- The Transportation Planning Rule (TPR) has been demonstrated to be met.

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APPENDIX G: QUEUEING ANALYSIS OUTPUT
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1.0 INTRODUCTION

1.1 SITE INFORMATION

This report describes the Traffic Impact Analysis and findings prepared for the proposed Grand Terrace residential development. The development site occupies Tax Lots 1700 and 1702 of Assessor's Map 38-1E-32; located on Rogue Valley Highway North of Ashland. The subject property is within the Urban Growth Boundary (UGB) of Ashland, but outside of the city limits. The current zoning is Jackson County Rural Residential (RR-5). The applicant is requesting annexation, and the site will be zoned R-2 Low-Density Multiple Family Residential, consistent with the City of Ashland comprehensive plan. One single-family residence currently occupies the site. Figure 1 illustrates the site location. A site plan is provided in Appendix A.

The applicant estimates that the actual development will include approximately 196 residential units. However, the maximum density allowed under the proposed zoning is 251 multifamily residential units. Consistent with the Transportation Planning Rule, the evaluation has been prepared for the maximum density. Under the maximum density for the zoning, the site could generate 1,857 daily vehicle trips with 114 vehicle trips occurring during the AM peak hour and 134 vehicle trips in the PM peak hour.

Additionally, the applicant is proposing 2 full movement accesses from Rogue Valley Highway (Highway 99).

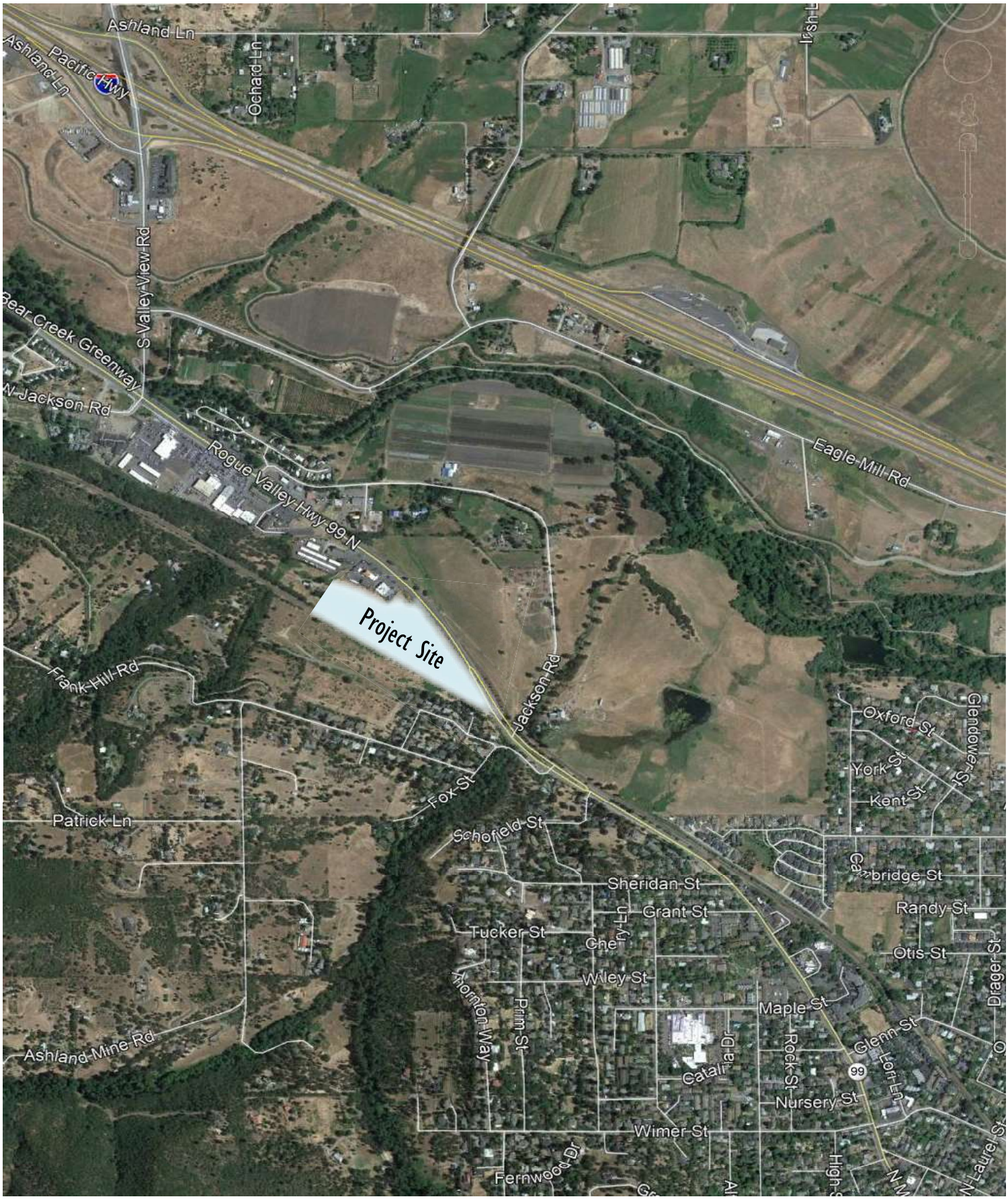
1.2 ANALYSIS SCOPE

The traffic study is completed according to the City of Ashland and the Oregon Department of Transportation standards and criteria. The scope of work is included in Appendix B. The scope of work establishes evaluation criteria for off-site impacts. As per ODOT and Ashland criteria, intersections with 50 or more trips are to be included in the analysis. The following intersections will have 50 or more development trips added to them:

- Rogue Valley Highway at S. Valley View Road
- Rogue Valley Highway at Jackson Road
- Main Street at Jackson Road
- Maple Street at Main Street
- Project Access at Rogue Valley Highway

The Scope of Work is in included in Appendix B.

An operational analysis was performed at the studied intersections during the weekday AM and PM peak hours of the system for the existing year (Year 2019) and the year of opening (Year 2021). The analysis was also performed for the PM peak hour at the end of the City of Ashland's TSP planning horizon (Year 2034) with and without the proposed development.



Grand Terrace Ashland, Oregon	Figure 1: Site Location

SANDOWENGINEERING
160 Madison Street Suite A Eugene, Oregon 97402 - 541.513.3376 - sandowengineering.com

2.0 EXISTING ROADWAY CONDITIONS

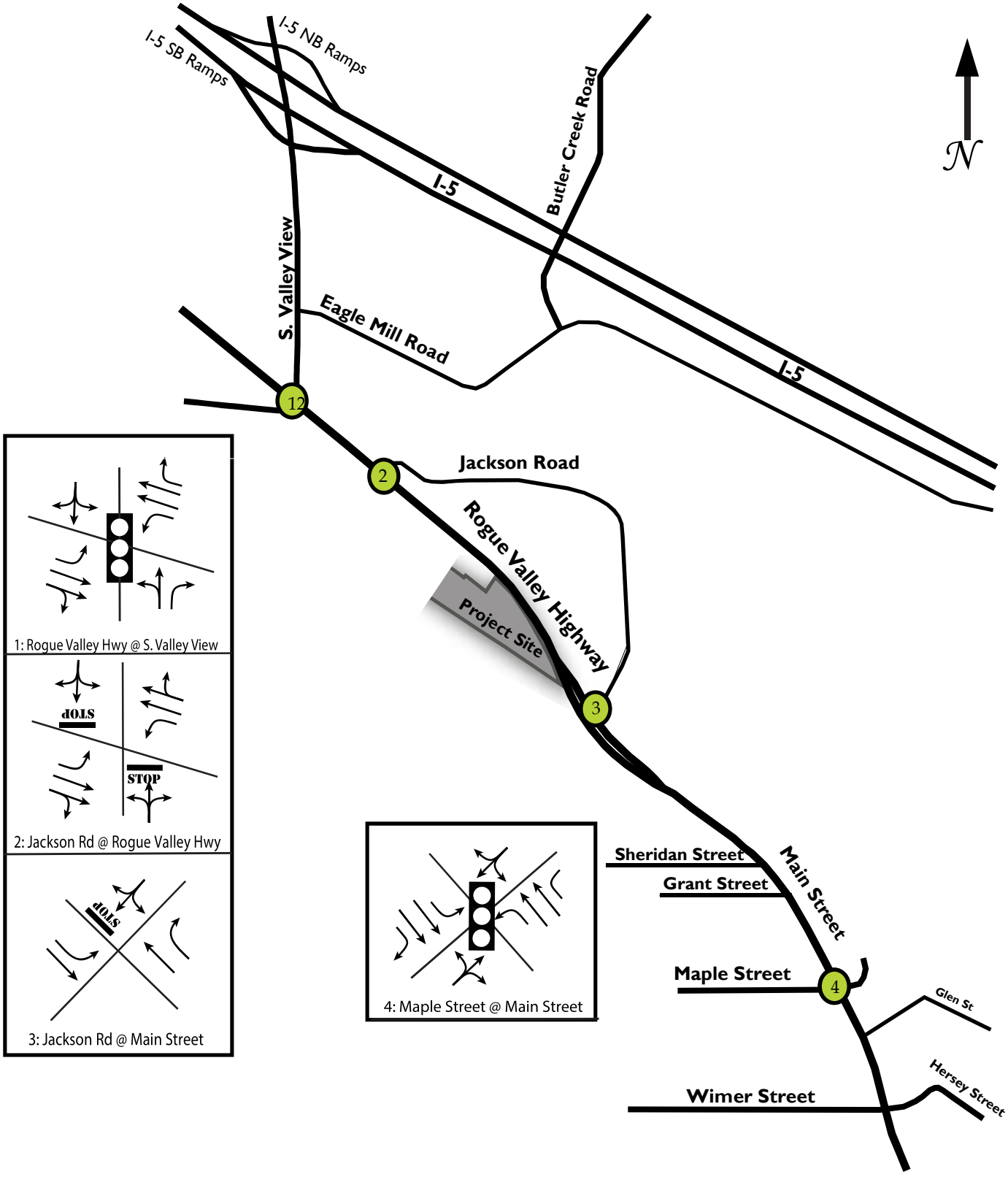
2.1 STREET NETWORK

Streets included within the study are Rogue Valley Highway/N. Main Street, S. Valley View Road, Jackson Road, and Maple Street. The project site is on the southwest side of Rogue Valley Highway adjacent to Anderson Autobody. Table 1 illustrates the roadway characteristics within the study area.

TABLE 1: ROADWAY CHARACTERISTICS WITHIN STUDY AREA

Characteristic	Rogue Valley Hwy Main Street	S. Valley View Rd	Jackson Rd	Maple Street
Functional Classification	District Highway Boulevard	ODOT Connector Road	Jackson County Local Road	Avenue
Posted Speed	25- 45 mph	35 mph	Basic Rule	25 mph
Lanes per Direction	1-2	1	1	1
Center Left Turn Lane	Yes	North of Eagle Mill Road	No	No
Restrictions in the Median	No	No	No	No
Bikes Lanes Present	Lanes on Main Street Shoulder on Highway 99	No	No	Marked Bike Route W/O Lanes
Sidewalks Present	Intermittent	No	North End Only	Yes
Transit Route	Yes	No	No	No
On-Street Parking	No	No	No	Intermittent

Figure 2 illustrates the study area intersection locations, intersection geometry, and access control.



Grand Terrace Ashland, Oregon	Figure 2: Lane Configurations and Control

SANDOWENGINEERING
160 Madison Street Suite A Eugene, Oregon 97402 - 541.513.3376 - sandowengineering.com

2.2 CRASH ANALYSIS

A crash investigation was performed for the study area intersections. The analysis investigates crashes that have been reported to the state for the most recent 5 years, 2013-2017 to determine the crash rate in crashes per million vehicles entering the intersection and the types of crashes that occurred.

For ODOT facilities the crash rate is compared to the statewide 90th percentile crash rate of 0.860 crashes/million entering vehicles the signalized intersection and for 0.293 crashes/million entering vehicles, for a three-leg minor stop-control intersection. If the calculated crash rate exceeds the 90th percentile crash rate or there is a high percentage of a certain crash type, the location should be investigated for further mitigation measures.

For City of Ashland facilities, the crash rate is compared to a standard threshold of 1.0 crashes/million entering vehicles. If the calculated crash rate exceeds the 1.0 crashes/MEV or there is a high percentage of a certain crash type, the location is investigated for further mitigation measures.

No crashes were reported at the intersection of Main Street at Jackson Road. Table 2 summarizes crash information and crash rates.

TABLE 2: INTERSECTION CRASH RATES

Location	# of Crashes	Types of Crashes						ADT	90th Percentile Rate*	Crash Rate*
		Head	Rear	Angle	Turn	Other	Ped/Bike			
Rogue Valley Highway @ S. Valley View Road	7	0	5	0	1	1	0	16,800	0.860	0.23
Rogue Valley Highway @ Jackson Road	2	0	0	1	1	0	0	16,800	0.293	0.07
Main Street @ Maple Street	10	0	8	0	1	1	0	17,200	1.0	0.32

*(crashes/million entering vehicles)

As illustrated in Table 2, all the studied intersections have a crash rate lower than the threshold.

Seven accidents occurred at the intersection of S Valley View Road at Rogue Valley Highway; three were resulted in property damage only (PDO), and four resulted in injury. The injury accidents were caused by a left-turn in front of oncoming traffic and failure to avoid the stopped vehicle. The PDO accidents were attributed to following too closely and failure to avoid the stopped vehicle. All accidents occurred in years 2013 thru 2015 when the intersection was limited to three legs. No accidents occurred in 2016 after a fourth leg was added and traffic signal was upgraded.

Of the ten collisions at the intersection of Main Street at Maple Street, four were injury accident, and six resulted in PDO. The four injury accidents were attributed to following too closely, failure to avoid the stopped vehicle, and careless driving. The PDO accidents were caused by following too closely, failure to avoid the stopped vehicle, and an animal in the road.

Two injury accidents occurred at Jackson Road and Rogue Valley Highway. The accidents were caused by following too closely and failure to yield ROW.

3.0 TRAFFIC VOLUMES

3.1 INTERSECTION COUNTS

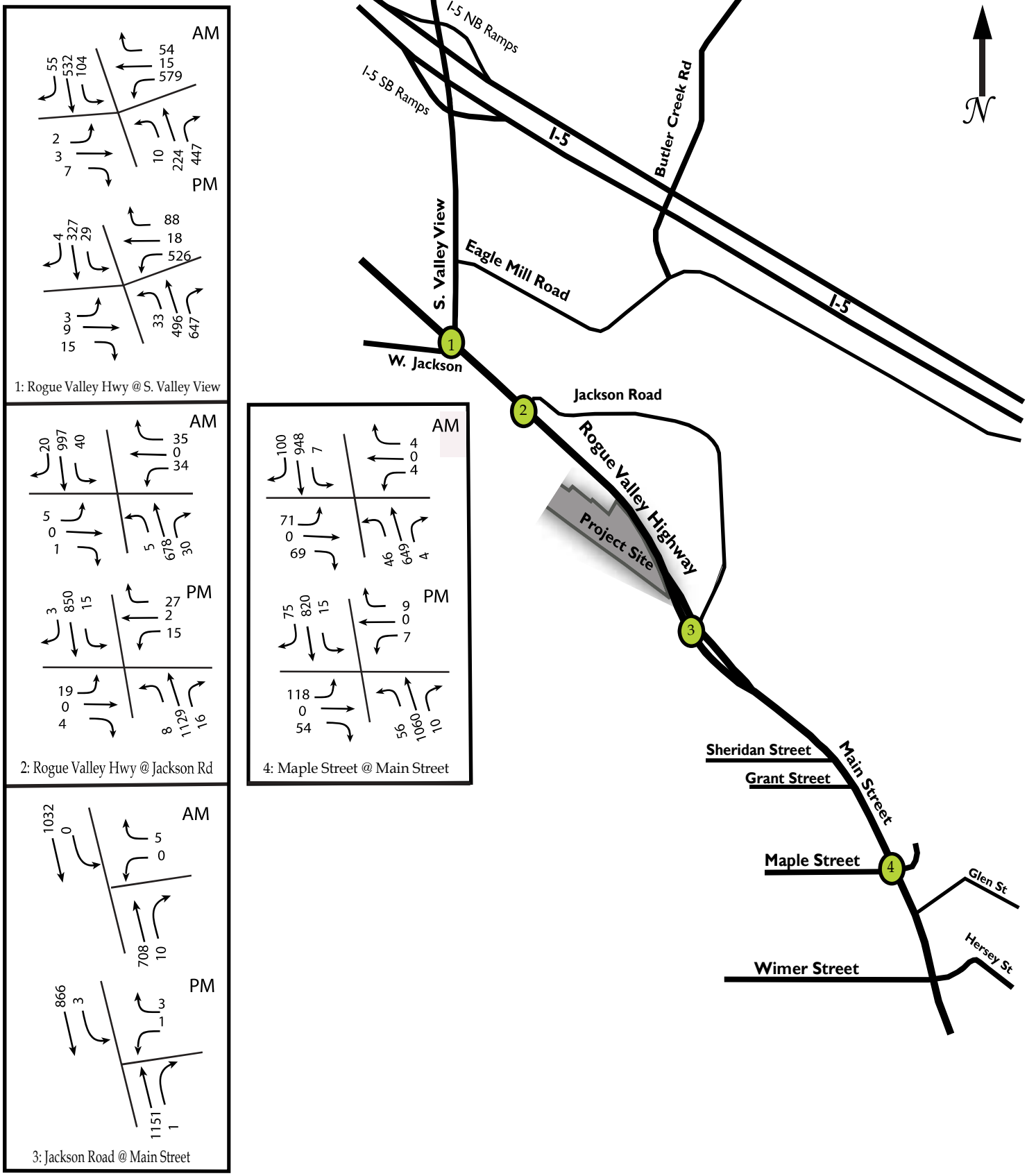
As part of the analysis, weekday AM and PM peak hour turning movement counts were collected at the study intersections. The traffic counts were taken by Southern Oregon Transportation Engineering. The intersection of Maple Street and Main Street was counted on September 29, 2016 and October 25, 2016. The additional counts were taken on May 8, 2018.

Turning movement counts illustrate the AM peak hour is from 8:00 AM to 9:00 AM and the PM peak hour occurs from 4:30 PM to 5:30 PM. The 2019 existing AM and PM traffic volumes are shown in Figure 3. The traffic count data is included in Appendix D.

3.2 FUTURE YEAR BACKGROUND VOLUMES

Consistent with traffic impact analysis criteria, the intersections were evaluated for the year of completion (year 2021) and the planning horizon (year 2034) with and without the development. To account for naturally occurring traffic increases between the count year and future analysis year, an annual growth rate was applied. Based on information within the City of Ashland's *Transportation System Plan,* the overall average growth rate per year expected within the study area is 1.2%.

The 1.2% per year growth rate per year was applied to the existing traffic counts to obtain future background traffic volumes. The resulting AM and PM peak-hour background volumes are shown in Figure 4 for the year 2021 and Figure 5 for the year 2034. Appendix E contains the traffic volume development calculations.



Grand Terrace Ashland, Oregon	Figure 3: 2019AM/PM Existing Traffic Volumes

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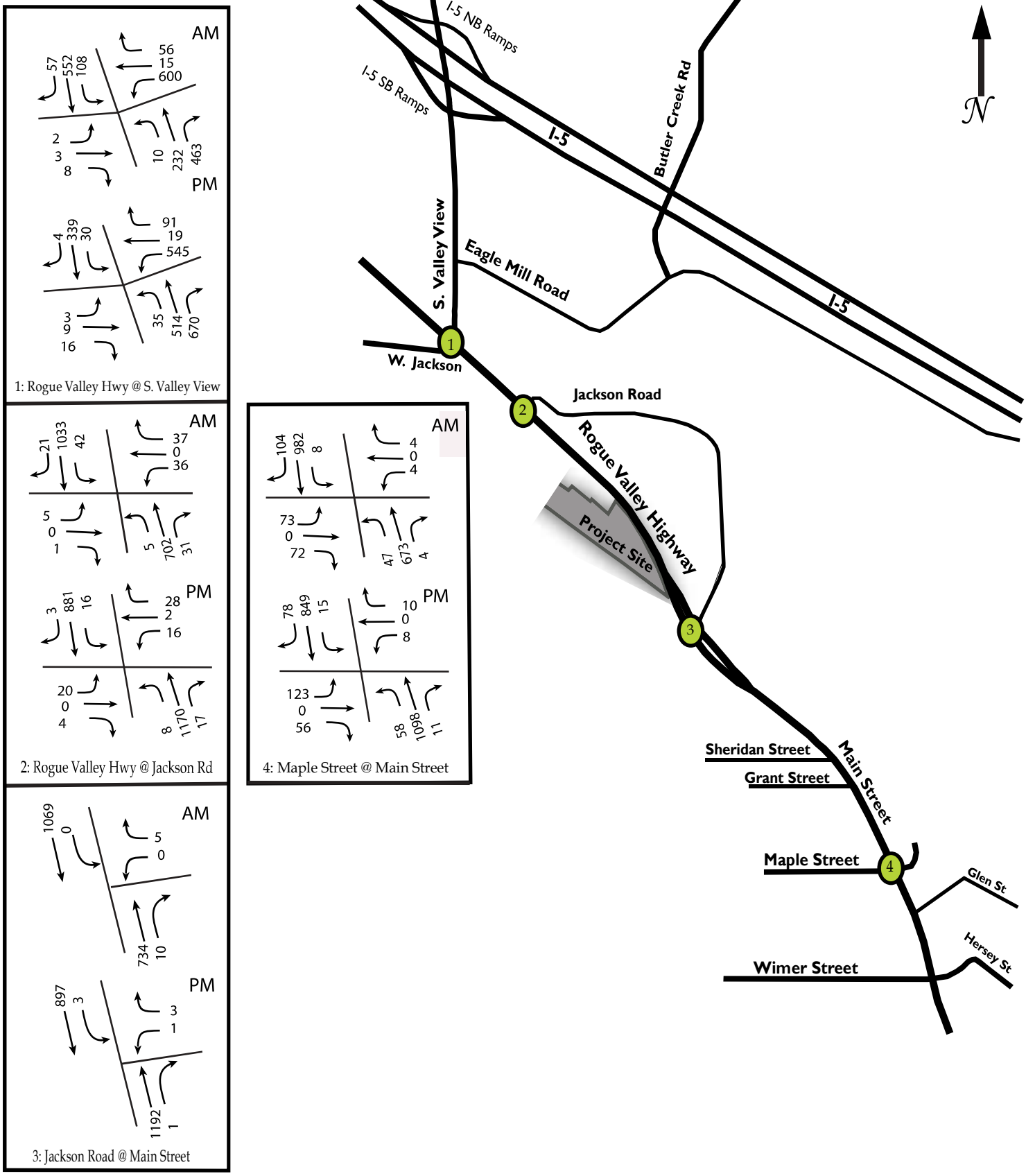

Grand Terrace Ashland, Oregon	Figure 4: 2021 Background Traffic Volumes

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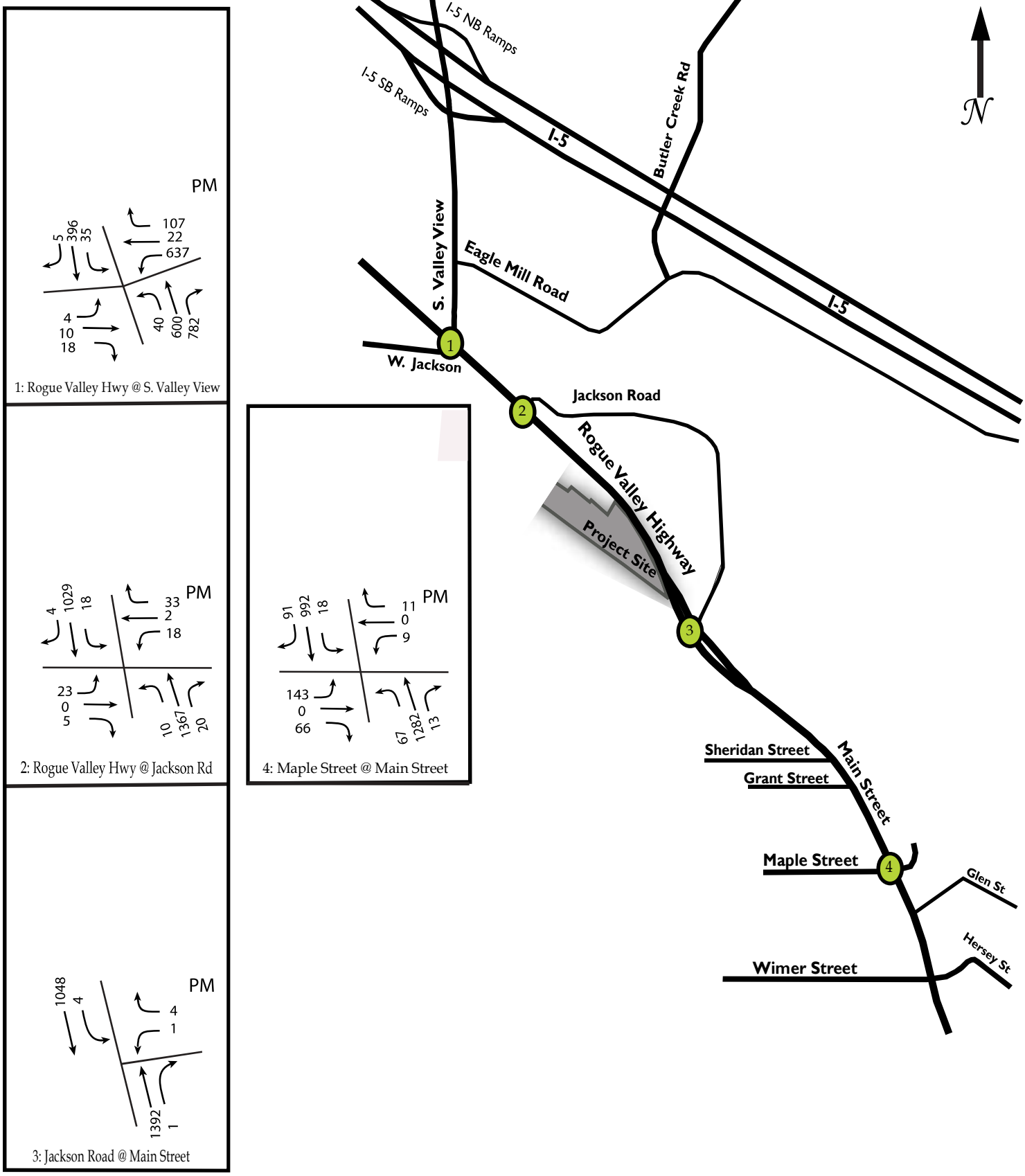

Grand Terrace Ashland, Oregon	Figure 5: 2034 Background Traffic Volumes

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4.0 DEVELOPMENT TRAFFIC

4.1 TRIP GENERATION

While the applicant is proposing 196 residential units, the maximum density of the site was evaluated to allow for flexibility in the final site design and to show compliance with the transportation planning rule. As the site is requesting a zone change the evaluation was prepared for the maximum allowed density under the R2 zoning of 251 multi-family residential units.

The trip generation for the development was estimated using the information contained within the ITE Trip Generation Manual 10th Edition. The site trips are estimated using the data provided for Land Use 220 Multifamily Housing (Low-Rise). The site generated trips for the AM and PM peak hour trips are illustrated in Table 3.

TABLE 3: TRIP GENERATION

			Trip Generation					
ITE Land Use	Size	Unit	Rate	Trips	% In	% Out	Trips In	Trips Out
AM								
220 Low-Rise Residential	251	Dwelling Unit	Ln(T) = 0.95 Ln(x) -0.51	114	0.23	0.77	26	88
PM								
220 Low-Rise Residential	251	Dwelling Unit	Ln(T) = 0.89 Ln(x) -0.02	134	0.63	0.37	84	50
Daily								
220 Low-Rise Residential	251	Dwelling Unit	T=7.56(x)-40.86	1857	50	50	929	928

The proposed zone change would have a maximum development potential of 251 dwelling units and is expected to generate 1,857 Daily trips with 114 occurring during the AM peak hour and 134 in the PM peak hour.

4.2 TRIP DISTRIBUTION

The development trips were distributed though the study area network using the existing observed travel patterns as a base with modifications as per reasonable origins and destinations. The trip distribution is as follows:

- 40% to/from the South via Rogue Valley Highway
- 35% to/from the North via Rogue Valley Highway
- 25% to/from I-5

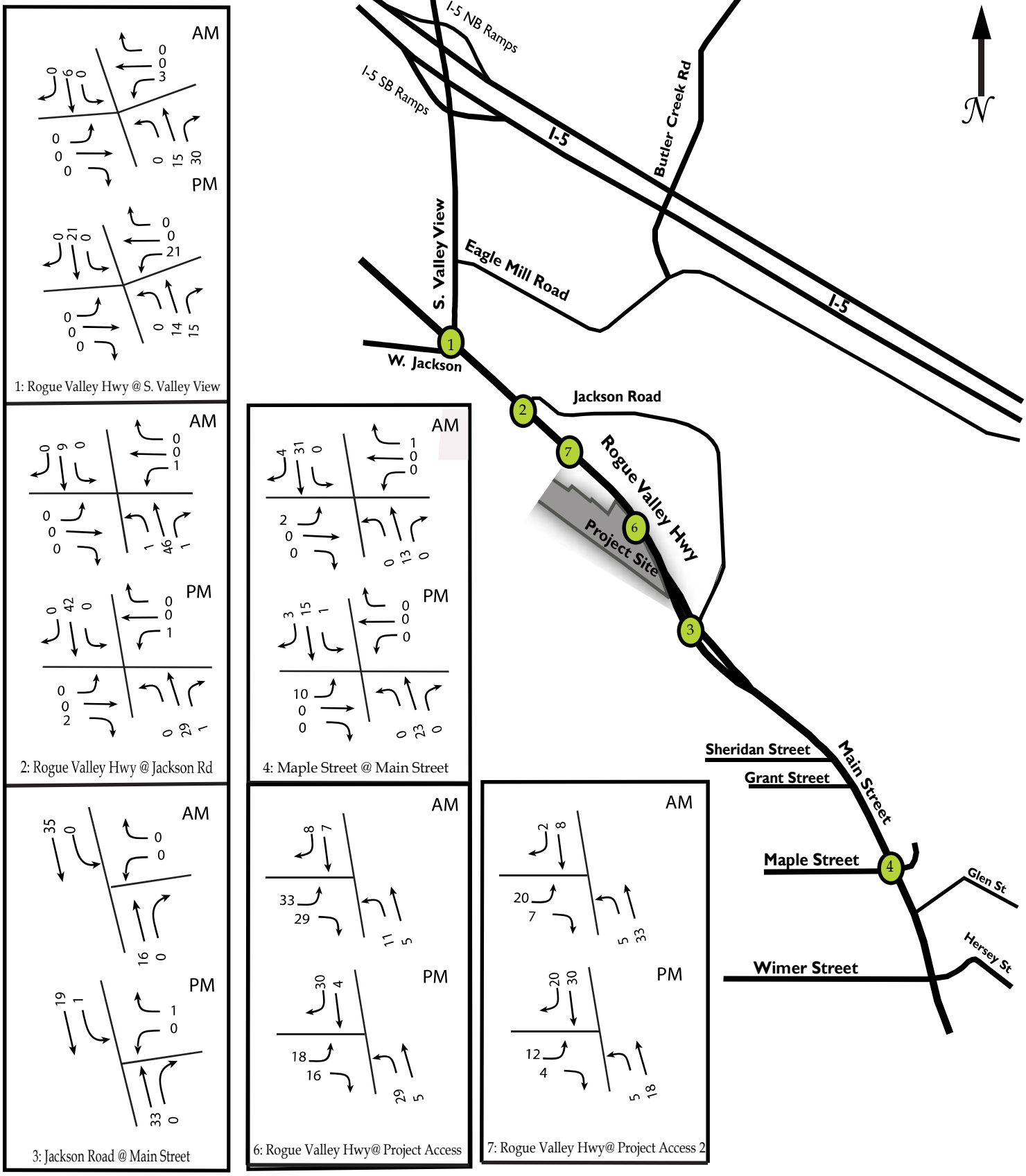
The development trips assigned to the study area intersections are illustrated in Figure 6.

The trip distribution determined that the following intersections will have 50 or more development trips added to them:

- Rogue Valley Highway at S. Valley View Road
- Rogue Valley Highway at Jackson Road
- Main Street at Jackson Road
- Maple Street at Main Street

4.3 BUILD-OUT TRAFFIC VOLUMES

The proposed development trips were added to the Year 2021 and year 2034 background traffic volumes to represent the build conditions. Figure 7 depicts the Year 2021 AM and PM peak-hour build condition traffic volumes. Figure 8 depicts the Year 2034 PM peak-hour build traffic volumes.



Grand Terrace Ashland, Oregon	Figure 6: Development Traffic Volumes

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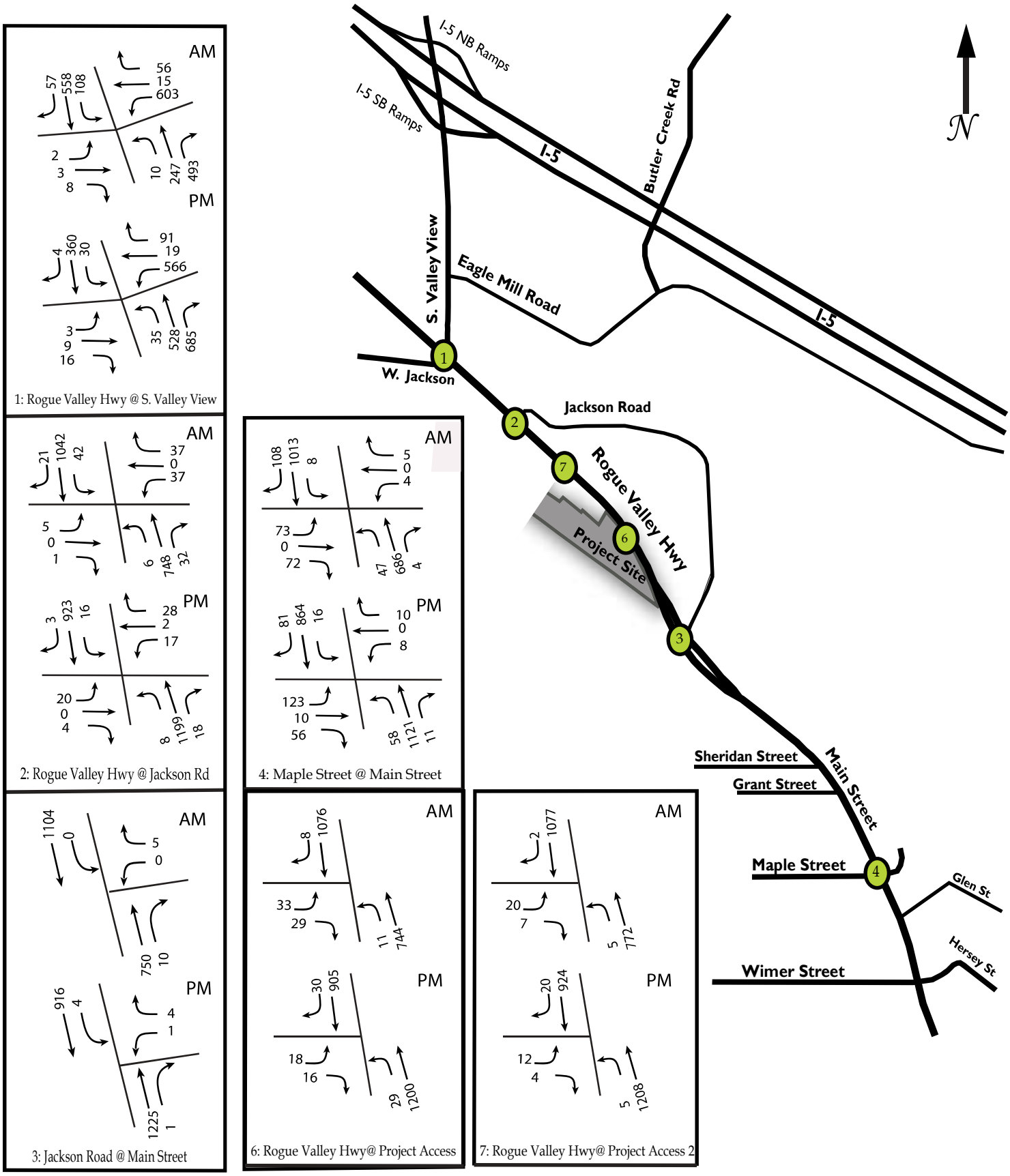

Grand Terrace Ashland, Oregon	Figure 7: 2021 Build Traffic Volumes

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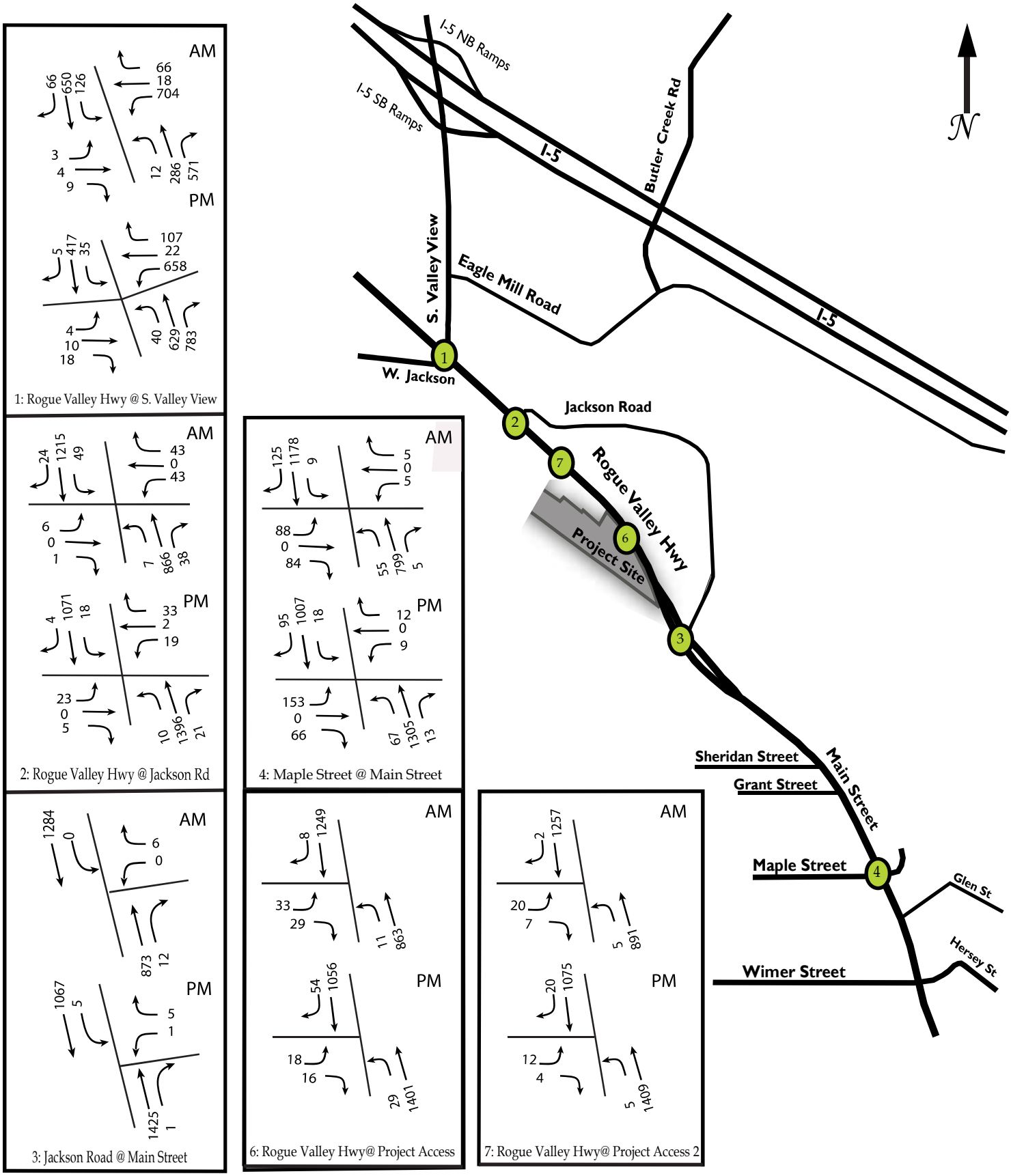

Grand Terrace Ashland, Oregon	Figure 8: 2034 Build Traffic Volumes

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5.0 SITE ACCESS AND CIRCULATION

The site will have the main access from Highway 99. The location and access evaluation are discussed later in the report.

5.1 PEDESTRIAN ACCESS

No pedestrian access is currently available in the vicinity of the subject property. While this area is developing, it still retains much of its rural characteristics.

In accordance with City of Ashland development criteria, sidewalks will be provided along the Rogue Valley Highway frontage with the construction of proposed development.

5.2. TRANSIT ACCESS

Rogue Valley Transportation District (RVTD) provides transit service to Ashland. Currently, one route is operating which runs from Front Street Station in Medford to Bi-Mart in Ashland. Service is provided from 5:00 AM to 8:00 PM weekdays and 7:00 AM to 6:00 PM on Saturdays. The route runs along Rogue Valley Highway in front of the proposed development.

6.0 PERFORMANCE MEASURES

The studied intersections were evaluated for Volume to Capacity (v/c) and Level of Service (LOS). The standard for intersections under ODOT's jurisdiction is v/c; while LOS is the standard for the City of Ashland.

Volume-to-capacity ratio describes the capability of an intersection to meet volume demand based upon the maximum number of vehicles that could be served in an hour. V/C is the threshold for which ODOT evaluates the operation of intersections, as defined by the Oregon Highway Plan. V/C thresholds are defined based on roadway classification and speed. Rogue Valley Highway (Highway 99) is designated as a District Level Highway inside a Metropolitan Planning Organization (MPO). The v/c threshold for a facility of this type is 0.95 for the for signalized and unsignalized intersections.

The studied intersections were evaluated for Level of Service. Level of Service is a measure of performance that is based on the Highway Capacity Manual (HCM) defined level of service (LOS). LOS is a concept developed to quantify the degree of comfort (including such elements as travel time, number of stops, total amount of stopped delay, and impediments caused by other vehicles) afforded to drivers as they travel through an intersection. It was developed to quantify the quality of service of transportation facilities. LOS is based on average delay, defined as the average total elapsed time from when a vehicle stops at the end of a queue until the vehicle departs from the stop line. Average delay is measured in seconds per vehicle per hour and then translated into a grade or "level of service" for each intersection. LOS ranges from A to F, with A indicating the most desirable condition and F indicating the most unsatisfactory condition. The City of Ashland has a level of service threshold of LOS D for all intersections. The LOS criteria, as defined by the Highway Capacity Manual for signalized intersections, are provided in Table 4.

TABLE 4: HCM LEVEL OF SERVICE FOR INTERSECTIONS

	Stopped Delay Per Vehicle (Seconds per Vehicle)	
	Unsignalized Intersections	**Signalized Intersections**
A	≤ 10.0	≤ 10
B	> 10.0 and ≤ 15.0	> 10 and ≤ 20
C	> 15.0 and ≤ 25.0	> 20 and ≤ 35
D	> 25.0 and ≤ 35.0	> 35 and ≤ 55
E	> 35.0 and ≤ 50.0	> 55 and ≤ 80
F	> 50.0	> 80

6.1 EXISTING 2019 INTERSECTION ANALYSIS RESULTS

A performance analysis was conducted for the studied intersections for the Year 2018 existing conditions during the PM peak hour. The results are shown in Table 5. The SYNCHRO outputs are provided in Appendix F.

TABLE 5: INTERSECTION PERFORMANCE: YEAR 2019 EXISTING AM AND PM PEAK HOUR

Intersection	Mobility Standard	2019 AM Existing	2019 PM Existing
Rogue Valley Hwy @ S. Valley View	0.95	0.76	0.76
Rogue Valley Hwy @ Jackson Road	0.95	0.38	0.46
Main St. @ Jackson Road	0.95	0.01	0.04
Maple Street @ Main Street	LOS D	B	C

*Results for stop-controlled intersections are reported for the critical approach.

As illustrated in Table 5, all the studied intersections operate better than the mobility standard in existing conditions.

6.2 INTERSECTION ANALYSIS RESULTS - 2021

A performance analysis was conducted for the studied intersections for the Year 2021 background and build conditions during the AM and PM peak hour. The results of the analysis are shown in Table 6. The SYNCHRO outputs are provided in Appendix F.

TABLE 6: INTERSECTION PERFORMANCE: YEAR 2021 AM AND PM PEAK HOUR

Intersection	Mobility Standard	AM 2021 No-Build	AM 2021 Build	PM 2021 No-Build	PM 2021 Build
Rogue Valley Hwy @ S. Valley View	0.95	0.77	0.77	0.78	0.80
Rogue Valley Hwy @ Jackson Rd	0.95	0.44	0.50	0.54	0.62
Main St. @ Jackson Road	0.95	0.01	0.01	0.04	0.05
Main Street @ Maple Street	LOS D	B	B	C	D
Rogue Valley Hwy @ north Project Access	0.95	N/A	0.13	N/A	0.08
Rogue Valley Hwy @ south Project Access	0.95	N/A	0.34	N/A	0.31

*Results for stop-controlled intersections are shown for the critical (worst performing) approach.

As illustrated in Table 6, all the studied intersections operate better than the mobility standard in existing conditions.

6.3 INTERSECTION ANALYSIS RESULTS -YEAR 2034

A performance analysis was conducted for the studied intersections for the Year 2034 background and build conditions during for the PM peak hour consistent with TPR. The results of the analysis are shown in Table 7. The SYNCHRO outputs are provided in Appendix F.

TABLE 7: INTERSECTION PERFORMANCE: YEAR 2034 PM PEAK HOUR

Intersection	Mobility Standard	PM 2034 No-Build	PM 2034 Build
Rogue Valley Hwy @ S. Valley View	0.95	0.89	0.89
Rogue Valley Hwy @ Jackson Road	0.95	0.84	0.92
Main St. @ Jackson Road	0.95	0.06	0.08
Main Street @ Maple Street	LOS D	D	D
Rogue Valley Hwy @ north Project Access	0.95	N/A	0.09
Rogue Valley Hwy @ south Project Access	0.95	N/A	0.46

Results for stop-controlled intersections are shown for the critical (worst performing) approach. The intersection performance (ICU)is shown in parenthesis.

As illustrated in Table 7, all the studied intersections operate better than the mobility standard in existing conditions.

6.4 QUEUING ANALYSIS

A queuing analysis was conducted for the studied intersections for the year 2021 conditions during the AM and PM Peak Hours build and no-Build conditions, and for the year 2034 for PM No-Build and Build conditions.

The analysis was performed using SimTraffic, a micro-simulation software tool that uses the HCM defined criteria to estimate the queuing of vehicles within the study area. The average and 95th percentile queuing results are illustrated in Table 8 for AM and Table 9 for PM. All results are rounded to 25 feet to better represent the total number of vehicles in the queue, as one vehicle typically occupies 25 feet of space. The SimTraffic outputs are provided in Appendix F.

TABLE 8: INTERSECTION QUEUING: AM PEAK HOUR

		2021 No-Build		2021 Build	
Movement	**Available Storage**	**Avg**	**95th Percentile**	**Avg**	**95th Percentile**
S. Valley View at Rogue Valley Highway					
SEB Left	225	50	100	75	100
SEB Thru	>500	100	175	100	175
SEB Thru- Right	>500	100	150	75	150
NWB Left	475	25	25	25	50
NWB-Thru	>500	50	100	50	100
NWB-Thru	>500	50	100	50	100
NWB-Right	100	50	125	50	100
NEB-Left-Thru	75	25	25	25	25
NEB-Right	100	25	50	25	50
SWB-LTR	>500	175	250	175	250
Jackson Road at Rogue Valley Highway					
SEB Left	100	25	50	25	50
NWB Left	100	25	25	25	25
NEB Left-Thru-Right	100	25	50	25	25
SWB Left-Thru-Right	200	50	100	50	75
Jackson Road at Main Street					
SW Left- Right	175	25	0	25	0
SB Left	50	25	25	25	0
Maple Street at Main Street					
EB Left-Thru-Right	400	75	125	75	125
WB Left-Thru-Right	175	25	25	25	25
NB Left	150	50	75	50	75
NB Thru	>500	125	250	125	225
NB Right	160	25	25	25	25
SB Left	75	25	75	25	25
SB Thru	>500	200	350	200	400
SB Right	195	25	100	50	150
Project Access at South Rogue Valley Highway					
NWB Left-Thru	75	N/A	N/A	25	50
EB Left	150	N/A	N/A	50	100
EB Right	225	N/A	N/A	25	75
Project Access at North Rogue Valley Highway					
NWB Left-Thru	75	N/A	N/A	25	50
EB Left	150	N/A	N/A	50	100
EB Right	225	N/A	N/A	25	75

TABLE 9: INTERSECTION QUEUING: PM PEAK HOUR

		2021 No-Build		2021 Build		2034 No-Build		2034 Build	
Movement	Available Storage	Avg	95th Percentile	Avg	95th Percentile	Avg	95th Percentile	Avg	95th Percentile
S. Valley View at Rogue Valley Highway									
SEB Left	225	25	50	25	50	25	75	50	75
SEB Thru	>500	100	150	100	150	125	175	125	200
SEB Thru- Right	>500	50	100	50	100	75	150	75	150
NWB Left	475	25	50	25	50	25	75	25	75
NWB-Thru	>500	100	175	100	175	150	225	150	250
NWB-Thru	>500	125	225	100	200	150	300	200	375
NWB-Right	100	75	150	75	150	100	175	125	175
NB-Left-Thru	75	25	50	25	50	25	50	25	50
NB-Right	100	25	50	25	50	25	50	25	50
SB-LTR	>500	200	250	175	275	200	300	225	325
Jackson Road at Rogue Valley Highway									
SEB Left	100	25	50	25	50	25	50	25	50
NWB Left	100	25	25	25	25	25	25	25	50
NEB Left-Thru-Right	100	50	75	25	75	50	100	50	125
SWB Left-Thru-Right	200	50	100	50	100	50	100	50	125
Jackson Road at Main Street									
SW Left- Right	175	25	25	25	25	25	25	25	50
SB Left	50	25	25	25	25	25	25	25	25
Maple Street at Main Street									
EB Left-Thru-Right	400	100	175	100	200	175	300	175	275
WB Left-Thru-Right	175	25	50	25	50	25	50	25	50
NB Left	150	75	275	100	325	175	475	175	475
NB Thru	>500	375	725	400	775	975	1225	1025	1250
NB Right	160	25	225	25	150	275	875	350	1000
SB Left	75	25	75	25	75	25	75	25	75
SB Thru	>500	225	375	225	400	325	550	275	525
SB Right	195	50	150	50	175	75	250	75	225
Project Access at South Rogue Valley Highway									
NWB Left-Thru	75	N/A	N/A	25	50	N/A	N/A	25	50
EB Left	150	N/A	N/A	25	50	N/A	N/A	25	75
EB Right	225	N/A	N/A	25	50	N/A	N/A	25	50
Project Access at North Rogue Valley Highway									
NWB Left-Thru	75	N/A	N/A	25	50	N/A	N/A	25	50
EB Left	150	N/A	N/A	25	50	N/A	N/A	25	75
EB Right	225	N/A	N/A	25	50	N/A	N/A	25	50

7.0 SITE ACCESS EVALUATION

The applicant is proposing access to Highway 99 along the site frontage. The site driveway is proposed along a section of Highway 99 that transitions from 2 lanes to 1 lane as part of the road diet. There is a change in grade to the south and the roadway goes under the railroad tracks. The railroad bridge is a physical obstruction that limits the line sight for vehicles. The location of the access is based upon evaluations of maximizing the line of sight for motorists to meet the stopping and intersection sight distances as well as the ability to execute turning maneuvers safely. The following describes the access location evaluation and recommendations.

SIGHT DISTANCE:

The site access of onto Highway 99 was reviewed for vehicle line of site (sight distance). Sight distances are classified by the stopping sight distance (SSD) for the major roadway and departure/intersection sight distance (ISD) for the minor street (controlled) approach. The stopping sight distance is the length of roadway needed for a vehicle traveling at the design speed to safely stop for a stationary object in the roadway. The required sight distance allows a driver to perceive and react to object 2 feet high on the roadway visible from a driver's eye height of 3.5 feet above the ground. The departure sight distance (ISD) is a measure of the length of visibility of the roadway given to a stopped driver on a minor road approach. The distance provides time to perceive and react to gaps in traffic. For this calculation, it is assumed that the driver's eye is 3.5 feet above the ground and that the object to be seen is 3.5 feet above the ground of the intersecting road.

Intersections and driveways should, at a minimum, meet the SSD requirements. However, it is desirable to achieve the ISD whenever possible.

The standards for evaluating SSD and ISD follow the methodology in AASHTO's *A Policy on Geometric Design of Highways and Streets* (2011).

Highway 99 is a District Level Highway with a posted speed of 45 miles per hour. As per AASHTO, the SSD on a roadway with a speed of 45 miles per hour is 360 feet. This means that a driver along Highway 99 needs to be able to see a stopped driver along the roadway waiting to enter the site at a minimum of 360 feet ahead of the driveway. Figure 9 below illustrates the proposed driveway location and the line of sight for a driver along Highway 99.

As per AASHTO, the ISD distance on a roadway with a speed of 45 miles per hour is 500 feet. This means that a driver waiting to leave the site will need to be able to see at a minimum of 500 feet in both directions to be able to perceive and react to adequate gaps in traffic to execute a safe left-turn maneuver. Figure 9 and 10 below illustrates the proposed driveway location and the line of sight for a driver exiting the site. The development property has sloped topography along the property frontage. All areas between the line of sight and the roadway need to be cleared of vegetation and earth material down to a maximum height of 2 feet above the elevation of the roadway.

FIGURE 9: SIGHT DISTANCE AT PROPOSED SOUTH ACCESS LOCATION



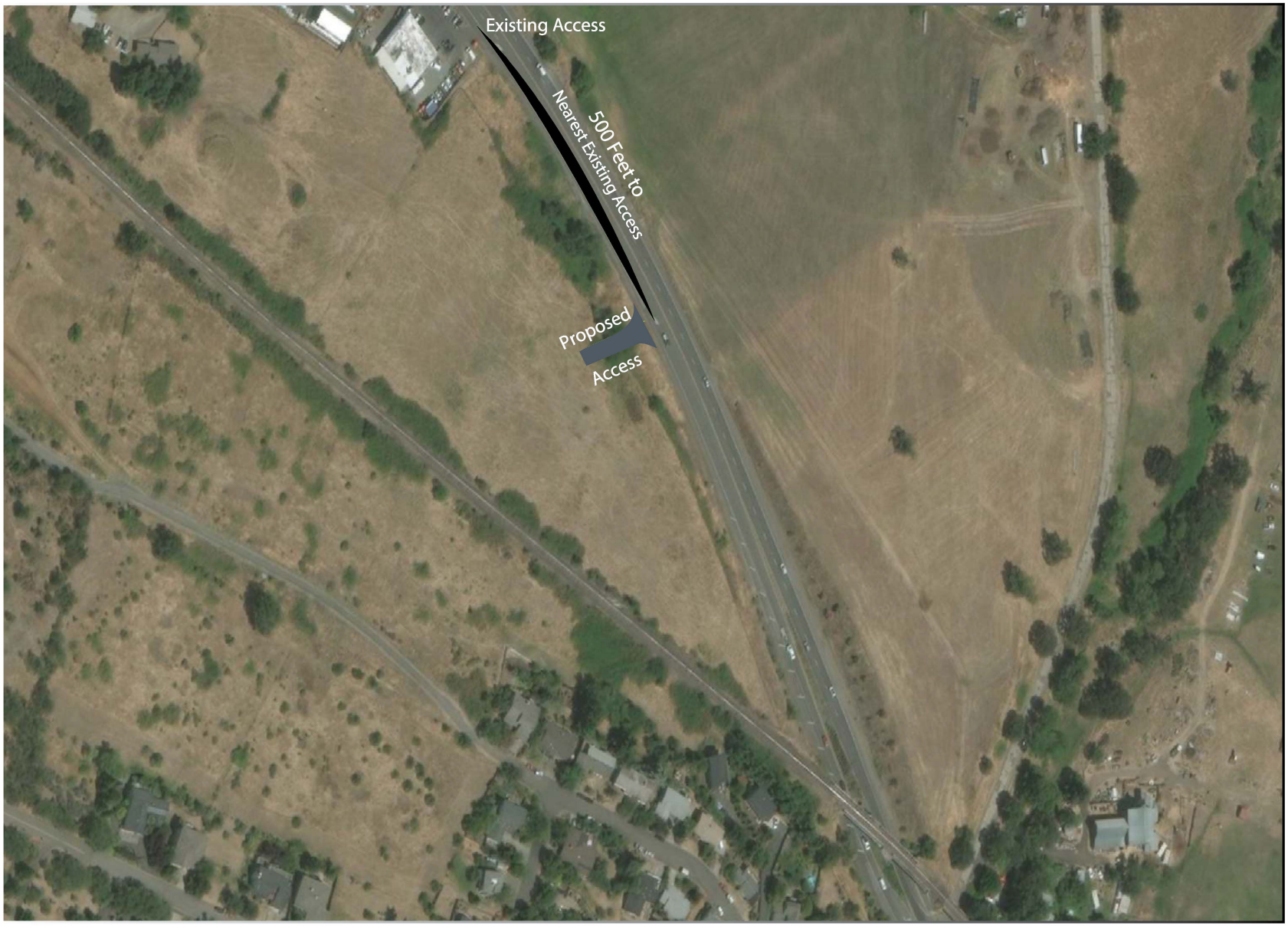
Grand Terrace Ashland, Oregon	Figure 9: South Driveway Intersection Site Distance

ACCESS SPACING:

The driveway spacing standards are defined in the Oregon Highway Plan. For District Level Highways the spacing standard is 500 feet. The proposed access meets the spacing standard. Figure 11 illustrates the distance between the proposed access location and the nearest adjacent access points.

TURNING MOVEMENT EVALUATION:

The site access was evaluated for LOS, V/C, and queuing conditions. The v/c, queuing, and LOS are all within acceptable standards and will not cause a safety issue for Highway 99. It is recommended that due to the level of left-turning traffic into the development, the horizontal and vertical curvature of Highway 99, and that northbound vehicles on Highway 99 are existing from under the railroad crossing, the roadway be restriped to add a left-turn pocket. This will maximize the safety of vehicles traveling along Highway 99 in the north direction by removing the left turns from the travel way. Appendix H contains a recommended conceptual striping layout to accommodate the left turn pocket.



Grand Terrace- Ashland, Oregon	Figure 11: Access Spacing

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8.0 TPR FINDINGS

Consistent with the Transportation Planning Rule, the following elaborates on how this development meets the TPR requirements.

Goal 12, (OAR) 660-12-0060 (1) requires that a local government ensures that an amendment to a functional plan, an acknowledged comprehensive plan, or a land-use regulation (including a zoning map) does not significantly affect a transportation facility if it would:

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

The proposed zone change will not result in a change of functional classification of the adjacent roadways.

> (b) Change standards implementing a functional classification system; or

The proposed zone change will not cause traffic levels or patterns that would change the standards implementing a functional classification system.

> (c) Result in any of the effects listed in paragraphs (A) through (C) of this subsection based on projected conditions measured at the end of the planning period identified in the adopted TSP. As part of evaluating projected conditions, the amount of traffic projected to be generated within the area of the amendment may be reduced if the amendment includes an enforceable, ongoing requirement that would demonstrably limit traffic generation, including, but not limited to, transportation demand management. This reduction may diminish or completely eliminate the significant effect of the amendment.
>
> (A) Types or levels of travel or access that are inconsistent with the functional classification of an existing or planned transportation facility.

The proposed zone change will not generate levels or types of traffic that is inconsistent with the functional classification of the adjacent transportation facility.

> (B) Degrade the performance of an existing or planned transportation facility such that it would not meet the performance standards identified in the TSP or comprehensive plan; or

As demonstrated in Table 7, all transportation facilities will meet the adopted mobility standards.

> (C) Degrade the performance of an existing or planned transportation facility that is otherwise projected to not meet the performance standards identified in the TSP or comprehensive plan." OAR 660-12-0060(1)

As demonstrated in Table 7, all transportation facilities will meet the adopted mobility standards.

9.0 CONCLUSION

This report describes the Traffic Impact Analysis findings prepared for the proposed Grand Terrace development, located along Rogue Valley Highway north of Ashland, Oregon. The property occupies Tax Lots 1700 and 1702 of Assessor's Map 38-1E-3. The subject property is in Jackson County, within the Urban Growth Boundary (UGB) of Ashland, Or. The project will require annexation into the City of Ashland. The current zoning is Jackson County Rural Residential (RR-5). The site will be zoned to Low-Density Multiple Family Residential (R-2) consistent with the City of Ashland Comprehensive Plan.

The maximum density allowed under the proposed zoning is 251 multifamily residential units. Consistent with the Transportation Planning Rule, the evaluation has been prepared for the maximum density.

Additionally, the applicant is proposing 2 full movement accesses from Rogue Valley Highway (Highway 99).

The analysis evaluates the intersection operations during the AM peak hour for the existing year and year of completion and the PM peak hour for the existing year, year of completion, and the City of Ashland Transportation System Plan planning horizon year. Study area intersections included in the analysis are:

- Rogue Valley Highway at S. Valley View Road
- Rogue Valley Highway at Jackson Road
- Main Street at Jackson Road
- Maple Street at Main Street
- Project access points at Rogue Valley Highway

9.1 FINDINGS

- The analysis shows all studied intersections will meet the mobility standards through the Year 2034 with the addition of development traffic.
- The addition of development traffic will not substantially increase queueing conditions over the background conditions.
- All site driveways are projected to operate safely and efficiently.
- It is recommended that Highway 99 be restriped to include a left turn lane for entering vehicles into the site access.

Appendix A

SITE PLAN

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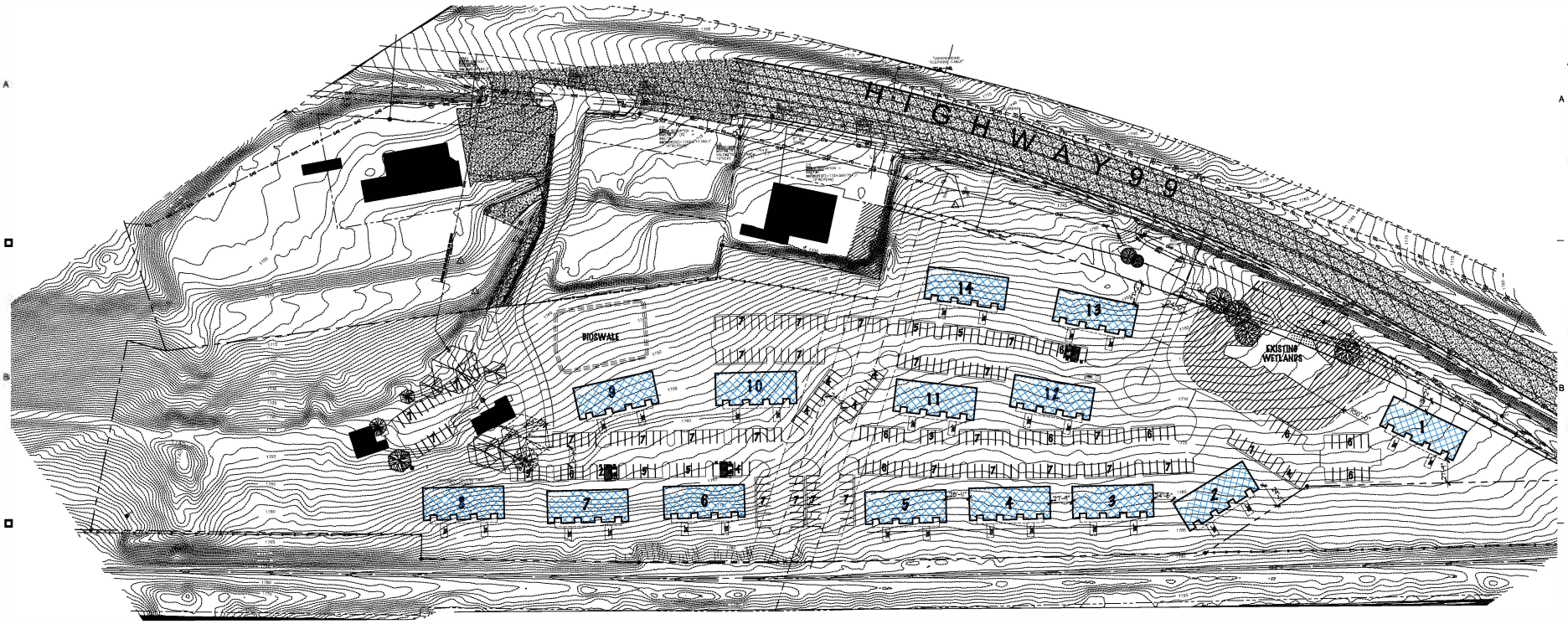
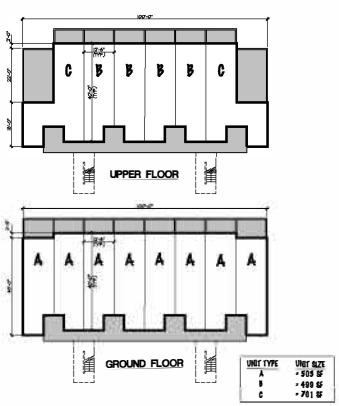
SANDOW ENGINEERING



PRELIMINARY SITE DEVELOPMENT PLAN

SCALE: 1" = 60'-0"

0 30' 60' 120'



1 UNIT DIAGRAM
NOT TO SCALE

ESTIMATED LOT COVERAGE	
Total Lot Area (LA)	= 486,870 SF
Structures	= 56,175 SF
Impervious Surfaces	= 107,253 SF
Total Lot Coverage (LC)	= 163,428 sf
163,428 SF (LC) / 486,870 SF (LA)	= 33% Lot Coverage

Unit Type	PARKING REQUIREMENTS (18.4.3.040)		
A	1-Bedroom Unit > 500 s.f.	= 112 Units * (1.5 spc per Unit)	= 168 Spc
B	1-Bedroom Unit < 500 s.f.	= 56 Units * (1.0 spc per Unit)	= 56 Spc
C	2-Bedroom Unit	= 28 Units * (1.75 per Unit)	= 49 Spc
		total req.	= 273 Spc
		total prv'd	= 298 Spc

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OR CCB# - 22599
Web: WWW.JBSTEELINC.COM

PROJECT: A NEW FACILITY FOR:
GRAND TERRACE

CLIENT:
Kendrick Enterprises LLC
339 W. Valley View Rd., Ashland, OR 97520

Project Location:
Hwy 99, Ashland, OR 97520
Map & Tax Lot #: 381E32 1702

BUILDING DEPARTMENT APPROVAL STAMP:

MARK	DATE	DESCRIPTION

ISSUE DATE: 7/17/2019 2:07 PM
PROJECT NO. 2787-18
DRAWN BY: JMK
CHECKED BY: GRC

SHEET TITLE:
PRELIMINARY SITE DEVELOPMENT PLAN

DRAWING NUMBER:
A0.1
PRE-APPLICATION REVIEW
NOT FOR CONSTRUCTION

Appendix B

WORK SCOPE

Oregon
Kate Brown, Governor

Oregon Department of Transportation
Region 3, District 8
100 Antelope Road
White City, OR 97503
(541) 774-6316
FAX (541 774-6397

FILE CODE:

Date: **August 23, 2017** File:

Address: **Derek Severson, Senior Planner**
City of Ashland Department of Community Development
51 Winburn Way
Ashland, OR 97520

Subject: **Traffic Impact Study Scope of Work:**
1511 Highway 99 Grand Terrace II Zone Change

The purpose of this letter is to define the scope of work for a Traffic Impact Study (TIS), which evaluates the impact for the Grand Terrace II Zone Change. It is the Oregon Department of Transportation's (ODOT) understanding that this development is located within the City of Ashland Urban Growth Boundary. The current zoning for the site is Rural Residential (RR-5). All of the development is currently being proposed as Multiple-Family Residential District (R-2). The total acreage is approximately 16.87 acres and is commonly known as the Grand Terrace II development. The information identifying the limits of the project shall be defined in the TIS and shall be pre-approved by the City of Ashland and ODOT before continuing the evaluation.

Scope of Work:

GENERAL

1. Executive Summary

Provide a description of the development, site location and study area (including a site map). Briefly describe the purpose of the analysis, principal findings, recommendations and conclusions.

2. Analysis Study Area

Provide a text description (including tax-lot descriptions) of the proposed development; and a graphic showing the intersections and accesses to be evaluated as part of this analysis.

A. Major Intersections to be evaluated:

a) S Valley View Road & Highway 99

B. Minor Intersections:

b) Jackson Road & Highway 99 (North)

c) Jackson Road & Highway 99 (South)
d) All Access Points & Highway 99

Note: The traffic distribution and volume determinations may expand the area of investigation or could eliminate some of the above indicated intersections.

TRAFFIC DATA

1. Traffic Counts

For all major intersections where significant signal modifications or where signals are being proposed, the counts shall be a minimum of 16-hour long, with 15-minute breakdowns in the A.M. and P.M. peak hours, unless pre-approved for a lesser time. Justification for deviation from these counts will be required. For all other intersections and approaches, the counts must be at least 3-hours long, made during both the morning and afternoon peaks, with 15-minute breakdowns. The morning peak hour occurs during 6:30 AM to 9:30 AM and the afternoon peak occurs during 3:30 PM to 6:30 PM. ODOT and the City are not aware of any "false" peaks for this area of the City. If there are indications of problems during these time frames, the traffic evaluation shall address all concerns.

If the development is anticipated to have peak hour trip generation other than the typical weekday AM or PM peak hours, that peak hour shall also be analyzed. The appropriate peak hour count shall be determined by 16-hour long count.

Raw traffic volumes will not be accepted for use in traffic analysis. All traffic volumes shall be seasonally adjusted to represent 30th Highest Hour Volumes (30HV) for Current Year, each anticipated phase completion, and Future Year "background traffic" conditions, all with and with-out the development. For guidance, please refer to the Developing Design Hour Volumes document at:
http://www.oregon.gov/ODOT/Planning/Documents/TrafficCountGuidelines.pdf

2. Site Trip Generation, Distribution and Assignment

Site trip generation shall utilize the most recent edition of the Institute of Transportation Engineers (ITE) Trip Generation Manual to estimate daily and peak hour trip volumes originating from and destined to the proposed development. In the case of an existing approval where specific land uses have not been identified, a reasonable worst-case land use scenario should be assumed based on the allowed uses under the current and requested zone(s). All assumptions and adjustments shall be documented and discussed in the TIS, or in an appendix. Trip generation may be adjusted with additional information and refinement. Pass-by, Diverted and Internal trips should be calculated based on ITE Trip Generation hand book.

This analysis should use available transportation models in conjunction with the City of Ashland Transportation System Plan and the Comprehensive Plan to estimate traffic distribution patterns. This TIS could be a significant amendment to the current Comprehensive Plan and the Transportation System Plan. Approved computer models, such as TRAFFIX, or manual calculations may also be used for determining trip assignments for site-generated traffic volumes on roadways within the study area. **Pre-approval of trip generation and distribution parameters shall be obtained prior to commencing further analysis. Please note: This is also a good time to verify all**

assumptions to be utilized in the traffic analysis or to discuss any abnormalities noted in the review of the development area.

ANALYSIS PROCEDURES

For ODOT's *Analysis Procedures Manual Refer to*:
http://www.oregon.gov/ODOT/Planning/Pages/APM.aspx
and for ODOT's *Development Review Guidelines Refer to:*
http://www.oregon.gov/ODOT/Planning/Pages/Guidance.aspx

1. Capacity Analysis

Capacity analysis of signalized intersections, unsignalized intersections, and roadway segments shall follow the established methodologies of the current Highway Capacity Manual (HCM2010). For signalized intersections, the overall intersection V/C shall be reported. For unsignalized intersections, the highest approach V/C shall be reported, along with an indication of its corresponding movement.

Attached **Table 3.3.7** lists the ODOT default values for use in signalized intersection analysis. If multiple intersections are analyzed, the traffic volumes shall be balanced between intersection nodes. All intersection capacity analyses shall include heavy vehicles percentages by approach, as determined from manual counts. Planning level mobility results (V/C) from the TIS will be compared against Highway Mobility Standards (Policy 1F) and the Maximum V/C Ratios provided in Table 6 of the 1999 Oregon Highway Plan (OHP).

Application of Computer software shall closely follow ODOT-approved analysis methodologies using ODOT standard parameter values. HCS2010 and Synchro/SimTraffic are examples of accepted analysis software. For further guidance, contact TPAU.

2. Queue Length Analysis

Intersection operation analysis shall include the effects of queuing and blocking. Average queue lengths and 95th Percentile queue lengths shall be reported for all study area intersections. The 95th Percentile queuing shall be used for design purposes, and will be reported to the next highest 25 foot increment. Any methodology used to determine queue length shall be approved in advance by either TPAU or the Region Traffic Section.

ANALYSIS REQUIREMENTS

1. Intersection Sight Distance

Adequate intersection sight distance shall be verified for all proposed intersections and highway approaches as required in ODOT's Highway Design Manual. Refer to:

http://www.oregon.gov/ODOT/Engineering/Pages/Hwy-Design-Manual.aspx

For guidance, please contact the Region Access Management Engineer.

2. Right & Left Turn Lane Criteria

Proposed right or left turn lanes at unsignalized intersections and private approach roads shall meet installation criteria contained in the current Highway Design Manual (HDM).

3. Traffic Signal Installations & Modifications

Analysis and recommendations related to new and/or modified traffic signals shall follow ODOT's Traffic Signal Policy and Guidelines, and all subsequent revisions. Any recommendations for traffic signals to be installed or modified as part of future mitigation should meet preliminary signal warrants (MUTCD Warrant #1, Case A & B).

For guidance, please contact TPAU or the Region Traffic Section, or refer to the Preliminary Signal
Warrant Guidelines at:
http://www.oregon.gov/ODOT/Planning/Pages/APM.aspx

4. Access Management:

Demonstrate how the proposed approach or approaches meet the minimum spacing criteria of OAR 734-051-4020(8); or Deviations from Access Management Spacing Standards (734-051-3050).

If more than one approach is proposed, then the analysis shall include determination of the fact with/without the approaches or restricting traffic movement at approaches.

ANALYSIS OUTPUT

1. Existing Conditions

Identify current year site conditions at the proposed development location. This includes, but is not limited to the following:

a) A description of the site location, zoning, existing use(s), and proposed use(s) of subject property.
b) A description of surrounding and anticipated land uses.
c) A graphic identifying existing lane configurations and traffic control devices at the study area intersections
d) A graphic showing existing 30HV traffic; reported as AM (6:30-9:30 a.m.) and PM (3:30-6:30 p.m.) Peak Hour Volumes (PHV), and also as average daily traffic (ADT). Also include in this graphic a list of heavy vehicle percentages by approach and growth rates used for future volumes.
e) Identify all proposed road segments, public intersections, public or private approaches:
    - where the proposed project can be expected to add additional traffic volumes greater than 20 percent of the current traffic volumes,
    - or at a minimum 500 vehicle trips in a single day,
    - or more than 50 additional vehicle trips in any single hour.
f) An analysis of existing intersection operations, reported in terms of both Volume to Capacity (V/C) and Level of Service (LOS).
g) An analysis of at least 5-years worth of crash data; including information on all SPIS sites within or adjacent to the study area.

2. Traffic Volumes & Operations – Year of Opening and Years of Anticipated Phases; with & without Proposed Development

An analysis shall be made of all study area intersections for the Year of Opening and each anticipated phase, with both "*background traffic*" and "*total traffic*" conditions. "*Total traffic*" conditions are considered "*background traffic*" volumes plus site generated trips and "pipe line" trips. This analysis should provide the following:

a) A graphic showing Year of phase "*background traffic*" and "*total traffic*" volumes.
b) A graphic or table showing V/C and LOS analysis results for both "*background traffic*" and "*total traffic*" volumes.
c) A graphic or table itemizing storage length requirements for all approaches, rounded to the next nearest 25 foot increment.
d) If applicable, a discussion of progression performance along the analysis corridor.

3. Traffic Volumes & Operations – Future-Year; with & without Proposed Development

An analysis shall be made of all study area intersections for a **20-year horizon** including each completed phase, anticipated development in the surrounding area, and all anticipated improvements on the transportation system for both "*background traffic*" and "*total traffic*" conditions. This analysis should provide the following:

a) A graphic showing Year of Opening "*background traffic*" and "*total traffic*" volumes.
b) A graphic or table showing V/C and LOS analysis results for both "*background traffic*" and "*total traffic*" volumes.
c) A graphic or table itemizing storage length requirements for all approaches, rounded to the next highest 25 foot increment.
d) If applicable, a discussion of progression performance along the analysis corridor.

Planned transportation system improvements anticipated within the **20-year horizon** shall be incorporated into the Future Year analysis. Do not incorporate improvements that are proposed as mitigation for the development. For guidance, please refer to the Transportation Planning Rule (TPR) OAR 660-012-0060 at http://www.oregon.gov/lcd/pages/rulemaking_tpr_2011.aspx

4. Capacity & Operation Analysis Inputs

A summary of traffic analysis variable inputs shall be provided in an appendix. In Synchro, the ***Int: Lanes, Volumes, Timings*** report is the output source for this information. TIS's submitted without an input summary will not be accepted by the Department.

5. Conclusions and Recommendations

Summarize existing and future conditions and discuss the proposed development's impacts. Identify any operational, capacity or safety deficiencies and recommend mitigation along with the effectiveness of the mitigation. Summarize how the proposed development complies with all operational, capacity and safety standards in the applicable approval criteria. Also summarize all proposed mitigations and the "assigned" proportionality to the development for all locations.

Note: Signal timing adjustments will not be considered as mitigation.

Please submit three stamped, final hard copy versions of the TIS for review to ODOT and two final hard copy versions to the City of Ashland. Also, **please submit all electronic analysis files for review** to ODOT so staff can verify assumptions, default settings, and other values included in the traffic analysis. If the analysis performed used traffic software other than Trafficware's Synchro/Simtraffic software or Highway Capacity Manual 2010 software, please submit the appropriate UTDF files for review. You may contact the Region Traffic Analyst for details. ODOT staff will need a minimum of 30 days for review and comment on the TIS. **Note: This time-frame can be adjusted based on existing workloads.** The review period should be completed prior to initiation of the City of Ashland land-use process.

Please include this scope of work as an appendix item in the TIS.

We hope this will provide enough information to get started on the analysis. We are pleased to work with you and your staff to answer any questions that arise during the course of your work. Additional coordination of traffic analysis data may be required during the TIS review process.

Please contact me directly at 541-774-6316 or Mr. Ron Hughes at 541-957-3696 if you have comments, questions, or require additional information regarding traffic engineering issues or contact Mr. Donald Morehouse, ODOT Development Review Planner, at 541-774-6399, if you have comments, questions, or require additional information regarding land use issues. Mr. Morehouse will serve as the lead ODOT Development Review contact for this project

Sincerely,

Wei (Michael) Wang, P.E. & M.S.
Region 3 Development Review Engineer

Cc's:

Default Signal Parameters

Table 3.3.7: ODOT Default Parameters for Use With Signalized Intersection Analysis Methodologies	
Total Lost Time	4 seconds per phase minimum for typical intersections, more for large or complex intersections.
Peak Hour Factor	For future year analysis: • 0.95 for major arterial-major arterial; • 0.92 for major arterial-minor arterial; • 0.90 for minor arterial-minor arterial; • 0.88 for minor arterial-collector; • 0.85 for collector-collector or lower classification Unless better information is available, such as for a school or industrial use.

Ideal Saturation Flow Rate	Field measurement should be consistent with methodology laid out in the HCM 2010. Saturation flow rate worksheets must be included in the documentation.
	Where field measurements are not done,
	• Outside of the Portland, Salem and Eugene MPO urban areas the unadjusted saturation flow rate is 1750 passenger cars per hour of green per lane (pcphgl).
	• Inside the Portland, Salem and Eugene MPO urban growth boundaries an unadjusted saturation flow rate of 1900 pcphgl may be used, unless one or more of the following conditions is present, in which case 1750 pcphgl shall be used. Conditions indicating use
	  • On-street parking
	  • Greater than 5% trucks
	  • Roadways intersect at severe skew angle
	  • One or more driveway approach(es) with a combined volume in excess of 5 vph, are present downstream of the intersection within the functional area (see Chapter 4) or upstream within the length of the standing queue
	  • Poor signal spacing or observed queue spillbacks between signals during the peak hour, or
	  • Less than 12 foot travel lanes

SANDOWENGINEERING
160 Madison Street Suite A • Eugene, Oregon 97402 • 541.513.3376

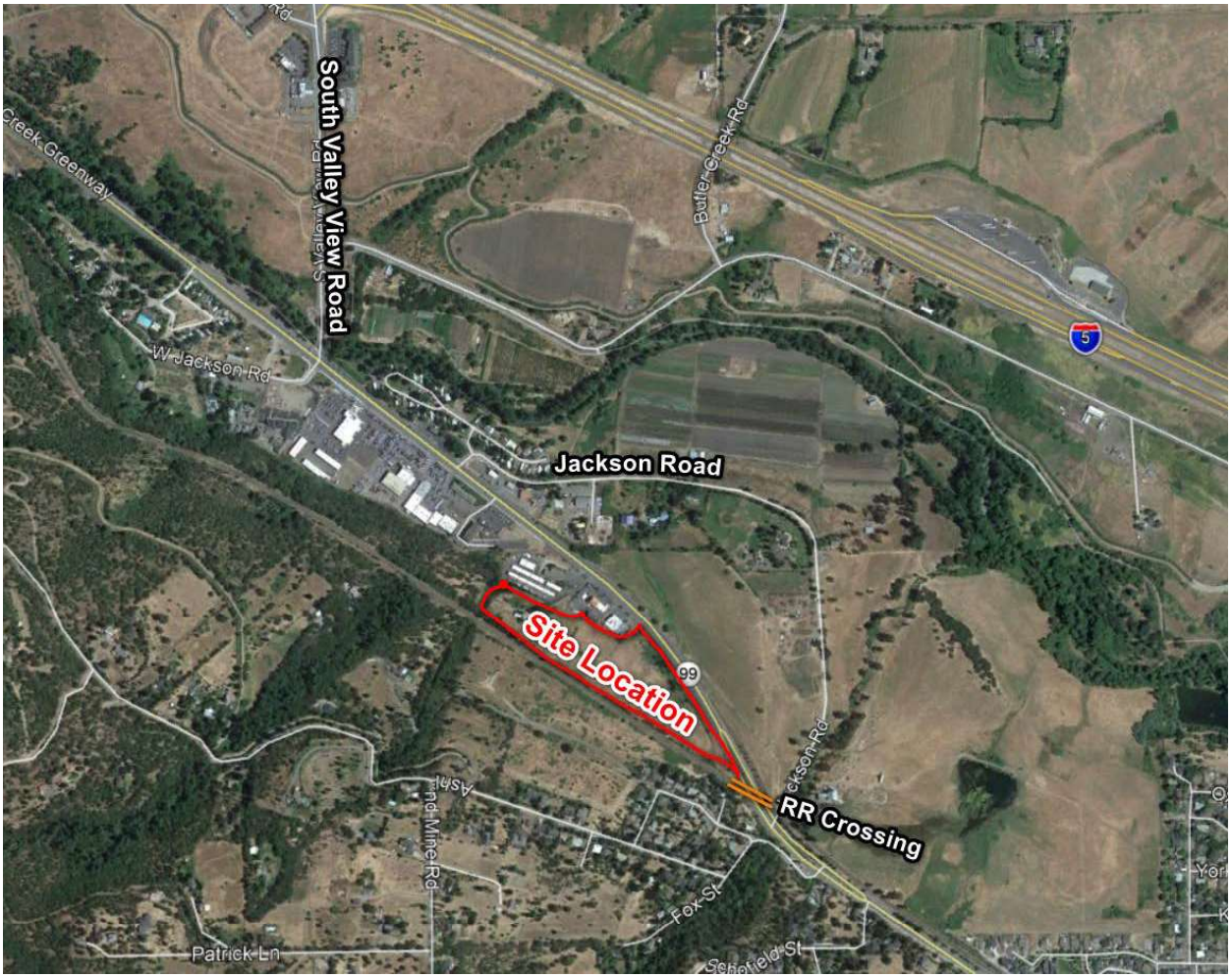
March 22, 2018

Karl Johnson
City of Ashland
20 East Main Street
Ashland, OR 97520

RE: Scope of Work for Traffic Impact Analysis – Casita Subdivision

Dear Mr. Johnson,

Sandow Engineering would like to recommend the following Scope of Work for a Traffic Impact Analysis for the development of tax lot 1700 and 1702 of Assessor's Map 38-1E-32, adjacent to Highway 99 and located north of the Railroad Crossing and South of Jackson Road.



The property is currently zoned R2

The proposed development will be a 251-unit apartment complex. The proposed development is anticipated to generate 140 PM peak hour trips. As such, the development triggers a Traffic Impact Analysis.

PROPOSED TRIP GENERATION

The application is proposing the development of a 251-unit apartment complex. The associated traffic generation for the proposed development is illustrated in Table 1.

The trip generation estimates use information contained within the ITE Trip Generation Manuals 10th edition. Table 1 illustrates the trip generation estimate for the PM peak hour. The attachment illustrates calculations to determine the building size and trip generation

TABLE 1: PM PEAK HOUR PROPOSED DEVELOPMENT TRIP GENERATION

ITE Land Use	Size (dwelling units)	PM Peak Hour Trip Generation			
		Rate	Trips	In	Out
220 Multi-Family Low Rise	251	0.56	141	89	52

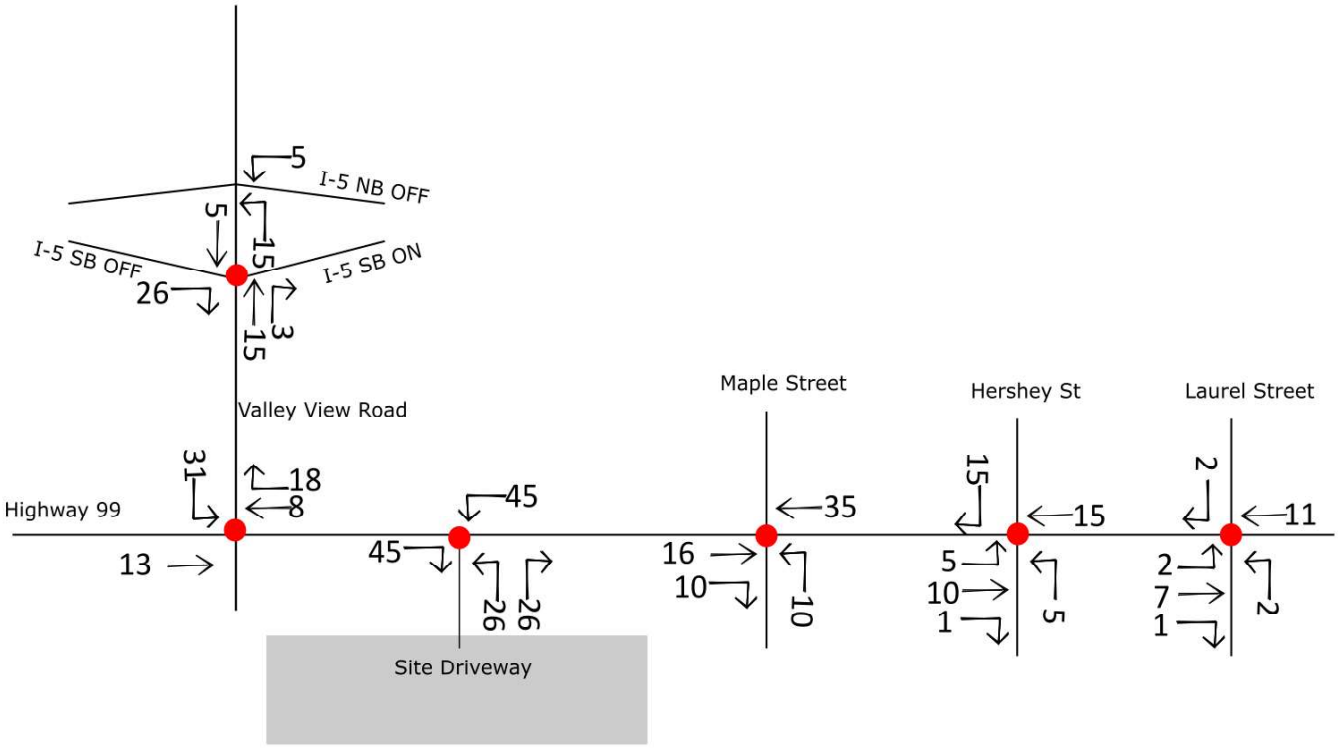
As determined in the table above the proposed development is expected to generate approximately 141 trips during the PM peak hour.

TRIP DISTRIBUTION

Preliminary trip distribution patterns were determined to be the following:

- 50% to/from the South via Rogue Valley Highway
- 15% to/from the North via Rogue Valley Highway
- 35% to/from I-5

The preliminary trip distribution was determined based on historic traffic volumes and engineering judgement and will be further refined once existing traffic volumes have been evaluated. The figure below illustrates the distribution of trips during the PM peak hour for the proposed zoning.



Preliminary PM Peak Hour Primary Trip Distribution

Based upon the estimated trip distribution it is anticipated that the proposed development would add 25 or more trips added to the following intersections:

- Rogue Valley Highway at Project Access
- Rogue Valley Highway 99 @ South Valley View Road
- South Valley View Road at I-5 SB Ramp
- Rogue Valley Hwy/N Main St. @ Maple Street
- Rogue Valley Hwy/N Main St. @ Hershey Street
- Rogue Valley Hwy/N Main St. @ Laurel Street

Based on the above information Sandow Engineering recommends the following as the Scope of Work for this project:

Time periods:

- Weekday PM Peak Hour occurring between 4:00 – 6:00 PM (3:30 – 6:30 PM at ODOT Intersections)

Intersections to be studied:

- Rogue Valley Highway at Project Access
- Rogue Valley Highway 99 @ South Valley View Road
- South Valley View Road at I-5 SB Ramp
- Rogue Valley Hwy/N Main St. @ Maple Street
- Rogue Valley Hwy/N Main St. @ Hershey Street
- Rogue Valley Hwy/N Main St. @ Laurel Street

Years studied:

- Existing Year - 2018
- Build Year– 2020

Please feel free to contact me if you would like to discuss this scoping letter further or if you need any additional information.

Sincerely,



Kelly Sandow

Appendix C

CRASH DATA

160 Madison Suite A Eugene, Oregon 97402 541.513.3376

SANDOW ENGINEERING

CRASH DATA SUMMARY

Valley View @ Highway 99

YEAR	PDO	INJURY	FATAL	CAUSE	HEAD	REAR	SIDE	TURN	ANGLE	OTHER	PED	BIKE	TOTAL	CHECK
2012	1	1		Failure to avoid stopped vehicle; Ice		1				1			2	OK
2013	1	1		Failure to avoid stopped vehicle; Followed too closely		2							2	OK
2014	1	1		Failure to avoid stopped vehicle; Followed too closely		2							2	OK
2015		1		Failure to Yield; Left-turn front of oncoming traffic				1					1	OK
2016													0	OK
TOTALS:	3	4	0		0	5	0	1	0	1	0	0	7	

P.M. PEAK HOUR	Number of Years	ADT	AVG. ANNUAL MILES (MILLIONS)	AVG. YEARLY CRASHES	CRASH RATE/ MILLION MILES
	5	16,800	6,132,000	1.400,000	0.23

ADT From TransGIS 0.02 mile south of Valley View on 99

Maple @ Main

YEAR	PDO	INJURY	FATAL	CAUSE	HEAD	REAR	SIDE	TURN	ANGLE	OTHER	PED	BIKE	TOTAL	CHECK
2012	1			Followed too closely		1							1	OK
2013	1	2		Failure to avoid stopped vehicle; Followed too closely		2		1					3	OK
2014		2		Careless Driving; Failure to avoid stopped vehicle		2							2	OK
2015	3			Failure to avoid stopped vehicle; Animal in road		2				1			3	OK
2016	1			Failure to avoid stopped vehicle		1							1	OK
TOTALS:	6	4	0		0	8	0	1	0	1	0	0	10	

P.M. PEAK HOUR	Number of Years, n	ADT	AVG. ANNUAL MILES (MILLIONS)	AVG. YEARLY CRASHES	CRASH RATE/ MILLION MILES
	5	17,200	6,278,000	2,000,000	0.32

ADT From TransGIS 0.03 mile north of Hersey on 99

Jackson @ Highway 99

YEAR	PDO	INJURY	FATAL	CAUSE	HEAD	REAR	SIDE	TURN	ANGLE	OTHER	PED	BIKE	TOTAL	CHECK
2012		1		Followed too closely				1					1	OK
2013													0	OK
2014													0	OK
2015		1		Did not Yeild ROW					1				1	OK
2016													0	OK
TOTALS:	0	2	0		0	0	0	1	1	0	0	0	2	

P.M. PEAK HOUR	Number of Years, n	ADT	AVG. ANNUAL MILES (MILLIONS)	AVG. YEARLY CRASHES	CRASH RATE/ MILLION MILES
	5	16,800	6,132,000	400,000	0.07

ADT From TransGIS 0.02 mile south of Valley View on 99

Applicant Submittal: 247

Total Page Number: 309

Highway 063 ALL ROAD TYPES, MP 17.22 to 17.22, Both Add and Non-Add mileage, 01/01/2012 to 12/31/2016

Jackson at 99

CRASH_ID	SER_NO	INVSTG_AGY_SHORT_DESC	CRASH_DT	CRASH_WK_DAY_CD	TRAF_CNTL_DEVICE_SHORT_DESC	OFF_RDWY_FLG	RNDABT_FLG	DRVWY_REL_FLG	WTHR_COND_SHORT_DESC	RD_SURF_SHORT_DESC	LGT_COND_SHORT_DESC	CRASH_TYP_SHORT_DESC	COLLIS_TYP_SHORT_DESC	CRASH_SVRTY_SHORT_DESC
1492798	01162	STATE	7/4/2012	4	STOP SIGN	0	0	0	CLR	DRY	DLIT	S-1TURN	TURN	INJ
1492798	01162	STATE	7/4/2012	4	STOP SIGN	0	0	0	CLR	DRY	DLIT	S-1TURN	TURN	INJ
1492798	01162	STATE	7/4/2012	4	STOP SIGN	0	0	0	CLR	DRY	DLIT	S-1TURN	TURN	INJ
1492798	01162	STATE	7/4/2012	4	STOP SIGN	0	0	0	CLR	DRY	DLIT	S-1TURN	TURN	INJ
1492798	01162	STATE	7/4/2012	4	STOP SIGN	0	0	0	CLR	DRY	DLIT	S-1TURN	TURN	INJ
1492798	01162	STATE	7/4/2012	4	STOP SIGN	0	0	0	CLR	DRY	DLIT	S-1TURN	TURN	INJ
1625451	01508	STATE	7/20/2015	2	UNKNOWN	0	0	1	CLR	DRY	DAY	ANGL-OTH	TURN	INJ
1625451	01508	STATE	7/20/2015	2	UNKNOWN	0	0	1	CLR	DRY	DAY	ANGL-OTH	TURN	INJ

Highway 063 ALL ROAD TYPES, MP 17.80 to 17.80, Both Add and Non-Add mileage, 01/01/2012 to 12/31/2016

Jackson at Main

CRASH_ID	SER_NO	INVSTG_AGY_SHORT_DESC	CRASH_SPEED_INVLV_FLG	ALCHL_INVLV_FLG	WTHR_COND_SHORT_DESC	RD_SURF_SHORT_DESC	LGT_COND_SHORT_DESC	CRASH_TYP_SHORT_DESC	COLLIS_TYP_SHORT_DESC	CRASH_SVRTY_SHORT_DESC	CRASH_EVNT_1_CD	CRASH_EVNT_2_CD	CRASH_EVNT_3_CD	CRASH_CAUSE_1_CD

No Accidents Reported

CRASH SUMMARIES BY YEAR BY COLLISION TYPE

MAPLE ST at MAIN ST, City of Ashland, Jackson County, 01/01/2013 to 12/31/2017

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
YEAR: 2015														
REAR-END	0	0	1	1	0	0	0	1	0	1	0	1	0	0
YEAR 2015 TOTAL	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**0**
YEAR: 2013														
REAR-END	0	1	1	2	0	1	0	2	0	2	0	2	0	0
TURNING MOVEMENTS	0	1	0	1	0	1	0	1	0	1	0	1	0	0
YEAR 2013 TOTAL	**0**	**2**	**1**	**3**	**0**	**2**	**0**	**3**	**0**	**3**	**0**	**3**	**0**	**0**
FINAL TOTAL	**0**	**2**	**2**	**4**	**0**	**2**	**0**	**4**	**0**	**4**	**0**	**4**	**0**	**0**

Applicant Submittal: 250

Total Page Number: 312

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirements, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

Appendix D

TRAFFIC COUNTS

160 Madison Suite A Eugene, Oregon 97402 541.513.3376

SANDOW ENGINEERING

File Name: I:\Kelly Sandow Valley View Counts\Jackson-99.ppd
Start Date: 5/8/2018
Start Time: 6:30:00 AM
Site Code: 00000001
Comment 1: North-South: Jackson Rd / driveway
Comment 2: East-West: OR 99
Comment 3: Weather: Sunny, 70 deg
Comment 4: Veh Type: All Vehicles

	Jackson Rd From North				OR 99 From East				DW From South				OR 99 From West			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
06:30 AM	7	0	5	0	0	65	6	0	0	0	0	0	5	112	0	0
06:45 AM	2	0	8	0	0	74	2	2	0	1	0	0	3	115	2	0
07:00 AM	6	0	8	0	0	98	2	2	0	0	1	0	4	92	3	0
07:15 AM	7	0	5	0	3	125	6	0	0	0	0	0	6	136	2	2
07:30 AM	7	0	7	1	2	165	6	0	0	0	0	0	6	214	5	2
07:45 AM	9	1	10	0	1	159	6	0	1	0	1	0	9	259	2	1
08:00 AM	11	0	9	0	0	141	7	1	0	0	0	0	7	245	3	2
08:15 AM	5	0	5	0	0	167	6	1	0	0	0	2	9	220	6	0
08:30 AM	5	0	11	0	1	149	6	1	1	0	1	0	13	218	4	1
08:45 AM	9	0	8	0	0	166	7	2	5	0	0	1	9	205	4	0
09:00 AM	5	0	3	0	0	141	6	0	1	0	1	0	5	180	7	0
09:15 AM	7	0	13	0	3	149	2	1	1	0	1	0	5	169	2	1
09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	3	0	8	0	0	243	3	0	5	0	2	0	1	166	4	1
03:45 PM	2	1	7	0	0	248	3	0	4	0	1	0	3	177	2	1
04:00 PM	1	0	8	0	0	247	6	0	4	0	0	0	3	178	2	0
04:15 PM	1	0	14	0	0	233	2	0	3	0	0	0	13	166	1	0
04:30 PM	2	1	5	2	3	253	7	1	4	0	1	0	2	203	0	0
04:45 PM	2	1	12	0	2	245	3	2	1	0	1	0	4	175	1	0
05:00 PM	8	0	5	0	1	263	2	1	6	0	0	0	4	177	1	1
05:15 PM	2	0	4	0	2	288	3	0	7	0	2	0	3	223	0	0
05:30 PM	3	0	6	0	0	212	5	1	4	0	0	1	2	208	0	1
05:45 PM	4	0	4	0	0	194	3	2	2	0	0	0	4	179	0	0
06:00 PM	1	0	4	0	0	181	1	0	2	0	1	0	2	143	0	0
06:15 PM	3	0	6	0	0	122	1	1	0	0	0	0	3	157	2	0

File Name: I:\Sandow Counts\Jackson-Main-RR.ppd
Start Date: 5/8/2018
Start Time: 6:30:00 AM
Site Code: 00000002
Comment 1: North-South: Jackson Rd
Comment 2: East-West: Main Street (by RR Trestle)
Comment 3: Weather: Sunny, 70 deg
Comment 4: Veh Type: All Vehicles

	Jackson Rd From North				N Main From East					From South			N Main From West			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
06:30 AM	0	0	0	0	0	81	1	0	0	0	0	0	0	114	0	0
06:45 AM	0	0	0	0	0	73	0	0	0	0	0	0	0	123	0	0
07:00 AM	0	0	0	0	0	107	0	0	0	0	0	0	0	85	0	0
07:15 AM	0	0	0	0	0	138	0	0	0	0	0	0	0	148	0	0
07:30 AM	0	0	0	0	0	186	1	0	0	0	0	0	0	201	0	0
07:45 AM	0	0	0	0	0	163	1	0	0	0	0	0	0	263	0	0
08:00 AM	0	0	0	0	0	141	1	0	0	0	0	0	0	249	0	0
08:15 AM	0	0	0	0	0	183	1	0	0	0	0	0	0	210	0	0
08:30 AM	0	0	0	0	0	164	3	0	0	0	0	0	0	226	0	0
08:45 AM	0	0	2	0	0	184	2	0	0	0	0	0	0	228	0	0
09:00 AM	0	0	1	0	1	143	1	0	0	0	0	0	0	186	0	0
09:15 AM	0	0	0	0	0	147	1	0	0	0	0	0	0	196	0	0
09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	1	0	0	254	7	0	0	0	0	0	0	179	0	0
03:45 PM	0	0	0	0	0	256	1	0	0	0	0	0	0	166	0	0
04:00 PM	0	0	0	0	0	237	2	0	0	0	0	0	0	182	0	0
04:15 PM	0	0	1	0	0	232	0	0	0	0	0	0	1	177	0	0
04:30 PM	0	0	0	0	0	264	0	0	0	0	0	0	0	208	0	0
04:45 PM	0	0	1	0	0	258	0	0	0	0	0	0	2	194	0	0
05:00 PM	1	0	0	0	0	260	0	0	0	0	0	0	0	186	0	0
05:15 PM	0	0	2	0	0	259	1	0	0	0	0	0	1	217	0	0
05:30 PM	0	0	2	0	0	207	0	0	0	0	0	0	4	201	0	0
05:45 PM	1	0	0	0	0	197	1	0	0	0	0	0	0	184	0	0
06:00 PM	0	0	1	0	0	178	0	0	0	0	0	0	0	154	0	0
06:15 PM	1	0	0	0	0	121	1	0	0	0	0	0	0	167	0	0

File Name: I:\Ashland_consulting\Road Diet\2016 Work\Counts_2016\October 2016\Maple-Main_Oct.ppd
Start Date: 10/25/2016
Start Time: 7:30:00 AM
Site Code: 00000001
Comment 1: North-South: N Main Street
Comment 2: East-West: Main Street
Comment 3: Weather: Drizzle, 65 deg
Comment 4: Veh Type: Trucks & Cyclists

	N Main Street From North				Driveway From East				N Main Street From South				Maple Street From West			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:30 AM	3	143	22	1	1	0	2	3	7	150	0	0	27	0	7	0
07:45 AM	3	203	20	2	0	0	1	6	10	141	1	8	14	0	11	1
08:00 AM	3	237	21	2	1	0	0	3	8	131	1	2	19	0	22	0
08:15 AM	1	224	32	0	1	0	1	0	18	143	1	1	8	0	14	1
08:30 AM	3	200	20	3	1	0	2	6	6	190	1	0	21	0	13	0
08:45 AM	0	214	21	0	1	0	1	4	11	137	1	0	22	0	16	0
09:00 AM	3	188	15	1	2	0	1	0	20	164	4	1	20	0	11	0
09:15 AM	2	172	16	3	2	0	2	2	15	125	1	2	20	0	17	1
09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	2	180	11	0	1	0	2	1	13	250	2	2	25	0	15	2
03:45 PM	4	216	14	1	0	0	2	0	9	231	1	2	27	0	20	2
04:00 PM	1	183	17	1	2	1	1	2	8	245	1	0	28	0	14	1
04:15 PM	1	180	17	2	2	0	2	2	15	233	5	2	23	0	12	0
04:30 PM	1	200	15	1	2	0	4	1	14	230	4	1	37	0	18	0
04:45 PM	1	179	18	3	4	0	1	1	9	232	1	2	19	0	16	2
05:00 PM	1	184	9	0	1	0	2	6	15	234	0	4	41	0	10	0
05:15 PM	1	182	11	0	1	0	1	4	12	281	1	0	32	0	21	0

File Name: I:\Sandow Valley View Counts\Valley View_OR99.ppd
Start Date: 5/1/2018
Start Time: 6:30:00 AM
Site Code: 00000002
Comment 1: North-South: Valley View / W Jackson
Comment 2: East-West: OR 99
Comment 3: Weather: Clear, 65 degrees
Comment 4: Veh Type: All Vehicles

	Valley View Rd From North				OR 99 From East				W Jackson Rd From South				OR 99 From West			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
06:30 AM	44	0	2	1	0	17	51	0	0	1	0	0	6	38	0	0
06:45 AM	97	2	3	0	1	29	55	0	1	0	0	0	9	43	0	0
07:00 AM	70	0	2	0	0	29	75	1	0	0	1	0	11	46	0	0
07:15 AM	101	1	4	0	0	37	92	0	0	0	1	0	5	59	0	1
07:30 AM	118	3	4	0	2	40	156	2	0	0	4	0	9	104	1	0
07:45 AM	130	1	8	0	0	46	124	2	0	2	4	0	20	107	1	0
08:00 AM	120	3	15	0	1	34	92	0	0	0	2	0	25	129	0	0
08:15 AM	135	5	9	1	1	46	109	0	0	0	2	0	17	125	0	0
08:30 AM	119	5	13	0	4	51	112	0	0	1	2	0	16	115	0	2
08:45 AM	140	1	5	0	2	71	94	3	2	1	1	0	34	100	0	1
09:00 AM	110	0	7	0	0	50	99	0	0	4	0	0	11	74	0	1
09:15 AM	96	3	6	1	4	47	103	0	0	3	0	0	7	59	2	0
09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	113	5	23	0	7	97	147	1	1	2	7	0	17	77	1	1
03:45 PM	143	4	17	0	6	118	127	0	1	5	5	2	13	69	0	0
04:00 PM	94	5	21	2	6	112	142	0	1	5	4	0	16	61	1	1
04:15 PM	106	5	24	1	6	120	135	3	0	3	1	0	30	88	0	0
04:30 PM	115	5	21	0	11	104	112	0	2	2	2	1	15	93	1	1
04:45 PM	98	2	18	1	7	118	145	2	0	1	5	0	20	66	2	0
05:00 PM	139	7	15	0	3	134	203	2	1	3	4	0	9	68	1	0
05:15 PM	139	3	27	0	9	115	143	0	0	1	4	0	20	83	0	0
05:30 PM	130	2	11	0	3	122	136	1	0	1	2	0	20	80	0	0
05:45 PM	106	3	14	1	6	98	127	1	2	0	12	0	14	66	2	0
06:00 PM	98	2	12	0	5	81	111	1	0	3	3	0	24	62	0	0
06:15 PM	86	0	14	0	2	61	92	0	1	1	2	0	8	69	0	0

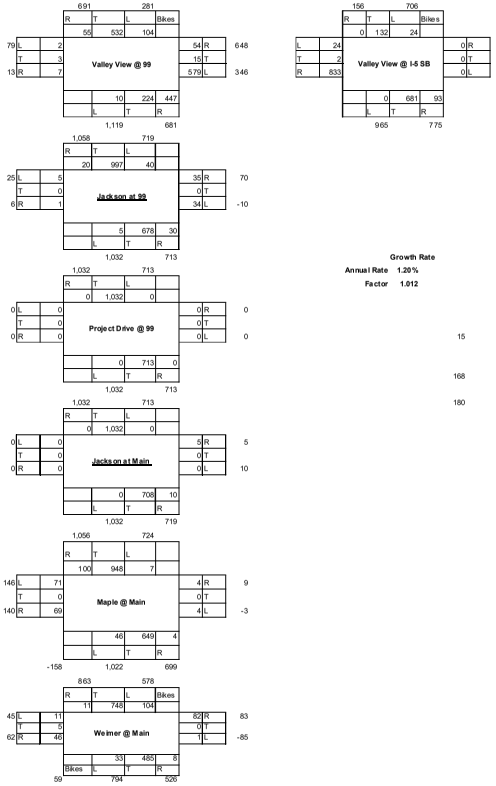
Appendix E

TRAFFIC VOLUME ADJUSTMENTS

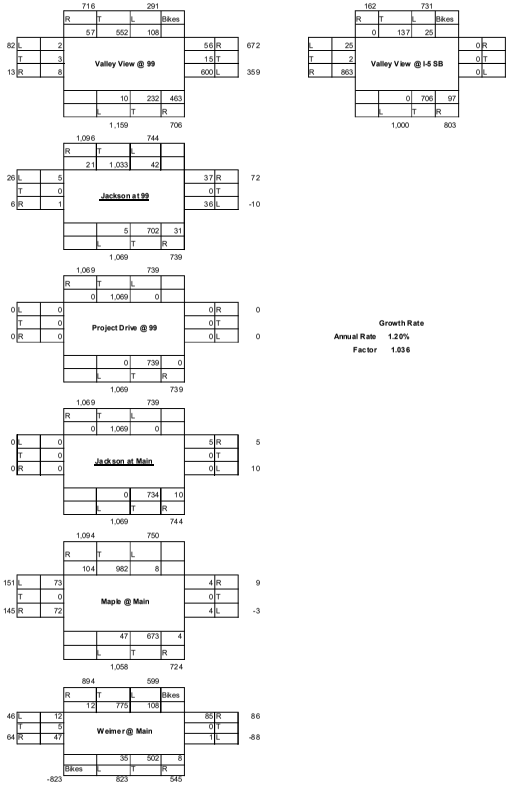
160 Madison Suite A Eugene, Oregon 97402 541.513.3376

SANDOW ENGINEERING

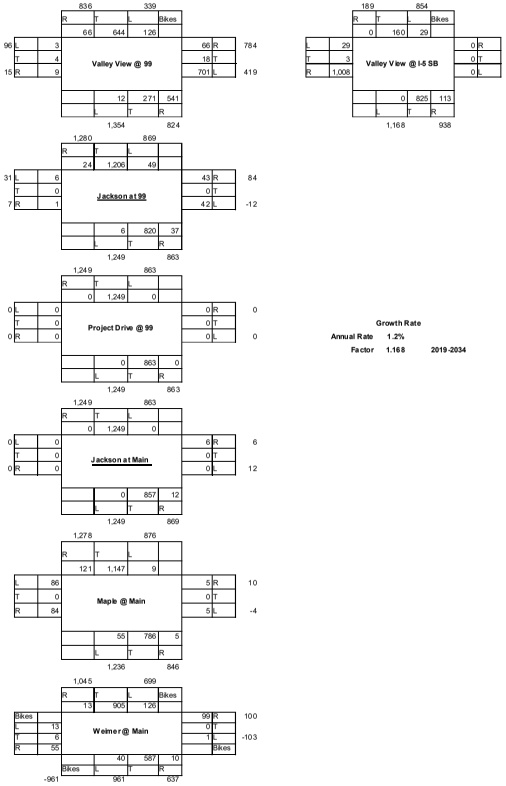
Balanced 2019 AM Volumes



2021 Background AM Volumes



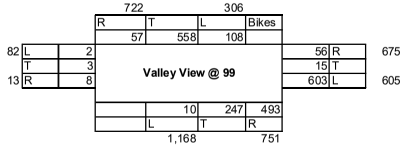
2034 Background AM Volumes

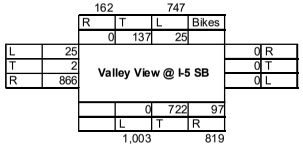


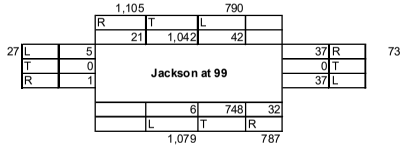
Applicant Submittal: 257

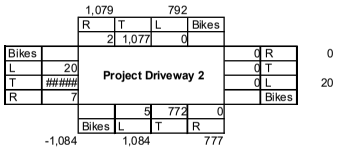
Total Page Number: 319

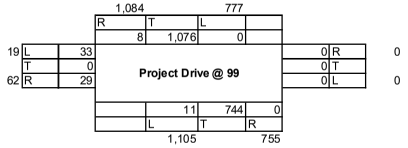
2021 Build AM Volumes

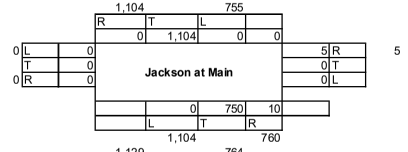


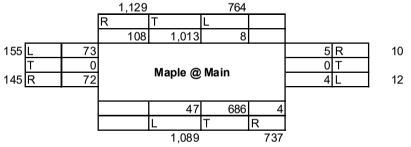


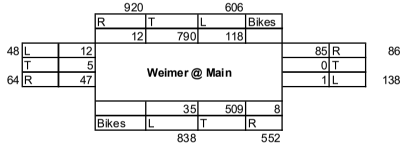




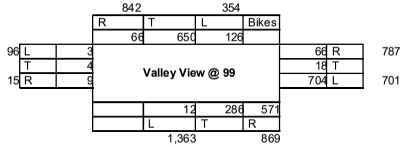


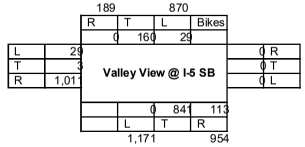


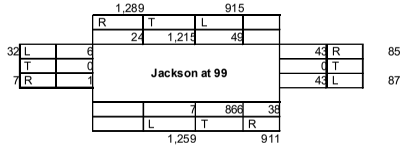


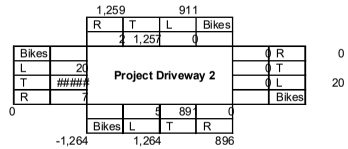


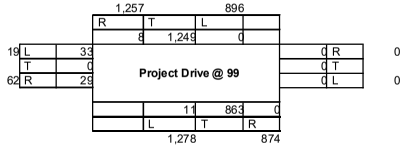
2034 Build AM Volumes

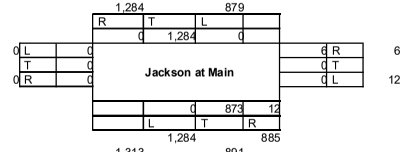


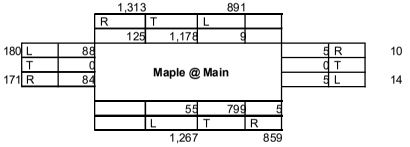


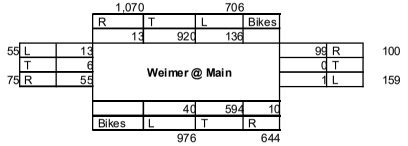












Applicant Submittal: 258

Total Page Number: 320

Intersection: **S. Valley View @ 99** City: **Ashland, Oregon**

Counter: **SOTE** Date: **Tuesday, May 1, 2018**

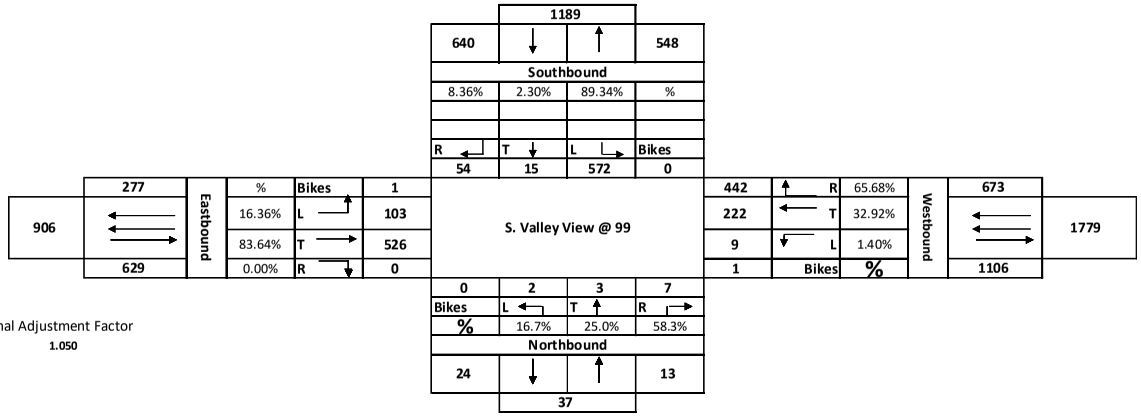
Total of All Vehicles

		Southbound				Westbound				Northbound				Eastbound				15 Minute Volume	Hourly Volume	Pedestrians			
		Left	Thru	Right	Approach Total	Left	Thru	Right	Approach Total	Left	Thru	Right	Approach Total	Left	Thru	Right	Approach Total			SB	WB	NB	EB
6:30 AM	6:45 AM	46	0	2	48	0	17	51	68	0	1	0	1	6	44	0	50	167					
6:45 AM	7:00 AM	104	2	3	109	1	31	56	88	1	0	0	1	11	45	0	56	254					
7:00 AM	7:15 AM	76	0	2	78	0	29	76	105	0	0	1	1	12	48	0	60	244		0	1	0	0
7:15 AM	7:30 AM	108	1	4	113	0	39	94	133	0	0	1	1	7	64	0	71	318	983	0	0	0	1
7:30 AM	7:45 AM	128	3	4	135	2	41	160	203	0	0	4	4	9	112	1	122	464	1280	0	2	0	0
7:45 AM	8:00 AM	138	1	10	149	0	46	124	170	0	2	4	6	20	114	1	135	460	1486	0	2	0	0
8:00 AM	8:15 AM	124	3	17	144	1	35	95	131	0	0	2	2	26	137	0	163	440	1682	0	0	0	0
8:15 AM	8:30 AM	146	5	12	163	1	48	111	160	0	0	2	2	17	133	0	150	475	1839				
8:30 AM	8:45 AM	129	5	15	149	5	55	115	175	0	1	2	3	20	123	0	143	470	1845				
8:45 AM	9:00 AM	146	1	7	154	2	73	100	175	2	2	1	5	35	108	0	143	477	1862				
9:00 AM	9:15 AM	116	0	10	126	0	53	109	162	0	4	0	4	11	79	0	90	382	1804				
9:15 AM	9:30 AM	96	3	6	105	4	47	103	154	0	3	0	3	7	59	2	68	330	1659				
Count Period Total		**1357**	**24**	**92**	**1473**	**16**	**514**	**1194**	**1724**	**3**	**13**	**17**	**33**	**181**	**1066**	**4**	**1251**	**4481**		**0**	**5**	**0**	**1**

PM Peak Hour Count Summary

	Southbound				Westbound				Northbound				Eastbound						Pedestrians			
	Left	Thru	Right	Approach	Left	Thru	Right	Approach	Left	Thru	Right	Approach	Left	Thru	Right	Approach			SB	WB	NB	EB
Peak Volumes	**545**	**14**	**51**	**610**	**9**	**211**	**421**	**641**	**2**	**3**	**7**	**12**	**98**	**501**	**0**	**599**	**1862**		**0**	**0**	**0**	**0**
PHF	0.93	0.70	0.75	0.94	0.45	0.72	0.92	0.92	0.25	0.38	0.88	0.60	0.70	0.91	0.00	0.92	0.98					
Trucks	35	1	8	0	1	10	13	0	0	0	1	0	6	31	0	0						
% Trucks	6%	7%	16%		11%	5%	3%		0%	0%	14%		6%	6%	0%							

Seasonally Adjusted Peak Hour



Seasonal Adjustment Factor

1.050

Applicant Submittal: 260

Total Page Number: 322

S. Valley View @ 99

Pedestrians and Cars

Time Period	Southbound					Westbound					Northbound					Eastbound					15 Minute Volume	Hourly Volume
	Peds	Left	Thru	Right		Peds	Left	Thru	Right		Peds	Left	Thru	Right		Peds	Left	Thru	Right			
6:30 AM	1	44	0	2		0	0	17	51		0	0	1	0		0	6	38	0		159	
6:45 AM	0	97	2	3		0	1	29	55		0	1	0	0		0	9	43	0		240	
7:00 AM	0	70	0	2		1	0	29	75		0	0	0	1		0	11	46	0		234	
7:15 AM	0	101	1	4		0	0	37	92		0	0	0	1		1	5	59	0		300	933
7:30 AM	0	118	3	4		2	2	40	156		0	0	0	4		0	9	104	1		441	1215
7:45 AM	0	130	1	8		2	0	46	124		0	0	2	4		0	20	107	1		443	1418
8:00 AM	0	120	3	15		0	1	34	92		0	0	0	2		0	25	129	0		421	1605
8:15 AM	1	135	5	9		0	1	46	109		0	0	0	2		0	17	125	0		449	1754
8:30 AM	0	119	5	13		0	4	51	112		0	0	1	2		2	16	115	0		438	1751
8:45 AM	0	140	1	5		3	2	71	94		0	2	1	1		1	34	100	0		451	1759
9:00 AM	0	110	0	7		0	0	50	99		0	0	4	0		1	11	74	0		355	1693
9:15 AM	1	96	3	6		0	4	47	103		0	0	3	0		0	7	59	2		330	1574
Total	3	1280	24	78		8	15	497	1162		0	3	12	17		5	170	999	4		4261	
Peak Hour	**1**	**514**	**14**	**42**		**3**	**8**	**202**	**407**		**0**	**2**	**2**	**7**		**3**	**92**	**469**	**0**		**1418**	

Trucks

Time Period	Southbound				Westbound				Northbound				Eastbound				15 Minute Volume	Hourly Volume
	Left	Thru	Right		Left	Thru	Right		Left	Thru	Right		Left	Thru	Right			
6:30 AM	2	0	0		0	0	0		0	0	0		0	6	0	0	8	
6:45 AM	7	0	0		0	2	1		0	0	0		2	2	0	0	14	
7:00 AM	6	0	0		0	0	1		0	0	0		1	2	0	0	10	
7:15 AM	7	0	0		0	2	2		0	0	0		2	5	0	0	18	50
7:30 AM	10	0	0		0	1	4		0	0	0		0	8	0	0	23	65
7:45 AM	8	0	2		0	0	0		0	0	0		0	7	0	0	17	68
8:00 AM	4	0	2		0	1	3		0	0	0		1	8	0	0	19	77
8:15 AM	11	0	3		0	2	2		0	0	0		0	8	0	0	26	85
8:30 AM	10	1	1		0	3	5		0	0	1		1	7	0		29	91
8:45 AM	10	0	2		1	4	3		0	0	0		4	8	0		32	106
9:00 AM	6	0	2		0	2	6		0	1	0		1	8	0		26	113
9:15 AM	6	0	3		0	3	10		0	0	0		0	5	0		27	114
																	0	85
Total	87	1	15		1	20	37		0	1	1			74	0		249	
Peak Hour	**35**	**1**	**8**		**1**	**10**	**13**		**0**	**0**	**1**		**6**	**31**	**0**		**106**	

Bikes

Time Period	Southbound				Westbound				Northbound				Eastbound				SB	WB	NB	EB
	Left	Thru	Right		Left	Thru	Right		Left	Thru	Right		Left	Thru	Right					
06:30 AM	0	1	0		0	0	0		0	0	0		0	0	0		1	1	0	0
06:45 AM	0	0	0		0	0	0		0	0	0		0	1	0		0	0	0	0
07:00 AM	0	0	0		0	1	0		0	0	0		0	0	0		0	1	0	0
07:15 AM	0	0	0		0	1	0		0	0	0		0	1	0		0	1	0	1
07:30 AM	0	1	0		0	2	0		0	0	0		0	2	0		1	2	0	2
07:45 AM	0	0	0		0	2	0		0	0	0		0	3	0		0	2	0	3
08:00 AM	0	0	0		0	1	0		0	0	0		0	1	0		0	1	0	1
08:15 AM	0	0	0		0	0	0		0	0	0		0	0	0		0	0	0	0
08:30 AM	0	0	0		0	0	0		0	0	0		0	0	0		0	0	0	0
08:45 AM	0	0	0		0	0	0		0	0	0		0	0	0		0	0	0	0
09:00 AM	0	0	0		0	0	0		0	0	0		0	0	0		0	0	0	0
09:15 AM	0	0	1		0	0	0		0	0	0		0	0	0		1	0	0	0
Total	0	2	1	0	0	7	0	0	0	0	0	0	0	8	0		3	8	0	7
Peak Hour	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0		0	1	0	1

Applicant Submittal: 261

Total Page Number: 323

Intersection: **Jackson at 99** City: **Ashland, Oregon**

Counter: **SOTE** Date: **Tuesday, May 8, 2018**

Total of All Vehicles

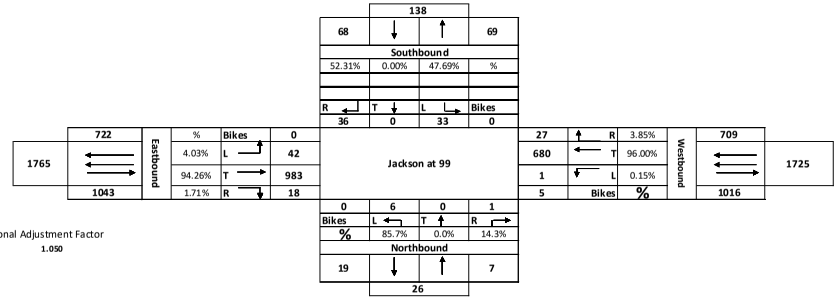
		Southbound				Westbound				Northbound				Eastbound				15 Minute Volume	Hourly Volume	Pedestrians			
		Left	Thru	Right	Approach Total	Left	Thru	Right	Approach Total	Left	Thru	Right	Approach Total	Left	Thru	Right	Approach Total			SB	WB	NB	EB
6:30 AM	6:45 AM	8	0	5	13	0	68	6	74	0	0	0	0	5	120	0	125	212					
6:45 AM	7:00 AM	2	0	8	10	0	76	2	78	0	1	0	1	3	120	2	125	214					
7:00 AM	7:15 AM	8	0	8	16	0	100	2	102	0	0	1	1	4	100	3	107	226		0	2	0	0
7:15 AM	7:30 AM	7	0	5	12	3	130	6	139	0	0	0	0	6	144	3	153	304	956	0	0	0	2
7:30 AM	7:45 AM	7	0	7	14	2	168	6	176	0	0	0	0	6	223	5	234	424	1168	1	0	0	2
7:45 AM	8:00 AM	9	1	10	20	1	163	7	171	1	0	1	2	9	270	2	281	474	1428	0	0	0	1
8:00 AM	8:15 AM	11	0	9	20	0	149	7	156	0	0	0	0	7	265	3	275	451	1653	0	1	0	2
8:15 AM	8:30 AM	5	0	5	10	0	169	6	175	0	0	0	0	9	228	6	243	428	1777				
8:30 AM	8:45 AM	5	0	12	17	1	156	6	163	1	0	1	2	14	228	4	246	428	1781				
8:45 AM	9:00 AM	10	0	8	18	0	174	7	181	5	0	0	5	10	215	4	229	433	1740				
9:00 AM	9:15 AM	6	0	3	9	0	147	6	153	1	0	1	2	5	186	7	198	362	1651				
9:15 AM	9:30 AM	7	0	13	20	3	149	2	154	1	0	1	2	5	169	2	176	352	1575				
Count Period Total		**85**	**1**	**93**	**179**	**10**	**1649**	**63**	**1722**	**9**	**1**	**5**	**15**	**83**	**2268**	**41**	**2392**	**4308**		**1**	**3**	**0**	**7**

PM Peak Hour Count Summary

	Southbound				Westbound				Northbound				Eastbound						Pedestrians			
	Left	Thru	Right	Approach	Left	Thru	Right	Approach	Left	Thru	Right	Approach	Left	Thru	Right	Approach			SB	WB	NB	EB
Peak Volumes	**31**	**0**	**34**	**65**	**1**	**648**	**26**	**675**	**6**	**0**	**1**	**7**	**40**	**936**	**17**	**993**	**1740**		**0**	**1**	**0**	**2**
PHF	0.70	0.00	0.71	0.81	0.25	0.93	0.93	0.93	0.30	0.00	0.25	0.35	0.71	0.88	0.71	0.90	0.96					
Trucks	1	0	1	0	0	22	0	0	0	0	0	0	3	58	0	0						
% Trucks	3%	0%	3%		0%	3%	0%		0%	0%	0%		8%	6%	0%							

Applicant Submittal: 262

Seasonally Adjusted Peak Hour



Seasonal Adjustment Factor

1.050

Applicant Submittal: 263

Total Page Number: 325

Jackson at 99

Pedestrians and Cars

Time Period	Southbound					Westbound					Northbound					Eastbound					15 Minute Volume	Hourly Volume
	Peds	Left	Thru	Right		Peds	Left	Thru	Right		Peds	Left	Thru	Right		Peds	Left	Thru	Right			
6:30 AM	0	7	0	5	12	0	0	65	6	71	0	0	0	0	0	0	5	112	0	117	200	
6:45 AM	0	2	0	8	10	2	0	74	2	76	0	0	1	0	1	0	3	115	2	120	207	
7:00 AM	0	6	0	8	14	2	0	98	2	100	0	0	0	1	1	0	4	92	3	99	214	
7:15 AM	0	7	0	5	12	0	3	125	6	134	0	0	0	0	0	2	6	136	2	144	290	911
7:30 AM	1	7	0	7	14	0	2	165	6	173	0	0	0	0	0	2	6	214	5	225	412	1123
7:45 AM	0	9	1	10	20	0	1	159	6	166	0	1	0	1	2	1	9	259	2	270	458	1374
8:00 AM	0	11	0	9	20	1	0	141	7	148	0	0	0	0	0	2	7	245	3	255	423	1583
8:15 AM	0	5	0	5	10	1	0	167	6	173	2	0	0	0	0	0	9	220	6	235	418	1711
8:30 AM	0	5	0	11	16	1	1	149	6	156	0	1	0	1	2	1	13	218	4	235	409	1708
8:45 AM	0	9	0	8	17	2	0	166	7	173	1	5	0	0	5	0	9	205	4	218	413	1663
9:00 AM	0	5	0	3	8	0	0	141	6	147	0	1	0	1	2	0	5	180	7	192	349	1589
9:15 AM	0	7	0	13	20	1	3	149	2	154	0	1	0	1	2	1	5	169	2	176	352	1523
Total	1	80	1	92	173	10	10	1599	62	1671	3	9	1	5	15	9	81	2165	40	2286	4145	
Peak Hour	**0**	**30**	**0**	**33**		**5**	**1**	**623**	**26**		**3**	**6**	**0**	**1**		**3**	**38**	**888**	**17**		**1374**	

Trucks

Time Period	Southbound				Westbound				Northbound				Eastbound				15 Minute Volume	Hourly Volume
	Left	Thru	Right		Left	Thru	Right		Left	Thru	Right		Left	Thru	Right			
6:30 AM	1	0	0		0	3	0		0	0	0		0	8	0		12	
6:45 AM	0	0	0		0	2	0		0	0	0		0	5	0		7	
7:00 AM	2	0	0		0	2	0		0	0	0		0	8	0		12	
7:15 AM	0	0	0		0	5	0		0	0	0		0	8	1		14	45
7:30 AM	0	0	0		0	3	0		0	0	0		0	9	0		12	45
7:45 AM	0	0	0		0	4	1		0	0	0		0	11	0		16	54
8:00 AM	0	0	0		0	8	0		0	0	0		0	20	0		28	70
8:15 AM	0	0	0		0	2	0		0	0	0		0	8	0		10	66
8:30 AM	1	0	0		0	5	0		0	0	0		2	20	0		28	82
8:45 AM	0	0	1		0	7	0		0	0	0		1	10	0		19	85
9:00 AM	1	0	0		0	8	0		0	0	0		1	10	0		20	77
9:15 AM	1	0	0		0	6	0		0	0	0		0	6	0		13	80
																	0	52
Total	6	0	1		0	55	1		0	0	0			123	1		191	
Peak Hour	**1**	**0**	**1**		**0**	**22**	**0**		**0**	**0**	**0**		**3**	**58**	**0**		**85**	

Bikes

Time Period	Southbound				Westbound				Northbound				Eastbound			SB	WB	NB	EB
	Left	Thru	Right		Left	Thru	Right		Left	Thru	Right		Left	Thru	Right				
06:30 AM						0								0					
06:45 AM						2								0					
07:00 AM						2								0					
07:15 AM						0								2					
07:30 AM						0								2					
07:45 AM						0								1					
08:00 AM						1								0					
08:15 AM						1								0					
08:30 AM						1								0					
08:45 AM						2								0					
09:00 AM						0								0					
09:15 AM						1								1					
Total	0	0	0	0	0	10	0	0	0	0	0	0	0	6	0	0	0	0	0
Peak Hour	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0

Applicant Submittal: 264

Total Page Number: 326

Intersection: **Jackson at Main** City: **Ashland, Oregon**

Counter: **SOTE** Date: **Tuesday, May 8, 2018**

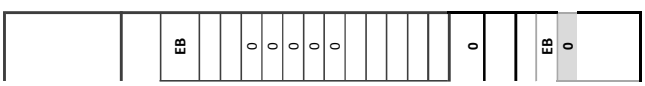
Total of All Vehicles

		Southbound				Westbound				Northbound				Eastbound				15 Minute Volume	Hourly Volume	Pedestrians		
		Left	Thru	Right	Approach Total	Left	Thru	Right	Approach Total	Left	Thru	Right	Approach Total	Left	Thru	Right	Approach Total			SB	WB	NB
6:30 AM	6:45 AM	0	0	0	0	0	85	1	86	0	0	0	0	0	121	0	121	207				
6:45 AM	7:00 AM	0	0	0	0	0	74	0	74	0	0	0	0	0	127	0	127	201				
7:00 AM	7:15 AM	0	0	0	0	0	109	0	109	0	0	0	0	0	92	0	92	201		0	0	0
7:15 AM	7:30 AM	0	0	0	0	0	142	0	142	0	0	0	0	0	156	0	156	298	907	0	0	0
7:30 AM	7:45 AM	0	0	0	0	0	189	1	190	0	0	0	0	0	209	0	209	399	1099	0	0	0
7:45 AM	8:00 AM	0	0	0	0	0	168	1	169	0	0	0	0	0	277	0	277	446	1344	0	0	0
8:00 AM	8:15 AM	0	0	0	0	0	149	1	150	0	0	0	0	0	267	0	267	417	1560	0	0	0
8:15 AM	8:30 AM	0	0	0	0	0	184	1	185	0	0	0	0	0	221	0	221	406	1668			
8:30 AM	8:45 AM	0	0	0	0	0	172	3	175	0	0	0	0	0	234	0	234	409	1678			
8:45 AM	9:00 AM	0	0	2	2	0	193	2	195	0	0	0	0	0	236	0	236	433	1665			
9:00 AM	9:15 AM	0	0	1	1	1	148	1	150	0	0	0	0	0	194	0	194	345	1593			
9:15 AM	9:30 AM	0	0	0	0	0	147	1	148	0	0	0	0	0	196	0	196	344	1531			
Count Period Total		**0**	**0**	**3**	**3**	**1**	**1760**	**12**	**1773**	**0**	**0**	**0**	**0**	**0**	**2330**	**0**	**2330**	**4106**		**0**	**0**	**0**

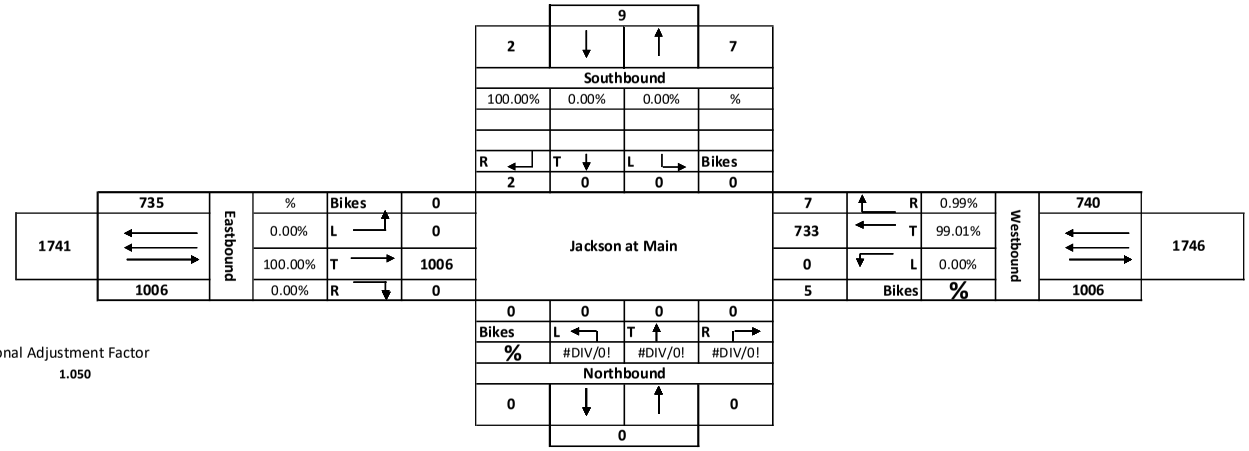
PM Peak Hour Count Summary

	Southbound				Westbound				Northbound				Eastbound						Pedestrians		
	Left	Thru	Right	Approach	Left	Thru	Right	Approach	Left	Thru	Right	Approach	Left	Thru	Right	Approach			SB	WB	NB
Peak Volumes	**0**	**0**	**2**	**2**	**0**	**698**	**7**	**705**	**0**	**0**	**0**	**0**	**0**	**958**	**0**	**958**	**1665**		**0**	**0**	**0**
PHF	0.00	0.00	0.25	0.25	0.00	0.90	0.58	0.90	0.00	0.00	0.00	0.00	0.00	0.90	0.00	0.90	0.96				
Trucks	0	0	0	0	0	22	1	0	0	0	0	0	0	55	0	0					
% Trucks	0%	0%	0%		0%	3%	14%		0%	0%	0%		0%	6%	0%						

Applicant Submittal: 265


EB
0
0
0
0
0
0
EB
0

Seasonally Adjusted Peak Hour



Seasonal Adjustment Factor

1.050

Applicant Submittal: 267

Total Page Number: 329

Jackson at Main

Pedestrians and Cars

Time Period	Southbound					Westbound					Northbound					Eastbound					15 Minute Volume	Hourly Volume
	Peds	Left	Thru	Right		Peds	Left	Thru	Right		Peds	Left	Thru	Right		Peds	Left	Thru	Right			
6:30 AM	0	0	0	0	0	0	0	81	1		0	0	0	0		0	0	114	0	114	196	
6:45 AM	0	0	0	0	0	0	0	73	0		0	0	0	0		0	0	123	0	123	196	
7:00 AM	0	0	0	0	0	0	0	107	0		0	0	0	0		0	0	85	0	85	192	
7:15 AM	0	0	0	0	0	0	0	138	0		0	0	0	0		0	0	148	0	148	286	870
7:30 AM	0	0	0	0	0	0	0	186	1		0	0	0	0		0	0	201	0	201	388	1062
7:45 AM	0	0	0	0	0	0	0	163	1		0	0	0	0		0	0	263	0	263	427	1293
8:00 AM	0	0	0	0	0	0	0	141	1		0	0	0	0		0	0	249	0	249	391	1492
8:15 AM	0	0	0	0	0	0	0	183	1		0	0	0	0		0	0	210	0	210	394	1600
8:30 AM	0	0	0	0	0	0	0	164	3		0	0	0	0		0	0	226	0	226	393	1605
8:45 AM	0	0	0	2	0	0	0	184	2		0	0	0	0		0	0	228	0	228	416	1594
9:00 AM	0	0	0	1	0	0	1	143	1		0	0	0	0		0	0	186	0	186	332	1535
9:15 AM	0	0	0	0	0	0	0	147	1		0	0	0	0		0	0	196	0	196	344	1485
Total	0	0	0	3	0	0	1	1710	12	0	0	0	0	0	0	0	0	2229	0	2229	3955	
Peak Hour	**0**	**0**	**0**	**2**		**0**	**0**	**672**	**7**		**0**	**0**	**0**	**0**		**0**	**0**	**913**	**0**		**1293**	

Trucks

Time Period	Southbound				Westbound				Northbound				Eastbound				15 Minute Volume	Hourly Volume
	Left	Thru	Right		Left	Thru	Right		Left	Thru	Right		Left	Thru	Right			
6:30 AM	0	0	0		0	4	0		0	0	0		0	7	0			
6:45 AM	0	0	0		0	1	0		0	0	0		0	4	0			
7:00 AM	0	0	0		0	2	0		0	0	0		0	7	0			
7:15 AM	0	0	0		0	4	0		0	0	0		0	8	0			
7:30 AM	0	0	0		0	3	0		0	0	0		0	8	0			
7:45 AM	0	0	0		0	5	0		0	0	0		0	14	0			
8:00 AM	0	0	0		0	8	0		0	0	0		0	18	0			
8:15 AM	0	0	0		0	1	0		0	0	0		0	11	0			
8:30 AM	0	0	0		0	5	1		0	0	0		0	18	0			
8:45 AM	0	0	0		0	8	0		0	0	0		0	8	0			
9:00 AM	0	0	0		0	9	0		0	0	0		0	8	0			
9:15 AM	0	0	0		0	5	0		0	0	0		0	8	0			
Total	0	0	0		0	55	1		0	0	0			119	0			
Peak Hour	**0**	**0**	**0**		**0**	**22**	**1**		**0**	**0**	**0**		**0**	**55**	**0**		**0**	

Bikes

Time Period	Southbound				Westbound				Northbound				Eastbound			SB	WB	NB	EB
	Left	Thru	Right		Left	Thru	Right		Left	Thru	Right		Left	Thru	Right				
06:30 AM		0				0				0				0					
06:45 AM		0				2				0				0					
07:00 AM		0				2				0				0					
07:15 AM		0				0				0				2					
07:30 AM		0				0				0				2					
07:45 AM		0				0				0				1					
08:00 AM		0				1				0				0					
08:15 AM		0				1				0				0					
08:30 AM		0				1				0				0					
08:45 AM		0				2				0				0					
09:00 AM		0				0				0				0					
09:15 AM		0				1				0				1					
Total	0	0	0	0	0	10	0	0	0	0	0	0	0	6	0	0	0	0	0
Peak Hour	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0

Applicant Submittal: 268

Total Page Number: 330

Intersection: **Maple @ Main** City: **Ashland, Oregon**

Counter: Date: **Tuesday, October 25, 2016**

Total of All Vehicles

		Southbound				Westbound				Northbound				Eastbound				15 Minute Volume	Hourly Volume	Pedestrians			
		Left	Thru	Right	Approach Total	Left	Thru	Right	Approach Total	Left	Thru	Right	Approach Total	Left	Thru	Right	Approach Total			SB	WB	NB	EB
7:30 AM	7:45 AM	3	144	22	169	1	0	2	3	7	151	0	158	27	0	7	34	364					
7:45 AM	8:00 AM	3	207	20	230	0	0	1	1	10	142	1	153	14	0	11	25	409					
8:00 AM	8:15 AM	3	241	21	265	1	0	0	1	8	133	1	142	19	0	22	41	449		2	3	2	0
8:15 AM	8:30 AM	1	229	32	262	1	0	1	2	18	146	1	165	8	0	14	22	451	1673	0	0	1	1
8:30 AM	8:45 AM	3	205	20	228	1	0	2	3	6	193	1	200	21	0	13	34	465	1774	3	6	0	0
8:45 AM	9:00 AM	0	216	21	237	1	0	1	2	11	138	1	150	22	0	16	38	427	1792	0	4	0	0
9:00 AM	9:30 AM	3	194	15	212	2	0	1	3	20	166	5	191	20	0	11	31	437	1780	1	0	1	0
9:15 AM	12:00 AM	2	175	16	193	2	0	2	4	15	127	1	143	20	0	17	37	377	1706				
Count Period Total		**18**	**1611**	**167**	**1796**	**9**	**0**	**10**	**19**	**95**	**1196**	**11**	**1302**	**151**	**0**	**111**	**262**	**3379**		**6**	**13**	**4**	**1**

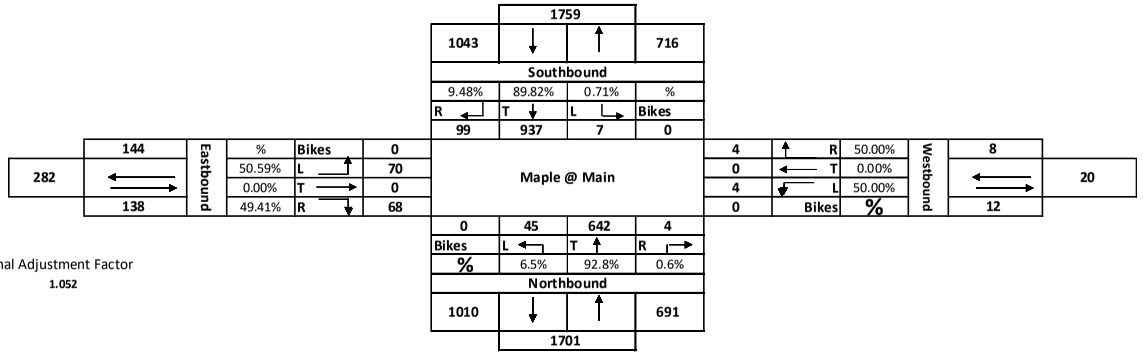
PM Peak Hour Count Summary

	Southbound				Westbound				Northbound				Eastbound						Pedestrians			
	Left	Thru	Right	Approach	Left	Thru	Right	Approach	Left	Thru	Right	Approach	Left	Thru	Right	Approach			SB	WB	NB	EB
Peak Volumes	**7**	**891**	**94**	**992**	**4**	**0**	**4**	**8**	**43**	**610**	**4**	**657**	**70**	**0**	**65**	**135**	**1792**		**5**	**13**	**3**	**1**
PHF	0.58	0.92	0.73	0.94	1.00	0.00	0.50	0.67	0.60	0.79	1.00	0.82	0.80	0.00	0.74	0.82	0.96					
Trucks	0	16	0		0	0	0		0	9	0		0	0	0							
% Trucks	0%	2%	0%		0%	0%	0%		0%	1%	0%		0%	0%	0%							

Applicant Submittal: 269

Total Page Number: 331

Seasonally Adjusted Peak Hour



Seasonal Adjustment Factor

1.052

Applicant Submittal: 270

Total Page Number: 332

Maple @ Main

Pedestrians and Cars

Time Period	Southbound					Westbound					Northbound					Eastbound					15 Minute Volume	Hourly Volume
	Peds	Left	Thru	Right		Peds	Left	Thru	Right		Peds	Left	Thru	Right		Peds	Left	Thru	Right			
7:30 AM	1	3	143	22		3	1	0	2		0	7	150	0		0	27	0	7		362	
7:45 AM	2	3	203	20		6	0	0	1		8	10	141	1		1	14	0	11		404	
8:00 AM	2	3	237	21		3	1	0	0		2	8	131	1		0	19	0	22		443	
8:15 AM	0	1	224	32		0	1	0	1		1	18	143	1		1	8	0	14		443	1652
8:30 AM	3	3	200	20		6	1	0	2		0	6	190	1		0	21	0	13		457	1747
8:45 AM	0	0	214	21		4	1	0	1		0	11	137	1		0	22	0	16		424	1767
9:00 AM	1	3	188	15		0	2	0	1		1	20	164	4		0	20	0	11		428	1752
9:15 AM	3	2	172	16		2	2	0	2		2	15	125	1		1	20	0	17			
																0	0	0	0			
Total	12	18	1581	167		24	9	0	10		14	95	1181	10		3	151	0	111		2961	
Peak Hour	**5**	**7**	**875**	**94**		**13**	**4**	**0**	**4**		**3**	**43**	**601**	**4**		**1**	**70**	**0**	**65**		**1767**	

Trucks

Time Period	Southbound				Westbound				Northbound				Eastbound				15 Minute Volume	Hourly Volume
	Left	Thru	Right		Left	Thru	Right		Left	Thru	Right		Left	Thru	Right			
7:30 AM	0	1	0		0	0	0		0	1	0		0	0	0	0	2	
7:45 AM	0	4	0		0	0	0		0	1	0		0	0	0	0	5	
8:00 AM	0	4	0		0	0	0		0	2	0		0	0	0	0	6	
8:15 AM	0	5	0		0	0	0		0	3	0		0	0	0	0	8	21
8:30 AM	0	5	0		0	0	0		0	3	0		0	0	0	0	8	27
8:45 AM	0	2	0		0	0	0		0	1	0		0	0	0	0	3	25
9:00 AM	0	6	0		0	0	0		0	2	1		0	0	0	0	9	28
9:15 AM	0	3	0		0	0	0		0	2	0		0	0	0	0	5	25
Total	0	30	0		0	0	0		0	15	1	0		0	0	0	46	
Peak Hour	**0**	**16**	**0**		**0**	**0**	**0**		**0**	**9**	**0**	**0**		**0**	**0**	**0**	**25**	

Bikes

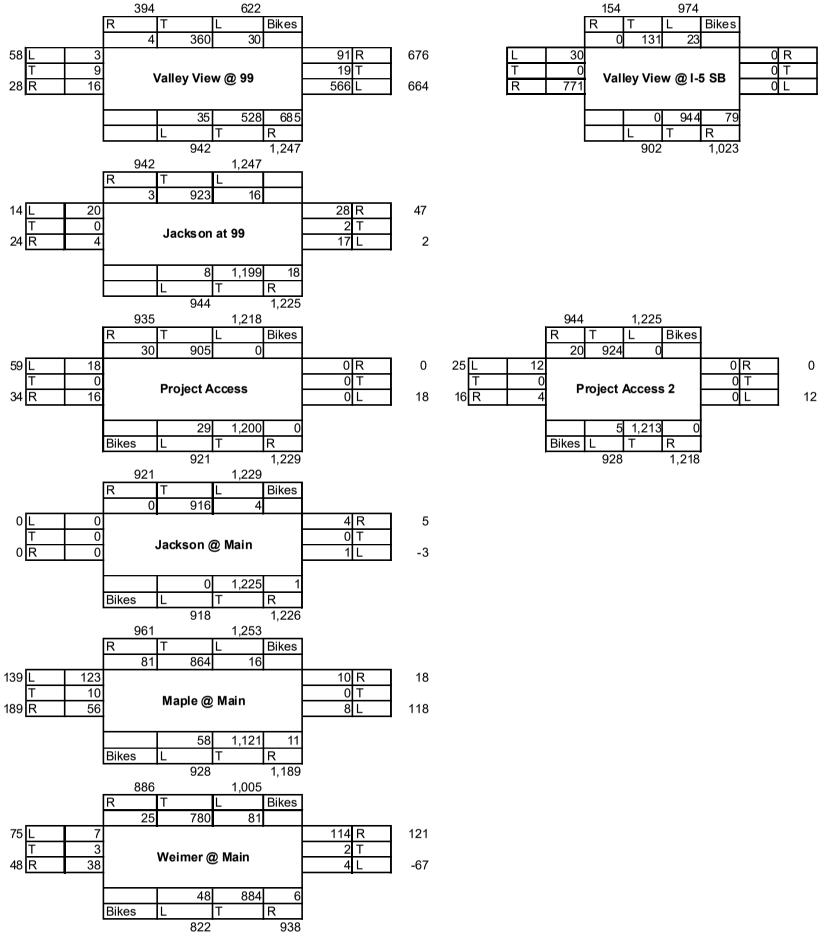
Time Period	Southbound				Westbound				Northbound				Eastbound				SB	WB	NB	EB
	Left	Thru	Right		Left	Thru	Right		Left	Thru	Right		Left	Thru	Right					
7:30 AM	0	0	0		0	0	0		0	0	0		0	0	0	0	0	0	0	0
7:45 AM	0	0	0		0	0	0		0	0	0		0	0	0	0	0	0	0	0
8:00 AM	0	0	0		0	0	0		0	0	0		0	0	0	0	0	0	0	0
8:15 AM	0	0	0		0	0	0		0	0	0		0	0	0	0	0	0	0	0
8:30 AM	0	0	0		0	0	0		0	0	0		0	0	0	0	0	0	0	0
8:45 AM	0	0	0		0	0	0		0	0	0		0	0	0	0	0	0	0	0
9:00 AM	0	0	0		0	0	0		0	0	0		0	0	0	0	0	0	0	0
9:15 AM	0	0	0		0	0	0		0	0	0		0	0	0	0	0	0	0	0
	0	0	0		0	1	0		0	0	0		0	0	0	0	1	0	0	0
	0	0	1		0	0	0		0	0	0		0	0	0	1	0	0	0	0
Total	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	1	1	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Applicant Submittal: 271

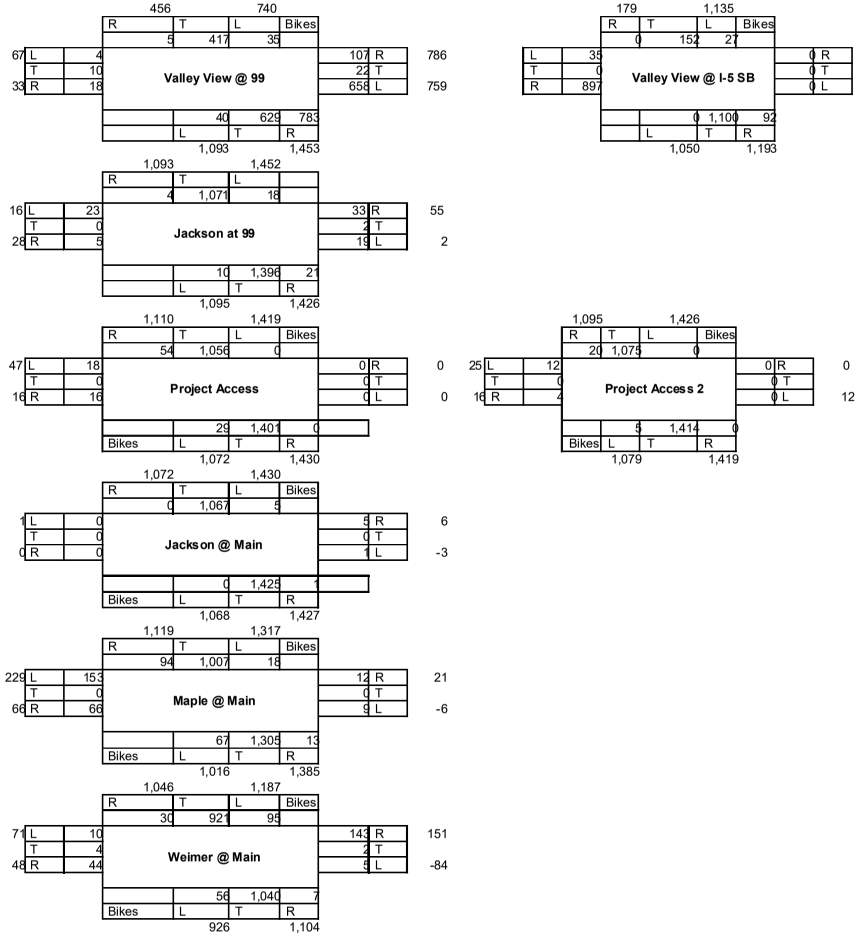
Total Page Number: 333

2019 PM Volumes
Valley Train
Jackson
Bryan
Delaware
Mississippi
Missouri
Arkansas
Red
Illinois
Ohio
Tennessee
Cumberland
Tombigbee
Alabama
Coosa
Tallapoosa
Chattahoochee
Flint
Apalachicola
Escambia River
Annual Rain
Future 1.252
2021 Background PM Volumes
Valley Train
Jackson
Bryan
Delaware
Mississippi
Missouri
Arkansas
Red
Illinois
Ohio
Tennessee
Cumberland
Tombigbee
Alabama
Coosa
Tallapoosa
Chattahoochee
Flint
Apalachicola
Escambia River
Annual Rain
Future 1.231
2034 Background PM Volumes
Valley Train
Jackson
Bryan
Delaware
Mississippi
Missouri
Arkansas
Red
Illinois
Ohio
Tennessee
Cumberland
Tombigbee
Alabama
Coosa
Tallapoosa
Chattahoochee
Flint
Apalachicola
Escambia River
Annual Rain
Future 1.211
2020 2034

2021 Build PM Volumes



2034 Build PM Volumes



Intersection: **S. Valley View @ 99** City: **Ashland, Oregon**

Counter: **SOTE** Date: **Tuesday, May 1, 2018**

Total of All Vehicles

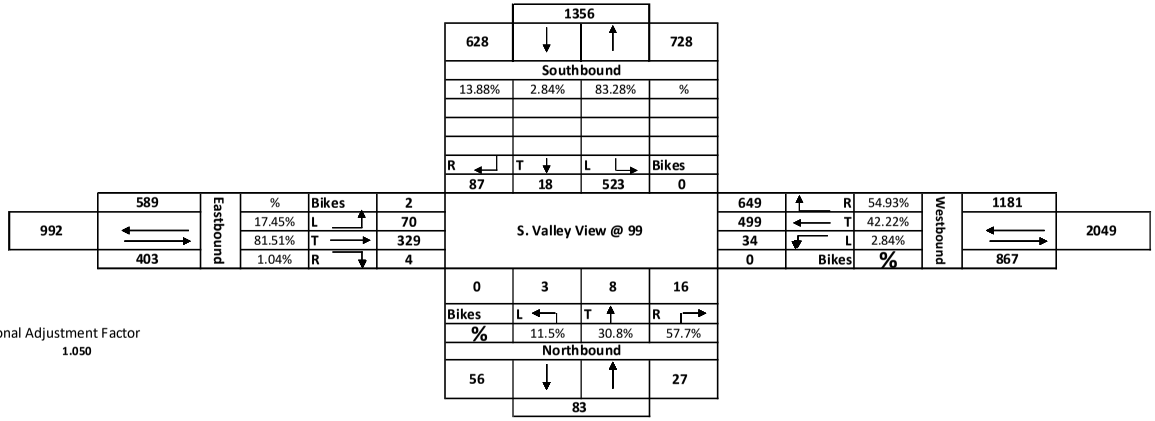
Time Period		Southbound				Westbound				Northbound				Eastbound				15 Minute Volume	Hourly Volume	Pedestrians			
		Left	Thru	Right	Approach Total	Left	Thru	Right	Approach Total	Left	Thru	Right	Approach Total	Left	Thru	Right	Approach Total			SB	WB	NB	EB
03:30 PM	03:45 PM	116	5	25	146	7	100	155	262	1	2	7	10	17	77	1	95	513					
03:45 PM	04:00 PM	146	4	18	168	6	121	137	264	1	5	5	11	13	71	0	84	527					
04:00 PM	04:15 PM	95	5	21	121	6	113	146	265	1	5	4	10	16	63	1	80	476		0	0	1	1
04:15 PM	04:30 PM	108	5	24	137	6	120	139	265	0	3	1	4	30	88	0	118	524	2040	1	2	0	0
04:30 PM	04:45 PM	118	5	21	144	13	104	116	233	2	2	2	6	15	94	1	110	493	2020	0	2	0	0
04:45 PM	05:00 PM	100	2	18	120	7	122	152	281	0	1	5	6	23	66	2	91	498	1991	0	0	0	0
05:00 PM	05:15 PM	139	7	16	162	3	134	205	342	1	3	4	8	9	68	1	78	590	2105	0	1	0	0
05:15 PM	05:30 PM	141	3	28	172	9	115	145	269	0	2	4	6	20	85	0	105	552	2133	1	1	0	0
05:30 PM	05:45 PM	132	2	11	145	3	125	138	266	0	1	2	3	20	80	0	100	514	2154	0	1	0	0
05:45 PM	06:00 PM	106	3	14	123	6	100	130	236	2	0	12	14	14	66	2	82	455	2111	0	0	0	0
06:00 PM	06:15 PM	101	2	12	115	5	81	115	201	0	3	3	6	24	63	0	87	409	1930	5	10	1	2
06:15 PM	6:30 PM	87	0	14	101	2	62	95	159	1	1	2	4	8	69	0	77	341	1719	0	1	1	0
																				0	0	0	0
Count Period Total		**1389**	**43**	**222**	**1654**	**73**	**1297**	**1673**	**3043**	**9**	**28**	**51**	**88**	**209**	**890**	**8**	**1107**	**5892**		**7**	**18**	**3**	**3**

PM Peak Hour Count Summary

	Southbound				Westbound				Northbound				Eastbound						Pedestrians			
	Left	Thru	Right	Approach Total	Left	Thru	Right	Approach Total	Left	Thru	Right	Approach Total	Left	Thru	Right	Approach Total			SB	WB	NB	EB
Peak Volumes	**498**	**17**	**83**	**598**	**32**	**475**	**618**	**1125**	**3**	**8**	**15**	**26**	**67**	**313**	**4**	**384**	**2133**		**1**	**4**	**0**	**0**
PHF	0.88	0.61	0.74	0.87	0.62	0.89	0.75	0.82	0.38	0.67	0.75	0.81	0.73	0.83	0.50	0.87	0.90					
Trucks	7	0	2		2	4	15		0	1	0		3	3	0							
% Trucks	1%	0%	2%		6%	1%	2%		0%	13%	0%		4%	1%	0%							

Applicant Submittal: 274

Seasonally Adjusted Peak Hour



Seasonal Adjustment Factor

1.050

Applicant Submittal: 275

Total Page Number: 337

S. Valley View @ 99
Pedestrians and Cars

Time Period	Southbound					Westbound					Northbound					Eastbound					15 Minute Volume	Hourly Volume
	Peds	Left	Thru	Right		Peds	Left	Thru	Right		Peds	Left	Thru	Right		Peds	Left	Thru	Right			
03:30 PM	0	113	5	23		1	7	97	147		0	1	2	7		1	17	77	1			
03:45 PM	0	143	4	17		0	6	118	127		2	1	5	5		0	13	69	0			
04:00 PM	2	94	5	21		0	6	112	142		0	1	5	4		1	16	61	1			
04:15 PM	1	106	5	24		3	6	120	135		0	0	3	1		0	30	88	0			
04:30 PM	0	115	5	21		0	11	104	112		1	2	2	2		1	15	93	1		483	
04:45 PM	1	98	2	18		2	7	118	145		0	0	1	5		0	20	66	2		482	
05:00 PM	0	139	7	15		2	3	134	203		0	1	3	4		0	9	68	1		587	
05:15 PM	0	139	3	27		0	9	115	143		0	0	1	4		0	20	83	0		544	2096
05:30 PM	0	130	2	11		1	3	122	136		0	0	1	2		0	20	80	0		507	2120
05:45 PM	1	106	3	14		1	6	98	127		0	2	0	12		0	14	66	2		450	2088
06:00 PM	0	98	2	12		1	5	81	111		0	0	3	3		0	24	62	0		401	1902
06:15 PM	0	86	0	14		0	2	61	92		0	1	1	2		0	8	69	0		336	1694
Total	5	1111	34	177		10					1	7	20	39		2	176	736	7		3790	
Peak Hour	**1**	**491**	**17**	**81**		**4**	**30**	**471**	**603**		**1**	**3**	**7**	**15**		**1**	**64**	**310**	**4**		**2088**	

Trucks

Time Period	Southbound				Westbound				Northbound				Eastbound				15 Minute Volume	Hourly Volume
	Left	Thru	Right		Left	Thru	Right		Left	Thru	Right		Left	Thru	Right			
03:30 PM	3	0	2		0	3	8		0	0	0		0	0	0		16	
03:45 PM	3	0	1		0	3	10		0	0	0		0	2	0		19	
04:00 PM	1	0	0		0	1	4		0	0	0		0	2	0		8	
04:15 PM	2	0	0		0	0	4		0	0	0		0	0	0		6	
04:30 PM	3	0	0		2	0	4		0	0	0		0	1	0		10	43
04:45 PM	2	0	0		0	4	7		0	0	0		3	0	0		16	40
05:00 PM	0	0	1		0	0	2		0	0	0		0	0	0		3	35
05:15 PM	2	0	1		0	0	2		0	1	0		0	2	0		8	37
05:30 PM	2	0	0		0	3	2		0	0	0		0	0	0		7	34
05:45 PM	0	0	0		0	2	3		0	0	0		0	0	0		5	23
06:00 PM	3	0	0		0	0	4		0	0	0		0	1	0		8	28
06:15 PM	1	0	0		0	1	3		0	0	0		0	0	0		5	25
Total	22	0	5		2	17	53		0	1	0		3	8	0		111	
Peak Hour	**7**	**0**	**2**		**2**	**4**	**15**		**0**	**1**	**0**		**3**	**3**	**0**		**37**	

Bikes

Time Period	Southbound				Westbound				Northbound				Eastbound				SB	WB	NB	EB
	Left	Thru	Right		Left	Thru	Right		Left	Thru	Right		Left	Thru	Right					
03:30 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	0	0	0
03:45 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	0	0	0
04:00 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	0	0	0
04:15 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	0	0	0
04:30 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	0	0	0
04:45 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	0	0	0
05:00 PM	0	0	0		0	0	0		0	0	0		0	1	0		0	0	0	1
05:15 PM	0	0	0		0	0	0		0	0	0		0	1	0		0	0	0	1
05:30 PM	0	0	0		0	0	0		0	0	0		0	2	0		0	0	0	2
05:45 PM	0	0	0		0	0	0		0	0	0		0	1	0		0	0	0	1
06:00 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	0	0	0
06:15 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	0	0	0
Total	0	0	0		0	0	0		0	0	0		0	5	0		0	0	0	5
Peak Hour	**0**	**0**	**0**		**0**	**0**	**0**		**0**	**0**	**0**		**0**	**2**	**0**		**0**	**0**	**0**	**2**

Applicant Submittal: 276

Intersection: **Jackson@99** City: **Ashland, Oregon**

Counter: **SOTE** Date: **Tuesday, May 1, 2018**

Total of All Vehicles

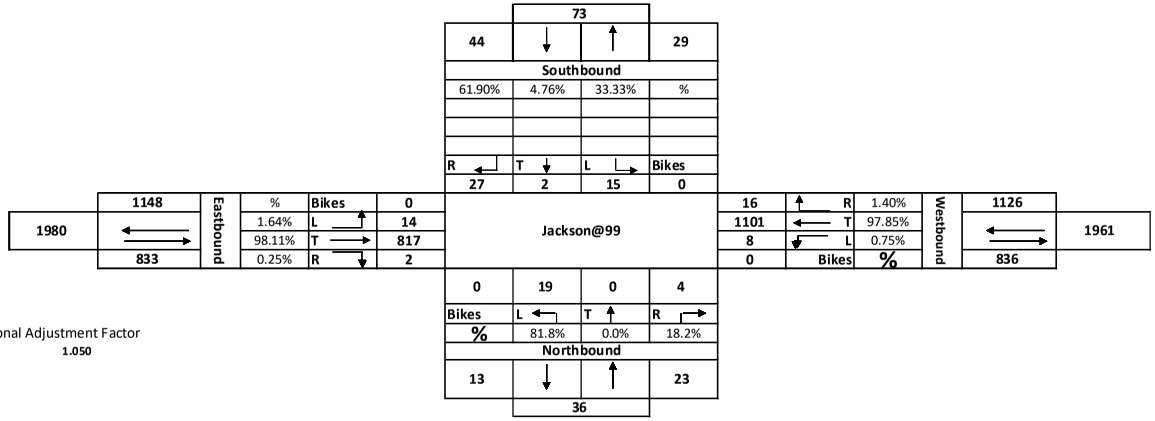
Time Period		Southbound				Westbound				Northbound				Eastbound				15 Minute Volume	Hourly Volume	Pedestrians			
		Left	Thru	Right	Approach Total	Left	Thru	Right	Approach Total	Left	Thru	Right	Approach Total	Left	Thru	Right	Approach Total			SB	WB	NB	EB
03:30 PM	03:45 PM	3	0	8	11	0	243	3	246	5	0	2	7	1	166	4	171	435		0	0	1	1
03:45 PM	04:00 PM	2	1	7	10	0	248	3	251	4	0	1	5	3	177	2	182	448		0	0	1	1
04:00 PM	04:15 PM	1	0	8	9	0	247	6	253	4	0	0	4	3	178	2	183	449		0	0	0	0
04:15 PM	04:30 PM	1	0	14	15	0	233	2	235	3	0	0	3	13	166	1	180	433	1765	0	0	0	0
04:30 PM	04:45 PM	2	1	5	8	3	253	7	263	4	0	1	5	2	203	0	205	481	1811	2	1	0	0
04:45 PM	05:00 PM	2	1	12	15	2	245	3	250	1	0	1	2	4	175	1	180	447	1810	0	2	0	0
05:00 PM	05:15 PM	8	0	5	13	1	263	2	266	6	0	0	6	4	177	1	182	467	1828	0	1	1	1
05:15 PM	05:30 PM	2	0	4	6	2	288	3	293	7	0	2	9	3	223	0	226	534	1929	0	0	0	0
05:30 PM	05:45 PM	3	0	6	9	0	212	5	217	4	0	0	4	2	208	0	210	440	1888	0	1	1	1
05:45 PM	06:00 PM	4	0	4	8	0	194	3	197	2	0	0	2	4	179	0	183	390	1831	0	2	0	0
06:00 PM	06:15 PM	1	0	4	5	0	181	1	182	2	0	1	3	2	143	0	145	335	1699	0	0	0	0
06:15 PM	6:30 PM	3	0	6	9	0	122	1	123	0	0	0	0	3	157	2	162	294	1459	0	1	0	0
																				2	8	2	2
Count Period Total		**32**	**3**	**83**	**118**	**8**	**2729**	**39**	**2776**	**42**	**0**	**8**	**50**	**44**	**2152**	**13**	**2209**	**5153**		4	16	6	6

PM Peak Hour Count Summary

	Southbound				Westbound				Northbound				Eastbound						Pedestrians			
	Left	Thru	Right	Approach Total	Left	Thru	Right	Approach Total	Left	Thru	Right	Approach Total	Left	Thru	Right	Approach Total			SB	WB	NB	EB
Peak Volumes	**14**	**2**	**26**	**42**	**8**	**1049**	**15**	**1072**	**18**	**0**	**4**	**22**	**13**	**778**	**2**	**793**	**1929**		**2**	**4**	**1**	**1**
PHF	0.44	0.50	0.54	0.70	0.67	0.91	0.54	0.91	0.64	0.00	0.50	0.61	0.81	0.87	0.50	0.88	0.90					
Trucks	0	0	0		0	0	0		0	0	0		0	0	0							
% Trucks	0%	0%	0%		0%	0%	0%		0%	0%	0%		0%	0%	0%							

Applicant Submittal: 277

Seasonally Adjusted Peak Hour



Seasonal Adjustment Factor

1.050

Applicant Submittal: 278

Total Page Number: 340

Jackson@99
Pedestrians and Cars

Time Period	Southbound					Westbound					Northbound					Eastbound					15 Minute Volume	Hourly Volume
	Peds	Left	Thru	Right		Peds	Left	Thru	Right		Peds	Left	Thru	Right		Peds	Left	Thru	Right			
03:30 PM	0	3	0	8		0	0	243	3		1	5	0	2		1	1	166	4			
03:45 PM	0	2	1	7		0	0	248	3		1	4	0	1		1	3	177	2			
04:00 PM	0	1	0	8		0	0	247	6		0	4	0	0		0	3	178	2			
04:15 PM	0	1	0	14		0	0	233	2		0	3	0	0		0	13	166	1			
04:30 PM	2	2	1	5		1	3	253	7		0	4	0	1		0	2	203	0		481	
04:45 PM	0	2	1	12		2	2	245	3		0	1	0	1		0	4	175	1		447	
05:00 PM	0	8	0	5		1	1	263	2		1	6	0	0		1	4	177	1		467	
05:15 PM	0	2	0	4		0	2	288	3		0	7	0	2		0	3	223	0		534	1929
05:30 PM	0	3	0	6		1	0	212	5		1	4	0	0		1	2	208	0		440	1888
05:45 PM	0	4	0	4		2	0	194	3		0	2	0	0		0	4	179	0		390	1831
06:00 PM	0	1	0	4		0	0	181	1		0	2	0	1		0	2	143	0		335	1699
06:15 PM	0	3	0	6		1	0	122	1		0	0	0	0		0	3	157	2		294	1459
Total	2	27	2	68		8					2	33	0	5		2	40	1809	7		3388	
Peak Hour	**2**	**14**	**2**	**26**		**4**	**8**	**1049**	**15**		**1**	**18**	**0**	**4**		**1**	**13**	**778**	**2**		**1831**	

Trucks

Time Period	Southbound				Westbound				Northbound				Eastbound				15 Minute Volume	Hourly Volume
	Left	Thru	Right		Left	Thru	Right		Left	Thru	Right		Left	Thru	Right			
03:30 PM																		
03:45 PM																		
04:00 PM																		
04:15 PM																		
04:30 PM																		
04:45 PM																		
05:00 PM																		
05:15 PM																		
05:30 PM																		
05:45 PM																		
06:00 PM																		
06:15 PM																		
Total	0	0	0		0	0	0		0	0	0		0	0	0		0	
Peak Hour	**0**	**0**	**0**		**0**	**0**	**0**		**0**	**0**	**0**		**0**	**0**	**0**		**0**	

Bikes

Time Period	Southbound				Westbound				Northbound				Eastbound				SB	WB	NB	EB
	Left	Thru	Right		Left	Thru	Right		Left	Thru	Right		Left	Thru	Right					
03:30 PM																	0	0	0	0
03:45 PM																	0	0	0	0
04:00 PM																	0	0	0	0
04:15 PM																	0	0	0	0
04:30 PM																	0	0	0	0
04:45 PM																	0	0	0	0
05:00 PM																	0	0	0	0
05:15 PM																	0	0	0	0
05:30 PM																	0	0	0	0
05:45 PM																	0	0	0	0
06:00 PM																	0	0	0	0
06:15 PM																	0	0	0	0
Total	0	0	0		0	0	0		0	0	0		0	0	0		0	0	0	0
Peak Hour	**0**	**0**	**0**		**0**	**0**	**0**		**0**	**0**	**0**		**0**	**0**	**0**		**0**	**0**	**0**	**0**

Applicant Submittal: 279

Intersection: **Jackson at Main St.** City: **Ashland, Oregon**

Counter: **SOTE** Date: **Tuesday, May 1, 2018**

Total of All Vehicles

Time Period	Southbound				Westbound				Northbound				Eastbound				15 Minute Volume	Hourly Volume	Pedestrians			
	Left	Thru	Right	Approach Total	Left	Thru	Right	Approach Total	Left	Thru	Right	Approach Total	Left	Thru	Right	Approach Total			SB	WB	NB	EB
03:30 PM 03:45 PM	0	0	1	1	0	260	7	267	0	0	0	0	0	184	0	184	452					
03:45 PM 04:00 PM	0	0	0	0	0	262	1	263	0	0	0	0	0	168	0	168	431					
04:00 PM 04:15 PM	0	0	0	0	0	243	2	245	0	0	0	0	0	184	0	184	429		0	0	0	0
04:15 PM 04:30 PM	0	0	1	1	0	242	0	242	0	0	0	0	1	179	0	180	423	1735	0	0	0	0
04:30 PM 04:45 PM	0	0	0	0	0	272	0	272	0	0	0	0	0	209	0	209	481	1764	0	0	0	0
04:45 PM 05:00 PM	0	0	1	1	0	264	0	264	0	0	0	0	2	197	0	199	464	1797	0	0	0	0
05:00 PM 05:15 PM	1	0	0	1	0	263	0	263	0	0	0	0	0	190	0	190	454	1822	0	0	0	0
05:15 PM 05:30 PM	0	0	2	2	0	261	1	262	0	0	0	0	1	219	0	220	484	1883	0	0	0	0
05:30 PM 05:45 PM	0	0	2	2	0	216	0	216	0	0	0	0	4	201	0	205	423	1825	0	0	0	0
05:45 PM 06:00 PM	1	0	0	1	0	202	1	203	0	0	0	0	0	186	0	186	390	1751	0	0	0	0
06:00 PM 06:15 PM	0	0	2	2	0	182	0	182	0	0	0	0	0	154	0	154	338	1635	0	0	0	0
06:15 PM 6:30 PM	1	0	0	1	0	123	1	124	0	0	0	0	0	168	0	168	293	1444	0	0	0	0
																			0	0	0	0
Count Period Total	**3**	**0**	**9**	**12**	**0**	**2790**	**13**	**2803**	**0**	**0**	**0**	**0**	**8**	**2239**	**0**	**2247**	**5062**		**0**	**0**	**0**	**0**

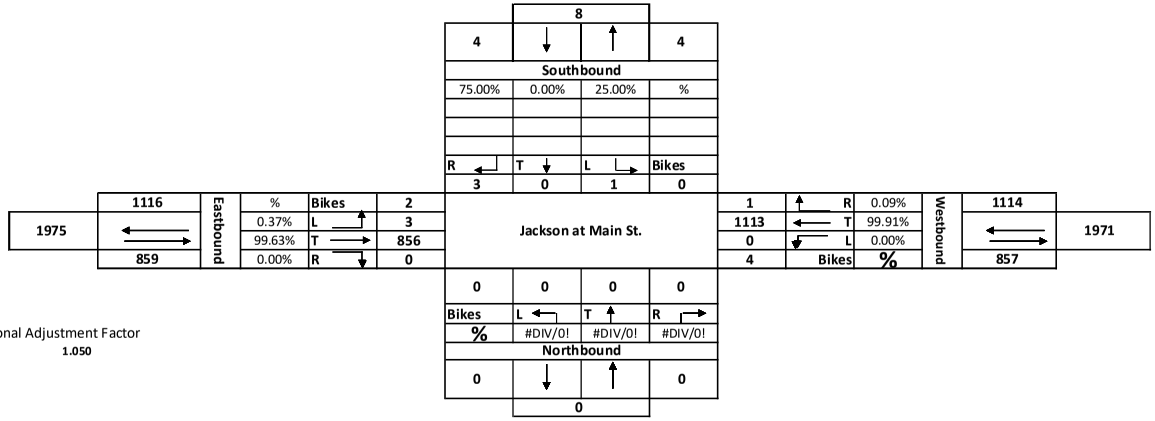
PM Peak Hour Count Summary

	Southbound				Westbound				Northbound				Eastbound						Pedestrians			
	Left	Thru	Right	Approach Total	Left	Thru	Right	Approach Total	Left	Thru	Right	Approach Total	Left	Thru	Right	Approach Total			SB	WB	NB	EB
Peak Volumes	**1**	**0**	**3**	**4**	**0**	**1060**	**1**	**1061**	**0**	**0**	**0**	**0**	**3**	**815**	**0**	**818**	**1883**		**0**	**0**	**0**	**0**
PHF	0.25	0.00	0.38	0.50	0.00	0.97	0.25	0.98	0.00	0.00	0.00	0.00	0.38	0.93	0.00	0.93	0.97					
Trucks	0	0	0		0	19	0		0	0	0		0	10	0							
% Trucks	0%	0%	0%		0%	2%	0%		0%	0%	0%		0%	1%	0%							

Applicant Submittal: 280

Total Page Number: 342

Seasonally Adjusted Peak Hour



Seasonal Adjustment Factor
1.050

Applicant Submittal: 281

Total Page Number: 343

Jackson at Main St.
Pedestrians and Cars

Time Period	Southbound					Westbound					Northbound					Eastbound					15 Minute Volume	Hourly Volume
	Peds	Left	Thru	Right		Peds	Left	Thru	Right		Peds	Left	Thru	Right		Peds	Left	Thru	Right			
03:30 PM	0	0	0	1		0	0	254	7		0	0	0	0		0	0	179	0			
03:45 PM	0	0	0	0		0	0	256	1		0	0	0	0		0	0	166	0			
04:00 PM	0	0	0	0		0	0	237	2		0	0	0	0		0	0	182	0			
04:15 PM	0	0	0	1		0	0	232	0		0	0	0	0		0	1	177	0			
04:30 PM	0	0	0	0		0	0	264	0		0	0	0	0		0	0	208	0		472	
04:45 PM	0	0	0	1		0	0	258	0		0	0	0	0		0	2	194	0		455	
05:00 PM	0	1	0	0		0	0	260	0		0	0	0	0		0	0	186	0		447	
05:15 PM	0	0	0	2		0	0	259	1		0	0	0	0		0	1	217	0		480	1854
05:30 PM	0	0	0	2		0	0	207	0		0	0	0	0		0	4	201	0		414	1796
05:45 PM	0	1	0	0		0	0	197	1		0	0	0	0		0	0	184	0		383	1724
06:00 PM	0	0	0	1		0	0	178	0		0	0	0	0		0	0	154	0		333	1610
06:15 PM	0	1	0	0		0	0	121	1		0	0	0	0		0	0	167	0		290	1420
Total	0	3	0	7		0					0	0	0	0		0	8	1870	0		3274	
Peak Hour	**0**	**1**	**0**	**3**		**0**	**0**	**1041**	**1**		**0**	**0**	**0**	**0**		**0**	**3**	**805**	**0**		**1724**	

Trucks

Time Period	Southbound				Westbound				Northbound				Eastbound				15 Minute Volume	Hourly Volume
	Left	Thru	Right		Left	Thru	Right		Left	Thru	Right		Left	Thru	Right			
03:30 PM	0	0	0		0	6	0		0	0	0		0	5	0		11	
03:45 PM	0	0	0		0	6	0		0	0	0		0	2	0		8	
04:00 PM	0	0	0		0	6	0		0	0	0		0	2	0		8	
04:15 PM	0	0	0		0	10	0		0	0	0		0	2	0		12	
04:30 PM	0	0	0		0	8	0		0	0	0		0	1	0		9	37
04:45 PM	0	0	0		0	6	0		0	0	0		0	3	0		9	38
05:00 PM	0	0	0		0	3	0		0	0	0		0	4	0		7	37
05:15 PM	0	0	0		0	2	0		0	0	0		0	2	0		4	29
05:30 PM	0	0	0		0	9	0		0	0	0		0	0	0		9	29
05:45 PM	0	0	0		0	5	0		0	0	0		0	2	0		7	27
06:00 PM	0	0	1		0	4	0		0	0	0		0	0	0		5	25
06:15 PM	0	0	0		0	2	0		0	0	0		0	1	0		3	24
Total	0	0	1		0	67	0		0	0	0		0	24	0		92	
Peak Hour	**0**	**0**	**0**		**0**	**19**	**0**		**0**	**0**	**0**		**0**	**10**	**0**		**29**	

Bikes

Time Period	Southbound				Westbound				Northbound				Eastbound			SB	WB	NB	EB
	Left	Thru	Right		Left	Thru	Right		Left	Thru	Right		Left	Thru	Right				
03:30 PM		0				0								0			0	0	0
03:45 PM		0				0								1			0	0	1
04:00 PM		0				0								0			0	0	0
04:15 PM		0				0								0			0	0	0
04:30 PM		0				1								0			1	0	0
04:45 PM		0				2								0			2	0	0
05:00 PM		0				1								2			1	0	2
05:15 PM		0				0								0			0	0	0
05:30 PM		0				1								2			1	0	2
05:45 PM		0				2								0			2	0	0
06:00 PM		0				0								0			0	0	0
06:15 PM		0				1											1	0	0
Total	0	0	0		0	8	0		0	0	0		0	5	0	0	8	0	5
Peak Hour	**0**	**0**	**0**		**0**	**4**	**0**		**0**	**0**	**0**		**0**	**2**	**0**	**0**	**4**	**0**	**2**

Applicant Submittal: 282

Intersection: **Maple @ Main** City: **Ashland, Oregon**

Counter: Date: **Thursday, September 29, 2016**

Total of All Vehicles

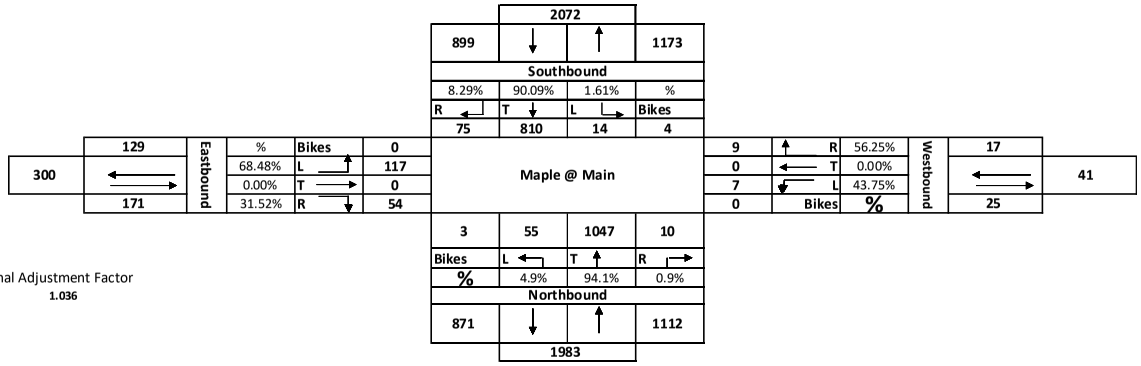
Time Period		Southbound				Westbound				Northbound				Eastbound				15 Minute Volume	Hourly Volume	Pedestrians			
		Left	Thru	Right	Approach Total	Left	Thru	Right	Approach Total	Left	Thru	Right	Approach Total	Left	Thru	Right	Approach Total			SB	WB	NB	EB
3:30 PM	3:45 PM	1	203	6	210	2	8	6	16	4	267	0	271	29	7	0	36	533					
3:45 PM	4:00 PM	2	205	14	221	2	3	1	6	5	267	6	278	26	5	8	39	544					
4:00 PM	4:15 PM	3	188	9	200	3	0	0	3	7	249	0	256	33	0	12	45	504		0	0	1	4
4:15 PM	4:30 PM	0	234	11	245	1	0	0	1	9	215	2	226	39	1	14	54	526	2107	1	0	1	2
4:30 PM	4:45 PM	3	181	32	216	2	0	3	5	16	243	5	264	27	0	7	34	519	2093	3	1	1	2
4:45 PM	5:00 PM	0	167	17	184	3	0	1	4	13	253	1	267	38	0	15	53	508	2057	2	0	2	4
5:00 PM	5:15 PM	3	225	16	244	2	0	2	4	14	273	3	290	30	0	16	46	584	2137	1	0	0	1
5:15 PM	5:30 PM	8	209	7	224	0	0	3	3	10	242	1	253	18	0	14	32	512	2123	0	1	0	2
5:30 PM	5:45 PM	1	210	11	222	0	0	1	1	12	199	1	212	20	0	18	38	473	2077	1	0	0	0
5:45 PM	6:00 PM	0	178	10	188	1	0	0	1	8	193	2	203	15	0	15	30	422	1991	0	1	2	0
Count Period Total		**21**	**2000**	**133**	**2154**	**16**	**11**	**17**	**44**	**98**	**2401**	**21**	**2520**	**275**	**13**	**119**	**407**	**5125**		**8**	**3**	**7**	**15**

PM Peak Hour Count Summary

	Southbound				Westbound				Northbound				Eastbound						Pedestrians			
	Left	Thru	Right	Approach Total	Left	Thru	Right	Approach Total	Left	Thru	Right	Approach Total	Left	Thru	Right	Approach Total			SB	WB	NB	EB
Peak Volumes	**14**	**782**	**72**	**868**	**7**	**0**	**9**	**16**	**53**	**1011**	**10**	**1074**	**113**	**0**	**52**	**165**	**2123**		**6**	**2**	**3**	**9**
PHF	0.44	0.87	0.56	0.89	0.58	0.00	0.75	0.80	0.83	0.93	0.50	0.93	0.74	0.00	0.81	0.78	0.91					
Trucks	0	9	1		0	0	0		0	24	0		1	0	0							
% Trucks	0%	1%	1%		0%	0%	0%		0%	2%	0%		1%	0%	0%							

Applicant Submittal: 283

Seasonally Adjusted Peak Hour



Seasonal Adjustment Factor

1.036

Applicant Submittal: 284

Maple @ Main
Pedestrians and Cars

Time Period	Southbound					Westbound					Northbound					Eastbound					15 Minute	Hourly
	Peds	Left	Thru	Right		Peds	Left	Thru	Right		Peds	Left	Thru	Right		Peds	Left	Thru	Right		Volume	Volume
3:30 PM	1	1	200	6		0	2	8	5		1	4	256	0		0	28	7	0			
3:45 PM	4	2	202	14		2	2	3	1		2	5	254	6		2	25	5	8			
4:00 PM	0	3	185	9		0	2	0	0		1	7	242	0		4	31	0	12		491	
4:15 PM	1	0	229	11		0	1	0	0		1	9	206	2		2	38	1	14		511	
4:30 PM	3	3	179	31		1	2	0	3		1	16	236	5		2	27	0	7		509	
4:45 PM	2	0	165	17		0	3	0	1		2	13	247	1		4	38	0	15		500	2011
5:00 PM	1	3	222	16		0	2	0	2		0	14	269	3		1	29	0	16		576	2096
5:15 PM	0	8	207	7		1	0	0	3		0	10	235	1		2	18	0	14		503	2088
5:30 PM	1	1	208	11		0	0	0	1		0	12	193	1		0	20	0	18		465	2044
5:45 PM	0	0	172	9		1	1	0	0		2	8	188	2		0	15	0	15		410	1954
Total	13	21	1969	131		5	15	11	16		10	98	2326	21		17	269	13	119		3965	
Peak Hour	**6**	**14**	**773**	**71**		**2**	**7**	**0**	**9**		**3**	**53**	**987**	**10**		**9**	**112**	**0**	**52**		**2088**	

Trucks

Time Period	Southbound				Westbound				Northbound				Eastbound				15 Minute	Hourly
	Left	Thru	Right		Left	Thru	Right		Left	Thru	Right		Left	Thru	Right		Volume	Volume
3:30 PM	0	3	0		0	0	1		0	11	0		1	0	0			
3:45 PM	0	3	0		0	0	0		0	13	0		1	0	0			
4:00 PM	0	3	0		1	0	0		0	7	0		2	0	0		13	
4:15 PM	0	5	0		0	0	0		0	9	0		1	0	0		15	
4:30 PM	0	2	1		0	0	0		0	7	0		0	0	0		10	
4:45 PM	0	2	0		0	0	0		0	6	0		0	0	0		8	46
5:00 PM	0	3	0		0	0	0		0	4	0		1	0	0		8	41
5:15 PM	0	2	0		0	0	0		0	7	0		0	0	0		9	35
5:30 PM	0	2	0		0	0	0		0	6	0		0	0	0		8	33
5:45 PM	0	6	1		0	0	0		0	5	0		0	0	0		12	37
Total	0	31	2		1	0	1		0	75	0		6	0	0		83	
Peak Hour	**0**	**9**	**1**		**0**	**0**	**0**		**0**	**24**	**0**		**1**	**0**	**0**		**35**	

Bikes

Time Period	Southbound				Westbound				Northbound				Eastbound				SB	WB	NB	EB
	Left	Thru	Right		Left	Thru	Right		Left	Thru	Right		Left	Thru	Right					
3:30 PM	0	0	0		0	0	0		0	1	0		0	1	0		0	0	0	0
3:45 PM	0	0	0		0	0	0		0	1	0		0	0	0		0	0	0	0
4:00 PM	0	1	0		0	0	0		0	1	0		0	0	0		1	0	1	0
4:15 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	0	0	0
4:30 PM	0	1	0		0	0	0		0	1	0		0	0	0		1	0	1	0
4:45 PM	0	1	0		0	0	0		0	0	0		0	0	0		1	0	0	0
5:00 PM	0	0	0		0	0	0		0	2	0		0	0	0		0	0	2	0
5:15 PM	0	2	0		0	0	0		0	0	0		0	0	0		2	0	0	0
5:30 PM	0	1	0		0	1	0		0	2	0		0	0	0		1	1	2	0
5:45 PM	0	1	1		0	0	0		0	0	0		0	0	0		2	0	0	0
Total	0	7	1		0	1	0		0	8	0		0	1	0		8	1	6	0
Peak Hour	**0**	**4**	**0**		**0**	**0**	**0**		**0**	**3**	**0**		**0**	**0**	**0**		**4**	**0**	**3**	**0**

Applicant Submittal: 285

Total Page Number: 347

Appendix F

SYNCHRO OUTPUT

160 Madison Suite A Eugene, Oregon 97402 541.513.3376

SANDOW ENGINEERING



Lane Group	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	708	10	0	1032	0	5
Future Volume (vph)	708	10	0	1032	0	5
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750
Storage Length (ft)		175	50		0	0
Storage Lanes		1	1		1	0
Taper Length (ft)			50		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.865	
Flt Protected						
Satd. Flow (prot)	1699	1305	1750	1651	1514	0
Flt Permitted						
Satd. Flow (perm)	1699	1305	1750	1651	1514	0
Link Speed (mph)	35			45	30	
Link Distance (ft)	3346			408	349	
Travel Time (s)	65.2			6.2	7.9	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	3%	14%	0%	6%	0%	0%
Adj. Flow (vph)	738	10	0	1075	0	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	738	10	0	1075	5	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	12			12	12	
Two way Left Turn Lane						
Headway Factor	1.11	1.11	1.11	1.11	1.11	1.11
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	69.0%	ICU Level of Service	C
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0

Movement	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	708	10	0	1032	0	5
Future Vol, veh/h	708	10	0	1032	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	175	50	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	3	14	0	6	0	0
Mvmt Flow	738	10	0	1075	0	5

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	748	0	1813	738
Stage 1	-	-	-	-	738	-
Stage 2	-	-	-	-	1075	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	870	-	87	421
Stage 1	-	-	-	-	476	-
Stage 2	-	-	-	-	331	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	870	-	87	421
Mov Cap-2 Maneuver	-	-	-	-	87	-
Stage 1	-	-	-	-	476	-
Stage 2	-	-	-	-	331	-

Approach	NB	SB	SW
HCM Control Delay, s	0	0	13.7
HCM LOS			B

Minor Lane/Major Mvmt	NBT	NBR	SBL	SBT	SWLn1
Capacity (veh/h)	-	-	870	-	421
HCM Lane V/C Ratio	-	-	-	-	0.012
HCM Control Delay (s)	-	-	0	-	13.7
HCM Lane LOS	-	-	A	-	B
HCM 95th %tile Q(veh)	-	-	0	-	0

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	40	997	20	5	678	30	5	0	1	34	0	35
Future Volume (vph)	40	997	20	5	678	30	5	0	1	34	0	35
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.997			0.994			0.977			0.932	
Flt Protected	0.950			0.950				0.960			0.976	
Satd. Flow (prot)	1539	3131	0	1662	3213	0	0	1641	0	0	1576	0
Flt Permitted	0.950			0.950				0.960			0.976	
Satd. Flow (perm)	1539	3131	0	1662	3213	0	0	1641	0	0	1576	0
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		1152			1486			250			266	
Travel Time (s)		17.5			22.5			5.7			6.0	
Confl. Bikes (#/hr)						4						
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	8%	6%	0%	0%	3%	0%	0%	0%	0%	1%	0%	1%
Adj. Flow (vph)	42	1039	21	5	706	31	5	0	1	35	0	36
Shared Lane Traffic (%)												
Lane Group Flow (vph)	42	1060	0	5	737	0	0	6	0	0	71	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		12			12			12			12	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 47.0%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1.8

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	40	997	20	5	678	30	5	0	1	34	0	35
Future Vol, veh/h	40	997	20	5	678	30	5	0	1	34	0	35
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	8	6	0	0	3	0	0	0	0	1	0	1
Mvmt Flow	42	1039	21	5	706	31	5	0	1	35	0	36

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	737	0	0	1060	0	0	1497	1881	530	1336	1876	369
Stage 1	-	-	-	-	-	-	1134	1134	-	732	732	-
Stage 2	-	-	-	-	-	-	363	747	-	604	1144	-
Critical Hdwy	4.26	-	-	4.1	-	-	7.5	6.5	6.9	7.52	6.5	6.92
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.52	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.52	5.5	-
Follow-up Hdwy	2.28	-	-	2.2	-	-	3.5	4	3.3	3.51	4	3.31
Pot Cap-1 Maneuver	826	-	-	665	-	-	86	72	499	113	72	631
Stage 1	-	-	-	-	-	-	219	280	-	381	430	-
Stage 2	-	-	-	-	-	-	634	423	-	455	277	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	826	-	-	665	-	-	77	68	499	108	68	631
Mov Cap-2 Maneuver	-	-	-	-	-	-	77	68	-	108	68	-
Stage 1	-	-	-	-	-	-	208	266	-	362	427	-
Stage 2	-	-	-	-	-	-	593	420	-	431	263	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	0.4	0.1	48	36
HCM LOS			E	E

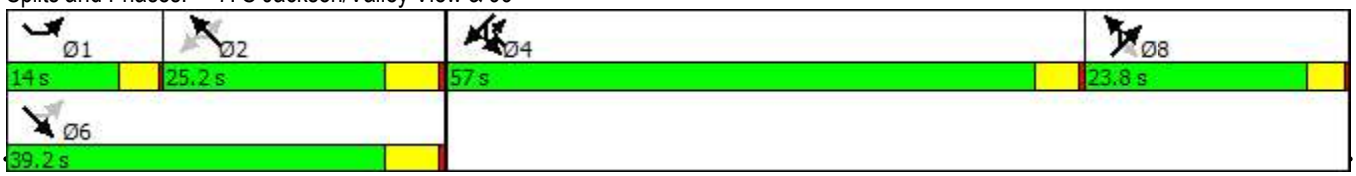
Minor Lane/Major Mvmt	NELn1	NWL	NWT	NWR	SEL	SET	SER	SWLn1
Capacity (veh/h)	90	665	-	-	826	-	-	186
HCM Lane V/C Ratio	0.069	0.008	-	-	0.05	-	-	0.386
HCM Control Delay (s)	48	10.5	-	-	9.6	-	-	36
HCM Lane LOS	E	B	-	-	A	-	-	E
HCM 95th %tile Q(veh)	0.2	0	-	-	0.2	-	-	1.7

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	104	532	55	10	224	447	2	3	7	579	15	54
Future Volume (vph)	104	532	55	10	224	447	2	3	7	579	15	54
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Storage Length (ft)	225		0	475		100	0		65	0		65
Storage Lanes	1		0	1		1	0		1	0		0
Taper Length (ft)	300			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						0.98						
Frt		0.986				0.850			0.850		0.989	
Flt Protected	0.950			0.950				0.980			0.957	
Satd. Flow (prot)	1568	3109	0	1498	3167	1444	0	1715	1473	0	1550	0
Flt Permitted	0.472			0.426				0.980			0.957	
Satd. Flow (perm)	779	3109	0	672	3167	1414	0	1715	1473	0	1550	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9				456			99		5	
Link Speed (mph)		45			45			30			35	
Link Distance (ft)		925			1152			271			868	
Travel Time (s)		14.0			17.5			6.2			16.9	
Confl. Bikes (#/hr)						1						
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	6%	6%	0%	11%	5%	3%	0%	0%	1%	6%	7%	16%
Adj. Flow (vph)	106	543	56	10	229	456	2	3	7	591	15	55
Shared Lane Traffic (%)												
Lane Group Flow (vph)	106	599	0	10	229	456	0	5	7	0	661	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		12			12			12			12	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11
Number of Detectors	2	2		2	2	1	1	2	1	1	2	
Detector Template							Left			Left		
Leading Detector (ft)	78	323		78	323	143	20	78	143	20	78	
Trailing Detector (ft)	2	157		2	157	137	0	2	137	0	2	
Detector 1 Position(ft)	2	157		2	157	137	0	2	137	0	2	
Detector 1 Size(ft)	6	6		6	6	6	20	6	6	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)	72	317		72	317			72			72	
Detector 2 Size(ft)	6	6		6	6			6			6	
Detector 2 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Turn Type	pm+pt	NA		Perm	NA	pm+ov	Split	NA	Perm	Split	NA	

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Protected Phases	1	6			2	4	8	8		4	4	
Permitted Phases	6			2		2			8		4	
Detector Phase	1	6		2	2	4	8	8	8	4	4	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	14.0	27.4		25.0	25.0	26.5	23.7	23.7	23.7	26.5	26.5	
Total Split (s)	14.0	39.2		25.2	25.2	57.0	23.8	23.8	23.8	57.0	57.0	
Total Split (%)	11.7%	32.7%		21.0%	21.0%	47.5%	19.8%	19.8%	19.8%	47.5%	47.5%	
Maximum Green (s)	10.0	33.8		19.8	19.8	52.5	19.8	19.8	19.8	52.5	52.5	
Yellow Time (s)	3.5	4.7		4.7	4.7	4.0	3.5	3.5	3.5	4.0	4.0	
All-Red Time (s)	0.5	0.7		0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.5	
Lost Time Adjust (s)	-1.4	-1.4		-1.4	-1.4	-1.4		0.0	0.0		-0.5	
Total Lost Time (s)	2.6	4.0		4.0	4.0	3.1		4.0	4.0		4.0	
Lead/Lag	Lead			Lag	Lag							
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	
Minimum Gap (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Time Before Reduce (s)	8.0	8.0		8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	
Time To Reduce (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Recall Mode	None	Min		Min	Min	None	None	None	None	None	None	
Walk Time (s)		7.0		7.0	7.0	7.0				7.0	7.0	
Flash Dont Walk (s)		15.0		11.0	11.0	15.0				15.0	15.0	
Pedestrian Calls (#/hr)		0		0	0	0				0	0	
Act Effct Green (s)	25.4	23.9		13.4	13.4	59.6		5.3	5.3		44.3	
Actuated g/C Ratio	0.32	0.30		0.17	0.17	0.75		0.07	0.07		0.56	
v/c Ratio	0.29	0.64		0.09	0.43	0.38		0.04	0.04		0.76	
Control Delay	25.1	28.8		37.5	36.7	1.4		44.2	0.4		22.6	
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0		0.0	
Total Delay	25.1	28.8		37.5	36.7	1.4		44.2	0.4		22.6	
LOS	C	C		D	D	A		D	A		C	
Approach Delay		28.2			13.5			18.7			22.6	
Approach LOS		C			B			B			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 79.6			
Natural Cycle: 110			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay: 21.5		Intersection LOS: C	
Intersection Capacity Utilization 82.1%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 7: S Jackson/Valley View & 99



Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	104	532	55	10	224	447	2	3	7	579	15	54
Future Volume (vph)	104	532	55	10	224	447	2	3	7	579	15	54
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	2.6	4.0		4.0	4.0	3.1		4.0	4.0		4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00		1.00	1.00		1.00	
Frpb, ped/bikes	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00	
Frt	1.00	0.99		1.00	1.00	0.85		1.00	0.85		0.99	
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.98	1.00		0.96	
Satd. Flow (prot)	1568	3109		1498	3167	1437		1716	1473		1550	
Flt Permitted	0.47	1.00		0.43	1.00	1.00		0.98	1.00		0.96	
Satd. Flow (perm)	779	3109		671	3167	1437		1716	1473		1550	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	106	543	56	10	229	456	2	3	7	591	15	55
RTOR Reduction (vph)	0	6	0	0	0	133	0	0	7	0	2	0
Lane Group Flow (vph)	106	593	0	10	229	323	0	5	0	0	659	0
Confl. Bikes (#/hr)						1						
Heavy Vehicles (%)	6%	6%	0%	11%	5%	3%	0%	0%	1%	6%	7%	16%
Turn Type	pm+pt	NA		Perm	NA	pm+ov	Split	NA	Perm	Split	NA	
Protected Phases	1	6			2	4	8	8		4	4	
Permitted Phases	6			2		2			8		4	
Actuated Green, G (s)	23.4	23.4		11.9	11.9	55.7		1.6	1.6		43.8	
Effective Green, g (s)	24.8	24.8		13.3	13.3	58.5		1.6	1.6		44.3	
Actuated g/C Ratio	0.30	0.30		0.16	0.16	0.71		0.02	0.02		0.54	
Clearance Time (s)	4.0	5.4		5.4	5.4	4.5		4.0	4.0		4.5	
Vehicle Extension (s)	2.5	2.5		2.5	2.5	2.5		2.5	2.5		2.5	
Lane Grp Cap (vph)	318	932		107	509	1016		33	28		830	
v/s Ratio Prot	0.04	c0.19			0.07	0.17		c0.00			c0.42	
v/s Ratio Perm	0.06			0.01		0.05			0.00			
v/c Ratio	0.33	0.64		0.09	0.45	0.32		0.15	0.00		0.79	
Uniform Delay, d1	21.8	25.0		29.6	31.4	4.6		39.9	39.8		15.5	
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00	
Incremental Delay, d2	0.5	1.3		0.3	0.5	0.1		1.6	0.0		5.1	
Delay (s)	22.3	26.3		29.8	31.9	4.7		41.4	39.8		20.6	
Level of Service	C	C		C	C	A		D	D		C	
Approach Delay (s)		25.7			14.0			40.5			20.6	
Approach LOS		C			B			D			C	

Intersection Summary			
HCM 2000 Control Delay	20.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	82.7	Sum of lost time (s)	15.1
Intersection Capacity Utilization	82.1%	ICU Level of Service	E
Analysis Period (min)	15		

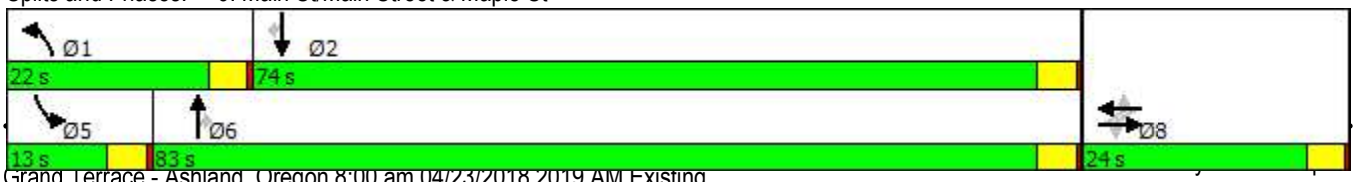
c Critical Lane Group

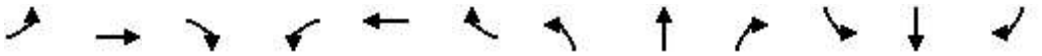
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	71	0	69	4	0	4	46	649	4	7	948	100
Future Volume (vph)	71	0	69	4	0	4	46	649	4	7	948	100
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Storage Length (ft)	0		0	0		0	150		160	70		195
Storage Lanes	0		0	0		0	1		0	1		1
Taper Length (ft)	25			25			300			80		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.98			0.99				0.97			0.96
Frt		0.933			0.932				0.850			0.850
Flt Protected		0.975			0.976		0.950			0.950		
Satd. Flow (prot)	0	1555	0	0	1571	0	1662	1733	1488	1662	1716	1488
Flt Permitted		0.836			0.878		0.950			0.950		
Satd. Flow (perm)	0	1334	0	0	1413	0	1662	1733	1441	1662	1716	1425
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		82			82				45			82
Link Speed (mph)		25			25			25			35	
Link Distance (ft)		1425			286			1141			3346	
Travel Time (s)		38.9			7.8			31.1			65.2	
Confl. Peds. (#/hr)			9			2			3			6
Confl. Bikes (#/hr)									3			4
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	2%	0%
Adj. Flow (vph)	74	0	72	4	0	4	48	676	4	7	988	104
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	146	0	0	8	0	48	676	4	7	988	104
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		12			12			12			12	
Two way Left Turn Lane								Yes				
Headway Factor	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11
Number of Detectors	1	2		1	2		2	1	1	2	1	1
Detector Template	Left			Left								
Leading Detector (ft)	20	78		20	78		78	143	143	78	143	143
Trailing Detector (ft)	0	2		0	2		2	137	137	2	137	137
Detector 1 Position(ft)	0	2		0	2		2	137	137	2	137	137
Detector 1 Size(ft)	20	6		20	6		6	6	6	6	6	6
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		72			72		72			72		
Detector 2 Size(ft)		6			6		6			6		
Detector 2 Type		Cl+Ex			Cl+Ex		Cl+Ex			Cl+Ex		
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0		0.0			0.0		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA		Perm	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases		8			8		1	6		5	2	
Permitted Phases	8			8					6			2
Detector Phase	8	8		8	8		1	6	6	5	2	2
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	24.0	24.0		24.0	24.0		22.0	22.5	22.5	13.0	22.0	22.0
Total Split (s)	24.0	24.0		24.0	24.0		22.0	83.0	83.0	13.0	74.0	74.0
Total Split (%)	20.0%	20.0%		20.0%	20.0%		18.3%	69.2%	69.2%	10.8%	61.7%	61.7%
Maximum Green (s)	20.0	20.0		20.0	20.0		18.0	79.0	79.0	9.0	70.0	70.0
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.0			4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5		2.5	4.0	4.0	2.5	4.0	4.0
Minimum Gap (s)	2.0	2.0		2.0	2.0		2.0	2.7	2.7	2.0	2.7	2.7
Time Before Reduce (s)	8.0	8.0		8.0	8.0		8.0	10.0	10.0	8.0	10.0	10.0
Time To Reduce (s)	4.0	4.0		4.0	4.0		4.0	13.0	13.0	4.0	13.0	13.0
Recall Mode	None	None		None	None		None	Min	Min	None	Min	Min
Walk Time (s)	7.0	7.0		7.0	7.0			7.0	7.0		7.0	7.0
Flash Dont Walk (s)	13.0	13.0		13.0	13.0			11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0			0	0		0	0
Act Effct Green (s)		10.1			10.1		7.8	71.3	71.3	5.7	63.6	63.6
Actuated g/C Ratio		0.11			0.11		0.09	0.78	0.78	0.06	0.70	0.70
v/c Ratio		0.66			0.03		0.34	0.50	0.00	0.07	0.83	0.10
Control Delay		35.4			0.2		50.8	6.5	0.0	49.0	20.4	2.6
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		35.4			0.2		50.8	6.5	0.0	49.0	20.4	2.6
LOS		D			A		D	A	A	D	C	A
Approach Delay		35.4			0.3			9.4			18.9	
Approach LOS		D			A			A			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 91.5			
Natural Cycle: 110			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.83			
Intersection Signal Delay: 16.5		Intersection LOS: B	
Intersection Capacity Utilization 73.8%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 9: Main St/Main Street & Maple St





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	71	0	69	4	0	4	46	649	4	7	948	100
Future Volume (vph)	71	0	69	4	0	4	46	649	4	7	948	100
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)		4.0			4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes		0.98			0.99		1.00	1.00	0.97	1.00	1.00	0.96
Flpb, ped/bikes		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.93			0.93		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.98			0.98		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1561			1572		1662	1733	1444	1662	1716	1432
Flt Permitted		0.84			0.88		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1338			1415		1662	1733	1444	1662	1716	1432
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	74	0	72	4	0	4	48	676	4	7	988	104
RTOR Reduction (vph)	0	73	0	0	7	0	0	0	1	0	0	25
Lane Group Flow (vph)	0	73	0	0	1	0	48	676	3	7	988	79
Confl. Peds. (#/hr)			9			2			3			6
Confl. Bikes (#/hr)									3			4
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	2%	0%
Turn Type	Perm	NA		Perm	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases		8			8		1	6		5	2	
Permitted Phases	8			8					6			2
Actuated Green, G (s)		10.1			10.1		6.4	71.3	71.3	1.1	66.0	66.0
Effective Green, g (s)		10.1			10.1		6.4	71.3	71.3	1.1	66.0	66.0
Actuated g/C Ratio		0.11			0.11		0.07	0.75	0.75	0.01	0.70	0.70
Clearance Time (s)		4.0			4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)		2.5			2.5		2.5	4.0	4.0	2.5	4.0	4.0
Lane Grp Cap (vph)		143			151		112	1307	1089	19	1198	1000
v/s Ratio Prot							c0.03	0.39		0.00	c0.58	
v/s Ratio Perm		c0.05			0.00				0.00			0.06
v/c Ratio		0.51			0.01		0.43	0.52	0.00	0.37	0.82	0.08
Uniform Delay, d1		39.9			37.7		42.3	4.7	2.9	46.4	10.1	4.5
Progression Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		2.1			0.0		1.9	0.5	0.0	8.6	5.0	0.0
Delay (s)		41.9			37.7		44.2	5.1	2.9	54.9	15.1	4.6
Level of Service		D			D		D	A	A	D	B	A
Approach Delay (s)		41.9			37.7			7.7			14.4	
Approach LOS		D			D			A			B	

Intersection Summary			
HCM 2000 Control Delay	14.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	94.5	Sum of lost time (s)	12.0
Intersection Capacity Utilization	73.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	1151	1	3	866	1	3
Future Volume (vph)	1151	1	3	866	1	3
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750
Storage Length (ft)		175	50		0	0
Storage Lanes		1	1		1	0
Taper Length (ft)			50		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.899	
Flt Protected			0.950		0.988	
Satd. Flow (prot)	1716	1488	1662	1733	1554	0
Flt Permitted			0.950		0.988	
Satd. Flow (perm)	1716	1488	1662	1733	1554	0
Link Speed (mph)	35			45	30	
Link Distance (ft)	3346			408	349	
Travel Time (s)	65.2			6.2	7.9	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	0%	0%	1%	0%	0%
Adj. Flow (vph)	1238	1	3	931	1	3
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1238	1	3	931	4	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	12			12	12	
Two way Left Turn Lane						
Headway Factor	1.11	1.11	1.11	1.11	1.11	1.11
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	75.8%	ICU Level of Service D	
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.1

Movement	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	1151	1	3	866	1	3
Future Vol, veh/h	1151	1	3	866	1	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	175	50	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	0	0	1	0	0
Mvmt Flow	1238	1	3	931	1	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1239	0	2175	1238
Stage 1	-	-	-	-	1238	-
Stage 2	-	-	-	-	937	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	569	-	52	216
Stage 1	-	-	-	-	276	-
Stage 2	-	-	-	-	384	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	569	-	52	216
Mov Cap-2 Maneuver	-	-	-	-	52	-
Stage 1	-	-	-	-	276	-
Stage 2	-	-	-	-	382	-

Approach	NB	SB	SW
HCM Control Delay, s	0	0	35.8
HCM LOS			E

Minor Lane/Major Mvmt	NBT	NBR	SBL	SBT	SWLn1
Capacity (veh/h)	-	-	569	-	121
HCM Lane V/C Ratio	-	-	0.006	-	0.036
HCM Control Delay (s)	-	-	11.4	-	35.8
HCM Lane LOS	-	-	B	-	E
HCM 95th %tile Q(veh)	-	-	0	-	0.1

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	15	850	3	8	1129	16	19	0	4	15	2	27
Future Volume (vph)	15	850	3	8	1129	16	19	0	4	15	2	27
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.998			0.978			0.917	
Flt Protected	0.950			0.950				0.960			0.983	
Satd. Flow (prot)	1662	3292	0	1662	3254	0	0	1643	0	0	1577	0
Flt Permitted	0.950			0.950				0.960			0.983	
Satd. Flow (perm)	1662	3292	0	1662	3254	0	0	1643	0	0	1577	0
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		1152			1486			250			266	
Travel Time (s)		17.5			22.5			5.7			6.0	
Confl. Bikes (#/hr)						4						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	1%	0%	0%	2%	0%	0%	0%	0%	0%	1%	0%
Adj. Flow (vph)	17	944	3	9	1254	18	21	0	4	17	2	30
Shared Lane Traffic (%)												
Lane Group Flow (vph)	17	947	0	9	1272	0	0	25	0	0	49	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		12			12			12			12	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	44.4%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	2.4

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	15	850	3	8	1129	16	19	0	4	15	2	27
Future Vol, veh/h	15	850	3	8	1129	16	19	0	4	15	2	27
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	1	0	0	2	0	0	0	0	0	1	0
Mvmt Flow	17	944	3	9	1254	18	21	0	4	17	2	30

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1272	0	0	947	0	0	1626	2270	474	1787	2262	636
Stage 1	-	-	-	-	-	-	980	980	-	1281	1281	-
Stage 2	-	-	-	-	-	-	646	1290	-	506	981	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.52	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.52	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4.01	3.3
Pot Cap-1 Maneuver	553	-	-	733	-	-	69	41	542	52	41	425
Stage 1	-	-	-	-	-	-	272	331	-	178	236	-
Stage 2	-	-	-	-	-	-	431	236	-	522	328	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	553	-	-	733	-	-	59	39	542	50	39	425
Mov Cap-2 Maneuver	-	-	-	-	-	-	59	39	-	50	39	-
Stage 1	-	-	-	-	-	-	264	321	-	172	233	-
Stage 2	-	-	-	-	-	-	392	233	-	502	318	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	0.2	0.1	83.4	65.2
HCM LOS			F	F

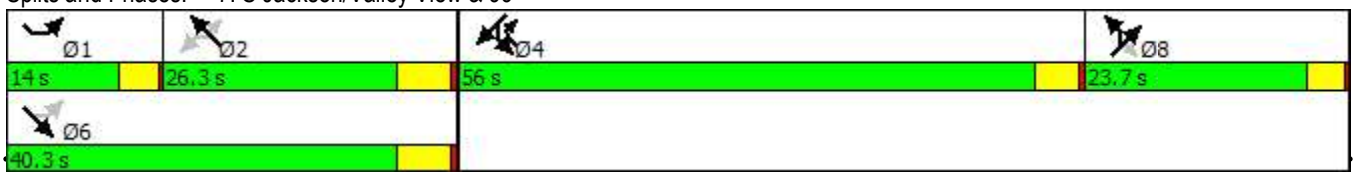
Minor Lane/Major Mvmt	NELn1	NWL	NWT	NWR	SEL	SET	SER	SWLn1
Capacity (veh/h)	70	733	-	-	553	-	-	106
HCM Lane V/C Ratio	0.365	0.012	-	-	0.03	-	-	0.461
HCM Control Delay (s)	83.4	10	-	-	11.7	-	-	65.2
HCM Lane LOS	F	A	-	-	B	-	-	F
HCM 95th %tile Q(veh)	1.4	0	-	-	0.1	-	-	2

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	29	327	4	33	496	647	3	9	15	526	18	88
Future Volume (vph)	29	327	4	33	496	647	3	9	15	526	18	88
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Storage Length (ft)	225		0	475		100	0		65	0		65
Storage Lanes	1		0	1		1	0		1	0		0
Taper Length (ft)	300			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						0.98						
Frt		0.998				0.850			0.850		0.981	
Flt Protected	0.950			0.950				0.989			0.960	
Satd. Flow (prot)	1599	3286	0	1630	3197	1458	0	1718	1488	0	1630	0
Flt Permitted	0.203			0.533				0.989			0.960	
Satd. Flow (perm)	342	3286	0	914	3197	1428	0	1718	1488	0	1630	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1				719			99		9	
Link Speed (mph)		45			45			30			35	
Link Distance (ft)		925			1152			271			868	
Travel Time (s)		14.0			17.5			6.2			16.9	
Confl. Bikes (#/hr)						1						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	4%	1%	0%	2%	4%	2%	0%	1%	0%	1%	0%	2%
Adj. Flow (vph)	32	363	4	37	551	719	3	10	17	584	20	98
Shared Lane Traffic (%)												
Lane Group Flow (vph)	32	367	0	37	551	719	0	13	17	0	702	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		12			12			12			12	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11
Number of Detectors	2	2		2	2	1	1	2	1	1	2	
Detector Template							Left			Left		
Leading Detector (ft)	78	323		78	323	143	20	78	143	20	78	
Trailing Detector (ft)	2	157		2	157	137	0	2	137	0	2	
Detector 1 Position(ft)	2	157		2	157	137	0	2	137	0	2	
Detector 1 Size(ft)	6	6		6	6	6	20	6	6	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)	72	317		72	317			72			72	
Detector 2 Size(ft)	6	6		6	6			6			6	
Detector 2 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Turn Type	pm+pt	NA		Perm	NA	pm+ov	Split	NA	Perm	Split	NA	

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Protected Phases	1	6			2	4	8	8		4	4	
Permitted Phases	6			2		2			8		4	
Detector Phase	1	6		2	2	4	8	8	8	4	4	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	14.0	27.4		25.0	25.0	26.5	23.7	23.7	23.7	26.5	26.5	
Total Split (s)	14.0	40.3		26.3	26.3	56.0	23.7	23.7	23.7	56.0	56.0	
Total Split (%)	11.7%	33.6%		21.9%	21.9%	46.7%	19.8%	19.8%	19.8%	46.7%	46.7%	
Maximum Green (s)	10.0	34.9		20.9	20.9	51.5	19.7	19.7	19.7	51.5	51.5	
Yellow Time (s)	3.5	4.7		4.7	4.7	4.0	3.5	3.5	3.5	4.0	4.0	
All-Red Time (s)	0.5	0.7		0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.5	
Lost Time Adjust (s)	-1.4	-1.4		-1.4	-1.4	-1.4		0.0	0.0		-0.5	
Total Lost Time (s)	2.6	4.0		4.0	4.0	3.1		4.0	4.0		4.0	
Lead/Lag	Lead			Lag	Lag							
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	
Minimum Gap (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Time Before Reduce (s)	8.0	8.0		8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	
Time To Reduce (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Recall Mode	None	Min		Min	Min	None	None	None	None	None	None	
Walk Time (s)		7.0		7.0	7.0	7.0				7.0	7.0	
Flash Dont Walk (s)		15.0		11.0	11.0	15.0				15.0	15.0	
Pedestrian Calls (#/hr)		0		0	0	0				0	0	
Act Effct Green (s)	28.9	27.4		20.3	20.3	70.6		5.4	5.4		48.4	
Actuated g/C Ratio	0.33	0.31		0.23	0.23	0.79		0.06	0.06		0.54	
v/c Ratio	0.11	0.36		0.18	0.76	0.55		0.12	0.09		0.79	
Control Delay	23.2	25.4		36.0	42.4	2.1		50.8	1.0		27.6	
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0		0.0	
Total Delay	23.2	25.4		36.0	42.4	2.1		50.8	1.0		27.6	
LOS	C	C		D	D	A		D	A		C	
Approach Delay		25.2			20.0			22.6			27.6	
Approach LOS		C			C			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 88.9			
Natural Cycle: 110			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.79			
Intersection Signal Delay: 23.1		Intersection LOS: C	
Intersection Capacity Utilization 78.4%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 7: S Jackson/Valley View & 99



Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	29	327	4	33	496	647	3	9	15	526	18	88
Future Volume (vph)	29	327	4	33	496	647	3	9	15	526	18	88
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	2.6	4.0		4.0	4.0	3.1		4.0	4.0		4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00		1.00	1.00		1.00	
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.99		1.00	1.00		1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00	
Frt	1.00	1.00		1.00	1.00	0.85		1.00	0.85		0.98	
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.99	1.00		0.96	
Satd. Flow (prot)	1599	3287		1630	3197	1450		1717	1488		1630	
Flt Permitted	0.20	1.00		0.53	1.00	1.00		0.99	1.00		0.96	
Satd. Flow (perm)	341	3287		915	3197	1450		1717	1488		1630	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	32	363	4	37	551	719	3	10	17	584	20	98
RTOR Reduction (vph)	0	1	0	0	0	178	0	0	17	0	4	0
Lane Group Flow (vph)	32	366	0	37	551	541	0	13	0	0	698	0
Confl. Bikes (#/hr)						1						
Heavy Vehicles (%)	4%	1%	0%	2%	4%	2%	0%	1%	0%	1%	0%	2%
Turn Type	pm+pt	NA		Perm	NA	pm+ov	Split	NA	Perm	Split	NA	
Protected Phases	1	6			2	4	8	8		4	4	
Permitted Phases	6			2		2			8		4	
Actuated Green, G (s)	27.9	27.9		18.8	18.8	66.6		2.6	2.6		47.8	
Effective Green, g (s)	29.3	29.3		20.2	20.2	69.4		2.6	2.6		48.3	
Actuated g/C Ratio	0.32	0.32		0.22	0.22	0.75		0.03	0.03		0.52	
Clearance Time (s)	4.0	5.4		5.4	5.4	4.5		4.0	4.0		4.5	
Vehicle Extension (s)	2.5	2.5		2.5	2.5	2.5		2.5	2.5		2.5	
Lane Grp Cap (vph)	197	1044		200	700	1091		48	41		853	
v/s Ratio Prot	0.01	c0.11			c0.17	0.26		c0.01			c0.43	
v/s Ratio Perm	0.04			0.04		0.11			0.00			
v/c Ratio	0.16	0.35		0.18	0.79	0.50		0.27	0.01		0.82	
Uniform Delay, d1	22.8	24.1		29.3	34.0	4.5		43.9	43.6		18.3	
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00	
Incremental Delay, d2	0.3	0.1		0.3	5.6	0.3		2.2	0.1		6.0	
Delay (s)	23.1	24.3		29.6	39.6	4.8		46.1	43.6		24.3	
Level of Service	C	C		C	D	A		D	D		C	
Approach Delay (s)		24.2			20.2			44.7			24.3	
Approach LOS		C			C			D			C	

Intersection Summary			
HCM 2000 Control Delay	22.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	92.2	Sum of lost time (s)	15.1
Intersection Capacity Utilization	78.4%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	118	0	54	7	0	9	56	1060	10	15	820	75
Future Volume (vph)	118	0	54	7	0	9	56	1060	10	15	820	75
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Storage Length (ft)	0		0	0		0	150		160	70		195
Storage Lanes	0		0	0		0	1		0	1		1
Taper Length (ft)	25			25			300			80		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99			0.99				0.97			0.96
Frt		0.958			0.925				0.850			0.850
Flt Protected		0.967			0.978		0.950			0.950		
Satd. Flow (prot)	0	1587	0	0	1560	0	1662	1716	1488	1662	1733	1473
Flt Permitted		0.783			0.899		0.950			0.950		
Satd. Flow (perm)	0	1285	0	0	1434	0	1662	1716	1441	1662	1733	1411
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		82			82				45			82
Link Speed (mph)		25			25			25			35	
Link Distance (ft)		1425			286			1141			3346	
Travel Time (s)		38.9			7.8			31.1			65.2	
Confl. Peds. (#/hr)			9			2			3			6
Confl. Bikes (#/hr)									3			4
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	1%	0%	0%	0%	0%	0%	0%	2%	0%	0%	1%	1%
Adj. Flow (vph)	130	0	59	8	0	10	62	1165	11	16	901	82
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	189	0	0	18	0	62	1165	11	16	901	82
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		12			12			12			12	
Two way Left Turn Lane								Yes				
Headway Factor	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11
Number of Detectors	1	2		1	2		2	1	1	2	1	1
Detector Template	Left			Left								
Leading Detector (ft)	20	78		20	78		78	143	143	78	143	143
Trailing Detector (ft)	0	2		0	2		2	137	137	2	137	137
Detector 1 Position(ft)	0	2		0	2		2	137	137	2	137	137
Detector 1 Size(ft)	20	6		20	6		6	6	6	6	6	6
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		72			72		72			72		
Detector 2 Size(ft)		6			6		6			6		
Detector 2 Type		Cl+Ex			Cl+Ex		Cl+Ex			Cl+Ex		
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0		0.0			0.0		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA		Perm	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases		8			8		1	6		5	2	
Permitted Phases	8			8					6			2
Detector Phase	8	8		8	8		1	6	6	5	2	2
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	24.0	24.0		24.0	24.0		22.0	22.5	22.5	13.0	22.0	22.0
Total Split (s)	24.0	24.0		24.0	24.0		22.0	83.0	83.0	13.0	74.0	74.0
Total Split (%)	20.0%	20.0%		20.0%	20.0%		18.3%	69.2%	69.2%	10.8%	61.7%	61.7%
Maximum Green (s)	20.0	20.0		20.0	20.0		18.0	79.0	79.0	9.0	70.0	70.0
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.0			4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5		2.5	4.0	4.0	2.5	4.0	4.0
Minimum Gap (s)	2.0	2.0		2.0	2.0		2.0	2.7	2.7	2.0	2.7	2.7
Time Before Reduce (s)	8.0	8.0		8.0	8.0		8.0	10.0	10.0	8.0	10.0	10.0
Time To Reduce (s)	4.0	4.0		4.0	4.0		4.0	13.0	13.0	4.0	13.0	13.0
Recall Mode	None	None		None	None		None	Min	Min	None	Min	Min
Walk Time (s)	7.0	7.0		7.0	7.0			7.0	7.0		7.0	7.0
Flash Dont Walk (s)	13.0	13.0		13.0	13.0			11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0			0	0		0	0
Act Effct Green (s)		13.5			13.5		8.9	81.5	81.5	6.2	74.6	74.6
Actuated g/C Ratio		0.13			0.13		0.08	0.76	0.76	0.06	0.70	0.70
v/c Ratio		0.81			0.07		0.45	0.89	0.01	0.17	0.75	0.08
Control Delay		51.1			0.6		58.5	23.8	0.0	55.1	18.2	2.1
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		51.1			0.6		58.5	23.8	0.0	55.1	18.2	2.1
LOS		D			A		E	C	A	E	B	A
Approach Delay		51.1			0.6			25.4			17.5	
Approach LOS		D			A			C			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 107.2			
Natural Cycle: 130			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.89			
Intersection Signal Delay: 23.9		Intersection LOS: C	
Intersection Capacity Utilization 84.4%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 9: Main St/Main Street & Maple St



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	118	0	54	7	0	9	56	1060	10	15	820	75
Future Volume (vph)	118	0	54	7	0	9	56	1060	10	15	820	75
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)		4.0			4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes		0.99			0.99		1.00	1.00	0.97	1.00	1.00	0.96
Flpb, ped/bikes		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.96			0.93		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.97			0.98		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1587			1561		1662	1716	1442	1662	1733	1414
Flt Permitted		0.78			0.90		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1286			1435		1662	1716	1442	1662	1733	1414
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	130	0	59	8	0	10	62	1165	11	16	901	82
RTOR Reduction (vph)	0	72	0	0	16	0	0	0	3	0	0	25
Lane Group Flow (vph)	0	117	0	0	2	0	62	1165	8	16	901	57
Confl. Peds. (#/hr)			9			2			3			6
Confl. Bikes (#/hr)									3			4
Heavy Vehicles (%)	1%	0%	0%	0%	0%	0%	0%	2%	0%	0%	1%	1%
Turn Type	Perm	NA		Perm	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases		8			8		1	6		5	2	
Permitted Phases	8			8					6			2
Actuated Green, G (s)		13.5			13.5		7.8	81.5	81.5	2.7	76.4	76.4
Effective Green, g (s)		13.5			13.5		7.8	81.5	81.5	2.7	76.4	76.4
Actuated g/C Ratio		0.12			0.12		0.07	0.74	0.74	0.02	0.70	0.70
Clearance Time (s)		4.0			4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)		2.5			2.5		2.5	4.0	4.0	2.5	4.0	4.0
Lane Grp Cap (vph)		158			176		118	1274	1071	40	1206	984
v/s Ratio Prot							c0.04	c0.68		0.01	0.52	
v/s Ratio Perm		c0.09			0.00				0.01			0.04
v/c Ratio		0.74			0.01		0.53	0.91	0.01	0.40	0.75	0.06
Uniform Delay, d1		46.4			42.2		49.2	11.3	3.6	52.7	10.5	5.3
Progression Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		16.2			0.0		3.2	10.4	0.0	4.7	2.7	0.0
Delay (s)		62.6			42.3		52.4	21.7	3.6	57.4	13.3	5.3
Level of Service		E			D		D	C	A	E	B	A
Approach Delay (s)		62.6			42.3			23.1			13.3	
Approach LOS		E			D			C			B	

Intersection Summary			
HCM 2000 Control Delay	22.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	109.7	Sum of lost time (s)	12.0
Intersection Capacity Utilization	84.4%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	734	10	0	1069	0	5
Future Volume (vph)	734	10	0	1069	0	5
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750
Storage Length (ft)		175	50		0	0
Storage Lanes		1	1		1	0
Taper Length (ft)			50		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.865	
Flt Protected						
Satd. Flow (prot)	1699	1305	1750	1651	1514	0
Flt Permitted						
Satd. Flow (perm)	1699	1305	1750	1651	1514	0
Link Speed (mph)	35			45	30	
Link Distance (ft)	3346			408	349	
Travel Time (s)	65.2			6.2	7.9	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	3%	14%	0%	6%	0%	0%
Adj. Flow (vph)	765	10	0	1114	0	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	765	10	0	1114	5	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	12			12	12	
Two way Left Turn Lane						
Headway Factor	1.11	1.11	1.11	1.11	1.11	1.11
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	71.1%	ICU Level of Service	C
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0

Movement	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	734	10	0	1069	0	5
Future Vol, veh/h	734	10	0	1069	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	175	50	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	3	14	0	6	0	0
Mvmt Flow	765	10	0	1114	0	5

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	775	0	1879	765
Stage 1	-	-	-	-	765	-
Stage 2	-	-	-	-	1114	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	850	-	79	406
Stage 1	-	-	-	-	463	-
Stage 2	-	-	-	-	317	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	850	-	79	406
Mov Cap-2 Maneuver	-	-	-	-	79	-
Stage 1	-	-	-	-	463	-
Stage 2	-	-	-	-	317	-

Approach	NB	SB	SW
HCM Control Delay, s	0	0	14
HCM LOS			B

Minor Lane/Major Mvmt	NBT	NBR	SBL	SBT	SWLn1
Capacity (veh/h)	-	-	850	-	406
HCM Lane V/C Ratio	-	-	-	-	0.013
HCM Control Delay (s)	-	-	0	-	14
HCM Lane LOS	-	-	A	-	B
HCM 95th %tile Q(veh)	-	-	0	-	0

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	42	1033	21	5	702	31	5	0	1	36	0	37
Future Volume (vph)	42	1033	21	5	702	31	5	0	1	36	0	37
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.997			0.994			0.977			0.932	
Flt Protected	0.950			0.950				0.960			0.976	
Satd. Flow (prot)	1539	3131	0	1662	3213	0	0	1641	0	0	1576	0
Flt Permitted	0.950			0.950				0.960			0.976	
Satd. Flow (perm)	1539	3131	0	1662	3213	0	0	1641	0	0	1576	0
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		1152			1486			250			266	
Travel Time (s)		17.5			22.5			5.7			6.0	
Confl. Bikes (#/hr)						4						
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	8%	6%	0%	0%	3%	0%	0%	0%	0%	1%	0%	1%
Adj. Flow (vph)	44	1076	22	5	731	32	5	0	1	38	0	39
Shared Lane Traffic (%)												
Lane Group Flow (vph)	44	1098	0	5	763	0	0	6	0	0	77	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		12			12			12			12	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 49.0%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	2

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	42	1033	21	5	702	31	5	0	1	36	0	37
Future Vol, veh/h	42	1033	21	5	702	31	5	0	1	36	0	37
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	8	6	0	0	3	0	0	0	0	1	0	1
Mvmt Flow	44	1076	22	5	731	32	5	0	1	38	0	39

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	763	0	0	1098	0	0	1551	1948	549	1383	1943	382
Stage 1	-	-	-	-	-	-	1175	1175	-	757	757	-
Stage 2	-	-	-	-	-	-	376	773	-	626	1186	-
Critical Hdwy	4.26	-	-	4.1	-	-	7.5	6.5	6.9	7.52	6.5	6.92
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.52	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.52	5.5	-
Follow-up Hdwy	2.28	-	-	2.2	-	-	3.5	4	3.3	3.51	4	3.31
Pot Cap-1 Maneuver	807	-	-	643	-	-	79	65	485	104	66	619
Stage 1	-	-	-	-	-	-	207	268	-	368	419	-
Stage 2	-	-	-	-	-	-	623	412	-	441	265	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	807	-	-	643	-	-	71	61	485	99	62	619
Mov Cap-2 Maneuver	-	-	-	-	-	-	71	61	-	99	62	-
Stage 1	-	-	-	-	-	-	196	253	-	348	416	-
Stage 2	-	-	-	-	-	-	580	409	-	416	250	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	0.4	0.1	51.9	41.5
HCM LOS			F	E

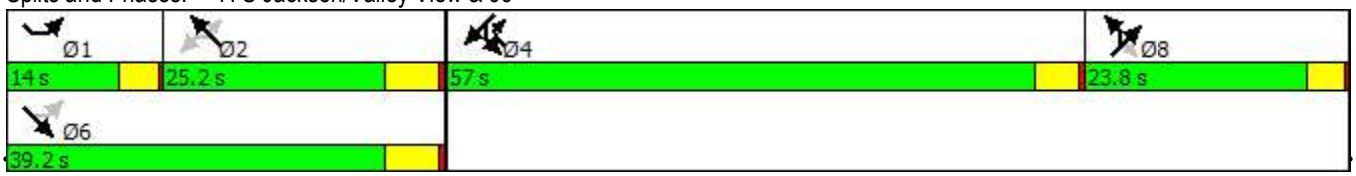
Minor Lane/Major Mvmt	NELn1	NWL	NWT	NWR	SEL	SET	SER	SWLn1
Capacity (veh/h)	83	643	-	-	807	-	-	172
HCM Lane V/C Ratio	0.075	0.008	-	-	0.054	-	-	0.442
HCM Control Delay (s)	51.9	10.6	-	-	9.7	-	-	41.5
HCM Lane LOS	F	B	-	-	A	-	-	E
HCM 95th %tile Q(veh)	0.2	0	-	-	0.2	-	-	2

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	108	552	57	10	232	463	2	3	8	600	15	56
Future Volume (vph)	108	552	57	10	232	463	2	3	8	600	15	56
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Storage Length (ft)	225		0	475		100	0		65	0		65
Storage Lanes	1		0	1		1	0		1	0		0
Taper Length (ft)	300			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						0.98						
Frt		0.986				0.850			0.850		0.989	
Flt Protected	0.950			0.950				0.980			0.957	
Satd. Flow (prot)	1568	3109	0	1498	3167	1444	0	1715	1473	0	1550	0
Flt Permitted	0.435			0.416				0.980			0.957	
Satd. Flow (perm)	718	3109	0	656	3167	1414	0	1715	1473	0	1550	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9				472			99		5	
Link Speed (mph)		45			45			30			35	
Link Distance (ft)		925			1152			271			868	
Travel Time (s)		14.0			17.5			6.2			16.9	
Confl. Bikes (#/hr)						1						
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	6%	6%	0%	11%	5%	3%	0%	0%	1%	6%	7%	16%
Adj. Flow (vph)	110	563	58	10	237	472	2	3	8	612	15	57
Shared Lane Traffic (%)												
Lane Group Flow (vph)	110	621	0	10	237	472	0	5	8	0	684	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		12			12			12			12	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11
Number of Detectors	2	2		2	2	1	1	2	1	1	2	
Detector Template							Left			Left		
Leading Detector (ft)	78	323		78	323	143	20	78	143	20	78	
Trailing Detector (ft)	2	157		2	157	137	0	2	137	0	2	
Detector 1 Position(ft)	2	157		2	157	137	0	2	137	0	2	
Detector 1 Size(ft)	6	6		6	6	6	20	6	6	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)	72	317		72	317			72			72	
Detector 2 Size(ft)	6	6		6	6			6			6	
Detector 2 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Turn Type	pm+pt	NA		Perm	NA	pm+ov	Split	NA	Perm	Split	NA	

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Protected Phases	1	6			2	4	8	8		4	4	
Permitted Phases	6			2		2			8		4	
Detector Phase	1	6		2	2	4	8	8	8	4	4	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	14.0	27.4		25.0	25.0	26.5	23.7	23.7	23.7	26.5	26.5	
Total Split (s)	14.0	39.2		25.2	25.2	57.0	23.8	23.8	23.8	57.0	57.0	
Total Split (%)	11.7%	32.7%		21.0%	21.0%	47.5%	19.8%	19.8%	19.8%	47.5%	47.5%	
Maximum Green (s)	10.0	33.8		19.8	19.8	52.5	19.8	19.8	19.8	52.5	52.5	
Yellow Time (s)	3.5	4.7		4.7	4.7	4.0	3.5	3.5	3.5	4.0	4.0	
All-Red Time (s)	0.5	0.7		0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.5	
Lost Time Adjust (s)	-1.4	-1.4		-1.4	-1.4	-1.4		0.0	0.0		-0.5	
Total Lost Time (s)	2.6	4.0		4.0	4.0	3.1		4.0	4.0		4.0	
Lead/Lag	Lead			Lag	Lag							
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	
Minimum Gap (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Time Before Reduce (s)	8.0	8.0		8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	
Time To Reduce (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Recall Mode	None	Min		Min	Min	None	None	None	None	None	None	
Walk Time (s)		7.0		7.0	7.0	7.0				7.0	7.0	
Flash Dont Walk (s)		15.0		11.0	11.0	15.0				15.0	15.0	
Pedestrian Calls (#/hr)		0		0	0	0				0	0	
Act Effct Green (s)	28.3	26.9		12.7	12.7	63.3		5.1	5.1		48.7	
Actuated g/C Ratio	0.33	0.31		0.15	0.15	0.73		0.06	0.06		0.56	
v/c Ratio	0.32	0.64		0.11	0.51	0.40		0.05	0.04		0.79	
Control Delay	26.1	30.2		38.3	39.9	1.4		45.0	0.5		24.2	
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0		0.0	
Total Delay	26.1	30.2		38.3	39.9	1.4		45.0	0.5		24.2	
LOS	C	C		D	D	A		D	A		C	
Approach Delay		29.6			14.6			17.6			24.2	
Approach LOS		C			B			B			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 86.9			
Natural Cycle: 120			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.79			
Intersection Signal Delay: 22.8		Intersection LOS: C	
Intersection Capacity Utilization 84.2%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 7: S Jackson/Valley View & 99



Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	108	552	57	10	232	463	2	3	8	600	15	56
Future Volume (vph)	108	552	57	10	232	463	2	3	8	600	15	56
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	2.6	4.0		4.0	4.0	3.1		4.0	4.0		4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00		1.00	1.00		1.00	
Frpb, ped/bikes	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00	
Frt	1.00	0.99		1.00	1.00	0.85		1.00	0.85		0.99	
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.98	1.00		0.96	
Satd. Flow (prot)	1568	3109		1498	3167	1438		1716	1473		1550	
Flt Permitted	0.44	1.00		0.42	1.00	1.00		0.98	1.00		0.96	
Satd. Flow (perm)	719	3109		657	3167	1438		1716	1473		1550	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	110	563	58	10	237	472	2	3	8	612	15	57
RTOR Reduction (vph)	0	6	0	0	0	143	0	0	8	0	2	0
Lane Group Flow (vph)	110	615	0	10	237	329	0	5	0	0	682	0
Confl. Bikes (#/hr)						1						
Heavy Vehicles (%)	6%	6%	0%	11%	5%	3%	0%	0%	1%	6%	7%	16%
Turn Type	pm+pt	NA		Perm	NA	pm+ov	Split	NA	Perm	Split	NA	
Protected Phases	1	6			2	4	8	8		4	4	
Permitted Phases	6			2		2			8		4	
Actuated Green, G (s)	25.5	25.5		11.4	11.4	59.6		1.8	1.8		48.2	
Effective Green, g (s)	26.9	26.9		12.8	12.8	62.4		1.8	1.8		48.7	
Actuated g/C Ratio	0.30	0.30		0.14	0.14	0.70		0.02	0.02		0.54	
Clearance Time (s)	4.0	5.4		5.4	5.4	4.5		4.0	4.0		4.5	
Vehicle Extension (s)	2.5	2.5		2.5	2.5	2.5		2.5	2.5		2.5	
Lane Grp Cap (vph)	325	935		94	453	1003		34	29		844	
v/s Ratio Prot	0.04	c0.20			0.07	0.18		c0.00			c0.44	
v/s Ratio Perm	0.06			0.02		0.05			0.00			
v/c Ratio	0.34	0.66		0.11	0.52	0.33		0.15	0.01		0.81	
Uniform Delay, d1	23.6	27.2		33.3	35.5	5.3		43.0	42.9		16.5	
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00	
Incremental Delay, d2	0.5	1.5		0.4	0.8	0.1		1.5	0.1		5.6	
Delay (s)	24.1	28.7		33.7	36.3	5.4		44.5	43.0		22.1	
Level of Service	C	C		C	D	A		D	D		C	
Approach Delay (s)		28.0			16.0			43.6			22.1	
Approach LOS		C			B			D			C	

Intersection Summary			
HCM 2000 Control Delay	22.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	89.4	Sum of lost time (s)	15.1
Intersection Capacity Utilization	84.2%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

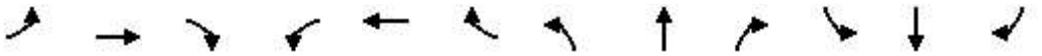
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	73	0	72	4	0	4	47	673	4	8	982	104
Future Volume (vph)	73	0	72	4	0	4	47	673	4	8	982	104
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Storage Length (ft)	0		0	0		0	150		160	70		195
Storage Lanes	0		0	0		0	1		0	1		1
Taper Length (ft)	25			25			300			80		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.98			0.99				0.97			0.96
Frt		0.933			0.932				0.850			0.850
Flt Protected		0.975			0.976		0.950			0.950		
Satd. Flow (prot)	0	1555	0	0	1571	0	1662	1733	1488	1662	1716	1488
Flt Permitted		0.837			0.863		0.950			0.950		
Satd. Flow (perm)	0	1335	0	0	1389	0	1662	1733	1441	1662	1716	1425
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		82			82				45			82
Link Speed (mph)		25			25			25			35	
Link Distance (ft)		1425			286			1141			3346	
Travel Time (s)		38.9			7.8			31.1			65.2	
Confl. Peds. (#/hr)			9			2			3			6
Confl. Bikes (#/hr)									3			4
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	2%	0%
Adj. Flow (vph)	76	0	75	4	0	4	49	701	4	8	1023	108
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	151	0	0	8	0	49	701	4	8	1023	108
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		12			12			12			12	
Two way Left Turn Lane								Yes				
Headway Factor	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11
Number of Detectors	1	2		1	2		2	1	1	2	1	1
Detector Template	Left			Left								
Leading Detector (ft)	20	78		20	78		78	143	143	78	143	143
Trailing Detector (ft)	0	2		0	2		2	137	137	2	137	137
Detector 1 Position(ft)	0	2		0	2		2	137	137	2	137	137
Detector 1 Size(ft)	20	6		20	6		6	6	6	6	6	6
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		72			72		72			72		
Detector 2 Size(ft)		6			6		6			6		
Detector 2 Type		Cl+Ex			Cl+Ex		Cl+Ex			Cl+Ex		
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0		0.0			0.0		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA		Perm	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases		8			8		1	6		5	2	
Permitted Phases	8			8					6			2
Detector Phase	8	8		8	8		1	6	6	5	2	2
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	24.0	24.0		24.0	24.0		22.0	22.5	22.5	13.0	22.0	22.0
Total Split (s)	24.0	24.0		24.0	24.0		22.0	83.0	83.0	13.0	74.0	74.0
Total Split (%)	20.0%	20.0%		20.0%	20.0%		18.3%	69.2%	69.2%	10.8%	61.7%	61.7%
Maximum Green (s)	20.0	20.0		20.0	20.0		18.0	79.0	79.0	9.0	70.0	70.0
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.0			4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5		2.5	4.0	4.0	2.5	4.0	4.0
Minimum Gap (s)	2.0	2.0		2.0	2.0		2.0	2.7	2.7	2.0	2.7	2.7
Time Before Reduce (s)	8.0	8.0		8.0	8.0		8.0	10.0	10.0	8.0	10.0	10.0
Time To Reduce (s)	4.0	4.0		4.0	4.0		4.0	13.0	13.0	4.0	13.0	13.0
Recall Mode	None	None		None	None		None	Min	Min	None	Min	Min
Walk Time (s)	7.0	7.0		7.0	7.0			7.0	7.0		7.0	7.0
Flash Dont Walk (s)	13.0	13.0		13.0	13.0			11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0			0	0		0	0
Act Effct Green (s)		10.6			10.6		7.9	78.9	78.9	5.6	71.0	71.0
Actuated g/C Ratio		0.11			0.11		0.08	0.79	0.79	0.06	0.71	0.71
v/c Ratio		0.70			0.04		0.37	0.51	0.00	0.09	0.84	0.10
Control Delay		38.9			0.2		53.7	6.7	0.0	50.2	21.0	2.7
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		38.9			0.2		53.7	6.7	0.0	50.2	21.0	2.7
LOS		D			A		D	A	A	D	C	A
Approach Delay		38.9			0.3			9.7			19.5	
Approach LOS		D			A			A			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 99.5			
Natural Cycle: 120			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.84			
Intersection Signal Delay: 17.2		Intersection LOS: B	
Intersection Capacity Utilization 76.0%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 9: Main St/Main Street & Maple St





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	73	0	72	4	0	4	47	673	4	8	982	104
Future Volume (vph)	73	0	72	4	0	4	47	673	4	8	982	104
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)		4.0			4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes		0.98			0.99		1.00	1.00	0.97	1.00	1.00	0.96
Flpb, ped/bikes		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.93			0.93		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.98			0.98		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1559			1572		1662	1733	1443	1662	1716	1430
Flt Permitted		0.84			0.86		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1338			1391		1662	1733	1443	1662	1716	1430
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	76	0	75	4	0	4	49	701	4	8	1023	108
RTOR Reduction (vph)	0	74	0	0	7	0	0	0	1	0	0	23
Lane Group Flow (vph)	0	77	0	0	1	0	49	701	3	8	1023	85
Confl. Peds. (#/hr)			9			2			3			6
Confl. Bikes (#/hr)									3			4
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	2%	0%
Turn Type	Perm	NA		Perm	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases		8			8		1	6		5	2	
Permitted Phases	8			8					6			2
Actuated Green, G (s)		10.6			10.6		6.7	78.9	78.9	1.2	73.4	73.4
Effective Green, g (s)		10.6			10.6		6.7	78.9	78.9	1.2	73.4	73.4
Actuated g/C Ratio		0.10			0.10		0.07	0.77	0.77	0.01	0.71	0.71
Clearance Time (s)		4.0			4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)		2.5			2.5		2.5	4.0	4.0	2.5	4.0	4.0
Lane Grp Cap (vph)		138			143		108	1331	1108	19	1226	1022
v/s Ratio Prot							c0.03	0.40		0.00	c0.60	
v/s Ratio Perm		c0.06			0.00				0.00			0.06
v/c Ratio		0.56			0.01		0.45	0.53	0.00	0.42	0.83	0.08
Uniform Delay, d1		43.8			41.3		46.2	4.6	2.8	50.4	10.4	4.4
Progression Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		4.2			0.0		2.2	0.5	0.0	10.6	5.3	0.0
Delay (s)		48.0			41.3		48.4	5.1	2.8	61.0	15.6	4.5
Level of Service		D			D		D	A	A	E	B	A
Approach Delay (s)		48.0			41.3			7.9			14.9	
Approach LOS		D			D			A			B	

Intersection Summary			
HCM 2000 Control Delay	14.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	102.7	Sum of lost time (s)	12.0
Intersection Capacity Utilization	76.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	750	10	0	1104	0	5
Future Volume (vph)	750	10	0	1104	0	5
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750
Storage Length (ft)		175	50		0	0
Storage Lanes		1	1		1	0
Taper Length (ft)			50		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.865	
Flt Protected						
Satd. Flow (prot)	1699	1305	1750	1651	1514	0
Flt Permitted						
Satd. Flow (perm)	1699	1305	1750	1651	1514	0
Link Speed (mph)	35			45	30	
Link Distance (ft)	3346			408	349	
Travel Time (s)	65.2			6.2	7.9	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	3%	14%	0%	6%	0%	0%
Adj. Flow (vph)	781	10	0	1150	0	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	781	10	0	1150	5	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	12			12	12	
Two way Left Turn Lane						
Headway Factor	1.11	1.11	1.11	1.11	1.11	1.11
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	73.1%	ICU Level of Service	D
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0

Movement	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	750	10	0	1104	0	5
Future Vol, veh/h	750	10	0	1104	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	175	50	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	3	14	0	6	0	0
Mvmt Flow	781	10	0	1150	0	5

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	791	0	1931	781
Stage 1	-	-	-	-	781	-
Stage 2	-	-	-	-	1150	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	838	-	74	398
Stage 1	-	-	-	-	455	-
Stage 2	-	-	-	-	304	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	838	-	74	398
Mov Cap-2 Maneuver	-	-	-	-	74	-
Stage 1	-	-	-	-	455	-
Stage 2	-	-	-	-	304	-

Approach	NB	SB	SW
HCM Control Delay, s	0	0	14.2
HCM LOS			B

Minor Lane/Major Mvmt	NBT	NBR	SBL	SBT	SWLn1
Capacity (veh/h)	-	-	838	-	398
HCM Lane V/C Ratio	-	-	-	-	0.013
HCM Control Delay (s)	-	-	0	-	14.2
HCM Lane LOS	-	-	A	-	B
HCM 95th %tile Q(veh)	-	-	0	-	0

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	42	1042	21	6	748	32	5	0	1	37	0	37
Future Volume (vph)	42	1042	21	6	748	32	5	0	1	37	0	37
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.997			0.994			0.977			0.932	
Flt Protected	0.950			0.950				0.960			0.976	
Satd. Flow (prot)	1539	3131	0	1662	3213	0	0	1641	0	0	1576	0
Flt Permitted	0.950			0.950				0.960			0.976	
Satd. Flow (perm)	1539	3131	0	1662	3213	0	0	1641	0	0	1576	0
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		1152			1074			250			266	
Travel Time (s)		17.5			16.3			5.7			6.0	
Confl. Bikes (#/hr)						4						
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	8%	6%	0%	0%	3%	0%	0%	0%	0%	1%	0%	1%
Adj. Flow (vph)	44	1085	22	6	779	33	5	0	1	39	0	39
Shared Lane Traffic (%)												
Lane Group Flow (vph)	44	1107	0	6	812	0	0	6	0	0	78	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		12			12			12			12	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	49.1%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	2.3

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	42	1042	21	6	748	32	5	0	1	37	0	37
Future Vol, veh/h	42	1042	21	6	748	32	5	0	1	37	0	37
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	8	6	0	0	3	0	0	0	0	1	0	1
Mvmt Flow	44	1085	22	6	779	33	5	0	1	39	0	39

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	812	0	0	1107	0	0	1586	2008	554	1439	2003	406
Stage 1	-	-	-	-	-	-	1184	1184	-	808	808	-
Stage 2	-	-	-	-	-	-	402	824	-	631	1195	-
Critical Hdwy	4.26	-	-	4.1	-	-	7.5	6.5	6.9	7.52	6.5	6.92
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.52	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.52	5.5	-
Follow-up Hdwy	2.28	-	-	2.2	-	-	3.5	4	3.3	3.51	4	3.31
Pot Cap-1 Maneuver	773	-	-	638	-	-	74	60	481	94	60	597
Stage 1	-	-	-	-	-	-	204	265	-	343	397	-
Stage 2	-	-	-	-	-	-	601	390	-	438	262	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	773	-	-	638	-	-	66	56	481	89	56	597
Mov Cap-2 Maneuver	-	-	-	-	-	-	66	56	-	89	56	-
Stage 1	-	-	-	-	-	-	192	250	-	323	393	-
Stage 2	-	-	-	-	-	-	557	386	-	412	247	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	0.4	0.1	55.8	49.2
HCM LOS			F	E

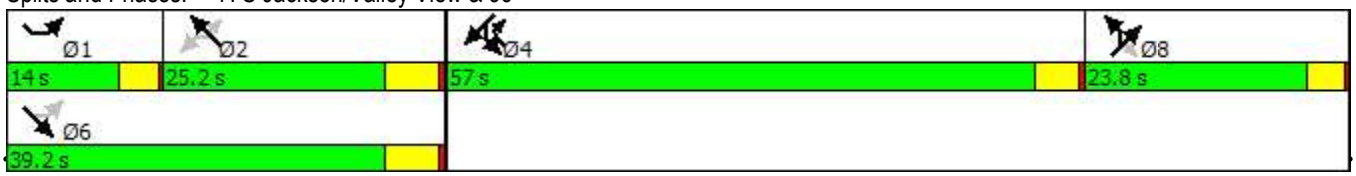
Minor Lane/Major Mvmt	NELn1	NWL	NWT	NWR	SEL	SET	SER	SWLn1
Capacity (veh/h)	77	638	-	-	773	-	-	155
HCM Lane V/C Ratio	0.081	0.01	-	-	0.057	-	-	0.497
HCM Control Delay (s)	55.8	10.7	-	-	9.9	-	-	49.2
HCM Lane LOS	F	B	-	-	A	-	-	E
HCM 95th %tile Q(veh)	0.3	0	-	-	0.2	-	-	2.4

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	108	558	57	10	247	493	2	3	8	603	15	56
Future Volume (vph)	108	558	57	10	247	493	2	3	8	603	15	56
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Storage Length (ft)	225		0	475		100	0		65	0		65
Storage Lanes	1		0	1		1	0		1	0		0
Taper Length (ft)	300			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						0.98						
Frt		0.986				0.850			0.850		0.989	
Flt Protected	0.950			0.950				0.980			0.957	
Satd. Flow (prot)	1568	3109	0	1498	3167	1444	0	1715	1473	0	1550	0
Flt Permitted	0.413			0.414				0.980			0.957	
Satd. Flow (perm)	682	3109	0	653	3167	1414	0	1715	1473	0	1550	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9				503			99		5	
Link Speed (mph)		45			45			30			35	
Link Distance (ft)		925			1152			271			868	
Travel Time (s)		14.0			17.5			6.2			16.9	
Confl. Bikes (#/hr)						1						
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	6%	6%	0%	11%	5%	3%	0%	0%	1%	6%	7%	16%
Adj. Flow (vph)	110	569	58	10	252	503	2	3	8	615	15	57
Shared Lane Traffic (%)												
Lane Group Flow (vph)	110	627	0	10	252	503	0	5	8	0	687	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		12			12			12			12	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11
Number of Detectors	2	2		2	2	1	1	2	1	1	2	
Detector Template							Left			Left		
Leading Detector (ft)	78	323		78	323	143	20	78	143	20	78	
Trailing Detector (ft)	2	157		2	157	137	0	2	137	0	2	
Detector 1 Position(ft)	2	157		2	157	137	0	2	137	0	2	
Detector 1 Size(ft)	6	6		6	6	6	20	6	6	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)	72	317		72	317			72			72	
Detector 2 Size(ft)	6	6		6	6			6			6	
Detector 2 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Turn Type	pm+pt	NA		Perm	NA	pm+ov	Split	NA	Perm	Split	NA	

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Protected Phases	1	6			2	4	8	8		4	4	
Permitted Phases	6			2		2			8		4	
Detector Phase	1	6		2	2	4	8	8	8	4	4	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	14.0	27.4		25.0	25.0	26.5	23.7	23.7	23.7	26.5	26.5	
Total Split (s)	14.0	39.2		25.2	25.2	57.0	23.8	23.8	23.8	57.0	57.0	
Total Split (%)	11.7%	32.7%		21.0%	21.0%	47.5%	19.8%	19.8%	19.8%	47.5%	47.5%	
Maximum Green (s)	10.0	33.8		19.8	19.8	52.5	19.8	19.8	19.8	52.5	52.5	
Yellow Time (s)	3.5	4.7		4.7	4.7	4.0	3.5	3.5	3.5	4.0	4.0	
All-Red Time (s)	0.5	0.7		0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.5	
Lost Time Adjust (s)	-1.4	-1.4		-1.4	-1.4	-1.4		0.0	0.0		-0.5	
Total Lost Time (s)	2.6	4.0		4.0	4.0	3.1		4.0	4.0		4.0	
Lead/Lag	Lead			Lag	Lag							
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	
Minimum Gap (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Time Before Reduce (s)	8.0	8.0		8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	
Time To Reduce (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Recall Mode	None	Min		Min	Min	None	None	None	None	None	None	
Walk Time (s)		7.0		7.0	7.0	7.0				7.0	7.0	
Flash Dont Walk (s)		15.0		11.0	11.0	15.0				15.0	15.0	
Pedestrian Calls (#/hr)		0		0	0	0				0	0	
Act Effct Green (s)	28.5	27.0		12.9	12.9	64.1		5.1	5.1		49.4	
Actuated g/C Ratio	0.32	0.31		0.15	0.15	0.73		0.06	0.06		0.56	
v/c Ratio	0.33	0.65		0.11	0.54	0.42		0.05	0.04		0.79	
Control Delay	26.3	30.6		38.2	40.6	1.5		45.4	0.5		24.3	
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0		0.0	
Total Delay	26.3	30.6		38.2	40.6	1.5		45.4	0.5		24.3	
LOS	C	C		D	D	A		D	A		C	
Approach Delay		30.0			14.9			17.8			24.3	
Approach LOS		C			B			B			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 87.7			
Natural Cycle: 120			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.79			
Intersection Signal Delay: 22.9		Intersection LOS: C	
Intersection Capacity Utilization 84.5%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 7: S Jackson/Valley View & 99



Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	108	558	57	10	247	493	2	3	8	603	15	56
Future Volume (vph)	108	558	57	10	247	493	2	3	8	603	15	56
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	2.6	4.0		4.0	4.0	3.1		4.0	4.0		4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00		1.00	1.00		1.00	
Frpb, ped/bikes	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00	
Frt	1.00	0.99		1.00	1.00	0.85		1.00	0.85		0.99	
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.98	1.00		0.96	
Satd. Flow (prot)	1568	3110		1498	3167	1438		1716	1473		1550	
Flt Permitted	0.41	1.00		0.41	1.00	1.00		0.98	1.00		0.96	
Satd. Flow (perm)	682	3110		653	3167	1438		1716	1473		1550	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	110	569	58	10	252	503	2	3	8	615	15	57
RTOR Reduction (vph)	0	6	0	0	0	151	0	0	8	0	2	0
Lane Group Flow (vph)	110	621	0	10	252	352	0	5	0	0	685	0
Confl. Bikes (#/hr)						1						
Heavy Vehicles (%)	6%	6%	0%	11%	5%	3%	0%	0%	1%	6%	7%	16%
Turn Type	pm+pt	NA		Perm	NA	pm+ov	Split	NA	Perm	Split	NA	
Protected Phases	1	6			2	4	8	8		4	4	
Permitted Phases	6			2		2			8		4	
Actuated Green, G (s)	25.6	25.6		11.5	11.5	60.4		1.8	1.8		48.9	
Effective Green, g (s)	27.0	27.0		12.9	12.9	63.2		1.8	1.8		49.4	
Actuated g/C Ratio	0.30	0.30		0.14	0.14	0.70		0.02	0.02		0.55	
Clearance Time (s)	4.0	5.4		5.4	5.4	4.5		4.0	4.0		4.5	
Vehicle Extension (s)	2.5	2.5		2.5	2.5	2.5		2.5	2.5		2.5	
Lane Grp Cap (vph)	317	930		93	452	1007		34	29		848	
v/s Ratio Prot	0.04	c0.20			0.08	0.20		c0.00			c0.44	
v/s Ratio Perm	0.06			0.02		0.05			0.00			
v/c Ratio	0.35	0.67		0.11	0.56	0.35		0.15	0.01		0.81	
Uniform Delay, d1	24.0	27.7		33.6	36.0	5.4		43.4	43.3		16.5	
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00	
Incremental Delay, d2	0.5	1.6		0.4	1.2	0.2		1.5	0.1		5.5	
Delay (s)	24.4	29.3		34.0	37.2	5.5		44.9	43.4		22.1	
Level of Service	C	C		C	D	A		D	D		C	
Approach Delay (s)		28.6			16.3			44.0			22.1	
Approach LOS		C			B			D			C	

Intersection Summary			
HCM 2000 Control Delay	22.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	90.2	Sum of lost time (s)	15.1
Intersection Capacity Utilization	84.5%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	73	0	72	4	0	5	47	686	4	8	1013	108
Future Volume (vph)	73	0	72	4	0	5	47	686	4	8	1013	108
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Storage Length (ft)	0		0	0		0	150		160	70		195
Storage Lanes	0		0	0		0	1		0	1		1
Taper Length (ft)	25			25			300			80		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.98			0.99				0.97			0.96
Frt		0.933			0.925				0.850			0.850
Flt Protected		0.975			0.978		0.950			0.950		
Satd. Flow (prot)	0	1555	0	0	1560	0	1662	1733	1488	1662	1716	1488
Flt Permitted		0.836			0.872		0.950			0.950		
Satd. Flow (perm)	0	1333	0	0	1391	0	1662	1733	1441	1662	1716	1425
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		82			82				45			82
Link Speed (mph)		25			25			25			35	
Link Distance (ft)		1425			286			1141			3346	
Travel Time (s)		38.9			7.8			31.1			65.2	
Confl. Peds. (#/hr)			9			2			3			6
Confl. Bikes (#/hr)									3			4
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	2%	0%
Adj. Flow (vph)	76	0	75	4	0	5	49	715	4	8	1055	113
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	151	0	0	9	0	49	715	4	8	1055	113
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		12			12			12			12	
Two way Left Turn Lane								Yes				
Headway Factor	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11
Number of Detectors	1	2		1	2		2	1	1	2	1	1
Detector Template	Left			Left								
Leading Detector (ft)	20	78		20	78		78	143	143	78	143	143
Trailing Detector (ft)	0	2		0	2		2	137	137	2	137	137
Detector 1 Position(ft)	0	2		0	2		2	137	137	2	137	137
Detector 1 Size(ft)	20	6		20	6		6	6	6	6	6	6
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		72			72		72			72		
Detector 2 Size(ft)		6			6		6			6		
Detector 2 Type		Cl+Ex			Cl+Ex		Cl+Ex			Cl+Ex		
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0		0.0			0.0		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA		Perm	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases		8			8		1	6		5	2	
Permitted Phases	8			8					6			2
Detector Phase	8	8		8	8		1	6	6	5	2	2
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	24.0	24.0		24.0	24.0		22.0	22.5	22.5	13.0	22.0	22.0
Total Split (s)	24.0	24.0		24.0	24.0		22.0	83.0	83.0	13.0	74.0	74.0
Total Split (%)	20.0%	20.0%		20.0%	20.0%		18.3%	69.2%	69.2%	10.8%	61.7%	61.7%
Maximum Green (s)	20.0	20.0		20.0	20.0		18.0	79.0	79.0	9.0	70.0	70.0
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.0			4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5		2.5	4.0	4.0	2.5	4.0	4.0
Minimum Gap (s)	2.0	2.0		2.0	2.0		2.0	2.7	2.7	2.0	2.7	2.7
Time Before Reduce (s)	8.0	8.0		8.0	8.0		8.0	10.0	10.0	8.0	10.0	10.0
Time To Reduce (s)	4.0	4.0		4.0	4.0		4.0	13.0	13.0	4.0	13.0	13.0
Recall Mode	None	None		None	None		None	Min	Min	None	Min	Min
Walk Time (s)	7.0	7.0		7.0	7.0			7.0	7.0		7.0	7.0
Flash Dont Walk (s)	13.0	13.0		13.0	13.0			11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0			0	0		0	0
Act Effct Green (s)		10.7			10.7		7.9	81.5	81.5	5.6	73.4	73.4
Actuated g/C Ratio		0.10			0.10		0.08	0.80	0.80	0.05	0.72	0.72
v/c Ratio		0.71			0.04		0.38	0.52	0.00	0.09	0.86	0.11
Control Delay		39.4			0.3		54.2	6.7	0.0	50.4	22.5	2.8
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		39.4			0.3		54.2	6.7	0.0	50.4	22.5	2.8
LOS		D			A		D	A	A	D	C	A
Approach Delay		39.4			0.3			9.7			20.8	
Approach LOS		D			A			A			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 102.2			
Natural Cycle: 120			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.86			
Intersection Signal Delay: 18.0		Intersection LOS: B	
Intersection Capacity Utilization 78.3%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 9: Main St/Main Street & Maple St



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	73	0	72	4	0	5	47	686	4	8	1013	108
Future Volume (vph)	73	0	72	4	0	5	47	686	4	8	1013	108
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)		4.0			4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes		0.98			0.99		1.00	1.00	0.97	1.00	1.00	0.96
Flpb, ped/bikes		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.93			0.93		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.98			0.98		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1558			1561		1662	1733	1443	1662	1716	1429
Flt Permitted		0.84			0.87		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1336			1391		1662	1733	1443	1662	1716	1429
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	76	0	75	4	0	5	49	715	4	8	1055	112
RTOR Reduction (vph)	0	74	0	0	8	0	0	0	1	0	0	23
Lane Group Flow (vph)	0	77	0	0	1	0	49	715	3	8	1055	90
Confl. Peds. (#/hr)			9			2			3			6
Confl. Bikes (#/hr)									3			4
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	2%	0%
Turn Type	Perm	NA		Perm	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases		8			8		1	6		5	2	
Permitted Phases	8			8					6			2
Actuated Green, G (s)		10.7			10.7		6.9	81.4	81.4	1.2	75.7	75.7
Effective Green, g (s)		10.7			10.7		6.9	81.4	81.4	1.2	75.7	75.7
Actuated g/C Ratio		0.10			0.10		0.07	0.77	0.77	0.01	0.72	0.72
Clearance Time (s)		4.0			4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)		2.5			2.5		2.5	4.0	4.0	2.5	4.0	4.0
Lane Grp Cap (vph)		135			141		108	1339	1115	18	1233	1027
v/s Ratio Prot							c0.03	0.41		0.00	c0.61	
v/s Ratio Perm		c0.06			0.00				0.00			0.06
v/c Ratio		0.57			0.01		0.45	0.53	0.00	0.44	0.86	0.09
Uniform Delay, d1		45.1			42.5		47.4	4.6	2.7	51.7	10.8	4.4
Progression Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		4.7			0.0		2.2	0.5	0.0	12.2	6.2	0.1
Delay (s)		49.9			42.5		49.6	5.1	2.7	63.9	17.0	4.5
Level of Service		D			D		D	A	A	E	B	A
Approach Delay (s)		49.9			42.5			8.0			16.2	
Approach LOS		D			D			A			B	

Intersection Summary			
HCM 2000 Control Delay	15.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	105.3	Sum of lost time (s)	12.0
Intersection Capacity Utilization	78.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBR	SET	SER	NWL	NWT
Lane Configurations						
Traffic Volume (vph)	33	29	1076	8	11	744
Future Volume (vph)	33	29	1076	8	11	744
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750
Storage Length (ft)	100	0		0	125	
Storage Lanes	1	1		0	0	
Taper Length (ft)	25				50	
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95
Frt		0.850	0.999			
Flt Protected	0.950					0.999
Satd. Flow (prot)	1646	1473	1731	0	0	3289
Flt Permitted	0.950					0.999
Satd. Flow (perm)	1646	1473	1731	0	0	3289
Link Speed (mph)	30		25			45
Link Distance (ft)	194		599			512
Travel Time (s)	4.4		16.3			7.8
Peak Hour Factor	0.85	0.85	0.96	0.96	0.96	0.96
Adj. Flow (vph)	39	34	1121	8	11	775
Shared Lane Traffic (%)						
Lane Group Flow (vph)	39	34	1129	0	0	786
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	12		12			12
Two way Left Turn Lane						
Headway Factor	1.11	1.11	1.11	1.11	1.11	1.11
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	72.0%	ICU Level of Service	C
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBR	SET	SER	NWL	NWT
Lane Configurations						
Traffic Vol, veh/h	33	29	1076	8	11	744
Future Vol, veh/h	33	29	1076	8	11	744
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	85	85	96	96	96	96
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	39	34	1121	8	11	775

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1535	1125	0	0	1129	0
Stage 1	1125	-	-	-	-	-
Stage 2	410	-	-	-	-	-
Critical Hdwy	6.615	6.215	-	-	4.115	-
Critical Hdwy Stg 1	5.415	-	-	-	-	-
Critical Hdwy Stg 2	5.815	-	-	-	-	-
Follow-up Hdwy	3.5095	3.3095	-	-	2.2095	-
Pot Cap-1 Maneuver	118	250	-	-	621	-
Stage 1	311	-	-	-	-	-
Stage 2	642	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	114	250	-	-	621	-
Mov Cap-2 Maneuver	114	-	-	-	-	-
Stage 1	311	-	-	-	-	-
Stage 2	622	-	-	-	-	-

Approach	EB	SE	NW
HCM Control Delay, s	37.9	0	0.4
HCM LOS	E		

Minor Lane/Major Mvmt	NWL	NWT	EBLn1	EBLn2	SET	SER
Capacity (veh/h)	621	-	114	250	-	-
HCM Lane V/C Ratio	0.018	-	0.341	0.136	-	-
HCM Control Delay (s)	10.9	0.2	52.1	21.7	-	-
HCM Lane LOS	B	A	F	C	-	-
HCM 95th %tile Q(veh)	0.1	-	1.4	0.5	-	-



Lane Group	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	1077	2	5	772	20	7
Future Volume (vph)	1077	2	5	772	20	7
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Frt					0.966	
Flt Protected					0.964	
Satd. Flow (prot)	3292	0	0	3292	1614	0
Flt Permitted					0.964	
Satd. Flow (perm)	3292	0	0	3292	1614	0
Link Speed (mph)	25			45	30	
Link Distance (ft)	1074			412	413	
Travel Time (s)	29.3			6.2	9.4	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.85	0.85
Adj. Flow (vph)	1122	2	5	804	24	8
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1124	0	0	809	32	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	12			12	12	
Two way Left Turn Lane	Yes			Yes		
Headway Factor	1.11	1.11	1.11	1.11	1.11	1.11
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 42.4%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.4

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	1077	2	5	772	20	7
Future Vol, veh/h	1077	2	5	772	20	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	85	85
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	1122	2	5	804	24	8

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1124	0	1535	562
Stage 1	-	-	-	-	1123	-
Stage 2	-	-	-	-	412	-
Critical Hdwy	-	-	4.12	-	6.82	6.92
Critical Hdwy Stg 1	-	-	-	-	5.82	-
Critical Hdwy Stg 2	-	-	-	-	5.82	-
Follow-up Hdwy	-	-	2.21	-	3.51	3.31
Pot Cap-1 Maneuver	-	-	623	-	108	473
Stage 1	-	-	-	-	275	-
Stage 2	-	-	-	-	640	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	623	-	106	473
Mov Cap-2 Maneuver	-	-	-	-	213	-
Stage 1	-	-	-	-	275	-
Stage 2	-	-	-	-	630	-

Approach	SE	NW	NE
HCM Control Delay, s	0	0.2	21.6
HCM LOS			C

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	248	623	-	-	-
HCM Lane V/C Ratio	0.128	0.008	-	-	-
HCM Control Delay (s)	21.6	10.8	0.1	-	-
HCM Lane LOS	C	B	A	-	-
HCM 95th %tile Q(veh)	0.4	0	-	-	-

Lane Group	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	1192	1	3	897	1	3
Future Volume (vph)	1192	1	3	897	1	3
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750
Storage Length (ft)		175	50		0	0
Storage Lanes		1	1		1	0
Taper Length (ft)			50		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.899	
Flt Protected			0.950		0.988	
Satd. Flow (prot)	1716	1488	1662	1733	1554	0
Flt Permitted			0.950		0.988	
Satd. Flow (perm)	1716	1488	1662	1733	1554	0
Link Speed (mph)	35			45	30	
Link Distance (ft)	3346			408	349	
Travel Time (s)	65.2			6.2	7.9	
Peak Hour Factor	0.93	0.93	0.93	1.00	0.93	0.93
Heavy Vehicles (%)	2%	0%	0%	1%	0%	0%
Adj. Flow (vph)	1282	1	3	897	1	3
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1282	1	3	897	4	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	12			12	12	
Two way Left Turn Lane						
Headway Factor	1.11	1.11	1.11	1.11	1.11	1.11
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	78.1%	ICU Level of Service D	
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.1

Movement	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	1192	1	3	897	1	3
Future Vol, veh/h	1192	1	3	897	1	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	175	50	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	100	93	93
Heavy Vehicles, %	2	0	0	1	0	0
Mvmt Flow	1282	1	3	897	1	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1283	0	2185	1282
Stage 1	-	-	-	-	1282	-
Stage 2	-	-	-	-	903	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	548	-	51	204
Stage 1	-	-	-	-	263	-
Stage 2	-	-	-	-	399	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	548	-	51	204
Mov Cap-2 Maneuver	-	-	-	-	51	-
Stage 1	-	-	-	-	263	-
Stage 2	-	-	-	-	397	-

Approach	NB	SB	SW
HCM Control Delay, s	0	0	36.9
HCM LOS			E

Minor Lane/Major Mvmt	NBT	NBR	SBL	SBT	SWLn1
Capacity (veh/h)	-	-	548	-	117
HCM Lane V/C Ratio	-	-	0.006	-	0.037
HCM Control Delay (s)	-	-	11.6	-	36.9
HCM Lane LOS	-	-	B	-	E
HCM 95th %tile Q(veh)	-	-	0	-	0.1

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	16	881	3	8	1170	17	20	0	4	16	2	28
Future Volume (vph)	16	881	3	8	1170	17	20	0	4	16	2	28
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.998			0.979			0.918	
Flt Protected	0.950			0.950				0.959			0.983	
Satd. Flow (prot)	1662	3292	0	1662	3254	0	0	1643	0	0	1579	0
Flt Permitted	0.950			0.950				0.959			0.983	
Satd. Flow (perm)	1662	3292	0	1662	3254	0	0	1643	0	0	1579	0
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		1152			1486			250			266	
Travel Time (s)		17.5			22.5			5.7			6.0	
Confl. Bikes (#/hr)						4						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	1%	0%	0%	2%	0%	0%	0%	0%	0%	1%	0%
Adj. Flow (vph)	18	979	3	9	1300	19	22	0	4	18	2	31
Shared Lane Traffic (%)												
Lane Group Flow (vph)	18	982	0	9	1319	0	0	26	0	0	51	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		12			12			12			12	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 45.7%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	3

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	16	881	3	8	1170	17	20	0	4	16	2	28
Future Vol, veh/h	16	881	3	8	1170	17	20	0	4	16	2	28
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	1	0	0	2	0	0	0	0	0	1	0
Mvmt Flow	18	979	3	9	1300	19	22	0	4	18	2	31

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1319	0	0	982	0	0	1686	2354	491	1854	2346	660
Stage 1	-	-	-	-	-	-	1017	1017	-	1328	1328	-
Stage 2	-	-	-	-	-	-	669	1337	-	526	1018	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.52	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.52	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4.01	3.3
Pot Cap-1 Maneuver	531	-	-	711	-	-	62	36	529	47	36	410
Stage 1	-	-	-	-	-	-	258	318	-	167	224	-
Stage 2	-	-	-	-	-	-	418	224	-	508	315	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	531	-	-	711	-	-	53	34	529	45	34	410
Mov Cap-2 Maneuver	-	-	-	-	-	-	53	34	-	45	34	-
Stage 1	-	-	-	-	-	-	249	307	-	161	221	-
Stage 2	-	-	-	-	-	-	378	221	-	487	304	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	0.2	0.1	101.2	80.3
HCM LOS			F	F

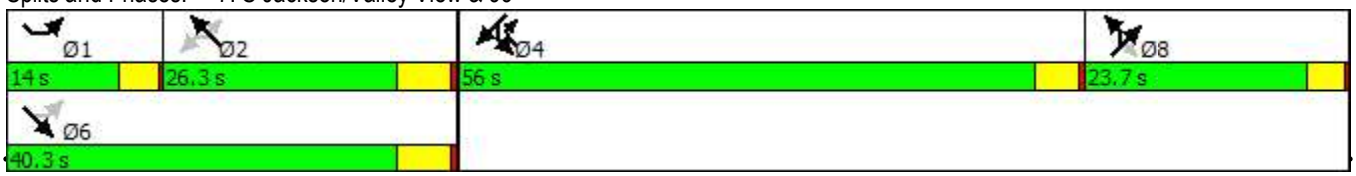
Minor Lane/Major Mvmt	NELn1	NWL	NWT	NWR	SEL	SET	SER	SWLn1
Capacity (veh/h)	62	711	-	-	531	-	-	95
HCM Lane V/C Ratio	0.43	0.013	-	-	0.033	-	-	0.538
HCM Control Delay (s)	101.2	10.1	-	-	12	-	-	80.3
HCM Lane LOS	F	B	-	-	B	-	-	F
HCM 95th %tile Q(veh)	1.6	0	-	-	0.1	-	-	2.4

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	30	339	4	35	514	670	3	9	16	545	19	91
Future Volume (vph)	30	339	4	35	514	670	3	9	16	545	19	91
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Storage Length (ft)	225		0	475		100	0		65	0		65
Storage Lanes	1		0	1		1	0		1	0		0
Taper Length (ft)	300			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						0.98						
Frt		0.998				0.850			0.850		0.981	
Flt Protected	0.950			0.950				0.989			0.960	
Satd. Flow (prot)	1599	3286	0	1630	3197	1458	0	1718	1488	0	1630	0
Flt Permitted	0.177			0.526				0.989			0.960	
Satd. Flow (perm)	298	3286	0	902	3197	1428	0	1718	1488	0	1630	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1				744			99		9	
Link Speed (mph)		45			45			30			35	
Link Distance (ft)		925			1152			271			868	
Travel Time (s)		14.0			17.5			6.2			16.9	
Confl. Bikes (#/hr)						1						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	4%	1%	0%	2%	4%	2%	0%	1%	0%	1%	0%	2%
Adj. Flow (vph)	33	377	4	39	571	744	3	10	18	606	21	101
Shared Lane Traffic (%)												
Lane Group Flow (vph)	33	381	0	39	571	744	0	13	18	0	728	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		12			12			12			12	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11
Number of Detectors	2	2		2	2	1	1	2	1	1	2	
Detector Template							Left			Left		
Leading Detector (ft)	78	323		78	323	143	20	78	143	20	78	
Trailing Detector (ft)	2	157		2	157	137	0	2	137	0	2	
Detector 1 Position(ft)	2	157		2	157	137	0	2	137	0	2	
Detector 1 Size(ft)	6	6		6	6	6	20	6	6	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)	72	317		72	317			72			72	
Detector 2 Size(ft)	6	6		6	6			6			6	
Detector 2 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Turn Type	pm+pt	NA		Perm	NA	pm+ov	Split	NA	Perm	Split	NA	

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Protected Phases	1	6			2	4	8	8		4	4	
Permitted Phases	6			2		2			8		4	
Detector Phase	1	6		2	2	4	8	8	8	4	4	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	14.0	27.4		25.0	25.0	26.5	23.7	23.7	23.7	26.5	26.5	
Total Split (s)	14.0	40.3		26.3	26.3	56.0	23.7	23.7	23.7	56.0	56.0	
Total Split (%)	11.7%	33.6%		21.9%	21.9%	46.7%	19.8%	19.8%	19.8%	46.7%	46.7%	
Maximum Green (s)	10.0	34.9		20.9	20.9	51.5	19.7	19.7	19.7	51.5	51.5	
Yellow Time (s)	3.5	4.7		4.7	4.7	4.0	3.5	3.5	3.5	4.0	4.0	
All-Red Time (s)	0.5	0.7		0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.5	
Lost Time Adjust (s)	-1.4	-1.4		-1.4	-1.4	-1.4		0.0	0.0		-0.5	
Total Lost Time (s)	2.6	4.0		4.0	4.0	3.1		4.0	4.0		4.0	
Lead/Lag	Lead			Lag	Lag							
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	
Minimum Gap (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Time Before Reduce (s)	8.0	8.0		8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	
Time To Reduce (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Recall Mode	None	Min		Min	Min	None	None	None	None	None	None	
Walk Time (s)		7.0		7.0	7.0	7.0				7.0	7.0	
Flash Dont Walk (s)		15.0		11.0	11.0	15.0				15.0	15.0	
Pedestrian Calls (#/hr)		0		0	0	0				0	0	
Act Effct Green (s)	29.7	28.3		20.8	20.8	75.1		5.3	5.3		52.4	
Actuated g/C Ratio	0.32	0.30		0.22	0.22	0.80		0.06	0.06		0.56	
v/c Ratio	0.13	0.38		0.20	0.80	0.57		0.14	0.10		0.80	
Control Delay	23.6	26.7		36.5	46.2	2.2		51.3	1.2		28.2	
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0		0.0	
Total Delay	23.6	26.7		36.5	46.2	2.2		51.3	1.2		28.2	
LOS	C	C		D	D	A		D	A		C	
Approach Delay		26.5			21.7			22.2			28.2	
Approach LOS		C			C			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 93.8			
Natural Cycle: 120			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.80			
Intersection Signal Delay: 24.4		Intersection LOS: C	
Intersection Capacity Utilization 80.3%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 7: S Jackson/Valley View & 99



Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	30	339	4	35	514	670	3	9	16	545	19	91
Future Volume (vph)	30	339	4	35	514	670	3	9	16	545	19	91
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	2.6	4.0		4.0	4.0	3.1		4.0	4.0		4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00		1.00	1.00		1.00	
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.99		1.00	1.00		1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00	
Frt	1.00	1.00		1.00	1.00	0.85		1.00	0.85		0.98	
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.99	1.00		0.96	
Satd. Flow (prot)	1599	3287		1630	3197	1450		1717	1488		1631	
Flt Permitted	0.18	1.00		0.53	1.00	1.00		0.99	1.00		0.96	
Satd. Flow (perm)	298	3287		902	3197	1450		1717	1488		1631	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	33	377	4	39	571	744	3	10	18	606	21	101
RTOR Reduction (vph)	0	1	0	0	0	177	0	0	17	0	4	0
Lane Group Flow (vph)	33	380	0	39	571	567	0	13	1	0	724	0
Confl. Bikes (#/hr)						1						
Heavy Vehicles (%)	4%	1%	0%	2%	4%	2%	0%	1%	0%	1%	0%	2%
Turn Type	pm+pt	NA		Perm	NA	pm+ov	Split	NA	Perm	Split	NA	
Protected Phases	1	6			2	4	8	8		4	4	
Permitted Phases	6			2		2			8		4	
Actuated Green, G (s)	28.7	28.7		19.4	19.4	71.3		2.8	2.8		51.9	
Effective Green, g (s)	30.1	30.1		20.8	20.8	74.1		2.8	2.8		52.4	
Actuated g/C Ratio	0.31	0.31		0.21	0.21	0.76		0.03	0.03		0.54	
Clearance Time (s)	4.0	5.4		5.4	5.4	4.5		4.0	4.0		4.5	
Vehicle Extension (s)	2.5	2.5		2.5	2.5	2.5		2.5	2.5		2.5	
Lane Grp Cap (vph)	181	1016		192	683	1104		49	42		878	
v/s Ratio Prot	0.01	c0.12			c0.18	0.28		c0.01			c0.44	
v/s Ratio Perm	0.04			0.04		0.11			0.00			
v/c Ratio	0.18	0.37		0.20	0.84	0.51		0.27	0.01		0.82	
Uniform Delay, d1	24.7	26.2		31.4	36.6	4.5		46.2	45.9		18.6	
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00	
Incremental Delay, d2	0.4	0.2		0.4	8.6	0.3		2.1	0.1		6.2	
Delay (s)	25.1	26.4		31.8	45.2	4.8		48.4	46.0		24.8	
Level of Service	C	C		C	D	A		D	D		C	
Approach Delay (s)		26.3			22.6			47.0			24.8	
Approach LOS		C			C			D			C	

Intersection Summary			
HCM 2000 Control Delay	24.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	97.3	Sum of lost time (s)	15.1
Intersection Capacity Utilization	80.3%	ICU Level of Service	D
Analysis Period (min)	15		

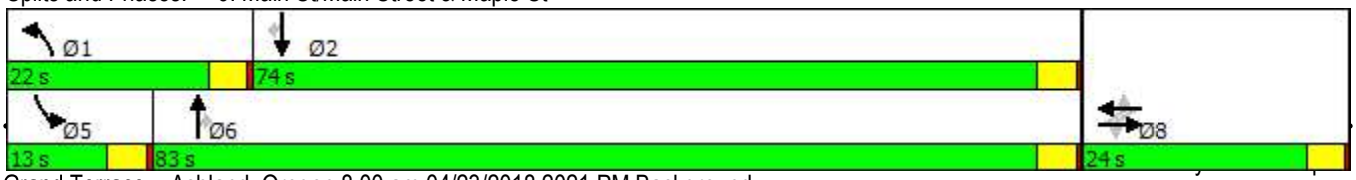
c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	123	0	56	8	0	10	58	1098	11	15	849	78
Future Volume (vph)	123	0	56	8	0	10	58	1098	11	15	849	78
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Storage Length (ft)	0		0	0		0	150		160	70		195
Storage Lanes	0		0	0		0	1		0	1		1
Taper Length (ft)	25			25			300			80		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99			0.99				0.97			0.96
Frt		0.958			0.926				0.850			0.850
Flt Protected		0.967			0.978		0.950			0.950		
Satd. Flow (prot)	0	1587	0	0	1562	0	1662	1716	1488	1662	1733	1473
Flt Permitted		0.783			0.894		0.950			0.950		
Satd. Flow (perm)	0	1285	0	0	1428	0	1662	1716	1441	1662	1733	1411
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		82			82				45			82
Link Speed (mph)		25			25			25			35	
Link Distance (ft)		1425			286			1141			3346	
Travel Time (s)		38.9			7.8			31.1			65.2	
Confl. Peds. (#/hr)			9			2			3			6
Confl. Bikes (#/hr)									3			4
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	1%	0%	0%	0%	0%	0%	0%	2%	0%	0%	1%	1%
Adj. Flow (vph)	135	0	62	9	0	11	64	1207	12	16	933	86
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	197	0	0	20	0	64	1207	12	16	933	86
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		12			12			12			12	
Two way Left Turn Lane								Yes				
Headway Factor	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11
Number of Detectors	1	2		1	2		2	1	1	2	1	1
Detector Template	Left			Left								
Leading Detector (ft)	20	78		20	78		78	143	143	78	143	143
Trailing Detector (ft)	0	2		0	2		2	137	137	2	137	137
Detector 1 Position(ft)	0	2		0	2		2	137	137	2	137	137
Detector 1 Size(ft)	20	6		20	6		6	6	6	6	6	6
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		72			72		72			72		
Detector 2 Size(ft)		6			6		6			6		
Detector 2 Type		Cl+Ex			Cl+Ex		Cl+Ex			Cl+Ex		
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0		0.0			0.0		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA		Perm	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases		8			8		1	6		5	2	
Permitted Phases	8			8					6			2
Detector Phase	8	8		8	8		1	6	6	5	2	2
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	24.0	24.0		24.0	24.0		22.0	22.5	22.5	13.0	22.0	22.0
Total Split (s)	24.0	24.0		24.0	24.0		22.0	83.0	83.0	13.0	74.0	74.0
Total Split (%)	20.0%	20.0%		20.0%	20.0%		18.3%	69.2%	69.2%	10.8%	61.7%	61.7%
Maximum Green (s)	20.0	20.0		20.0	20.0		18.0	79.0	79.0	9.0	70.0	70.0
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.0			4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5		2.5	4.0	4.0	2.5	4.0	4.0
Minimum Gap (s)	2.0	2.0		2.0	2.0		2.0	2.7	2.7	2.0	2.7	2.7
Time Before Reduce (s)	8.0	8.0		8.0	8.0		8.0	10.0	10.0	8.0	10.0	10.0
Time To Reduce (s)	4.0	4.0		4.0	4.0		4.0	13.0	13.0	4.0	13.0	13.0
Recall Mode	None	None		None	None		None	Min	Min	None	Min	Min
Walk Time (s)	7.0	7.0		7.0	7.0			7.0	7.0		7.0	7.0
Flash Dont Walk (s)	13.0	13.0		13.0	13.0			11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0			0	0		0	0
Act Effct Green (s)		14.4			14.4		9.1	81.1	81.1	6.2	74.2	74.2
Actuated g/C Ratio		0.13			0.13		0.08	0.75	0.75	0.06	0.69	0.69
v/c Ratio		0.81			0.08		0.46	0.93	0.01	0.17	0.78	0.09
Control Delay		51.7			0.6		58.8	28.9	0.0	55.3	20.3	2.3
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		51.7			0.6		58.8	28.9	0.0	55.3	20.3	2.3
LOS		D			A		E	C	A	E	C	A
Approach Delay		51.7			0.6			30.1			19.3	
Approach LOS		D			A			C			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 107.7			
Natural Cycle: 140			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.93			
Intersection Signal Delay: 27.2		Intersection LOS: C	
Intersection Capacity Utilization 87.0%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 9: Main St/Main Street & Maple St



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	123	0	56	8	0	10	58	1098	11	15	849	78
Future Volume (vph)	123	0	56	8	0	10	58	1098	11	15	849	78
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)		4.0			4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes		0.99			0.99		1.00	1.00	0.97	1.00	1.00	0.96
Flpb, ped/bikes		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.96			0.93		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.97			0.98		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1587			1562		1662	1716	1442	1662	1733	1414
Flt Permitted		0.78			0.89		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1285			1429		1662	1716	1442	1662	1733	1414
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	135	0	62	9	0	11	64	1207	12	16	933	86
RTOR Reduction (vph)	0	71	0	0	17	0	0	0	3	0	0	26
Lane Group Flow (vph)	0	126	0	0	3	0	64	1207	9	16	933	60
Confl. Peds. (#/hr)			9			2			3			6
Confl. Bikes (#/hr)									3			4
Heavy Vehicles (%)	1%	0%	0%	0%	0%	0%	0%	2%	0%	0%	1%	1%
Turn Type	Perm	NA		Perm	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases		8			8		1	6		5	2	
Permitted Phases	8			8					6			2
Actuated Green, G (s)		14.4			14.4		7.9	81.1	81.1	2.7	75.9	75.9
Effective Green, g (s)		14.4			14.4		7.9	81.1	81.1	2.7	75.9	75.9
Actuated g/C Ratio		0.13			0.13		0.07	0.74	0.74	0.02	0.69	0.69
Clearance Time (s)		4.0			4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)		2.5			2.5		2.5	4.0	4.0	2.5	4.0	4.0
Lane Grp Cap (vph)		167			186		119	1262	1061	40	1193	973
v/s Ratio Prot							c0.04	c0.70		0.01	0.54	
v/s Ratio Perm		c0.10			0.00				0.01			0.04
v/c Ratio		0.75			0.01		0.54	0.96	0.01	0.40	0.78	0.06
Uniform Delay, d1		46.2			41.7		49.4	13.0	3.9	53.0	11.6	5.6
Progression Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		16.6			0.0		3.6	16.0	0.0	4.7	3.6	0.0
Delay (s)		62.8			41.7		53.0	29.0	3.9	57.7	15.2	5.6
Level of Service		E			D		D	C	A	E	B	A
Approach Delay (s)		62.8			41.7			30.0			15.0	
Approach LOS		E			D			C			B	

Intersection Summary			
HCM 2000 Control Delay	26.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	110.2	Sum of lost time (s)	12.0
Intersection Capacity Utilization	87.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	1225	1	4	916	1	4
Future Volume (vph)	1225	1	4	916	1	4
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750
Storage Length (ft)		175	50		0	0
Storage Lanes		1	1		1	0
Taper Length (ft)			50		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.892	
Flt Protected			0.950		0.990	
Satd. Flow (prot)	1716	1488	1662	1733	1545	0
Flt Permitted			0.950		0.990	
Satd. Flow (perm)	1716	1488	1662	1733	1545	0
Link Speed (mph)	35			45	30	
Link Distance (ft)	3346			408	349	
Travel Time (s)	65.2			6.2	7.9	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	0%	0%	1%	0%	0%
Adj. Flow (vph)	1317	1	4	985	1	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1317	1	4	985	5	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	12			12	12	
Two way Left Turn Lane						
Headway Factor	1.11	1.11	1.11	1.11	1.11	1.11
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	80.0%	ICU Level of Service	D
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.1

Movement	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	1225	1	4	916	1	4
Future Vol, veh/h	1225	1	4	916	1	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	175	50	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	0	0	1	0	0
Mvmt Flow	1317	1	4	985	1	4

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1318	0	2310	1317
Stage 1	-	-	-	-	1317	-
Stage 2	-	-	-	-	993	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	531	-	43	194
Stage 1	-	-	-	-	253	-
Stage 2	-	-	-	-	362	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	531	-	43	194
Mov Cap-2 Maneuver	-	-	-	-	43	-
Stage 1	-	-	-	-	253	-
Stage 2	-	-	-	-	359	-

Approach	NB	SB	SW
HCM Control Delay, s	0	0.1	38.1
HCM LOS			E

Minor Lane/Major Mvmt	NBT	NBR	SBL	SBT	SWLn1
Capacity (veh/h)	-	-	531	-	114
HCM Lane V/C Ratio	-	-	0.008	-	0.047
HCM Control Delay (s)	-	-	11.8	-	38.1
HCM Lane LOS	-	-	B	-	E
HCM 95th %tile Q(veh)	-	-	0	-	0.1

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	16	923	3	8	1199	18	20	0	4	17	2	28
Future Volume (vph)	16	923	3	8	1199	18	20	0	4	17	2	28
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.998			0.979			0.920	
Flt Protected	0.950			0.950				0.959			0.982	
Satd. Flow (prot)	1662	3292	0	1662	3254	0	0	1643	0	0	1580	0
Flt Permitted	0.950			0.950				0.959			0.982	
Satd. Flow (perm)	1662	3292	0	1662	3254	0	0	1643	0	0	1580	0
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		1152			1053			250			266	
Travel Time (s)		17.5			16.0			5.7			6.0	
Confl. Bikes (#/hr)						4						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	1%	0%	0%	2%	0%	0%	0%	0%	0%	1%	0%
Adj. Flow (vph)	18	1026	3	9	1332	20	22	0	4	19	2	31
Shared Lane Traffic (%)												
Lane Group Flow (vph)	18	1029	0	9	1352	0	0	26	0	0	52	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		12			12			12			12	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	46.6%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	3.6

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	16	923	3	8	1199	18	20	0	4	17	2	28
Future Vol, veh/h	16	923	3	8	1199	18	20	0	4	17	2	28
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	1	0	0	2	0	0	0	0	0	1	0
Mvmt Flow	18	1026	3	9	1332	20	22	0	4	19	2	31

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1352	0	0	1029	0	0	1749	2434	515	1909	2425	676
Stage 1	-	-	-	-	-	-	1064	1064	-	1360	1360	-
Stage 2	-	-	-	-	-	-	685	1370	-	549	1065	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.52	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.52	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4.01	3.3
Pot Cap-1 Maneuver	516	-	-	683	-	-	56	32	510	42	32	401
Stage 1	-	-	-	-	-	-	242	302	-	159	217	-
Stage 2	-	-	-	-	-	-	409	216	-	493	299	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	516	-	-	683	-	-	47	30	510	40	30	401
Mov Cap-2 Maneuver	-	-	-	-	-	-	47	30	-	40	30	-
Stage 1	-	-	-	-	-	-	234	291	-	153	214	-
Stage 2	-	-	-	-	-	-	368	213	-	472	289	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	0.2	0.1	121	101.4
HCM LOS			F	F

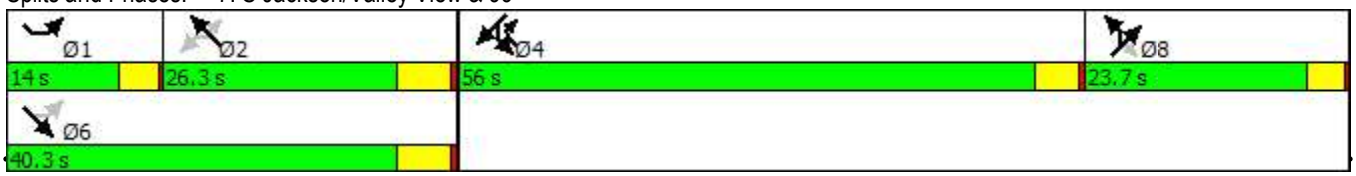
Minor Lane/Major Mvmt	NELn1	NWL	NWT	NWR	SEL	SET	SER	SWLn1
Capacity (veh/h)	55	683	-	-	516	-	-	84
HCM Lane V/C Ratio	0.485	0.013	-	-	0.034	-	-	0.622
HCM Control Delay (s)	121	10.3	-	-	12.2	-	-	101.4
HCM Lane LOS	F	B	-	-	B	-	-	F
HCM 95th %tile Q(veh)	1.9	0	-	-	0.1	-	-	2.9

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	30	360	4	35	528	685	3	9	16	566	19	91
Future Volume (vph)	30	360	4	35	528	685	3	9	16	566	19	91
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Storage Length (ft)	225		0	475		100	0		65	0		65
Storage Lanes	1		0	1		1	0		1	0		0
Taper Length (ft)	300			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						0.98						
Frt		0.999				0.850			0.850		0.982	
Flt Protected	0.950			0.950				0.989			0.960	
Satd. Flow (prot)	1599	3289	0	1630	3197	1458	0	1718	1488	0	1632	0
Flt Permitted	0.173			0.514				0.989			0.960	
Satd. Flow (perm)	291	3289	0	882	3197	1428	0	1718	1488	0	1632	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1				761			99		8	
Link Speed (mph)		45			45			30			35	
Link Distance (ft)		925			1152			271			868	
Travel Time (s)		14.0			17.5			6.2			16.9	
Confl. Bikes (#/hr)						1						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	4%	1%	0%	2%	4%	2%	0%	1%	0%	1%	0%	2%
Adj. Flow (vph)	33	400	4	39	587	761	3	10	18	629	21	101
Shared Lane Traffic (%)												
Lane Group Flow (vph)	33	404	0	39	587	761	0	13	18	0	751	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		12			12			12			12	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11
Number of Detectors	2	2		2	2	1	1	2	1	1	2	
Detector Template							Left			Left		
Leading Detector (ft)	78	323		78	323	143	20	78	143	20	78	
Trailing Detector (ft)	2	157		2	157	137	0	2	137	0	2	
Detector 1 Position(ft)	2	157		2	157	137	0	2	137	0	2	
Detector 1 Size(ft)	6	6		6	6	6	20	6	6	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)	72	317		72	317			72			72	
Detector 2 Size(ft)	6	6		6	6			6			6	
Detector 2 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Turn Type	pm+pt	NA		Perm	NA	pm+ov	Split	NA	Perm	Split	NA	

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Protected Phases	1	6			2	4	8	8		4	4	
Permitted Phases	6			2		2			8		4	
Detector Phase	1	6		2	2	4	8	8	8	4	4	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	14.0	27.4		25.0	25.0	26.5	23.7	23.7	23.7	26.5	26.5	
Total Split (s)	14.0	40.3		26.3	26.3	56.0	23.7	23.7	23.7	56.0	56.0	
Total Split (%)	11.7%	33.6%		21.9%	21.9%	46.7%	19.8%	19.8%	19.8%	46.7%	46.7%	
Maximum Green (s)	10.0	34.9		20.9	20.9	51.5	19.7	19.7	19.7	51.5	51.5	
Yellow Time (s)	3.5	4.7		4.7	4.7	4.0	3.5	3.5	3.5	4.0	4.0	
All-Red Time (s)	0.5	0.7		0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.5	
Lost Time Adjust (s)	-1.4	-1.4		-1.4	-1.4	-1.4		0.0	0.0		-0.5	
Total Lost Time (s)	2.6	4.0		4.0	4.0	3.1		4.0	4.0		4.0	
Lead/Lag	Lead			Lag	Lag							
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	
Minimum Gap (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Time Before Reduce (s)	8.0	8.0		8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	
Time To Reduce (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Recall Mode	None	Min		Min	Min	None	None	None	None	None	None	
Walk Time (s)		7.0		7.0	7.0	7.0				7.0	7.0	
Flash Dont Walk (s)		15.0		11.0	11.0	15.0				15.0	15.0	
Pedestrian Calls (#/hr)		0		0	0	0				0	0	
Act Effct Green (s)	30.8	29.4		21.8	21.8	76.6		5.2	5.2		52.9	
Actuated g/C Ratio	0.32	0.31		0.23	0.23	0.80		0.05	0.05		0.55	
v/c Ratio	0.13	0.40		0.19	0.80	0.58		0.14	0.10		0.83	
Control Delay	23.7	27.1		36.6	46.3	2.2		51.5	1.2		30.4	
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0		0.0	
Total Delay	23.7	27.1		36.6	46.3	2.2		51.5	1.2		30.4	
LOS	C	C		D	D	A		D	A		C	
Approach Delay		26.9			21.8			22.3			30.4	
Approach LOS		C			C			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 95.5			
Natural Cycle: 120			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.83			
Intersection Signal Delay: 25.2		Intersection LOS: C	
Intersection Capacity Utilization 82.0%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 7: S Jackson/Valley View & 99



Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	30	360	4	35	528	685	3	9	16	566	19	91
Future Volume (vph)	30	360	4	35	528	685	3	9	16	566	19	91
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	2.6	4.0		4.0	4.0	3.1		4.0	4.0		4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00		1.00	1.00		1.00	
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.99		1.00	1.00		1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00	
Frt	1.00	1.00		1.00	1.00	0.85		1.00	0.85		0.98	
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.99	1.00		0.96	
Satd. Flow (prot)	1599	3288		1630	3197	1450		1717	1488		1631	
Flt Permitted	0.17	1.00		0.51	1.00	1.00		0.99	1.00		0.96	
Satd. Flow (perm)	292	3288		883	3197	1450		1717	1488		1631	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	33	400	4	39	587	761	3	10	18	629	21	101
RTOR Reduction (vph)	0	1	0	0	0	179	0	0	17	0	4	0
Lane Group Flow (vph)	33	403	0	39	587	582	0	13	1	0	747	0
Confl. Bikes (#/hr)						1						
Heavy Vehicles (%)	4%	1%	0%	2%	4%	2%	0%	1%	0%	1%	0%	2%
Turn Type	pm+pt	NA		Perm	NA	pm+ov	Split	NA	Perm	Split	NA	
Protected Phases	1	6			2	4	8	8		4	4	
Permitted Phases	6			2		2			8		4	
Actuated Green, G (s)	29.8	29.8		20.4	20.4	72.8		2.8	2.8		52.4	
Effective Green, g (s)	31.2	31.2		21.8	21.8	75.6		2.8	2.8		52.9	
Actuated g/C Ratio	0.32	0.32		0.22	0.22	0.76		0.03	0.03		0.53	
Clearance Time (s)	4.0	5.4		5.4	5.4	4.5		4.0	4.0		4.5	
Vehicle Extension (s)	2.5	2.5		2.5	2.5	2.5		2.5	2.5		2.5	
Lane Grp Cap (vph)	181	1037		194	704	1108		48	42		872	
v/s Ratio Prot	0.01	c0.12			c0.18	0.29		c0.01			c0.46	
v/s Ratio Perm	0.04			0.04		0.12			0.00			
v/c Ratio	0.18	0.39		0.20	0.83	0.53		0.27	0.01		0.86	
Uniform Delay, d1	24.8	26.4		31.4	36.8	4.6		47.1	46.7		19.8	
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00	
Incremental Delay, d2	0.4	0.2		0.4	8.2	0.3		2.2	0.1		8.2	
Delay (s)	25.1	26.6		31.8	45.1	4.9		49.3	46.8		28.0	
Level of Service	C	C		C	D	A		D	D		C	
Approach Delay (s)		26.5			22.7			47.8			28.0	
Approach LOS		C			C			D			C	

Intersection Summary			
HCM 2000 Control Delay	25.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	98.9	Sum of lost time (s)	15.1
Intersection Capacity Utilization	82.0%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	123	10	56	8	0	10	58	1121	11	16	864	81
Future Volume (vph)	123	10	56	8	0	10	58	1121	11	16	864	81
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Storage Length (ft)	0		0	0		0	150		160	70		195
Storage Lanes	0		0	0		0	1		0	1		1
Taper Length (ft)	25			25			300			80		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99			0.99				0.97			0.96
Frt		0.960			0.926				0.850			0.850
Flt Protected		0.969			0.978		0.950			0.950		
Satd. Flow (prot)	0	1595	0	0	1562	0	1662	1716	1488	1662	1733	1473
Flt Permitted		0.792			0.893		0.950			0.950		
Satd. Flow (perm)	0	1304	0	0	1427	0	1662	1716	1441	1662	1733	1411
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		15			82				45			82
Link Speed (mph)		25			25			25			35	
Link Distance (ft)		1425			286			1141			3346	
Travel Time (s)		38.9			7.8			31.1			65.2	
Confl. Peds. (#/hr)			9			2			3			6
Confl. Bikes (#/hr)									3			4
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	1%	0%	0%	0%	0%	0%	0%	2%	0%	0%	1%	1%
Adj. Flow (vph)	135	11	62	9	0	11	64	1232	12	18	949	89
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	208	0	0	20	0	64	1232	12	18	949	89
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		12			12			12			12	
Two way Left Turn Lane								Yes				
Headway Factor	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11
Number of Detectors	1	2		1	2		2	1	1	2	1	1
Detector Template	Left			Left								
Leading Detector (ft)	20	78		20	78		78	143	143	78	143	143
Trailing Detector (ft)	0	2		0	2		2	137	137	2	137	137
Detector 1 Position(ft)	0	2		0	2		2	137	137	2	137	137
Detector 1 Size(ft)	20	6		20	6		6	6	6	6	6	6
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		72			72		72			72		
Detector 2 Size(ft)		6			6		6			6		
Detector 2 Type		Cl+Ex			Cl+Ex		Cl+Ex			Cl+Ex		
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0		0.0			0.0		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA		Perm	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases		8			8		1	6		5	2	
Permitted Phases	8			8					6			2
Detector Phase	8	8		8	8		1	6	6	5	2	2
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	24.0	24.0		24.0	24.0		22.0	22.5	22.5	13.0	22.0	22.0
Total Split (s)	24.0	24.0		24.0	24.0		22.0	83.0	83.0	13.0	74.0	74.0
Total Split (%)	20.0%	20.0%		20.0%	20.0%		18.3%	69.2%	69.2%	10.8%	61.7%	61.7%
Maximum Green (s)	20.0	20.0		20.0	20.0		18.0	79.0	79.0	9.0	70.0	70.0
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.0			4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5		2.5	4.0	4.0	2.5	4.0	4.0
Minimum Gap (s)	2.0	2.0		2.0	2.0		2.0	2.7	2.7	2.0	2.7	2.7
Time Before Reduce (s)	8.0	8.0		8.0	8.0		8.0	10.0	10.0	8.0	10.0	10.0
Time To Reduce (s)	4.0	4.0		4.0	4.0		4.0	13.0	13.0	4.0	13.0	13.0
Recall Mode	None	None		None	None		None	Min	Min	None	Min	Min
Walk Time (s)	7.0	7.0		7.0	7.0			7.0	7.0		7.0	7.0
Flash Dont Walk (s)	13.0	13.0		13.0	13.0			11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0			0	0		0	0
Act Effct Green (s)		19.3			19.3		9.2	80.5	80.5	6.3	73.7	73.7
Actuated g/C Ratio		0.17			0.17		0.08	0.72	0.72	0.06	0.66	0.66
v/c Ratio		0.88			0.06		0.47	1.00	0.01	0.19	0.83	0.09
Control Delay		78.2			0.4		60.9	43.9	0.0	56.7	24.6	2.5
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		78.2			0.4		60.9	43.9	0.0	56.7	24.6	2.5
LOS		E			A		E	D	A	E	C	A
Approach Delay		78.2			0.4			44.3			23.3	
Approach LOS		E			A			D			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 112.2			
Natural Cycle: 130			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.00			
Intersection Signal Delay: 38.1		Intersection LOS: D	
Intersection Capacity Utilization 88.7%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 9: Main St/Main Street & Maple St



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	123	10	56	8	0	10	58	1121	11	16	864	81
Future Volume (vph)	123	10	56	8	0	10	58	1121	11	16	864	81
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)		4.0			4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes		0.99			0.99		1.00	1.00	0.97	1.00	1.00	0.96
Flpb, ped/bikes		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.96			0.93		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.97			0.98		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1594			1562		1662	1716	1441	1662	1733	1412
Flt Permitted		0.79			0.89		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1304			1426		1662	1716	1441	1662	1733	1412
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	135	11	62	9	0	11	64	1232	12	18	949	89
RTOR Reduction (vph)	0	12	0	0	17	0	0	0	4	0	0	28
Lane Group Flow (vph)	0	196	0	0	3	0	64	1232	8	18	949	61
Confl. Peds. (#/hr)			9			2			3			6
Confl. Bikes (#/hr)									3			4
Heavy Vehicles (%)	1%	0%	0%	0%	0%	0%	0%	2%	0%	0%	1%	1%
Turn Type	Perm	NA		Perm	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases		8			8		1	6		5	2	
Permitted Phases	8			8					6			2
Actuated Green, G (s)		19.3			19.3		8.1	80.6	80.6	2.9	75.4	75.4
Effective Green, g (s)		19.3			19.3		8.1	80.6	80.6	2.9	75.4	75.4
Actuated g/C Ratio		0.17			0.17		0.07	0.70	0.70	0.03	0.66	0.66
Clearance Time (s)		4.0			4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)		2.5			2.5		2.5	4.0	4.0	2.5	4.0	4.0
Lane Grp Cap (vph)		219			239		117	1204	1011	41	1138	927
v/s Ratio Prot							c0.04	c0.72		0.01	0.55	
v/s Ratio Perm		c0.15			0.00				0.01			0.04
v/c Ratio		0.89			0.01		0.55	1.02	0.01	0.44	0.83	0.07
Uniform Delay, d1		46.7			39.8		51.6	17.1	5.1	55.1	14.9	7.1
Progression Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		33.3			0.0		4.1	32.0	0.0	5.4	5.6	0.0
Delay (s)		80.0			39.8		55.7	49.1	5.1	60.5	20.6	7.1
Level of Service		F			D		E	D	A	E	C	A
Approach Delay (s)		80.0			39.8			49.0			20.1	
Approach LOS		F			D			D			C	

Intersection Summary			
HCM 2000 Control Delay	39.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	114.8	Sum of lost time (s)	12.0
Intersection Capacity Utilization	88.7%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBR	SET	SER	NWL	NWT
Lane Configurations						
Traffic Volume (vph)	18	16	905	30	29	1200
Future Volume (vph)	18	16	905	30	29	1200
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750
Storage Length (ft)	100	0		0	125	
Storage Lanes	1	1		0	0	
Taper Length (ft)	25				50	
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95
Frt		0.850	0.996			
Flt Protected	0.950					0.999
Satd. Flow (prot)	1646	1473	1726	0	0	3289
Flt Permitted	0.950					0.999
Satd. Flow (perm)	1646	1473	1726	0	0	3289
Link Speed (mph)	30		25			45
Link Distance (ft)	194		599			512
Travel Time (s)	4.4		16.3			7.8
Peak Hour Factor	0.85	0.85	0.90	0.90	0.90	0.90
Adj. Flow (vph)	21	19	1006	33	32	1333
Shared Lane Traffic (%)						
Lane Group Flow (vph)	21	19	1039	0	0	1365
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	12		12			12
Two way Left Turn Lane						
Headway Factor	1.11	1.11	1.11	1.11	1.11	1.11
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 68.6%		ICU Level of Service C	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBR	SET	SER	NWL	NWT
Lane Configurations						
Traffic Vol, veh/h	18	16	905	30	29	1200
Future Vol, veh/h	18	16	905	30	29	1200
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	85	85	90	90	90	90
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	21	19	1006	33	32	1333

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1754	1023	0	0	1039	0
Stage 1	1023	-	-	-	-	-
Stage 2	731	-	-	-	-	-
Critical Hdwy	6.615	6.215	-	-	4.115	-
Critical Hdwy Stg 1	5.415	-	-	-	-	-
Critical Hdwy Stg 2	5.815	-	-	-	-	-
Follow-up Hdwy	3.5095	3.3095	-	-	2.2095	-
Pot Cap-1 Maneuver	85	287	-	-	672	-
Stage 1	348	-	-	-	-	-
Stage 2	440	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	69	287	-	-	672	-
Mov Cap-2 Maneuver	69	-	-	-	-	-
Stage 1	348	-	-	-	-	-
Stage 2	359	-	-	-	-	-

Approach	EB	SE	NW
HCM Control Delay, s	50.4	0	1.1
HCM LOS	F		

Minor Lane/Major Mvmt	NWL	NWT	EBLn1	EBLn2	SET	SER
Capacity (veh/h)	672	-	69	287	-	-
HCM Lane V/C Ratio	0.048	-	0.307	0.066	-	-
HCM Control Delay (s)	10.6	0.9	78.8	18.4	-	-
HCM Lane LOS	B	A	F	C	-	-
HCM 95th %tile Q(veh)	0.2	-	1.1	0.2	-	-



Lane Group	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	924	20	5	1213	12	4
Future Volume (vph)	924	20	5	1213	12	4
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Frt	0.997				0.964	
Flt Protected					0.964	
Satd. Flow (prot)	3282	0	0	3292	1610	0
Flt Permitted					0.964	
Satd. Flow (perm)	3282	0	0	3292	1610	0
Link Speed (mph)	25			45	30	
Link Distance (ft)	1053			433	463	
Travel Time (s)	28.7			6.6	10.5	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.85	0.85
Adj. Flow (vph)	1027	22	6	1348	14	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1049	0	0	1354	19	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	12			12	12	
Two way Left Turn Lane	Yes			Yes		
Headway Factor	1.11	1.11	1.11	1.11	1.11	1.11
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 50.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.3

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	924	20	5	1213	12	4
Future Vol, veh/h	924	20	5	1213	12	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	85	85
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	1027	22	6	1348	14	5

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1049	0	1724	525
Stage 1	-	-	-	-	1038	-
Stage 2	-	-	-	-	686	-
Critical Hdwy	-	-	4.12	-	6.82	6.92
Critical Hdwy Stg 1	-	-	-	-	5.82	-
Critical Hdwy Stg 2	-	-	-	-	5.82	-
Follow-up Hdwy	-	-	2.21	-	3.51	3.31
Pot Cap-1 Maneuver	-	-	665	-	81	500
Stage 1	-	-	-	-	305	-
Stage 2	-	-	-	-	464	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	665	-	78	500
Mov Cap-2 Maneuver	-	-	-	-	199	-
Stage 1	-	-	-	-	305	-
Stage 2	-	-	-	-	447	-

Approach	SE	NW	NE
HCM Control Delay, s	0	0.2	21.7
HCM LOS			C

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	234	665	-	-	-
HCM Lane V/C Ratio	0.08	0.008	-	-	-
HCM Control Delay (s)	21.7	10.5	0.2	-	-
HCM Lane LOS	C	B	A	-	-
HCM 95th %tile Q(veh)	0.3	0	-	-	-

Lane Group	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	1392	1	4	1048	1	4
Future Volume (vph)	1392	1	4	1048	1	4
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750
Storage Length (ft)		175	50		0	0
Storage Lanes		1	1		1	0
Taper Length (ft)			50		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.892	
Flt Protected			0.950		0.990	
Satd. Flow (prot)	1716	1488	1662	1733	1545	0
Flt Permitted			0.950		0.990	
Satd. Flow (perm)	1716	1488	1662	1733	1545	0
Link Speed (mph)	35			45	30	
Link Distance (ft)	3346			408	349	
Travel Time (s)	65.2			6.2	7.9	
Peak Hour Factor	0.95	0.93	0.93	0.95	0.93	0.93
Heavy Vehicles (%)	2%	0%	0%	1%	0%	0%
Adj. Flow (vph)	1465	1	4	1103	1	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1465	1	4	1103	5	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	12			12	12	
Two way Left Turn Lane						
Headway Factor	1.11	1.11	1.11	1.11	1.11	1.11
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	89.5%	ICU Level of Service	E
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.1

Movement	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	1392	1	4	1048	1	4
Future Vol, veh/h	1392	1	4	1048	1	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	175	50	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	93	93	95	93	93
Heavy Vehicles, %	2	0	0	1	0	0
Mvmt Flow	1465	1	4	1103	1	4

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1466	0	2576	1465
Stage 1	-	-	-	-	1465	-
Stage 2	-	-	-	-	1111	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	467	-	29	159
Stage 1	-	-	-	-	214	-
Stage 2	-	-	-	-	318	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	467	-	29	159
Mov Cap-2 Maneuver	-	-	-	-	29	-
Stage 1	-	-	-	-	214	-
Stage 2	-	-	-	-	315	-

Approach	NB	SB	SW
HCM Control Delay, s	0	0	50.8
HCM LOS			F

Minor Lane/Major Mvmt	NBT	NBR	SBL	SBT	SWLn1
Capacity (veh/h)	-	-	467	-	84
HCM Lane V/C Ratio	-	-	0.009	-	0.064
HCM Control Delay (s)	-	-	12.8	-	50.8
HCM Lane LOS	-	-	B	-	F
HCM 95th %tile Q(veh)	-	-	0	-	0.2

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	18	1029	4	10	1367	20	23	0	5	18	2	33
Future Volume (vph)	18	1029	4	10	1367	20	23	0	5	18	2	33
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.999			0.998			0.975			0.915	
Flt Protected	0.950			0.950				0.961			0.983	
Satd. Flow (prot)	1662	3289	0	1662	3254	0	0	1640	0	0	1573	0
Flt Permitted	0.950			0.950				0.961			0.983	
Satd. Flow (perm)	1662	3289	0	1662	3254	0	0	1640	0	0	1573	0
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		1152			1486			250			266	
Travel Time (s)		17.5			22.5			5.7			6.0	
Confl. Bikes (#/hr)						4						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	1%	0%	0%	2%	0%	0%	0%	0%	0%	1%	0%
Adj. Flow (vph)	19	1083	4	11	1439	21	26	0	6	20	2	37
Shared Lane Traffic (%)												
Lane Group Flow (vph)	19	1087	0	11	1460	0	0	32	0	0	59	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		12			12			12			12	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 52.0%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	6.1

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	18	1029	4	10	1367	20	23	0	5	18	2	33
Future Vol, veh/h	18	1029	4	10	1367	20	23	0	5	18	2	33
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	90	90	90	90	90	90
Heavy Vehicles, %	0	1	0	0	2	0	0	0	0	0	1	0
Mvmt Flow	19	1083	4	11	1439	21	26	0	6	20	2	37

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1460	0	0	1087	0	0	1866	2605	544	2052	2597	730
Stage 1	-	-	-	-	-	-	1123	1123	-	1472	1472	-
Stage 2	-	-	-	-	-	-	743	1482	-	580	1125	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.52	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.52	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4.01	3.3
Pot Cap-1 Maneuver	469	-	-	649	-	-	46	25	488	33	25	369
Stage 1	-	-	-	-	-	-	223	283	-	136	191	-
Stage 2	-	-	-	-	-	-	378	191	-	472	281	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	469	-	-	649	-	-	37	24	488	31	24	369
Mov Cap-2 Maneuver	-	-	-	-	-	-	37	24	-	31	24	-
Stage 1	-	-	-	-	-	-	214	271	-	130	188	-
Stage 2	-	-	-	-	-	-	331	188	-	448	269	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	0.2	0.1	195.2	164.7
HCM LOS			F	F

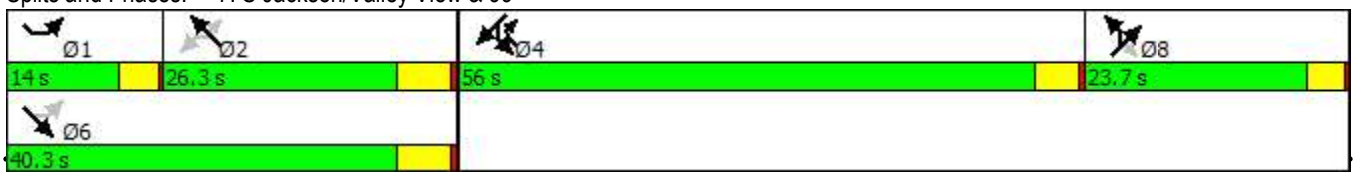
Minor Lane/Major Mvmt	NELn1	NWL	NWT	NWR	SEL	SET	SER	SWLn1
Capacity (veh/h)	44	649	-	-	469	-	-	70
HCM Lane V/C Ratio	0.707	0.016	-	-	0.04	-	-	0.841
HCM Control Delay (s)	195.2	10.6	-	-	13	-	-	164.7
HCM Lane LOS	F	B	-	-	B	-	-	F
HCM 95th %tile Q(veh)	2.7	0	-	-	0.1	-	-	4.1

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	35	396	5	40	600	782	4	10	18	637	22	107
Future Volume (vph)	35	396	5	40	600	782	4	10	18	637	22	107
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Storage Length (ft)	225		0	475		100	0		65	0		65
Storage Lanes	1		0	1		1	0		1	0		0
Taper Length (ft)	300			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						0.98						
Frt		0.998				0.850			0.850		0.981	
Flt Protected	0.950			0.950				0.987			0.960	
Satd. Flow (prot)	1599	3286	0	1630	3197	1458	0	1715	1488	0	1630	0
Flt Permitted	0.159			0.506				0.987			0.960	
Satd. Flow (perm)	268	3286	0	868	3197	1428	0	1715	1488	0	1630	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1				823			99		9	
Link Speed (mph)		45			45			30			35	
Link Distance (ft)		925			1152			271			868	
Travel Time (s)		14.0			17.5			6.2			16.9	
Confl. Bikes (#/hr)						1						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	4%	1%	0%	2%	4%	2%	0%	1%	0%	1%	0%	2%
Adj. Flow (vph)	37	417	5	42	632	823	4	11	20	708	24	119
Shared Lane Traffic (%)												
Lane Group Flow (vph)	37	422	0	42	632	823	0	15	20	0	851	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		12			12			12			12	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11
Number of Detectors	2	2		2	2	1	1	2	1	1	2	
Detector Template							Left			Left		
Leading Detector (ft)	78	323		78	323	143	20	78	143	20	78	
Trailing Detector (ft)	2	157		2	157	137	0	2	137	0	2	
Detector 1 Position(ft)	2	157		2	157	137	0	2	137	0	2	
Detector 1 Size(ft)	6	6		6	6	6	20	6	6	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)	72	317		72	317			72			72	
Detector 2 Size(ft)	6	6		6	6			6			6	
Detector 2 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Turn Type	pm+pt	NA		Perm	NA	pm+ov	Split	NA	Perm	Split	NA	

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Protected Phases	1	6			2	4	8	8		4	4	
Permitted Phases	6			2		2			8		4	
Detector Phase	1	6		2	2	4	8	8	8	4	4	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	14.0	27.4		25.0	25.0	26.5	23.7	23.7	23.7	26.5	26.5	
Total Split (s)	14.0	40.3		26.3	26.3	56.0	23.7	23.7	23.7	56.0	56.0	
Total Split (%)	11.7%	33.6%		21.9%	21.9%	46.7%	19.8%	19.8%	19.8%	46.7%	46.7%	
Maximum Green (s)	10.0	34.9		20.9	20.9	51.5	19.7	19.7	19.7	51.5	51.5	
Yellow Time (s)	3.5	4.7		4.7	4.7	4.0	3.5	3.5	3.5	4.0	4.0	
All-Red Time (s)	0.5	0.7		0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.5	
Lost Time Adjust (s)	-1.4	-1.4		-1.4	-1.4	-1.4		0.0	0.0		-0.5	
Total Lost Time (s)	2.6	4.0		4.0	4.0	3.1		4.0	4.0		4.0	
Lead/Lag	Lead			Lag	Lag							
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	
Minimum Gap (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Time Before Reduce (s)	8.0	8.0		8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	
Time To Reduce (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Recall Mode	None	Min		Min	Min	None	None	None	None	None	None	
Walk Time (s)		7.0		7.0	7.0	7.0				7.0	7.0	
Flash Dont Walk (s)		15.0		11.0	11.0	15.0				15.0	15.0	
Pedestrian Calls (#/hr)		0		0	0	0				0	0	
Act Effct Green (s)	31.7	30.3		22.6	22.6	77.3		5.2	5.2		52.8	
Actuated g/C Ratio	0.33	0.31		0.23	0.23	0.80		0.05	0.05		0.55	
v/c Ratio	0.15	0.41		0.21	0.84	0.62		0.16	0.11		0.95	
Control Delay	23.9	27.2		36.9	48.7	2.6		51.9	1.3		44.4	
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0		0.0	
Total Delay	23.9	27.2		36.9	48.7	2.6		51.9	1.3		44.4	
LOS	C	C		D	D	A		D	A		D	
Approach Delay		26.9			23.0			23.0			44.4	
Approach LOS		C			C			C			D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 96.3			
Natural Cycle: 150			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.95			
Intersection Signal Delay: 30.0		Intersection LOS: C	
Intersection Capacity Utilization 89.7%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 7: S Jackson/Valley View & 99



Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	35	396	5	40	600	782	4	10	18	637	22	107
Future Volume (vph)	35	396	5	40	600	782	4	10	18	637	22	107
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	2.6	4.0		4.0	4.0	3.1		4.0	4.0		4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00		1.00	1.00		1.00	
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.99		1.00	1.00		1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00	
Frt	1.00	1.00		1.00	1.00	0.85		1.00	0.85		0.98	
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.99	1.00		0.96	
Satd. Flow (prot)	1599	3287		1630	3197	1449		1714	1488		1630	
Flt Permitted	0.16	1.00		0.51	1.00	1.00		0.99	1.00		0.96	
Satd. Flow (perm)	267	3287		867	3197	1449		1714	1488		1630	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	37	417	5	42	632	823	4	11	20	708	24	119
RTOR Reduction (vph)	0	1	0	0	0	194	0	0	19	0	4	0
Lane Group Flow (vph)	37	421	0	42	632	629	0	15	1	0	847	0
Confl. Bikes (#/hr)						1						
Heavy Vehicles (%)	4%	1%	0%	2%	4%	2%	0%	1%	0%	1%	0%	2%
Turn Type	pm+pt	NA		Perm	NA	pm+ov	Split	NA	Perm	Split	NA	
Protected Phases	1	6			2	4	8	8		4	4	
Permitted Phases	6			2		2			8		4	
Actuated Green, G (s)	30.7	30.7		21.2	21.2	73.5		2.9	2.9		52.3	
Effective Green, g (s)	32.1	32.1		22.6	22.6	76.3		2.9	2.9		52.8	
Actuated g/C Ratio	0.32	0.32		0.23	0.23	0.76		0.03	0.03		0.53	
Clearance Time (s)	4.0	5.4		5.4	5.4	4.5		4.0	4.0		4.5	
Vehicle Extension (s)	2.5	2.5		2.5	2.5	2.5		2.5	2.5		2.5	
Lane Grp Cap (vph)	177	1057		196	723	1107		49	43		862	
v/s Ratio Prot	0.01	c0.13			c0.20	0.31		c0.01			c0.52	
v/s Ratio Perm	0.05			0.05		0.13			0.00			
v/c Ratio	0.21	0.40		0.21	0.87	0.57		0.31	0.01		0.98	
Uniform Delay, d1	24.9	26.3		31.4	37.2	4.9		47.5	47.1		23.0	
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00	
Incremental Delay, d2	0.4	0.2		0.4	11.3	0.5		2.6	0.1		26.2	
Delay (s)	25.3	26.5		31.8	48.6	5.4		50.0	47.2		49.2	
Level of Service	C	C		C	D	A		D	D		D	
Approach Delay (s)		26.4			24.4			48.4			49.2	
Approach LOS		C			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	32.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	99.8	Sum of lost time (s)	15.1
Intersection Capacity Utilization	89.7%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	143	0	66	9	0	11	67	1282	13	18	992	91
Future Volume (vph)	143	0	66	9	0	11	67	1282	13	18	992	91
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Storage Length (ft)	0		0	0		0	150		160	70		195
Storage Lanes	0		0	0		0	1		0	1		1
Taper Length (ft)	25			25			300			80		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99			0.99				0.97			0.96
Frt		0.957			0.926				0.850			0.850
Flt Protected		0.967			0.978		0.950			0.950		
Satd. Flow (prot)	0	1585	0	0	1562	0	1662	1716	1488	1662	1733	1473
Flt Permitted		0.782			0.892		0.950			0.950		
Satd. Flow (perm)	0	1282	0	0	1425	0	1662	1716	1441	1662	1733	1411
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		82			82				45			82
Link Speed (mph)		25			25			25			35	
Link Distance (ft)		1425			286			1141			3346	
Travel Time (s)		38.9			7.8			31.1			65.2	
Confl. Peds. (#/hr)			9			2			3			6
Confl. Bikes (#/hr)									3			4
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	1%	0%	0%	0%	0%	0%	0%	2%	0%	0%	1%	1%
Adj. Flow (vph)	157	0	73	10	0	12	71	1349	14	19	1044	96
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	230	0	0	22	0	71	1349	14	19	1044	96
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		12			12			12			12	
Two way Left Turn Lane								Yes				
Headway Factor	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11
Number of Detectors	1	2		1	2		2	1	1	2	1	1
Detector Template	Left			Left								
Leading Detector (ft)	20	78		20	78		78	143	143	78	143	143
Trailing Detector (ft)	0	2		0	2		2	137	137	2	137	137
Detector 1 Position(ft)	0	2		0	2		2	137	137	2	137	137
Detector 1 Size(ft)	20	6		20	6		6	6	6	6	6	6
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		72			72		72			72		
Detector 2 Size(ft)		6			6		6			6		
Detector 2 Type		Cl+Ex			Cl+Ex		Cl+Ex			Cl+Ex		
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0		0.0			0.0		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA		Perm	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases		8			8		1	6		5	2	
Permitted Phases	8			8					6			2
Detector Phase	8	8		8	8		1	6	6	5	2	2
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	24.0	24.0		24.0	24.0		22.0	22.5	22.5	13.0	22.0	22.0
Total Split (s)	24.0	24.0		24.0	24.0		22.0	83.0	83.0	13.0	74.0	74.0
Total Split (%)	20.0%	20.0%		20.0%	20.0%		18.3%	69.2%	69.2%	10.8%	61.7%	61.7%
Maximum Green (s)	20.0	20.0		20.0	20.0		18.0	79.0	79.0	9.0	70.0	70.0
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.0			4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5		2.5	4.0	4.0	2.5	4.0	4.0
Minimum Gap (s)	2.0	2.0		2.0	2.0		2.0	2.7	2.7	2.0	2.7	2.7
Time Before Reduce (s)	8.0	8.0		8.0	8.0		8.0	10.0	10.0	8.0	10.0	10.0
Time To Reduce (s)	4.0	4.0		4.0	4.0		4.0	13.0	13.0	4.0	13.0	13.0
Recall Mode	None	None		None	None		None	Min	Min	None	Min	Min
Walk Time (s)	7.0	7.0		7.0	7.0			7.0	7.0		7.0	7.0
Flash Dont Walk (s)	13.0	13.0		13.0	13.0			11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0			0	0		0	0
Act Effct Green (s)		16.9			16.9		9.6	81.5	81.5	6.4	74.4	74.4
Actuated g/C Ratio		0.15			0.15		0.09	0.74	0.74	0.06	0.67	0.67
v/c Ratio		0.87			0.08		0.49	1.07	0.01	0.20	0.90	0.10
Control Delay		60.5			0.5		61.1	64.3	0.0	56.9	29.9	2.8
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		60.5			0.5		61.1	64.3	0.0	56.9	29.9	2.8
LOS		E			A		E	E	A	E	C	A
Approach Delay		60.5			0.5			63.5			28.1	
Approach LOS		E			A			E			C	

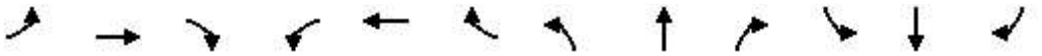
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 110.8			
Natural Cycle: 150			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.07			
Intersection Signal Delay: 48.3		Intersection LOS: D	
Intersection Capacity Utilization 99.9%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 9: Main St/Main Street & Maple St



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	143	0	66	9	0	11	67	1282	13	18	992	91
Future Volume (vph)	143	0	66	9	0	11	67	1282	13	18	992	91
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)		4.0			4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes		0.99			0.99		1.00	1.00	0.97	1.00	1.00	0.96
Flpb, ped/bikes		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.96			0.93		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.97			0.98		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1586			1563		1662	1716	1442	1662	1733	1413
Flt Permitted		0.78			0.89		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1283			1426		1662	1716	1442	1662	1733	1413
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	157	0	73	10	0	12	71	1349	14	19	1044	96
RTOR Reduction (vph)	0	70	0	0	19	0	0	0	4	0	0	27
Lane Group Flow (vph)	0	160	0	0	3	0	71	1349	10	19	1044	69
Confl. Peds. (#/hr)			9			2			3			6
Confl. Bikes (#/hr)									3			4
Heavy Vehicles (%)	1%	0%	0%	0%	0%	0%	0%	2%	0%	0%	1%	1%
Turn Type	Perm	NA		Perm	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases		8			8		1	6		5	2	
Permitted Phases	8			8					6			2
Actuated Green, G (s)		16.9			16.9		8.4	81.5	81.5	2.9	76.0	76.0
Effective Green, g (s)		16.9			16.9		8.4	81.5	81.5	2.9	76.0	76.0
Actuated g/C Ratio		0.15			0.15		0.07	0.72	0.72	0.03	0.67	0.67
Clearance Time (s)		4.0			4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)		2.5			2.5		2.5	4.0	4.0	2.5	4.0	4.0
Lane Grp Cap (vph)		191			212		123	1234	1037	42	1162	947
v/s Ratio Prot							c0.04	c0.79		0.01	0.60	
v/s Ratio Perm		c0.12			0.00				0.01			0.05
v/c Ratio		0.84			0.02		0.58	1.09	0.01	0.45	0.90	0.07
Uniform Delay, d1		46.9			41.1		50.7	15.9	4.5	54.4	15.5	6.5
Progression Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		25.8			0.0		5.3	55.0	0.0	5.5	9.6	0.0
Delay (s)		72.7			41.1		56.0	70.9	4.5	60.0	25.0	6.5
Level of Service		E			D		E	E	A	E	C	A
Approach Delay (s)		72.7			41.1			69.5			24.1	
Approach LOS		E			D			E			C	

Intersection Summary			
HCM 2000 Control Delay	51.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.04		
Actuated Cycle Length (s)	113.3	Sum of lost time (s)	12.0
Intersection Capacity Utilization	99.9%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	4	44	5	2	133	56	1031	7	94	910	29
Future Volume (vph)	9	4	44	5	2	133	56	1031	7	94	910	29
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			90			90		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.895			0.871			0.999			0.995	
Flt Protected		0.992			0.998		0.950			0.950		
Satd. Flow (prot)	0	1551	0	0	1521	0	1662	1698	0	1662	1722	0
Flt Permitted		0.992			0.998		0.950			0.950		
Satd. Flow (perm)	0	1551	0	0	1521	0	1662	1698	0	1662	1722	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		645			338			608			1141	
Travel Time (s)		17.6			9.2			16.6			31.1	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	1%	0%	0%	0%	0%	0%	0%	3%	0%	0%	1%	4%
Adj. Flow (vph)	10	4	48	5	2	146	59	1085	7	99	958	31
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	62	0	0	153	0	59	1092	0	99	989	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		12			12			12			12	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 85.0%		ICU Level of Service E	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	24.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	4	44	5	2	133	56	1031	7	94	910	29
Future Vol, veh/h	9	4	44	5	2	133	56	1031	7	94	910	29
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	95	95	95	95	95	95
Heavy Vehicles, %	1	0	0	0	0	0	0	3	0	0	1	4
Mvmt Flow	10	4	48	5	2	146	59	1085	7	99	958	31

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2453	2382	974	2405	2394	1089	989	0	0	1092	0	0
Stage 1	1172	1172	-	1207	1207	-	-	-	-	-	-	-
Stage 2	1281	1210	-	1198	1187	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.11	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	21	35	308	23	34	264	707	-	-	647	-	-
Stage 1	235	269	-	226	259	-	-	-	-	-	-	-
Stage 2	204	258	-	229	264	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	~ 7	27	308	14	26	264	707	-	-	647	-	-
Mov Cap-2 Maneuver	~ 7	27	-	14	26	-	-	-	-	-	-	-
Stage 1	215	228	-	207	238	-	-	-	-	-	-	-
Stage 2	83	237	-	160	224	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	$ 597.1	142.7	0.5	1.1
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	707	-	-	36	149	647	-	-
HCM Lane V/C Ratio	0.083	-	-	1.74	1.033	0.153	-	-
HCM Control Delay (s)	10.6	-	-	-$ 597.1	142.7	11.6	-	-
HCM Lane LOS	B	-	-	F	F	B	-	-
HCM 95th %tile Q(veh)	0.3	-	-	6.8	7.9	0.5	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	1425	1	5	1067	1	5
Future Volume (vph)	1425	1	5	1067	1	5
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750
Storage Length (ft)		175	50		0	0
Storage Lanes		1	1		1	0
Taper Length (ft)			50		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.884	
Flt Protected			0.950		0.993	
Satd. Flow (prot)	1716	1488	1662	1733	1536	0
Flt Permitted			0.950		0.993	
Satd. Flow (perm)	1716	1488	1662	1733	1536	0
Link Speed (mph)	35			45	30	
Link Distance (ft)	3335			408	349	
Travel Time (s)	65.0			6.2	7.9	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.90	0.90
Heavy Vehicles (%)	2%	0%	0%	1%	0%	0%
Adj. Flow (vph)	1500	1	5	1123	1	6
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1500	1	5	1123	7	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	12			12	12	
Two way Left Turn Lane						
Headway Factor	1.11	1.11	1.11	1.11	1.11	1.11
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	91.4%	ICU Level of Service	F
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.2

Movement	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	1425	1	5	1067	1	5
Future Vol, veh/h	1425	1	5	1067	1	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	175	50	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	90	90
Heavy Vehicles, %	2	0	0	1	0	0
Mvmt Flow	1500	1	5	1123	1	6

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1501	0	2633	1500
Stage 1	-	-	-	-	1500	-
Stage 2	-	-	-	-	1133	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	452	-	26	152
Stage 1	-	-	-	-	206	-
Stage 2	-	-	-	-	310	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	452	-	26	152
Mov Cap-2 Maneuver	-	-	-	-	26	-
Stage 1	-	-	-	-	206	-
Stage 2	-	-	-	-	307	-

Approach	NB	SB	SW
HCM Control Delay, s	0	0.1	51.5
HCM LOS			F

Minor Lane/Major Mvmt	NBT	NBR	SBL	SBT	SWLn1
Capacity (veh/h)	-	-	452	-	84
HCM Lane V/C Ratio	-	-	0.012	-	0.079
HCM Control Delay (s)	-	-	13.1	-	51.5
HCM Lane LOS	-	-	B	-	F
HCM 95th %tile Q(veh)	-	-	0	-	0.3

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	18	1071	4	10	1396	21	23	0	5	19	2	33
Future Volume (vph)	18	1071	4	10	1396	21	23	0	5	19	2	33
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Storage Length (ft)	100		0	100		0	0		0	0		25
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.999			0.998			0.977			0.917	
Flt Protected	0.950			0.950				0.960			0.983	
Satd. Flow (prot)	1662	3289	0	1662	3254	0	0	1641	0	0	1577	0
Flt Permitted	0.950			0.950				0.960			0.983	
Satd. Flow (perm)	1662	3289	0	1662	3254	0	0	1641	0	0	1577	0
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		1152			1081			179			224	
Travel Time (s)		17.5			16.4			4.1			5.1	
Confl. Bikes (#/hr)						4						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	1%	0%	0%	2%	0%	0%	0%	0%	0%	1%	0%
Adj. Flow (vph)	19	1127	4	11	1469	22	24	0	5	20	2	35
Shared Lane Traffic (%)												
Lane Group Flow (vph)	19	1131	0	11	1491	0	0	29	0	0	57	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	1 veh	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		12			12			12			12	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 52.9%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	6.6

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	18	1071	4	10	1396	21	23	0	5	19	2	33
Future Vol, veh/h	18	1071	4	10	1396	21	23	0	5	19	2	33
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	1	0	0	2	0	0	0	0	0	1	0
Mvmt Flow	19	1127	4	11	1469	22	24	0	5	20	2	35

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1491	0	0	1131	0	0	1925	2680	566	2104	2671	746
Stage 1	-	-	-	-	-	-	1167	1167	-	1502	1502	-
Stage 2	-	-	-	-	-	-	758	1513	-	602	1169	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.52	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.52	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4.01	3.3
Pot Cap-1 Maneuver	456	-	-	625	-	-	41	22	473	30	22	360
Stage 1	-	-	-	-	-	-	209	270	-	130	185	-
Stage 2	-	-	-	-	-	-	370	184	-	458	267	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	456	-	-	625	-	-	33	21	473	28	21	360
Mov Cap-2 Maneuver	-	-	-	-	-	-	33	21	-	28	21	-
Stage 1	-	-	-	-	-	-	200	259	-	125	182	-
Stage 2	-	-	-	-	-	-	325	181	-	434	256	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	0.2	0.1	218.4	200.2
HCM LOS			F	F

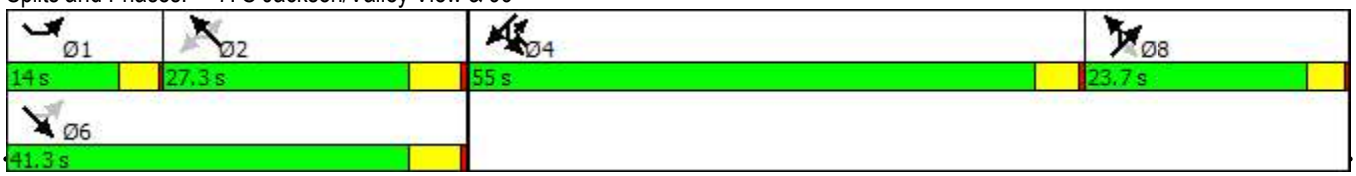
Minor Lane/Major Mvmt	NELn1	NWL	NWT	NWR	SEL	SET	SER	SWLn1
Capacity (veh/h)	40	625	-	-	456	-	-	62
HCM Lane V/C Ratio	0.737	0.017	-	-	0.042	-	-	0.917
HCM Control Delay (s)	218.4	10.9	-	-	13.2	-	-	200.2
HCM Lane LOS	F	B	-	-	B	-	-	F
HCM 95th %tile Q(veh)	2.7	0.1	-	-	0.1	-	-	4.3

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	35	417	5	40	629	783	4	10	18	658	22	107
Future Volume (vph)	35	417	5	40	629	783	4	10	18	658	22	107
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Storage Length (ft)	225		0	475		100	0		65	0		65
Storage Lanes	1		0	1		1	0		1	0		0
Taper Length (ft)	300			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						0.98						
Frt		0.998				0.850			0.850		0.981	
Flt Protected	0.950			0.950				0.987			0.960	
Satd. Flow (prot)	1599	3286	0	1630	3197	1458	0	1715	1488	0	1630	0
Flt Permitted	0.153			0.495				0.987			0.960	
Satd. Flow (perm)	257	3286	0	849	3197	1428	0	1715	1488	0	1630	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1				824			99		9	
Link Speed (mph)		45			45			30			35	
Link Distance (ft)		929			1152			271			868	
Travel Time (s)		14.1			17.5			6.2			16.9	
Confl. Bikes (#/hr)						1						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.90	0.90	0.90	0.95	0.90	0.90
Heavy Vehicles (%)	4%	1%	0%	2%	4%	2%	0%	1%	0%	1%	0%	2%
Adj. Flow (vph)	37	439	5	42	662	824	4	11	20	693	24	119
Shared Lane Traffic (%)												
Lane Group Flow (vph)	37	444	0	42	662	824	0	15	20	0	836	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		12			12			12			12	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11
Number of Detectors	2	2		2	2	1	1	2	1	1	2	
Detector Template							Left			Left		
Leading Detector (ft)	78	323		78	323	143	20	78	143	20	78	
Trailing Detector (ft)	2	157		2	157	137	0	2	137	0	2	
Detector 1 Position(ft)	2	157		2	157	137	0	2	137	0	2	
Detector 1 Size(ft)	6	6		6	6	6	20	6	6	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)	72	317		72	317			72			72	
Detector 2 Size(ft)	6	6		6	6			6			6	
Detector 2 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Turn Type	pm+pt	NA		Perm	NA	pm+ov	Split	NA	Perm	Split	NA	

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Protected Phases	1	6			2	4	8	8		4	4	
Permitted Phases	6			2		2			8		4	
Detector Phase	1	6		2	2	4	8	8	8	4	4	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	14.0	27.4		25.0	25.0	26.5	23.7	23.7	23.7	26.5	26.5	
Total Split (s)	14.0	41.3		27.3	27.3	55.0	23.7	23.7	23.7	55.0	55.0	
Total Split (%)	11.7%	34.4%		22.8%	22.8%	45.8%	19.8%	19.8%	19.8%	45.8%	45.8%	
Maximum Green (s)	10.0	35.9		21.9	21.9	50.5	19.7	19.7	19.7	50.5	50.5	
Yellow Time (s)	3.5	4.7		4.7	4.7	4.0	3.5	3.5	3.5	4.0	4.0	
All-Red Time (s)	0.5	0.7		0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.5	
Lost Time Adjust (s)	-1.4	-1.4		-1.4	-1.4	-1.4		0.0	0.0		-0.5	
Total Lost Time (s)	2.6	4.0		4.0	4.0	3.1		4.0	4.0		4.0	
Lead/Lag	Lead			Lag	Lag							
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	
Minimum Gap (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Time Before Reduce (s)	8.0	8.0		8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	
Time To Reduce (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Recall Mode	None	Min		Min	Min	None	None	None	None	None	None	
Walk Time (s)		7.0		7.0	7.0	7.0				7.0	7.0	
Flash Dont Walk (s)		15.0		11.0	11.0	15.0				15.0	15.0	
Pedestrian Calls (#/hr)		0		0	0	0				0	0	
Act Effct Green (s)	32.7	31.3		23.7	23.7	77.3		5.2	5.2		51.8	
Actuated g/C Ratio	0.34	0.33		0.25	0.25	0.80		0.05	0.05		0.54	
v/c Ratio	0.15	0.42		0.20	0.84	0.62		0.16	0.11		0.95	
Control Delay	23.2	26.6		36.0	47.8	2.6		51.9	1.3		45.4	
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0		0.0	
Total Delay	23.2	26.6		36.0	47.8	2.6		51.9	1.3		45.4	
LOS	C	C		D	D	A		D	A		D	
Approach Delay		26.4			23.1			23.0			45.4	
Approach LOS		C			C			C			D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 96.3			
Natural Cycle: 150			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.95			
Intersection Signal Delay: 30.1		Intersection LOS: C	
Intersection Capacity Utilization 91.8%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 7: S Jackson/Valley View & 99



Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	35	417	5	40	629	783	4	10	18	658	22	107
Future Volume (vph)	35	417	5	40	629	783	4	10	18	658	22	107
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	2.6	4.0		4.0	4.0	3.1		4.0	4.0		4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00		1.00	1.00		1.00	
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.99		1.00	1.00		1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00	
Frt	1.00	1.00		1.00	1.00	0.85		1.00	0.85		0.98	
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.99	1.00		0.96	
Satd. Flow (prot)	1599	3287		1630	3197	1449		1714	1488		1630	
Flt Permitted	0.15	1.00		0.49	1.00	1.00		0.99	1.00		0.96	
Satd. Flow (perm)	257	3287		849	3197	1449		1714	1488		1630	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.90	0.90	0.90	0.95	0.90	0.90
Adj. Flow (vph)	37	439	5	42	662	824	4	11	20	693	24	119
RTOR Reduction (vph)	0	1	0	0	0	194	0	0	19	0	4	0
Lane Group Flow (vph)	37	443	0	42	662	630	0	15	1	0	832	0
Confl. Bikes (#/hr)						1						
Heavy Vehicles (%)	4%	1%	0%	2%	4%	2%	0%	1%	0%	1%	0%	2%
Turn Type	pm+pt	NA		Perm	NA	pm+ov	Split	NA	Perm	Split	NA	
Protected Phases	1	6			2	4	8	8		4	4	
Permitted Phases	6			2		2			8		4	
Actuated Green, G (s)	31.7	31.7		22.2	22.2	73.5		2.9	2.9		51.3	
Effective Green, g (s)	33.1	33.1		23.6	23.6	76.3		2.9	2.9		51.8	
Actuated g/C Ratio	0.33	0.33		0.24	0.24	0.76		0.03	0.03		0.52	
Clearance Time (s)	4.0	5.4		5.4	5.4	4.5		4.0	4.0		4.5	
Vehicle Extension (s)	2.5	2.5		2.5	2.5	2.5		2.5	2.5		2.5	
Lane Grp Cap (vph)	178	1090		200	756	1107		49	43		846	
v/s Ratio Prot	0.01	c0.13			c0.21	0.30		c0.01			c0.51	
v/s Ratio Perm	0.05			0.05		0.13			0.00			
v/c Ratio	0.21	0.41		0.21	0.88	0.57		0.31	0.01		0.98	
Uniform Delay, d1	24.3	25.8		30.6	36.7	4.9		47.5	47.1		23.6	
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00	
Incremental Delay, d2	0.4	0.2		0.4	11.0	0.5		2.6	0.1		26.6	
Delay (s)	24.7	25.9		31.0	47.7	5.4		50.0	47.2		50.2	
Level of Service	C	C		C	D	A		D	D		D	
Approach Delay (s)		25.9			24.5			48.4			50.2	
Approach LOS		C			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	32.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	99.8	Sum of lost time (s)	15.1
Intersection Capacity Utilization	91.8%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	153	0	66	9	0	12	67	1305	13	18	1007	94
Future Volume (vph)	153	0	66	9	0	12	67	1305	13	18	1007	94
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Storage Length (ft)	0		0	0		0	150		160	70		195
Storage Lanes	0		0	0		0	1		0	1		1
Taper Length (ft)	25			25			300			80		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99			0.98				0.97			0.96
Frt		0.959			0.920				0.850			0.850
Flt Protected		0.966			0.980		0.950			0.950		
Satd. Flow (prot)	0	1587	0	0	1554	0	1662	1716	1488	1662	1733	1473
Flt Permitted		0.778			0.908		0.115			0.950		
Satd. Flow (perm)	0	1279	0	0	1440	0	201	1716	1441	1662	1733	1411
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		82			82				45			82
Link Speed (mph)		25			25			25			35	
Link Distance (ft)		1425			286			1149			3335	
Travel Time (s)		38.9			7.8			31.3			65.0	
Confl. Peds. (#/hr)			9			2			3			6
Confl. Bikes (#/hr)									3			4
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	1%	0%	0%	0%	0%	0%	0%	2%	0%	0%	1%	1%
Adj. Flow (vph)	161	0	69	9	0	13	71	1374	14	19	1060	99
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	230	0	0	22	0	71	1374	14	19	1060	99
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		12			12			12			12	
Two way Left Turn Lane								Yes				
Headway Factor	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11
Number of Detectors	1	2		1	2		2	1	1	2	1	1
Detector Template	Left			Left								
Leading Detector (ft)	20	78		20	78		78	143	143	78	143	143
Trailing Detector (ft)	0	2		0	2		2	137	137	2	137	137
Detector 1 Position(ft)	0	2		0	2		2	137	137	2	137	137
Detector 1 Size(ft)	20	6		20	6		6	6	6	6	6	6
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		72			72		72			72		
Detector 2 Size(ft)		6			6		6			6		
Detector 2 Type		Cl+Ex			Cl+Ex		Cl+Ex			Cl+Ex		
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0		0.0			0.0		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	Prot	NA	Perm
Protected Phases		8			8		1	6		5	2	
Permitted Phases	8			8			6		6			2
Detector Phase	8	8		8	8		1	6	6	5	2	2
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	24.0	24.0		24.0	24.0		22.0	22.5	22.5	13.0	22.0	22.0
Total Split (s)	24.0	24.0		24.0	24.0		22.0	83.0	83.0	13.0	74.0	74.0
Total Split (%)	20.0%	20.0%		20.0%	20.0%		18.3%	69.2%	69.2%	10.8%	61.7%	61.7%
Maximum Green (s)	20.0	20.0		20.0	20.0		18.0	79.0	79.0	9.0	70.0	70.0
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.0			4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5		2.5	4.0	4.0	2.5	4.0	4.0
Minimum Gap (s)	2.0	2.0		2.0	2.0		2.0	2.7	2.7	2.0	2.7	2.7
Time Before Reduce (s)	8.0	8.0		8.0	8.0		8.0	10.0	10.0	8.0	10.0	10.0
Time To Reduce (s)	4.0	4.0		4.0	4.0		4.0	13.0	13.0	4.0	13.0	13.0
Recall Mode	None	None		None	None		None	Min	Min	None	Min	Min
Walk Time (s)	7.0	7.0		7.0	7.0			7.0	7.0		7.0	7.0
Flash Dont Walk (s)	13.0	13.0		13.0	13.0			11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0			0	0		0	0
Act Effct Green (s)		16.8			16.8		83.5	80.4	80.4	6.4	76.0	76.0
Actuated g/C Ratio		0.15			0.15		0.76	0.73	0.73	0.06	0.69	0.69
v/c Ratio		0.87			0.08		0.29	1.09	0.01	0.20	0.88	0.10
Control Delay		59.6			0.5		6.6	72.8	0.0	56.5	26.1	2.5
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		59.6			0.5		6.6	72.8	0.0	56.5	26.1	2.5
LOS		E			A		A	E	A	E	C	A
Approach Delay		59.6			0.5			68.9			24.6	
Approach LOS		E			A			E			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 109.6			
Natural Cycle: 150			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.09			
Intersection Signal Delay: 49.6		Intersection LOS: D	
Intersection Capacity Utilization 101.8%		ICU Level of Service G	
Analysis Period (min) 15			

Splits and Phases: 9: Main St/Main Street & Maple St



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	153	0	66	9	0	12	67	1305	13	18	1007	94
Future Volume (vph)	153	0	66	9	0	12	67	1305	13	18	1007	94
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)		4.0			4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes		0.99			0.98		1.00	1.00	0.97	1.00	1.00	0.96
Flpb, ped/bikes		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.96			0.92		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.97			0.98		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1589			1554		1662	1716	1442	1662	1733	1413
Flt Permitted		0.78			0.91		0.11	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1280			1440		201	1716	1442	1662	1733	1413
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	161	0	69	9	0	13	71	1374	14	19	1060	99
RTOR Reduction (vph)	0	70	0	0	19	0	0	0	4	0	0	25
Lane Group Flow (vph)	0	160	0	0	3	0	71	1374	10	19	1060	74
Confl. Peds. (#/hr)			9			2			3			6
Confl. Bikes (#/hr)									3			4
Heavy Vehicles (%)	1%	0%	0%	0%	0%	0%	0%	2%	0%	0%	1%	1%
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	Prot	NA	Perm
Protected Phases		8			8		1	6		5	2	
Permitted Phases	8			8			6		6			2
Actuated Green, G (s)		16.8			16.8		86.0	80.4	80.4	2.9	77.7	77.7
Effective Green, g (s)		16.8			16.8		86.0	80.4	80.4	2.9	77.7	77.7
Actuated g/C Ratio		0.15			0.15		0.77	0.72	0.72	0.03	0.69	0.69
Clearance Time (s)		4.0			4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)		2.5			2.5		2.5	4.0	4.0	2.5	4.0	4.0
Lane Grp Cap (vph)		191			215		227	1230	1034	42	1201	979
v/s Ratio Prot							c0.02	c0.80		0.01	0.61	
v/s Ratio Perm		c0.13			0.00		0.22		0.01			0.05
v/c Ratio		0.84			0.02		0.31	1.12	0.01	0.45	0.88	0.08
Uniform Delay, d1		46.3			40.6		15.1	15.8	4.5	53.8	13.6	5.6
Progression Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		25.9			0.0		0.6	64.2	0.0	5.5	8.1	0.0
Delay (s)		72.2			40.6		15.7	80.0	4.5	59.4	21.7	5.6
Level of Service		E			D		B	F	A	E	C	A
Approach Delay (s)		72.2			40.6			76.1			21.0	
Approach LOS		E			D			E			C	

Intersection Summary			
HCM 2000 Control Delay	53.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.05		
Actuated Cycle Length (s)	112.1	Sum of lost time (s)	12.0
Intersection Capacity Utilization	101.8%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBR	SET	SER	NWL	NWT
Lane Configurations						
Traffic Volume (vph)	18	16	1056	54	29	1401
Future Volume (vph)	18	16	1056	54	29	1401
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750
Storage Length (ft)	75	0		0	125	
Storage Lanes	1	1		0	0	
Taper Length (ft)	25				50	
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95
Frt		0.850	0.993			
Flt Protected	0.950					0.999
Satd. Flow (prot)	1646	1473	1721	0	0	3289
Flt Permitted	0.950					0.999
Satd. Flow (perm)	1646	1473	1721	0	0	3289
Link Speed (mph)	30		25			45
Link Distance (ft)	194		599			512
Travel Time (s)	4.4		16.3			7.8
Peak Hour Factor	0.85	0.85	0.95	0.95	0.95	0.95
Adj. Flow (vph)	21	19	1112	57	31	1475
Shared Lane Traffic (%)						
Lane Group Flow (vph)	21	19	1169	0	0	1506
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	12		12			12
Two way Left Turn Lane						
Headway Factor	1.11	1.11	1.11	1.11	1.11	1.11
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 74.5%		ICU Level of Service D	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBR	SET	SER	NWL	NWT
Lane Configurations						
Traffic Vol, veh/h	18	16	1056	54	29	1401
Future Vol, veh/h	18	16	1056	54	29	1401
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	75	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	85	85	95	95	95	95
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	21	19	1112	57	31	1475

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1941	1141	0	0	1169	0
Stage 1	1141	-	-	-	-	-
Stage 2	800	-	-	-	-	-
Critical Hdwy	6.615	6.215	-	-	4.115	-
Critical Hdwy Stg 1	5.415	-	-	-	-	-
Critical Hdwy Stg 2	5.815	-	-	-	-	-
Follow-up Hdwy	3.5095	3.3095	-	-	2.2095	-
Pot Cap-1 Maneuver	65	245	-	-	600	-
Stage 1	306	-	-	-	-	-
Stage 2	406	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	46	245	-	-	600	-
Mov Cap-2 Maneuver	46	-	-	-	-	-
Stage 1	306	-	-	-	-	-
Stage 2	290	-	-	-	-	-

Approach	EB	SE	NW
HCM Control Delay, s	82.8	0	1.8
HCM LOS	F		

Minor Lane/Major Mvmt	NWL	NWT	EBLn1	EBLn2	SET	SER
Capacity (veh/h)	600	-	46	245	-	-
HCM Lane V/C Ratio	0.051	-	0.46	0.077	-	-
HCM Control Delay (s)	11.3	1.6	137.8	20.9	-	-
HCM Lane LOS	B	A	F	C	-	-
HCM 95th %tile Q(veh)	0.2	-	1.7	0.2	-	-



Lane Group	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	1075	20	5	1414	12	4
Future Volume (vph)	1075	20	5	1414	12	4
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Frt	0.997				0.964	
Flt Protected					0.964	
Satd. Flow (prot)	3282	0	0	3292	1610	0
Flt Permitted					0.964	
Satd. Flow (perm)	3282	0	0	3292	1610	0
Link Speed (mph)	25			45	30	
Link Distance (ft)	1081			405	441	
Travel Time (s)	29.5			6.1	10.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.85	0.85
Adj. Flow (vph)	1132	21	5	1488	14	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1153	0	0	1493	19	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	12			12	12	
Two way Left Turn Lane	Yes			Yes		
Headway Factor	1.11	1.11	1.11	1.11	1.11	1.11
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 56.2%		ICU Level of Service B	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.3

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	1075	20	5	1414	12	4
Future Vol, veh/h	1075	20	5	1414	12	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	85	85
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	1132	21	5	1488	14	5

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1153	0	1897	577
Stage 1	-	-	-	-	1143	-
Stage 2	-	-	-	-	754	-
Critical Hdwy	-	-	4.12	-	6.82	6.92
Critical Hdwy Stg 1	-	-	-	-	5.82	-
Critical Hdwy Stg 2	-	-	-	-	5.82	-
Follow-up Hdwy	-	-	2.21	-	3.51	3.31
Pot Cap-1 Maneuver	-	-	607	-	62	462
Stage 1	-	-	-	-	268	-
Stage 2	-	-	-	-	428	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	607	-	59	462
Mov Cap-2 Maneuver	-	-	-	-	173	-
Stage 1	-	-	-	-	268	-
Stage 2	-	-	-	-	407	-

Approach	SE	NW	NE
HCM Control Delay, s	0	0.3	24.3
HCM LOS			C

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	205	607	-	-	-
HCM Lane V/C Ratio	0.092	0.009	-	-	-
HCM Control Delay (s)	24.3	11	0.3	-	-
HCM Lane LOS	C	B	A	-	-
HCM 95th %tile Q(veh)	0.3	0	-	-	-

Appendix G

QUEUEING ANALYSIS OUTPUT

160 Madison Suite A Eugene, Oregon 97402 541.513.3376

SANDOW ENGINEERING

Intersection: 3: Main Street & Jackson Road, Interval #1

Movement	SW
Directions Served	LR
Maximum Queue (ft)	18
Average Queue (ft)	4
95th Queue (ft)	21
Link Distance (ft)	302
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 3: Main Street & Jackson Road, Interval #2

Movement	SW
Directions Served	LR
Maximum Queue (ft)	12
Average Queue (ft)	2
95th Queue (ft)	14
Link Distance (ft)	302
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 3: Main Street & Jackson Road, All Intervals

Movement	SW
Directions Served	LR
Maximum Queue (ft)	23
Average Queue (ft)	2
95th Queue (ft)	16
Link Distance (ft)	302
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 4: 99 & Jackson Rd., Interval #1

Movement	SE	NW	NE	SW
Directions Served	L	L	LTR	LTR
Maximum Queue (ft)	43	16	35	99
Average Queue (ft)	12	2	7	52
95th Queue (ft)	41	14	30	107
Link Distance (ft)			207	224
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	100	100		
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: 99 & Jackson Rd., Interval #2

Movement	SE	NW	NE	SW
Directions Served	L	L	LTR	LTR
Maximum Queue (ft)	44	22	39	74
Average Queue (ft)	15	4	5	38
95th Queue (ft)	41	18	26	64
Link Distance (ft)			207	224
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	100	100		
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: 99 & Jackson Rd., All Intervals

Movement	SE	NW	NE	SW
Directions Served	L	L	LTR	LTR
Maximum Queue (ft)	52	27	43	104
Average Queue (ft)	14	3	6	41
95th Queue (ft)	42	17	27	78
Link Distance (ft)			207	224
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	100	100		
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: S Jackson/Valley View & 99, Interval #1

Movement	SE	SE	SE	NW	NW	NW	NW	NE	NE	SW
Directions Served	L	T	TR	L	T	T	R	LT	R	LTR
Maximum Queue (ft)	101	182	131	13	66	66	78	24	24	218
Average Queue (ft)	53	113	84	3	38	34	38	5	5	154
95th Queue (ft)	96	188	142	16	76	69	77	22	24	230
Link Distance (ft)		900	900		1092	1092		228		789
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	225			475			100		65	
Storage Blk Time (%)		0					0			
Queuing Penalty (veh)		0					0			

Intersection: 7: S Jackson/Valley View & 99, Interval #2

Movement	SE	SE	SE	NW	NW	NW	NW	NE	NE	SW
Directions Served	L	T	TR	L	T	T	R	LT	R	LTR
Maximum Queue (ft)	121	167	164	21	91	117	120	30	29	246
Average Queue (ft)	53	96	69	4	44	40	44	3	6	159
95th Queue (ft)	98	155	130	19	81	82	96	16	25	231
Link Distance (ft)		900	900		1092	1092		228		789
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	225			475			100		65	
Storage Blk Time (%)						0	0			
Queuing Penalty (veh)						1	0			

Intersection: 7: S Jackson/Valley View & 99, All Intervals

Movement	SE	SE	SE	NW	NW	NW	NW	NE	NE	SW
Directions Served	L	T	TR	L	T	T	R	LT	R	LTR
Maximum Queue (ft)	125	190	164	26	95	117	120	30	30	252
Average Queue (ft)	53	100	72	4	42	38	43	3	6	158
95th Queue (ft)	97	164	134	18	80	79	92	18	24	231
Link Distance (ft)		900	900		1092	1092		228		789
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	225			475			100		65	
Storage Blk Time (%)		0				0	0			
Queuing Penalty (veh)		0				1	0			

Intersection: 9: Main St/Main Street & Maple St, Interval #1

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	R	L	T	R
Maximum Queue (ft)	83	18	64	150	6	23	406	142
Average Queue (ft)	58	4	28	95	1	5	211	26
95th Queue (ft)	92	19	64	161	8	21	414	106
Link Distance (ft)	1372	242		1078	1078		3290	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			150			70		195
Storage Blk Time (%)				1			22	
Queuing Penalty (veh)				0			24	

Intersection: 9: Main St/Main Street & Maple St, Interval #2

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	R	L	T	R
Maximum Queue (ft)	123	18	60	245	24	23	395	245
Average Queue (ft)	51	3	26	104	1	3	172	33
95th Queue (ft)	98	16	54	196	10	15	326	130
Link Distance (ft)	1372	242		1078	1078		3290	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			150			70		195
Storage Blk Time (%)				2			19	
Queuing Penalty (veh)				1			20	

Intersection: 9: Main St/Main Street & Maple St, All Intervals

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	R	L	T	R
Maximum Queue (ft)	123	22	73	245	24	23	452	292
Average Queue (ft)	53	4	27	102	1	4	181	31
95th Queue (ft)	98	17	57	188	10	17	351	125
Link Distance (ft)	1372	242		1078	1078		3290	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			150			70		195
Storage Blk Time (%)				2			19	
Queuing Penalty (veh)				1			21	

Intersection: 3: Main Street & Jackson Road, Interval #1

Movement	SB	SW
Directions Served	L	LR
Maximum Queue (ft)	12	22
Average Queue (ft)	2	2
95th Queue (ft)	13	14
Link Distance (ft)		302
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	50	
Storage Blk Time (%)	0	
Queuing Penalty (veh)	0	

Intersection: 3: Main Street & Jackson Road, Interval #2

Movement	SB	SW
Directions Served	L	LR
Maximum Queue (ft)	25	25
Average Queue (ft)	3	3
95th Queue (ft)	16	17
Link Distance (ft)		302
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	50	
Storage Blk Time (%)	0	
Queuing Penalty (veh)	0	

Intersection: 3: Main Street & Jackson Road, All Intervals

Movement	SB	SW
Directions Served	L	LR
Maximum Queue (ft)	25	26
Average Queue (ft)	2	2
95th Queue (ft)	16	16
Link Distance (ft)		302
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	50	
Storage Blk Time (%)	0	
Queuing Penalty (veh)	0	

Intersection: 4: 99 & Jackson Rd., Interval #1

Movement	SE	NW	NE	SW
Directions Served	L	L	LTR	LTR
Maximum Queue (ft)	32	22	50	50
Average Queue (ft)	11	5	20	31
95th Queue (ft)	35	23	57	61
Link Distance (ft)			207	224
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	100	100		
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: 99 & Jackson Rd., Interval #2

Movement	SE	NW	NE	SW
Directions Served	L	L	LTR	LTR
Maximum Queue (ft)	41	35	54	76
Average Queue (ft)	8	5	20	33
95th Queue (ft)	31	25	50	65
Link Distance (ft)			207	224
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	100	100		
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: 99 & Jackson Rd., All Intervals

Movement	SE	NW	NE	SW
Directions Served	L	L	LTR	LTR
Maximum Queue (ft)	41	35	65	76
Average Queue (ft)	9	5	20	33
95th Queue (ft)	32	24	52	64
Link Distance (ft)			207	224
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	100	100		
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: S Jackson/Valley View & 99, Interval #1

Movement	SE	SE	SE	NW	NW	NW	NW	NE	NE	SW
Directions Served	L	T	TR	L	T	T	R	LT	R	LTR
Maximum Queue (ft)	52	160	122	68	221	269	124	38	48	282
Average Queue (ft)	33	105	57	28	139	138	88	16	16	216
95th Queue (ft)	65	171	121	67	240	275	158	44	49	296
Link Distance (ft)		900	900		1092	1092		228		789
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	225			475			100		65	
Storage Blk Time (%)		0				11	2	0	0	
Queuing Penalty (veh)		0				77	6	0	0	

Intersection: 7: S Jackson/Valley View & 99, Interval #2

Movement	SE	SE	SE	NW	NW	NW	NW	NE	NE	SW
Directions Served	L	T	TR	L	T	T	R	LT	R	LTR
Maximum Queue (ft)	57	159	116	81	217	292	125	53	44	306
Average Queue (ft)	21	87	41	24	98	114	78	14	13	192
95th Queue (ft)	53	147	95	61	177	243	149	46	41	286
Link Distance (ft)		900	900		1092	1092		228		789
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	225			475			100		65	
Storage Blk Time (%)						6	1	0	0	
Queuing Penalty (veh)						38	3	0	0	

Intersection: 7: S Jackson/Valley View & 99, All Intervals

Movement	SE	SE	SE	NW	NW	NW	NW	NE	NE	SW
Directions Served	L	T	TR	L	T	T	R	LT	R	LTR
Maximum Queue (ft)	63	169	135	83	258	324	125	53	57	312
Average Queue (ft)	24	91	45	25	108	120	80	15	14	198
95th Queue (ft)	57	154	102	63	197	252	151	46	43	290
Link Distance (ft)		900	900		1092	1092		228		789
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	225			475			100		65	
Storage Blk Time (%)		0				7	1	0	0	
Queuing Penalty (veh)		0				47	4	0	0	

Intersection: 9: Main St/Main Street & Maple St, Interval #1

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	R	L	T	R
Maximum Queue (ft)	209	43	297	891	365	99	452	292
Average Queue (ft)	118	15	78	562	71	28	270	67
95th Queue (ft)	204	42	269	958	386	104	458	238
Link Distance (ft)	1372	242		1078	1078		3290	
Upstream Blk Time (%)				0				
Queuing Penalty (veh)				0				
Storage Bay Dist (ft)			150			70		195
Storage Blk Time (%)				22		1	22	
Queuing Penalty (veh)				14		10	22	

Intersection: 9: Main St/Main Street & Maple St, Interval #2

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	R	L	T	R
Maximum Queue (ft)	210	49	384	803	26	129	454	194
Average Queue (ft)	93	12	69	347	3	19	234	35
95th Queue (ft)	171	36	237	664	17	76	423	158
Link Distance (ft)	1372	242		1078	1078		3290	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			150			70		195
Storage Blk Time (%)			0	16		1	22	
Queuing Penalty (veh)			0	9		7	19	

Intersection: 9: Main St/Main Street & Maple St, All Intervals

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	R	L	T	R
Maximum Queue (ft)	225	51	448	919	366	149	517	292
Average Queue (ft)	99	13	71	399	19	21	243	43
95th Queue (ft)	181	38	245	769	182	84	434	180
Link Distance (ft)	1372	242		1078	1078		3290	
Upstream Blk Time (%)				0				
Queuing Penalty (veh)				0				
Storage Bay Dist (ft)			150			70		195
Storage Blk Time (%)			0	17		1	22	
Queuing Penalty (veh)			0	10		8	20	

Intersection: 3: Main Street & Jackson Road, Interval #1

Movement	SW
Directions Served	LR
Maximum Queue (ft)	18
Average Queue (ft)	5
95th Queue (ft)	23
Link Distance (ft)	302
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 3: Main Street & Jackson Road, Interval #2

Movement	B2	SW
Directions Served	T	LR
Maximum Queue (ft)	3	29
Average Queue (ft)	0	5
95th Queue (ft)	3	22
Link Distance (ft)	1437	302
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: Main Street & Jackson Road, All Intervals

Movement	B2	SW
Directions Served	T	LR
Maximum Queue (ft)	3	29
Average Queue (ft)	0	5
95th Queue (ft)	2	22
Link Distance (ft)	1437	302
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: 99 & Jackson Rd., Interval #1

Movement	SE	NW	NE	SW
Directions Served	L	L	LTR	LTR
Maximum Queue (ft)	42	10	30	70
Average Queue (ft)	14	1	9	38
95th Queue (ft)	40	11	30	80
Link Distance (ft)			207	224
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	100	100		
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: 99 & Jackson Rd., Interval #2

Movement	SE	NW	NE	SW
Directions Served	L	L	LTR	LTR
Maximum Queue (ft)	54	26	31	92
Average Queue (ft)	17	3	6	40
95th Queue (ft)	46	15	26	77
Link Distance (ft)			207	224
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	100	100		
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: 99 & Jackson Rd., All Intervals

Movement	SE	NW	NE	SW
Directions Served	L	L	LTR	LTR
Maximum Queue (ft)	55	26	31	100
Average Queue (ft)	17	2	7	40
95th Queue (ft)	45	14	27	77
Link Distance (ft)			207	224
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	100	100		
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: S Jackson/Valley View & 99, Interval #1

Movement	SE	SE	SE	NW	NW	NW	NW	NE	NE	SW
Directions Served	L	T	TR	L	T	T	R	LT	R	LTR
Maximum Queue (ft)	71	149	115	23	93	78	88	12	30	238
Average Queue (ft)	45	97	74	8	49	36	47	2	9	160
95th Queue (ft)	75	151	128	25	92	76	88	14	32	238
Link Distance (ft)		900	900		1092	1092		228		789
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	225			475			100		65	
Storage Blk Time (%)						1	0			
Queuing Penalty (veh)						4	0			

Intersection: 7: S Jackson/Valley View & 99, Interval #2

Movement	SE	SE	SE	NW	NW	NW	NW	NE	NE	SW
Directions Served	L	T	TR	L	T	T	R	LT	R	LTR
Maximum Queue (ft)	94	170	164	27	103	115	120	29	30	242
Average Queue (ft)	49	97	78	4	48	40	52	4	9	160
95th Queue (ft)	86	157	141	20	89	89	110	22	32	228
Link Distance (ft)		900	900		1092	1092		228		789
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	225			475			100		65	
Storage Blk Time (%)						0	1	0		
Queuing Penalty (veh)						2	1	0		

Intersection: 7: S Jackson/Valley View & 99, All Intervals

Movement	SE	SE	SE	NW	NW	NW	NW	NE	NE	SW
Directions Served	L	T	TR	L	T	T	R	LT	R	LTR
Maximum Queue (ft)	94	172	164	29	106	118	120	29	30	254
Average Queue (ft)	48	97	77	5	49	39	51	4	9	160
95th Queue (ft)	84	156	138	22	90	86	105	20	32	231
Link Distance (ft)		900	900		1092	1092		228		789
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	225			475			100		65	
Storage Blk Time (%)						0	1	0		
Queuing Penalty (veh)						2	1	0		

Intersection: 9: Main St/Main Street & Maple St, Interval #1

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	R	L	T	R
Maximum Queue (ft)	118	18	61	233	18	41	330	87
Average Queue (ft)	54	4	30	127	3	7	170	27
95th Queue (ft)	115	18	66	227	16	45	344	107
Link Distance (ft)	1372	242		1078	1078		3290	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			150			70		195
Storage Blk Time (%)				2			18	
Queuing Penalty (veh)				1			21	

Intersection: 9: Main St/Main Street & Maple St, Interval #2

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	R	L	T	R
Maximum Queue (ft)	120	22	58	291	18	121	399	102
Average Queue (ft)	53	5	27	125	1	10	182	23
95th Queue (ft)	100	19	56	233	10	55	339	73
Link Distance (ft)	1372	242		1078	1078		3290	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			150			70		195
Storage Blk Time (%)				4			20	
Queuing Penalty (veh)				2			23	

Intersection: 9: Main St/Main Street & Maple St, All Intervals

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	R	L	T	R
Maximum Queue (ft)	135	23	66	301	29	121	399	148
Average Queue (ft)	53	4	28	125	1	9	179	24
95th Queue (ft)	104	19	59	232	12	53	341	83
Link Distance (ft)	1372	242		1078	1078		3290	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			150			70		195
Storage Blk Time (%)				3			20	
Queuing Penalty (veh)				2			22	

Intersection: 3: Main Street & Jackson Road, Interval #1

Movement	SW
Directions Served	LR
Maximum Queue (ft)	29
Average Queue (ft)	9
95th Queue (ft)	30
Link Distance (ft)	302
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 3: Main Street & Jackson Road, Interval #2

Movement	SW
Directions Served	LR
Maximum Queue (ft)	29
Average Queue (ft)	4
95th Queue (ft)	20
Link Distance (ft)	302
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 3: Main Street & Jackson Road, All Intervals

Movement	SW
Directions Served	LR
Maximum Queue (ft)	29
Average Queue (ft)	5
95th Queue (ft)	23
Link Distance (ft)	302
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 4: 99 & Jackson Rd., Interval #1

Movement	SE	NW	NE	SW
Directions Served	L	L	LTR	LTR
Maximum Queue (ft)	42	17	30	71
Average Queue (ft)	13	2	6	41
95th Queue (ft)	42	15	25	75
Link Distance (ft)			207	224
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	100	100		
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: 99 & Jackson Rd., Interval #2

Movement	SE	NW	NE	SW
Directions Served	L	L	LTR	LTR
Maximum Queue (ft)	43	18	31	97
Average Queue (ft)	14	3	5	45
95th Queue (ft)	39	16	23	82
Link Distance (ft)			207	224
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	100	100		
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: 99 & Jackson Rd., All Intervals

Movement	SE	NW	NE	SW
Directions Served	L	L	LTR	LTR
Maximum Queue (ft)	49	27	31	97
Average Queue (ft)	14	3	5	44
95th Queue (ft)	40	16	24	81
Link Distance (ft)			207	224
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	100	100		
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: S Jackson/Valley View & 99, Interval #1

Movement	SE	SE	SE	NW	NW	NW	NW	NE	NE	SW
Directions Served	L	T	TR	L	T	T	R	LT	R	LTR
Maximum Queue (ft)	73	179	115	7	71	91	99	10	30	212
Average Queue (ft)	38	104	75	3	42	39	44	5	7	166
95th Queue (ft)	73	174	132	15	76	90	102	21	28	219
Link Distance (ft)		900	900		1092	1092		228		789
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	225			475			100		65	
Storage Blk Time (%)							1			
Queuing Penalty (veh)							1			

Intersection: 7: S Jackson/Valley View & 99, Interval #2

Movement	SE	SE	SE	NW	NW	NW	NW	NE	NE	SW
Directions Served	L	T	TR	L	T	T	R	LT	R	LTR
Maximum Queue (ft)	98	193	176	37	107	125	113	30	30	278
Average Queue (ft)	46	108	76	7	47	43	44	4	2	163
95th Queue (ft)	81	173	138	26	85	95	88	21	15	236
Link Distance (ft)		900	900		1092	1092		228		789
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	225			475			100		65	
Storage Blk Time (%)						1	0			
Queuing Penalty (veh)						6	0			

Intersection: 7: S Jackson/Valley View & 99, All Intervals

Movement	SE	SE	SE	NW	NW	NW	NW	NE	NE	SW
Directions Served	L	T	TR	L	T	T	R	LT	R	LTR
Maximum Queue (ft)	98	198	176	37	107	125	119	30	30	278
Average Queue (ft)	44	107	75	6	46	42	44	4	3	164
95th Queue (ft)	80	173	137	24	83	94	92	21	19	232
Link Distance (ft)		900	900		1092	1092		228		789
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	225			475			100		65	
Storage Blk Time (%)						1	0			
Queuing Penalty (veh)						4	0			

Intersection: 9: Main St/Main Street & Maple St, Interval #1

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	R	L	T	R
Maximum Queue (ft)	122	7	63	214	10	65	326	124
Average Queue (ft)	65	1	30	118	3	11	207	37
95th Queue (ft)	121	8	64	215	17	64	336	132
Link Distance (ft)	1372	242		1078	1078		3290	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			150			70		195
Storage Blk Time (%)				2			26	
Queuing Penalty (veh)				1			31	

Intersection: 9: Main St/Main Street & Maple St, Interval #2

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	R	L	T	R
Maximum Queue (ft)	104	28	77	211	28	28	398	203
Average Queue (ft)	55	6	31	107	2	4	206	30
95th Queue (ft)	98	22	65	192	14	20	353	126
Link Distance (ft)	1372	242		1078	1078		3290	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			150			70		195
Storage Blk Time (%)				2			22	
Queuing Penalty (veh)				1			25	

Intersection: 9: Main St/Main Street & Maple St, All Intervals

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	R	L	T	R
Maximum Queue (ft)	130	28	77	227	28	70	398	289
Average Queue (ft)	57	5	30	110	2	6	206	32
95th Queue (ft)	105	20	64	198	15	36	349	128
Link Distance (ft)	1372	242		1078	1078		3290	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			150			70		195
Storage Blk Time (%)				2			23	
Queuing Penalty (veh)				1			26	

Intersection: 26: Proj Access & 99, Interval #1

Movement	EB	EB	NW
Directions Served	L	R	LT
Maximum Queue (ft)	48	42	18
Average Queue (ft)	27	24	5
95th Queue (ft)	47	47	22
Link Distance (ft)		167	458
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	100		
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 26: Proj Access & 99, Interval #2

Movement	EB	EB	NW
Directions Served	L	R	LT
Maximum Queue (ft)	63	50	44
Average Queue (ft)	23	20	7
95th Queue (ft)	53	45	29
Link Distance (ft)		167	458
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	100		
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 26: Proj Access & 99, All Intervals

Movement	EB	EB	NW
Directions Served	L	R	LT
Maximum Queue (ft)	63	50	44
Average Queue (ft)	24	21	6
95th Queue (ft)	52	45	27
Link Distance (ft)		167	458
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	100		
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 29: 99, Interval #1

Movement	NW	NE
Directions Served	L	LR
Maximum Queue (ft)	16	71
Average Queue (ft)	1	33
95th Queue (ft)	10	70
Link Distance (ft)	374	366
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 29: 99, Interval #2

Movement	NW	NE
Directions Served	L	LR
Maximum Queue (ft)	18	48
Average Queue (ft)	3	18
95th Queue (ft)	15	42
Link Distance (ft)	374	366
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 29: 99, All Intervals

Movement	NW	NE
Directions Served	L	LR
Maximum Queue (ft)	26	71
Average Queue (ft)	2	21
95th Queue (ft)	14	51
Link Distance (ft)	374	366
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty, Interval #1: 61
Network wide Queuing Penalty, Interval #2: 59
Network wide Queuing Penalty, All Intervals: 59

Intersection: 3: Main Street & Jackson Road, Interval #1

Movement	SB	SW
Directions Served	L	LR
Maximum Queue (ft)	21	11
Average Queue (ft)	2	3
95th Queue (ft)	17	16
Link Distance (ft)		302
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	50	
Storage Blk Time (%)	0	
Queuing Penalty (veh)	1	

Intersection: 3: Main Street & Jackson Road, Interval #2

Movement	SB	SW
Directions Served	L	LR
Maximum Queue (ft)	22	34
Average Queue (ft)	2	5
95th Queue (ft)	14	23
Link Distance (ft)		302
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	50	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: Main Street & Jackson Road, All Intervals

Movement	SB	SW
Directions Served	L	LR
Maximum Queue (ft)	32	34
Average Queue (ft)	2	4
95th Queue (ft)	15	22
Link Distance (ft)		302
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	50	
Storage Blk Time (%)	0	
Queuing Penalty (veh)	0	

Intersection: 4: 99 & Jackson Rd., Interval #1

Movement	SE	NW	NE	SW
Directions Served	L	L	LTR	LTR
Maximum Queue (ft)	38	21	52	105
Average Queue (ft)	11	4	33	55
95th Queue (ft)	36	21	62	126
Link Distance (ft)			207	224
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	100	100		
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: 99 & Jackson Rd., Interval #2

Movement	SE	NW	NE	SW
Directions Served	L	L	LTR	LTR
Maximum Queue (ft)	38	27	80	87
Average Queue (ft)	11	4	24	33
95th Queue (ft)	34	19	64	84
Link Distance (ft)			207	224
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	100	100		
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: 99 & Jackson Rd., All Intervals

Movement	SE	NW	NE	SW
Directions Served	L	L	LTR	LTR
Maximum Queue (ft)	42	27	85	134
Average Queue (ft)	11	4	26	38
95th Queue (ft)	35	20	64	97
Link Distance (ft)			207	224
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	100	100		
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: S Jackson/Valley View & 99, Interval #1

Movement	SE	SE	SE	NW	NW	NW	NW	NE	NE	SW
Directions Served	L	T	TR	L	T	T	R	LT	R	LTR
Maximum Queue (ft)	43	151	86	46	182	262	108	40	38	258
Average Queue (ft)	21	88	41	20	110	107	64	12	14	187
95th Queue (ft)	46	148	97	50	184	228	132	40	39	269
Link Distance (ft)		900	900		1092	1092		228		789
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	225			475			100		65	
Storage Blk Time (%)						6	1	0	0	
Queuing Penalty (veh)						46	1	0	0	

Intersection: 7: S Jackson/Valley View & 99, Interval #2

Movement	SE	SE	SE	NW	NW	NW	NW	NE	NE	SW
Directions Served	L	T	TR	L	T	T	R	LT	R	LTR
Maximum Queue (ft)	53	162	116	56	178	276	125	43	38	251
Average Queue (ft)	19	79	37	20	94	102	58	13	13	173
95th Queue (ft)	47	140	88	47	157	211	134	39	38	241
Link Distance (ft)		900	900		1092	1092		228		789
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	225			475			100		65	
Storage Blk Time (%)						4	1	0	0	
Queuing Penalty (veh)						28	1	0	0	

Intersection: 7: S Jackson/Valley View & 99, All Intervals

Movement	SE	SE	SE	NW	NW	NW	NW	NE	NE	SW
Directions Served	L	T	TR	L	T	T	R	LT	R	LTR
Maximum Queue (ft)	53	171	117	60	192	308	125	47	43	271
Average Queue (ft)	20	81	38	20	98	103	59	13	13	177
95th Queue (ft)	47	142	91	48	165	216	133	39	38	249
Link Distance (ft)		900	900		1092	1092		228		789
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	225			475			100		65	
Storage Blk Time (%)						5	1	0	0	
Queuing Penalty (veh)						32	1	0	0	

Intersection: 9: Main St/Main Street & Maple St, Interval #1

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	R	L	T	R
Maximum Queue (ft)	171	35	314	686	331	27	399	191
Average Queue (ft)	103	13	91	477	79	9	223	37
95th Queue (ft)	191	40	306	904	394	29	420	168
Link Distance (ft)	1372	242		1078	1078		3290	
Upstream Blk Time (%)				0				
Queuing Penalty (veh)				1				
Storage Bay Dist (ft)			150			70		195
Storage Blk Time (%)			0	21			22	
Queuing Penalty (veh)			0	14			23	

Intersection: 9: Main St/Main Street & Maple St, Interval #2

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	R	L	T	R
Maximum Queue (ft)	171	43	449	764	121	99	372	202
Average Queue (ft)	88	11	70	327	8	16	195	26
95th Queue (ft)	158	34	260	634	85	72	353	117
Link Distance (ft)	1372	242		1078	1078		3290	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			150			70		195
Storage Blk Time (%)				16			20	
Queuing Penalty (veh)				9			18	

Intersection: 9: Main St/Main Street & Maple St, All Intervals

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	R	L	T	R
Maximum Queue (ft)	200	48	449	837	428	99	411	246
Average Queue (ft)	92	11	75	363	25	15	202	29
95th Queue (ft)	167	35	272	719	201	64	371	131
Link Distance (ft)	1372	242		1078	1078		3290	
Upstream Blk Time (%)				0				
Queuing Penalty (veh)				0				
Storage Bay Dist (ft)			150			70		195
Storage Blk Time (%)			0	17			21	
Queuing Penalty (veh)			0	10			19	

Intersection: 3: Main Street & Jackson Road, Interval #1

Movement	SB	SW
Directions Served	L	LR
Maximum Queue (ft)	5	17
Average Queue (ft)	1	3
95th Queue (ft)	10	18
Link Distance (ft)		302
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	50	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: Main Street & Jackson Road, Interval #2

Movement	SB	SW
Directions Served	L	LR
Maximum Queue (ft)	22	33
Average Queue (ft)	2	5
95th Queue (ft)	15	23
Link Distance (ft)		302
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	50	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: Main Street & Jackson Road, All Intervals

Movement	SB	SW
Directions Served	L	LR
Maximum Queue (ft)	22	33
Average Queue (ft)	2	4
95th Queue (ft)	14	22
Link Distance (ft)		302
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	50	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: 99 & Jackson Rd., Interval #1

Movement	SE	NW	NE	SW
Directions Served	L	L	LTR	LTR
Maximum Queue (ft)	29	21	51	82
Average Queue (ft)	11	8	20	44
95th Queue (ft)	34	27	58	101
Link Distance (ft)			207	224
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	100	100		
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: 99 & Jackson Rd., Interval #2

Movement	SE	NW	NE	SW
Directions Served	L	L	LTR	LTR
Maximum Queue (ft)	46	26	62	66
Average Queue (ft)	10	3	26	30
95th Queue (ft)	33	18	56	60
Link Distance (ft)			207	224
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	100	100		
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: 99 & Jackson Rd., All Intervals

Movement	SE	NW	NE	SW
Directions Served	L	L	LTR	LTR
Maximum Queue (ft)	46	27	70	90
Average Queue (ft)	10	5	25	33
95th Queue (ft)	33	21	57	73
Link Distance (ft)			207	224
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	100	100		
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: S Jackson/Valley View & 99, Interval #1

Movement	SE	SE	SE	NW	NW	NW	NW	NE	NE	SW
Directions Served	L	T	TR	L	T	T	R	LT	R	LTR
Maximum Queue (ft)	43	134	116	50	176	250	125	34	30	278
Average Queue (ft)	24	91	49	20	96	112	78	11	10	189
95th Queue (ft)	52	141	109	53	175	253	148	35	33	286
Link Distance (ft)		900	900		1092	1092		228		789
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	225			475			100		65	
Storage Blk Time (%)						4	1	0		
Queuing Penalty (veh)						31	2	0		

Intersection: 7: S Jackson/Valley View & 99, Interval #2

Movement	SE	SE	SE	NW	NW	NW	NW	NE	NE	SW
Directions Served	L	T	TR	L	T	T	R	LT	R	LTR
Maximum Queue (ft)	56	142	112	51	196	214	125	44	34	278
Average Queue (ft)	19	79	40	19	90	88	64	13	13	167
95th Queue (ft)	47	129	86	45	162	171	135	40	37	249
Link Distance (ft)		900	900		1092	1092		228		789
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	225			475			100		65	
Storage Blk Time (%)						4	1	0	0	
Queuing Penalty (veh)						25	2	0	0	

Intersection: 7: S Jackson/Valley View & 99, All Intervals

Movement	SE	SE	SE	NW	NW	NW	NW	NE	NE	SW
Directions Served	L	T	TR	L	T	T	R	LT	R	LTR
Maximum Queue (ft)	56	150	127	59	206	287	125	44	34	291
Average Queue (ft)	20	82	42	19	92	94	67	12	12	173
95th Queue (ft)	49	133	93	47	165	195	139	39	36	259
Link Distance (ft)		900	900		1092	1092		228		789
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	225			475			100		65	
Storage Blk Time (%)						4	1	0	0	
Queuing Penalty (veh)						26	2	0	0	

Intersection: 9: Main St/Main Street & Maple St, Interval #1

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	R	L	T	R
Maximum Queue (ft)	195	44	221	958	635	64	374	295
Average Queue (ft)	120	13	69	664	116	19	217	53
95th Queue (ft)	212	43	262	1146	551	65	365	218
Link Distance (ft)	1372	242		1078	1078		3290	
Upstream Blk Time (%)				1	0			
Queuing Penalty (veh)				7	0			
Storage Bay Dist (ft)			150			70		195
Storage Blk Time (%)				24		0	20	
Queuing Penalty (veh)				15		2	21	

Intersection: 9: Main St/Main Street & Maple St, Interval #2

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	R	L	T	R
Maximum Queue (ft)	182	44	449	819	357	102	379	185
Average Queue (ft)	93	11	108	385	22	14	185	23
95th Queue (ft)	170	34	361	779	199	62	325	88
Link Distance (ft)	1372	242		1078	1078		3290	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			150			70		195
Storage Blk Time (%)			0	17		0	21	
Queuing Penalty (veh)			2	10		2	19	

Intersection: 9: Main St/Main Street & Maple St, All Intervals

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	R	L	T	R
Maximum Queue (ft)	215	58	450	962	675	110	409	295
Average Queue (ft)	99	12	98	452	45	15	193	30
95th Queue (ft)	183	37	340	914	316	63	337	131
Link Distance (ft)	1372	242		1078	1078		3290	
Upstream Blk Time (%)				0	0			
Queuing Penalty (veh)				2	0			
Storage Bay Dist (ft)			150			70		195
Storage Blk Time (%)			0	19		0	21	
Queuing Penalty (veh)			2	11		2	20	

Intersection: 26: Project Access & 99, Interval #1

Movement	EB	EB	NW
Directions Served	L	R	LT
Maximum Queue (ft)	56	32	34
Average Queue (ft)	26	18	16
95th Queue (ft)	63	41	40
Link Distance (ft)		167	458
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	100		
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 26: Project Access & 99, Interval #2

Movement	EB	EB	NW
Directions Served	L	R	LT
Maximum Queue (ft)	51	37	48
Average Queue (ft)	14	12	12
95th Queue (ft)	41	35	38
Link Distance (ft)		167	458
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	100		
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 26: Project Access & 99, All Intervals

Movement	EB	EB	NW
Directions Served	L	R	LT
Maximum Queue (ft)	61	38	48
Average Queue (ft)	17	13	13
95th Queue (ft)	48	37	38
Link Distance (ft)		167	458
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	100		
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 29: 99, Interval #1

Movement	NW	NE
Directions Served	L	LR
Maximum Queue (ft)	5	35
Average Queue (ft)	2	16
95th Queue (ft)	12	43
Link Distance (ft)	392	421
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 29: 99, Interval #2

Movement	NW	NE
Directions Served	L	LR
Maximum Queue (ft)	28	40
Average Queue (ft)	3	14
95th Queue (ft)	16	40
Link Distance (ft)	392	421
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 29: 99, All Intervals

Movement	NW	NE
Directions Served	L	LR
Maximum Queue (ft)	28	45
Average Queue (ft)	2	14
95th Queue (ft)	15	41
Link Distance (ft)	392	421
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty, Interval #1: 112
Network wide Queuing Penalty, Interval #2: 89
Network wide Queuing Penalty, All Intervals: 95

Intersection: 3: Main Street & Jackson Road, Interval #1

Movement	SB	SW
Directions Served	L	LR
Maximum Queue (ft)	25	19
Average Queue (ft)	4	3
95th Queue (ft)	22	18
Link Distance (ft)		302
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	50	
Storage Blk Time (%)	0	
Queuing Penalty (veh)	0	

Intersection: 3: Main Street & Jackson Road, Interval #2

Movement	SB	SW
Directions Served	L	LR
Maximum Queue (ft)	24	33
Average Queue (ft)	2	5
95th Queue (ft)	15	23
Link Distance (ft)		302
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	50	
Storage Blk Time (%)	0	
Queuing Penalty (veh)	0	

Intersection: 3: Main Street & Jackson Road, All Intervals

Movement	SB	SW
Directions Served	L	LR
Maximum Queue (ft)	32	33
Average Queue (ft)	3	4
95th Queue (ft)	17	22
Link Distance (ft)		302
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	50	
Storage Blk Time (%)	0	
Queuing Penalty (veh)	0	

Intersection: 4: 99 & Jackson Rd., Interval #1

Movement	SE	NW	NE	SW
Directions Served	L	L	LTR	LTR
Maximum Queue (ft)	31	18	82	70
Average Queue (ft)	8	5	35	41
95th Queue (ft)	30	22	82	81
Link Distance (ft)			207	224
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	100	100		
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: 99 & Jackson Rd., Interval #2

Movement	SE	NW	NE	SW
Directions Served	L	L	LTR	LTR
Maximum Queue (ft)	34	32	89	99
Average Queue (ft)	11	6	33	44
95th Queue (ft)	35	25	85	87
Link Distance (ft)			207	224
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	100	100		
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: 99 & Jackson Rd., All Intervals

Movement	SE	NW	NE	SW
Directions Served	L	L	LTR	LTR
Maximum Queue (ft)	34	32	94	104
Average Queue (ft)	10	6	33	43
95th Queue (ft)	34	24	84	86
Link Distance (ft)			207	224
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	100	100		
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: S Jackson/Valley View & 99, Interval #1

Movement	SE	SE	SE	NW	NW	NW	NW	NE	NE	SW
Directions Served	L	T	TR	L	T	T	R	LT	R	LTR
Maximum Queue (ft)	47	191	156	50	200	261	125	45	34	250
Average Queue (ft)	28	119	74	21	136	157	100	12	16	193
95th Queue (ft)	52	196	169	50	231	293	160	53	43	271
Link Distance (ft)		900	900		1092	1092		228		789
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	225			475			100		65	
Storage Blk Time (%)		0				12	1	2		
Queuing Penalty (veh)		0				96	4	0		

Intersection: 7: S Jackson/Valley View & 99, Interval #2

Movement	SE	SE	SE	NW	NW	NW	NW	NE	NE	SW
Directions Served	L	T	TR	L	T	T	R	LT	R	LTR
Maximum Queue (ft)	61	194	152	73	227	362	125	58	51	318
Average Queue (ft)	22	100	57	24	126	148	91	15	14	200
95th Queue (ft)	58	164	121	60	201	284	162	47	44	298
Link Distance (ft)		900	900		1092	1092		228		789
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	225			475			100		65	
Storage Blk Time (%)		0				9	2	1	0	
Queuing Penalty (veh)		0				70	5	0	0	

Intersection: 7: S Jackson/Valley View & 99, All Intervals

Movement	SE	SE	SE	NW	NW	NW	NW	NE	NE	SW
Directions Served	L	T	TR	L	T	T	R	LT	R	LTR
Maximum Queue (ft)	65	211	175	73	250	371	125	68	51	318
Average Queue (ft)	24	104	61	23	128	150	93	15	14	199
95th Queue (ft)	57	173	135	58	209	286	162	49	43	292
Link Distance (ft)		900	900		1092	1092		228		789
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	225			475			100		65	
Storage Blk Time (%)		0				10	2	1	0	
Queuing Penalty (veh)		0				77	5	0	0	

Intersection: 9: Main St/Main Street & Maple St, Interval #1

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	R	L	T	R
Maximum Queue (ft)	268	36	450	1097	669	79	613	242
Average Queue (ft)	183	13	220	1005	269	21	339	65
95th Queue (ft)	298	42	549	1215	786	77	530	239
Link Distance (ft)	1372	242		1078	1078		3290	
Upstream Blk Time (%)				6	1			
Queuing Penalty (veh)				38	3			
Storage Bay Dist (ft)			150			70		195
Storage Blk Time (%)				27		0	27	
Queuing Penalty (veh)				19		0	31	

Intersection: 9: Main St/Main Street & Maple St, Interval #2

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	R	L	T	R
Maximum Queue (ft)	289	50	450	1113	1020	114	648	295
Average Queue (ft)	162	13	151	962	262	22	298	70
95th Queue (ft)	271	39	448	1207	883	71	547	251
Link Distance (ft)	1372	242		1078	1078		3290	
Upstream Blk Time (%)				7	0			
Queuing Penalty (veh)				38	2			
Storage Bay Dist (ft)			150			70		195
Storage Blk Time (%)			0	27		0	24	
Queuing Penalty (veh)			2	18		4	26	

Intersection: 9: Main St/Main Street & Maple St, All Intervals

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	R	L	T	R
Maximum Queue (ft)	303	55	450	1120	1024	133	720	295
Average Queue (ft)	167	13	168	972	264	22	308	69
95th Queue (ft)	279	40	477	1211	862	72	546	249
Link Distance (ft)	1372	242		1078	1078		3290	
Upstream Blk Time (%)				6	0			
Queuing Penalty (veh)				38	2			
Storage Bay Dist (ft)			150			70		195
Storage Blk Time (%)			0	27		0	25	
Queuing Penalty (veh)			1	18		3	27	

Intersection: 3: Main Street & Jackson Road, Interval #1

Movement	SB	SW
Directions Served	L	LR
Maximum Queue (ft)	19	31
Average Queue (ft)	3	7
95th Queue (ft)	18	30
Link Distance (ft)		302
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	50	
Storage Blk Time (%)	0	
Queuing Penalty (veh)	0	

Intersection: 3: Main Street & Jackson Road, Interval #2

Movement	SB	SW
Directions Served	L	LR
Maximum Queue (ft)	38	42
Average Queue (ft)	4	9
95th Queue (ft)	21	32
Link Distance (ft)		302
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	50	
Storage Blk Time (%)	0	
Queuing Penalty (veh)	1	

Intersection: 3: Main Street & Jackson Road, All Intervals

Movement	SB	SW
Directions Served	L	LR
Maximum Queue (ft)	38	48
Average Queue (ft)	3	8
95th Queue (ft)	20	32
Link Distance (ft)		302
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	50	
Storage Blk Time (%)	0	
Queuing Penalty (veh)	1	

Intersection: 4: 99 & Jackson Rd., Interval #1

Movement	SE	NW	NE	SW
Directions Served	L	L	LTR	LTR
Maximum Queue (ft)	36	23	99	118
Average Queue (ft)	14	6	58	56
95th Queue (ft)	41	25	126	119
Link Distance (ft)			136	182
Upstream Blk Time (%)			7	
Queuing Penalty (veh)			0	
Storage Bay Dist (ft)	100	100		
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: 99 & Jackson Rd., Interval #2

Movement	SE	NW	NE	SW
Directions Served	L	L	LTR	LTR
Maximum Queue (ft)	33	29	91	132
Average Queue (ft)	9	6	35	48
95th Queue (ft)	32	25	78	100
Link Distance (ft)			136	182
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	100	100		
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: 99 & Jackson Rd., All Intervals

Movement	SE	NW	NE	SW
Directions Served	L	L	LTR	LTR
Maximum Queue (ft)	38	29	116	148
Average Queue (ft)	10	6	41	50
95th Queue (ft)	34	25	94	105
Link Distance (ft)			136	182
Upstream Blk Time (%)			2	
Queuing Penalty (veh)			0	
Storage Bay Dist (ft)	100	100		
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: S Jackson/Valley View & 99, Interval #1

Movement	SE	SE	SE	NW	NW	NW	NW	NE	NE	SW
Directions Served	L	T	TR	L	T	T	R	LT	R	LTR
Maximum Queue (ft)	72	187	121	69	236	264	125	48	42	266
Average Queue (ft)	23	118	65	33	131	136	101	18	19	207
95th Queue (ft)	68	188	124	69	210	258	165	53	49	292
Link Distance (ft)		903	903		1091	1091		229		790
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	225			475			100		65	
Storage Blk Time (%)		0				10	3	3	0	
Queuing Penalty (veh)		0				80	9	1	0	

Intersection: 7: S Jackson/Valley View & 99, Interval #2

Movement	SE	SE	SE	NW	NW	NW	NW	NE	NE	SW
Directions Served	L	T	TR	L	T	T	R	LT	R	LTR
Maximum Queue (ft)	66	192	144	58	263	385	125	53	39	313
Average Queue (ft)	23	105	57	19	136	160	97	15	15	216
95th Queue (ft)	54	175	125	48	228	303	164	46	43	301
Link Distance (ft)		903	903		1091	1091		229		790
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	225			475			100		65	
Storage Blk Time (%)		0				11	2	1	0	
Queuing Penalty (veh)		0				82	8	0	0	

Intersection: 7: S Jackson/Valley View & 99, All Intervals

Movement	SE	SE	SE	NW	NW	NW	NW	NE	NE	SW
Directions Served	L	T	TR	L	T	T	R	LT	R	LTR
Maximum Queue (ft)	82	204	148	70	279	385	125	64	43	315
Average Queue (ft)	23	109	59	22	135	155	98	16	16	214
95th Queue (ft)	58	179	125	55	224	294	164	48	45	299
Link Distance (ft)		903	903		1091	1091		229		790
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	225			475			100		65	
Storage Blk Time (%)		0				10	3	1	0	
Queuing Penalty (veh)		0				82	8	0	0	

Intersection: 9: Main St/Main Street & Maple St, Interval #1

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	R	L	T	R
Maximum Queue (ft)	266	39	370	1041	737	51	425	195
Average Queue (ft)	168	12	130	931	158	13	220	50
95th Queue (ft)	291	41	419	1164	647	57	421	196
Link Distance (ft)	1372	240		1091	1091		3280	
Upstream Blk Time (%)				2				
Queuing Penalty (veh)				10				
Storage Bay Dist (ft)			150			70		195
Storage Blk Time (%)				27			20	
Queuing Penalty (veh)				19			24	

Intersection: 9: Main St/Main Street & Maple St, Interval #2

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	R	L	T	R
Maximum Queue (ft)	291	56	450	1135	1105	94	477	247
Average Queue (ft)	160	18	116	1019	307	18	235	39
95th Queue (ft)	276	48	400	1245	962	68	406	167
Link Distance (ft)	1372	240		1091	1091		3280	
Upstream Blk Time (%)				7	0			
Queuing Penalty (veh)				41	2			
Storage Bay Dist (ft)			150			70		195
Storage Blk Time (%)				26		1	20	
Queuing Penalty (veh)				17		8	22	

Intersection: 9: Main St/Main Street & Maple St, All Intervals

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	R	L	T	R
Maximum Queue (ft)	297	61	450	1136	1105	110	511	295
Average Queue (ft)	162	17	119	997	271	16	232	42
95th Queue (ft)	280	46	405	1234	899	65	410	175
Link Distance (ft)	1372	240		1091	1091		3280	
Upstream Blk Time (%)				6	0			
Queuing Penalty (veh)				34	1			
Storage Bay Dist (ft)			150			70		195
Storage Blk Time (%)				26		1	20	
Queuing Penalty (veh)				18		6	22	

Intersection: 26: 99 & Project Access, Interval #1

Movement	EB	EB	B2	NW
Directions Served	L	R	T	LT
Maximum Queue (ft)	68	82	6	31
Average Queue (ft)	36	26	1	11
95th Queue (ft)	84	98	10	34
Link Distance (ft)		167	367	458
Upstream Blk Time (%)		1		
Queuing Penalty (veh)		0		
Storage Bay Dist (ft)	75			
Storage Blk Time (%)	11	0		
Queuing Penalty (veh)	2	0		

Intersection: 26: 99 & Project Access, Interval #2

Movement	EB	EB	B2	NW
Directions Served	L	R	T	LT
Maximum Queue (ft)	63	37	10	53
Average Queue (ft)	19	14	0	15
95th Queue (ft)	53	41	8	43
Link Distance (ft)		167	367	458
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	75			
Storage Blk Time (%)	2	0		
Queuing Penalty (veh)	0	0		

Intersection: 26: 99 & Project Access, All Intervals

Movement	EB	EB	B2	NW
Directions Served	L	R	T	LT
Maximum Queue (ft)	80	82	10	53
Average Queue (ft)	23	17	1	14
95th Queue (ft)	63	60	8	41
Link Distance (ft)		167	367	458
Upstream Blk Time (%)		0		
Queuing Penalty (veh)		0		
Storage Bay Dist (ft)	75			
Storage Blk Time (%)	4	0		
Queuing Penalty (veh)	1	0		

Zone Summary

Zone wide Queuing Penalty, Interval #1: 186
Zone wide Queuing Penalty, Interval #2: 244
Zone wide Queuing Penalty, All Intervals: 229

Appendix H

SITE ACCESS

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TECH MEMO

TO: Robert Kendrick

FROM: Kelly Sandow P.E.
Sandow Engineering

DATE: January 26, 2021

RE: Grand Terrace Development- Access Safety Evaluation



RENEWAL 06/30/26

As per your request Sandow Engineering has prepared this letter to demonstrate how the site access meets the safety requirements of AMC 18.5.8.050.E. As per 18.5.8.050.E, the application must show adequate transportation facilities can be provided for vehicles, pedestrians, and bicycles at and to the access connection for the site.

VEHICLE ACCESS SAFETY EVALUATION

The site access safety evaluation for vehicles considers:

1. The available clear line of sight for vehicles entering and exiting the driveway
2. Delay for vehicles entering and exiting the access
3. Turn conflicts

1.0 SIGHT DISTANCE

Clear line of sight, or sight distance, for vehicles at an access connection allows for drivers entering and exiting the access to make safe turning movements and allow vehicles traveling on the roadway time to react to turning vehicles in a safe manner. The sight distance measurements at the access are classified by the stopping sight distance (SSD) for the major roadway and departure/intersection sight distance (ISD) for the site access.

The standards for evaluating SSD and ISD follow the methodology in the American Associating of State Highway and Transportation Officials (AASHTO) *A Policy on Geometric Design of Highways and Streets* (2011 ed.). As per the AASHTO methodology, intersections and driveways should, at a minimum, meet the SSD requirements. However, it is desirable to achieve the ISD whenever possible. Both the ISD and SSD were evaluated for the proposed site access location.

A field verification of the SSD and ISD at the site access location was performed by Sandow Engineering on October 8, 2021.

Stopping Sight Distance
The SSD is the length of roadway needed for a vehicle traveling at the design speed to safely stop for a stationary object in the roadway. The required sight distance allows a driver to perceive and react to an object 2 feet high on the roadway visible from a driver's eye height of 3.5 feet above the ground. At access connections this allows drivers on the main road to perceive, react, and stop safely for a driver turning into or out of the access.

Stopping sight distance is based on the speed of the roadway being traveled. Hwy 99 has a posted speed of 45 mph within 800 feet of the access in either direction. As per AASHTO, the required SSD is 360 feet for vehicles traveling 45 mph. The measured available stopping sight distance was over 700 feet in the north the south directions. The available SSD exceeds the required distance. See Figure 1 for an illustration of the stopping sight distance.

Intersection Sight Distance
The (ISD) is a measure of the length of visibility of the roadway given to a stopped driver on a minor road approach. The distance provides time to perceive and react to gaps in traffic to allow a driver to safely turn into the roadway. For this calculation, it is assumed that the driver's eye is 3.5 feet above the ground and that the object to be seen is 3.5 feet above the ground of the intersecting road.

The recommended ISD is calculated for a vehicle turning from the access onto Hwy 99 for both left and right turn maneuvers. Therefore, the ISD calculations are based on Case B1 of the AASHTO manual. Again, the speed used was 45 mph, resulting in an ISD of 500 feet for this approach.

The AASHTO Methodology is to measure the ISD from the typical driver position at 14' back from the travel way. The available ISD to the north was measured at 569 feet, and the available ISD to the south was measured at 577 feet. The ISD requirements are met. Figure 1 provides an illustration of the ISD measurement. The images 1 and 2 below illustrate the field verification photos.

By meeting/exceeding the minimum ISD and SSD requirements, it is demonstrated that there is sufficient line of sight for movements into and out of the site access to be made safely and is in compliance with the jurisdictional authority, Oregon Department of Transportation.

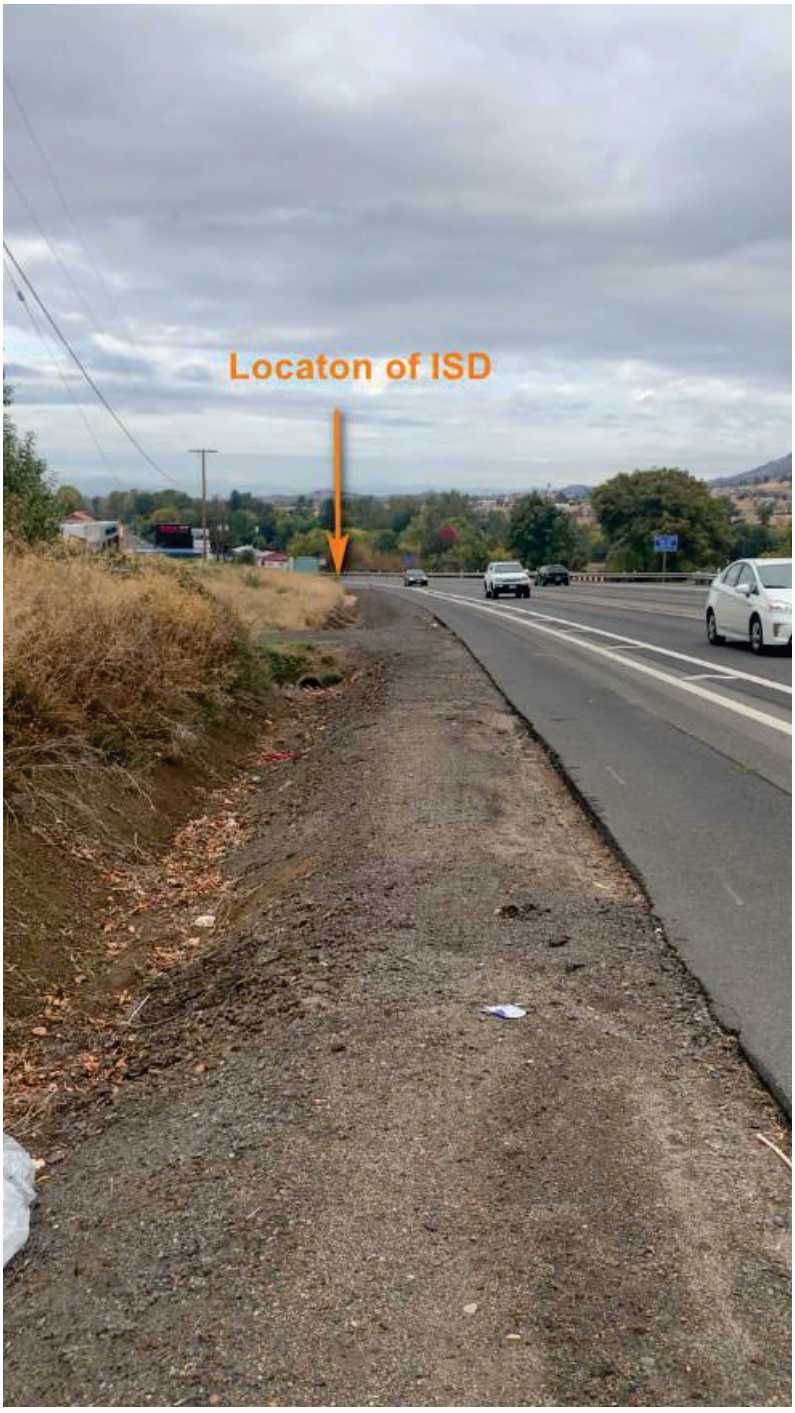
The field verification of the ISD and SSD at the site access was performed by Sandow Engineering on October 8, 2021 and is in compliance with the jurisdictional authority, the Oregon Department of Transportation.



ISD requirement location looking north from site access. ISD is met



ISD requirement looking north from site access-zoomed in. ISD is met



ISD Requirement looking south from access location. ISD is met



ISD requirement looking north from site access-zoomed in. ISD is met

2.0 VEHICLE DELAY AND QUEING AT THE ACCESS

The delay/level of service and queuing a driver will experience while turning into or out of the site access connection was evaluated as part of the Traffic Impact Analysis for this site, dated August 5, 2019. The delay a vehicle experiences is important for safety. The low delay indicates that there are sufficient gaps in the traffic for a vehicle to make the turn in a reasonable time from and safely.

As per the State Planning Rule (OAR 660-012-0060) the evaluation is required to consider the operation at the maximum development potential of 251 units. The evaluation was performed for the current roadway configuration of one lane northbound, one lane southbound, and a center two-way left-turn lane. The analysis outputs are provided as an attachment.

At the man site the delay movements will experience during the PM peak hour through the year 2034 are estimated at:

- Eastbound left (exiting site)= 40.3 (E)
- Eastbound right (exiting site)= 20.9 (C)
- Northbound left (entering site)= 11.3 (B)
- Northbound right (entering site)= 0.0 (A)

The delay for a development scenario of 251 units in the year 2034 is within the typical standards allowed for delay at stop-controlled locations. The delay an average vehicle may experience will not cause any unreasonable safety issues at the access location.

The queuing evaluation illustrates the following queue lengths:

- Eastbound left (exiting site)= 75 feet
- Eastbound right (exiting site)= 50 feet
- Northbound left (entering site)= 50 feet
- Northbound right (entering site)= 0 feet

The queue length for the PM peak hour in year 2034 is projected at 75 feet (3 cars) at the driveway and 50 feet (2 cars). The queue length does not cause impediments to other drivers on the roadway. The delay and queuing movements into and out of the access will not cause any safety concerns.

The delay and queuing movements into and out of the access will not cause any safety concerns and are in compliance with the jurisdictional authority, the Oregon Department of Transportation.

BICYCLE ACCESS

The requirements of AMC 18.5.8.050(E) (2) state that for an annexation: 1) safe and accessible bicycle facilities according to the safety analysis and standards of the governing jurisdiction of the facility or street (e.g., City of Ashland, Jackson County, Oregon Department of Transportation) exist, or can and will be constructed. 2) Should the annexed area border an arterial street, bike lanes shall be constructed along the arterial street frontage of the annexed area. 3) Likely bicycle destinations within a quarter of a mile from the project site annexed area shall be determined and the approval authority may require the construction of bicycle lanes or multi-use paths connecting the annexed area to the likely bicycle destinations after assessing the impact of the development proposed concurrently with the annexation.

1. Hwy 99 currently has buffered bike lanes (striping) along the development frontage. There are bike lanes on both sides of Hwy 99 that extend to north of Valley View Road to the north and into downtown Ashland to the south. The bike lanes are of typical width and the striped buffer along the site frontage provide an additional safety element. The development proposal includes bicycle lanes accordance with City standards along the frontage and includes two multi-use path connections into the site. The bicycle facilities that exist or will be provided as part of the annexation is in compliance with the design and safety criteria of the governing jurisdiction, ODOT. This criterion is met.

2. The frontage street, Hwy 99, is an arterial level street. There is an existing buffered (striped) bike lane along the property frontage. The applicant will maintain the bike lanes along the frontage with the frontage improvements that are required. This criterion is met and complies with the governing jurisdiction, ODOT.

3. Bicycling destinations within 0.25 miles from the site are limited as this area is not very built out. To the south, a destination is a bus stops between Main St and Schofield St. There are no destinations to the east or west. Within 0.25 miles to the north there is a coffee shop on the east side of Hwy 99 and a restaurant and retail on the north side. Outside the 0.25-mile radius there is a connection to the Bear Creek Greenway St, Valley View and Hwy 99 intersection. There are bike lanes along Hwy 99 between these locations and the development site. Additionally, there are bike lanes from the development site to downtown Ashland. The bike lanes provide safe and accessible bicycle travel options from the site to likely destinations and are in compliance with the jurisdictional authority, the Oregon Department of Transportation.

PEDESTRIAN ACCESS

As per AMC 18.5.8.050 (E) (3), there is a requirement to provide the following: 1) safe and accessible pedestrian facilities according to the safety analysis and standards of the governing jurisdiction of the facility or street (e.g., City of Ashland, Jackson County, Oregon Department of Transportation) exist, or can and will be constructed. 2) Full sidewalk improvements shall be provided on one side of all streets bordering on the proposed annexed area. 3) Sidewalks shall be provided as required by ordinance on all streets within the annexed area. 4) Where the annexed area is within a quarter of a mile of an existing sidewalk system or a location with demonstrated significant pedestrian activity, the approval authority may require sidewalks, walkways or multi-use paths, to be constructed to extend and connect to either or both the existing system and locations with significant pedestrian activity.

1. There are currently no sidewalks along Hwy 99 between the development site and Schofield St to the south. The applicant will be providing street frontage improvements that meet the city design standards which includes full sidewalk improvements. The

sidewalk will extend south beyond the site to connect to the existing sidewalk to the south. The pedestrian facilities that will be provided as part of the annexation is in compliance with the design and safety criteria of the governing jurisdiction, ODOT. This criterion is met.

2. Hwy 99 is the only street that borders the development site. There are currently no sidewalks on either side of Hwy 99 along the frontage. The applicant will be providing full sidewalk improvements along the Hwy 99 frontage in compliance with the governing jurisdiction authority, ODOT. This criterion is met.

3. There are no interior streets proposed. There will be several pedestrian connections made between Hwy 99 and apartment buildings, parking areas, and other areas on site. This criterion is met.

4. The applicant will be providing a sidewalk connection to the south, in compliance with the governing jurisdiction, ODOT. This criterion is met.

Additionally, the applicant will be providing a High Visibility crosswalk across Hwy 99 in the form of a Rectangular Rapid Flashing Beacon (RRFB). The crossing will be place between N Main St at Schofield St near the bus stops. The RRFB crossing will provide a safe pedestrian crossing for development site users to cross Hwy 99 to access the nearest bus stop. The local ODOT authorities have given approval to install a crosswalk and Rectangular Rapid Flashing Beacon (RRFB). The developer has to design and install the facility at their expense. ODOT has agreed on the location and concept layout. Once the design has been complete, it will be submitted to ODOT for review. Figure 1 attached shows an illustration of the RRFB crossing.

The proposed sidewalk construction along the site frontage, the sidewalk connection to the existing sidewalk to the south, and the enhanced pedestrian crossing across Hwy 99 will provide the uses of the site with reasonably safe and accessible walking options between the site and adjacent destinations. All of these improvements will be in compliance with the governing jurisdiction, ODOT.

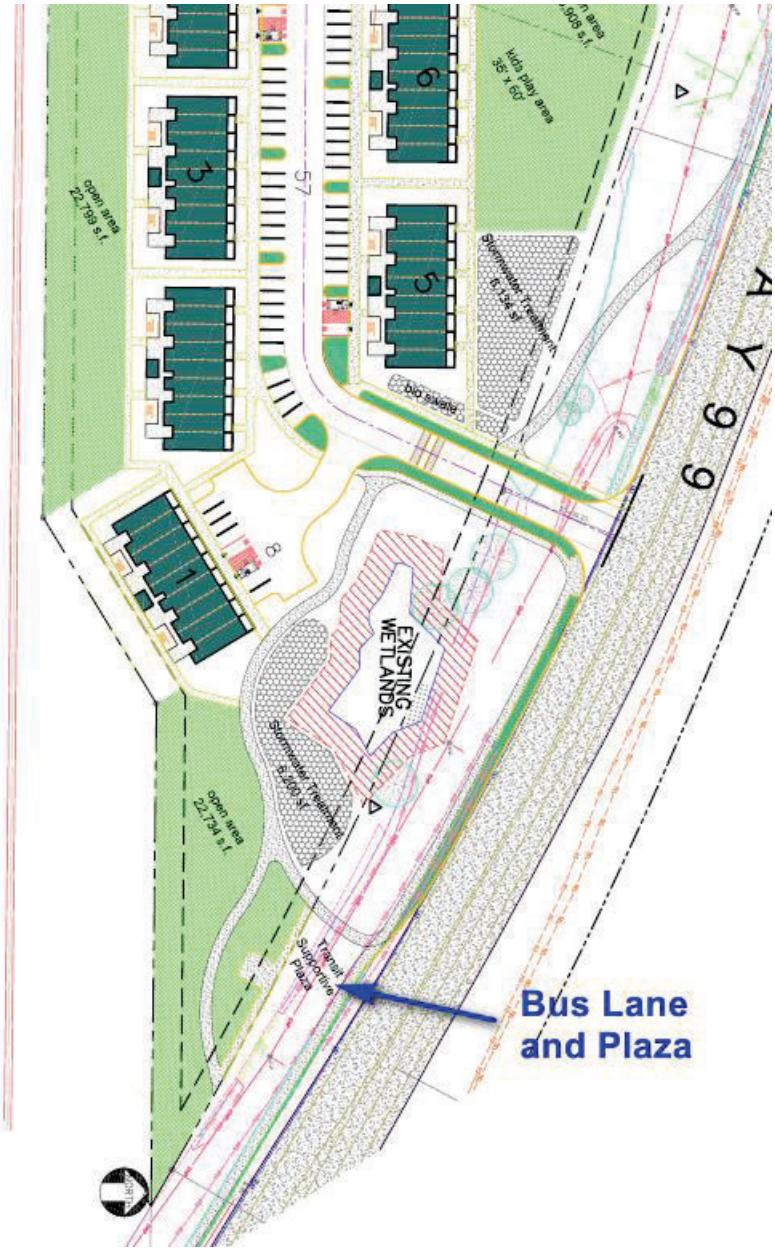
Transit

As per AMC 18.5.8.020(E)(4), for transit transportation, should transit service be available to the annexed area, or likely be extended to the annexed area in the future based on information from the local public transit provider, the approval authority may require construction of transit facilities, such as bus shelters and bus turn out lanes.

Currently, the nearest transit stop is located south of the site between Main Street and Schofield St (approximately 950 feet to the south). The applicant will be providing a High Visibility Pedestrian Crossing in the form of a Rectangular Rapid Flashing Beacon (RRFB). The crossing will be place between N Main St at Schofield St near the bus stops. The RRFB crossing will provide a safe pedestrian crossing for development site users to cross Hwy 99 to access the bus stop.

The applicant will be constructing a bus lane and a covered bus plaza for an enhances transit stop along the southern site frontage. The design will allow buses to stop outside the travel lane and have a dedicated lane to accelerate prior to merging into the travel lane. The applicant will be providing a direct multi-use path from the apartment building to the bus plaza. The illustration below demonstrates the concept level bus plaza location.

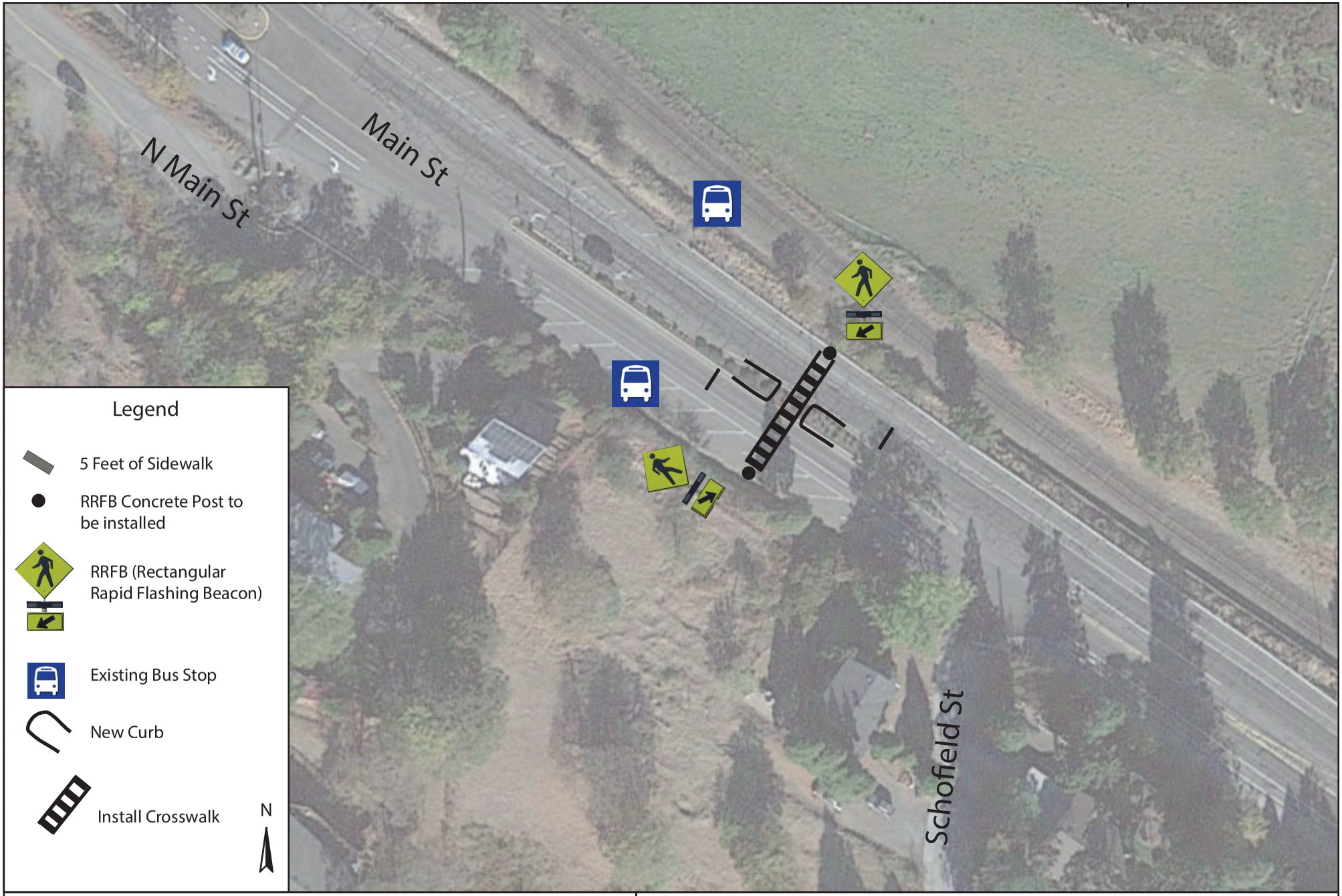
The applicant is providing safe connections to the existing transit stops and providing enhanced transit access along the site frontage at the location requested by RVTD based on their evaluation of safety for the transit access and location, in compliance with the governing jurisdiction, ODOT.



CONCLUSION

As presented in this letter, the driveway will operate safely and efficiency for the level of vehicle use proposed.

The applicant will provide full sidewalks and bicycle improvements along the site frontage, provide sidewalk connections to the south, an enhanced pedestrian crossing (RRFB) across Hwy 99, and an enhances transit stop along the southern site access. The pedestrian, bicycle, and transit facilities in place with the annexation and development of the site will provide facilities that are in compliance with the governing roadway jurisdiction safety and design requirements. Therefore, the proposed annexation is in compliance with the standards of AMC 18.5.8.050 E and the governing jurisdiction, ODOT.



Ashland, OR

Concept location of New Crosswalk and RRFB

SANDOWENGINEERING

160 Madison Street Suite A Eugene, Oregon 97402 - 541.513.3376 - sandowengineering.com

Applicant Submittal: 433

Total Page Number: 495

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	18	16	29	1401	1056	54
Future Vol, veh/h	18	16	29	1401	1056	54
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	75	0	125	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	95	95	95	95
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	21	19	31	1475	1112	57

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2678	1141	1169	0	-	0
Stage 1	1141	-	-	-	-	-
Stage 2	1537	-	-	-	-	-
Critical Hdwy	6.41	6.21	4.11	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.209	-	-	-
Pot Cap-1 Maneuver	25	245	601	-	-	-
Stage 1	306	-	-	-	-	-
Stage 2	197	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	24	245	601	-	-	-
Mov Cap-2 Maneuver	118	-	-	-	-	-
Stage 1	290	-	-	-	-	-
Stage 2	197	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	32.1	0.2	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	601	-	118	245	-	-
HCM Lane V/C Ratio	0.051	-	0.179	0.077	-	-
HCM Control Delay (s)	11.3	-	42.1	20.9	-	-
HCM Lane LOS	B	-	E	C	-	-
HCM 95th %tile Q(veh)	0.2	-	0.6	0.2	-	-

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	4:20	4:20	4:20	4:20	4:20	4:20
End Time	5:30	5:30	5:30	5:30	5:30	5:30
Total Time (min)	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	3	3	3	3	3	3
# of Recorded Intervals	2	2	2	2	2	2
Vehs Entered	3527	3476	3500	3530	3568	3521
Vehs Exited	3515	3474	3535	3528	3499	3509
Starting Vehs	240	239	266	232	222	238
Ending Vehs	252	241	231	234	291	242
Travel Distance (mi)	5060	4999	4973	5002	5089	5025
Travel Time (hr)	539.6	521.6	438.9	469.6	541.5	502.3
Total Delay (hr)	382.8	367.2	285.0	314.6	384.3	346.8
Total Stops	4726	4527	4385	4255	5235	4625
Fuel Used (gal)	244.8	238.6	219.6	226.3	246.7	235.2

Interval #0 Information Seed

Start Time	4:20
End Time	4:30
Total Time (min)	10

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	4:30
End Time	4:45
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	918	917	894	899	942	913
Vehs Exited	881	887	906	890	873	888
Starting Vehs	240	239	266	232	222	238
Ending Vehs	277	269	254	241	291	260
Travel Distance (mi)	1312	1275	1276	1255	1283	1280
Travel Time (hr)	84.6	96.4	80.6	82.3	90.8	87.0
Total Delay (hr)	44.1	57.0	41.4	43.6	51.3	47.5
Total Stops	1246	1258	1063	1005	1173	1148
Fuel Used (gal)	50.5	53.0	49.1	48.5	51.5	50.6

Interval #2 Information Recording2

Start Time	4:45
End Time	5:30
Total Time (min)	45

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	Avg
Vehs Entered	2609	2559	2606	2631	2626	2606
Vehs Exited	2634	2587	2629	2638	2626	2622
Starting Vehs	277	269	254	241	291	260
Ending Vehs	252	241	231	234	291	242
Travel Distance (mi)	3748	3724	3697	3748	3806	3744
Travel Time (hr)	455.0	425.2	358.3	387.3	450.7	415.3
Total Delay (hr)	338.7	310.2	243.6	271.0	333.1	299.3
Total Stops	3480	3269	3322	3250	4062	3477
Fuel Used (gal)	194.3	185.6	170.5	177.8	195.1	184.7

Intersection: 26: 99 & South Project Access, Interval #1

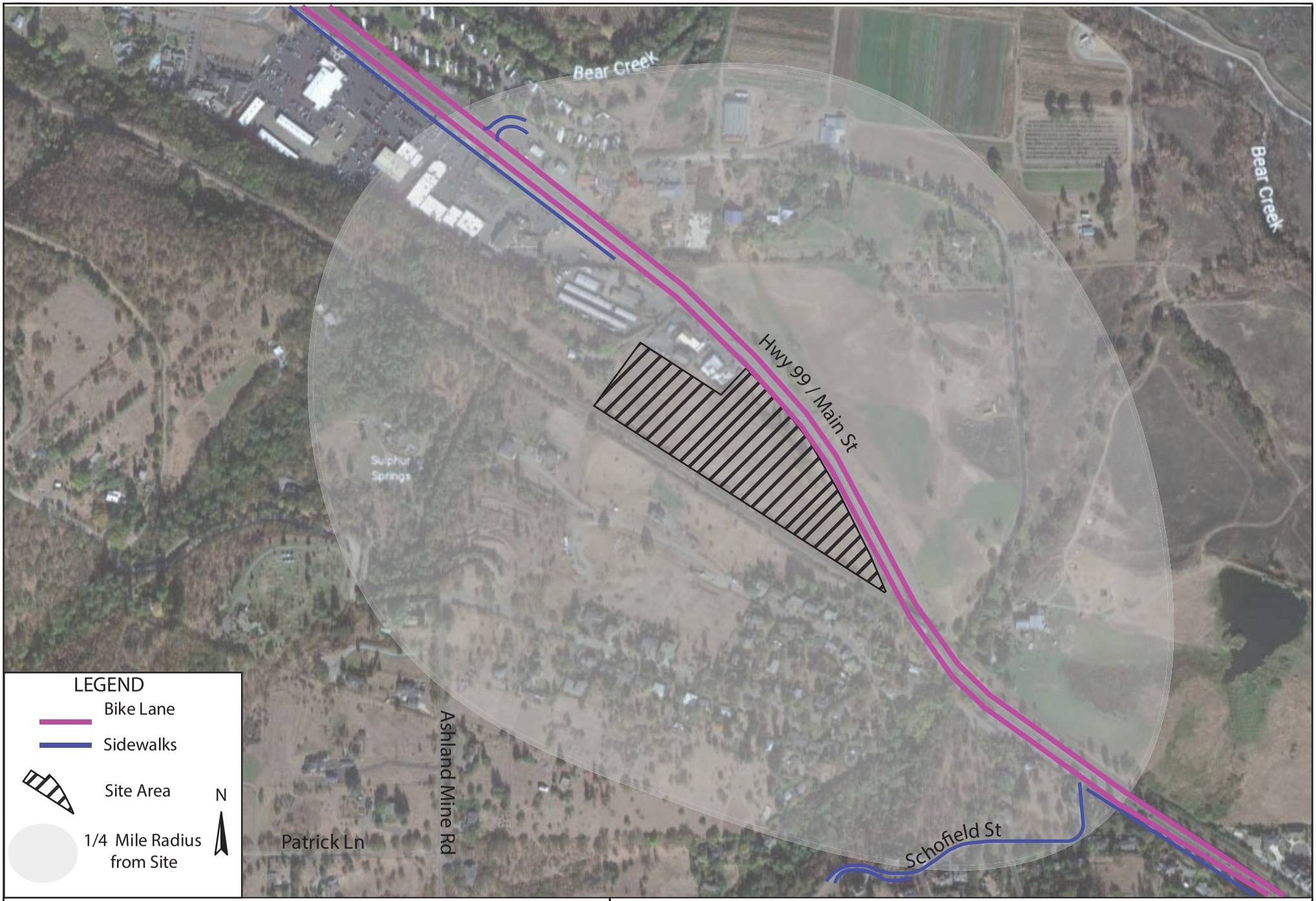
Movement	EB	EB	NB
Directions Served	L	R	L
Maximum Queue (ft)	58	43	42
Average Queue (ft)	29	17	13
95th Queue (ft)	68	47	42
Link Distance (ft)		163	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	75		125
Storage Blk Time (%)	5	0	
Queuing Penalty (veh)	1	0	

Intersection: 26: 99 & South Project Access, Interval #2

Movement	EB	EB	NB
Directions Served	L	R	L
Maximum Queue (ft)	71	43	44
Average Queue (ft)	23	13	17
95th Queue (ft)	62	41	45
Link Distance (ft)		163	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	75		125
Storage Blk Time (%)	4	0	
Queuing Penalty (veh)	1	0	

Intersection: 26: 99 & South Project Access, All Intervals

Movement	EB	EB	NB
Directions Served	L	R	L
Maximum Queue (ft)	75	54	48
Average Queue (ft)	24	14	16
95th Queue (ft)	64	43	44
Link Distance (ft)		163	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	75		125
Storage Blk Time (%)	4	0	
Queuing Penalty (veh)	1	0	



Grand Terrace, Ashland, OR

Pedestrian Facilities

SANDOWENGINEERING

160 Madison Street Suite A Eugene, Oregon 97402 - 541.513.3376 - sandowengineering.com

Applicant Submittal: 438

Total Page Number: 500

SANDOWENGINEERING
160 MADISON STREET SUITE A • EUGENE, OREGON 97402 • 541.513.3376

DATE: December 11, 2024

TO Robert Kendrick
Grand Terrace

FROM: Kelly Sandow PE
Sandow Engineering

RE: Grand Terrace- Traffic Volumes



RENEWAL 06/30/26

As per your request, Sandow Engineering has performed an evaluation of the adjacent roadway traffic volumes to determine if there is a significant enough change in traffic levels to warrant an update to the traffic analysis prepared for the Grand Terrace apartments in Ashland, Oregon.

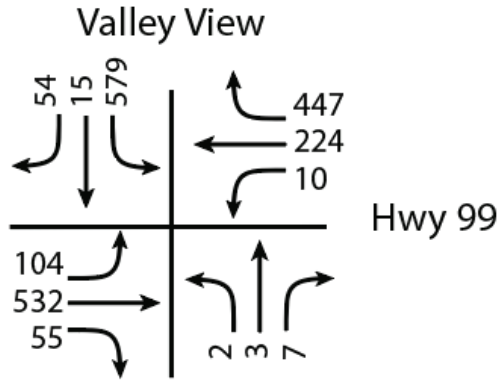
Sandow Engineering performed recent turning movement counts at the intersection of Highway 99 at Valley View Road on December 3, 2024, from 3-6 PM and December 4, 2024, from 6-9 AM. These counts were used to determine the peak one-hour traffic volumes at this intersection. The peak one-hour traffic volumes during the AM and PM time periods are adjusted to reflect the peak season conditions using ODOT's Seasonal Adjustment Methodology, as standard in performing Traffic Impact Analysis. The data for the "commuter" trend illustrates that the December volumes should be adjusted by a factor of 1.15 to represent peak season volumes. The peak season year 2024 volumes are compared to the base year 2019 volumes within the TIA. The volumes are provided in the illustrations below.

As demonstrated in the volume illustrations, the year 2024 traffic volumes at this intersection are approximately 20% lower during the AM peak hour and 8% lower during the PM peak hour than the year 2019 volumes.

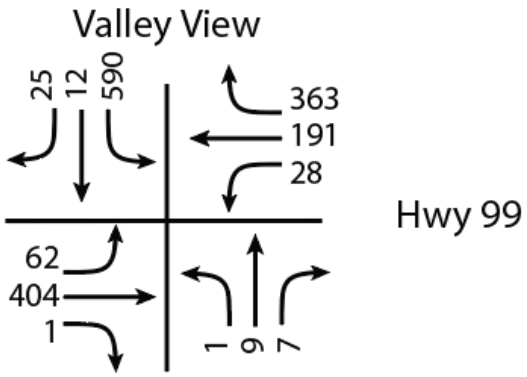
Additionally, ODOT's Automatic Traffic Recorders located within the area were reviewed for traffic volume changes between the year 2019 and year 2024. ODOT has 3 ATRs located near Ashland: one is located on Highway 99 approximately 1 mile north of Valley View, one is located on I-5 just south of the Valley View interchange, and the third is located on I-5 just south of the Highway 99 interchange. The ATR data, provided below, illustrates a significant drop in traffic volumes at all three locations between the years 2019 and 2024.

As the volumes have not increased, the intersection evaluation in the existing Traffic Impact Analysis would be sufficient to evaluate impacts from the Grand Terrace Apartments.

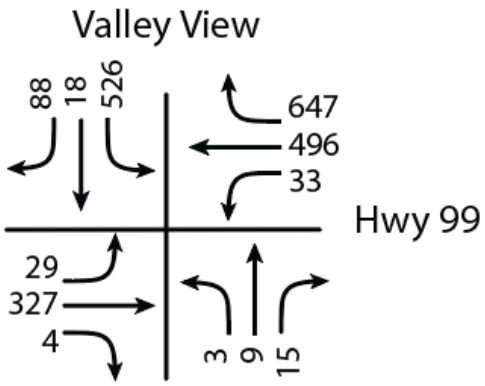
Turning Movement Counts



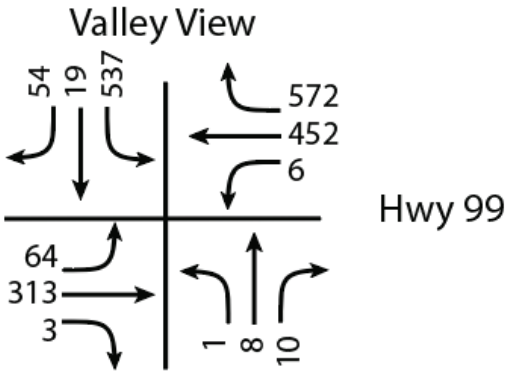
2019 AM



2024 AM



2019 PM



2024 PM

SANDOW ENGINEERING

ODOT ATR Data

Location	OR99; ROGUE VALLEY HIGHWAY NO. 63; 0.33 miles nw of Talent Avenue	Site Name	Talent (15-014)
		Installed	September, 1957

HISTORICAL ANNUAL TRAFFIC DATA

Year	Annual Average Daily Traffic (AADT)	Critical Values as percent of Annual Average Daily Traffic (% AADT)				
		MaxDay	MaxHour	10thHour	20thHour	30thHour
2014	8836	140.4	14.3	12.6	12.3	11.9
2015	9201	122.5	11.2	10.3	10.0	9.9
2016	9800	133.2	12.0	10.5	10.1	10.0
2017	9351	126.4	12.4	10.4	10.2	10.1
2018	8402	***	***	***	***	***
2019	8388	125.3	16.7	10.4	10.0	9.9
2020	6960	***	***	***	***	***
2021	7168	169.3	18.7	11.7	11.0	10.8
2022	7301	122.9	11.1	10.6	10.5	10.4
2023	7349	134.1	15.6	10.9	10.6	10.5

2023 SEASONAL TRAFFIC DATA

Month	Weekday		Daily	
	Average	% AADT	Average	% AADT
January	7542	103	6951	95
February	7498	102	7008	95
March	7649	104	7074	96
April	8232	112	7688	105
May	8371	114	7897	107
June	8491	116	7967	108
July	7906	108	7407	101
August	7648	104	7129	97
September	7950	108	7405	101
October	8095	110	7635	104
November	7641	104	7124	97
December	7348	100	6909	94

Highest Hour

Date	Day	Hours of Day	Rank	Volume	% AADT
04/28/2023	Friday	5:00 - 6:00 pm	1	1150	15.6
10/05/2023	Thursday	3:00 - 4:00 pm	10	801	10.9
10/31/2023	Tuesday	2:00 - 3:00 pm	20	776	10.6
10/26/2023	Thursday	3:00 - 4:00 pm	30	768	10.5
12/07/2023	Thursday	3:00 - 4:00 pm	40	759	10.3
12/15/2023	Friday	4:00 - 5:00 pm	50	752	10.2

Highest Day

Date	Day	Volume	% AADT
04/28/2023	Friday	9857	134.1

Comments:
2018 - Construction Zone.
2020 - Wildfires and construction activity lowered % AADT Sept - Dec.
2023 - Aug had construction lowered volumes

Location	I-5; PACIFIC HIGHWAY NO. 1; 0.98 miles south of North Ashland Interchange	Site Name	North Ashland (15-021)
		Installed	August, 1999

HISTORICAL ANNUAL TRAFFIC DATA

Year	Annual Average Daily Traffic (AADT)	Critical Values as percent of Annual Average Daily Traffic (% AADT)				
		MaxDay	MaxHour	10thHour	20thHour	30thHour
2014	24387	143.5	13.0	10.7	10.1	9.9
2015	26263	135.9	12.9	10.6	9.9	9.8
2016	27400	147.0	12.2	10.3	10.0	9.8
2017	28080	143.2	11.4	10.5	10.2	9.9
2018	27892	132.7	11.1	10.3	10.0	9.8
2019	28097	***	***	***	***	***
2020	25353	136.7	10.7	10.1	9.9	9.8
2021	28700	***	***	***	***	***
2022	26949	138.1	11.0	10.1	9.9	9.6
2023	26310	143.1	11.2	10.5	10.4	10.2

2023 SEASONAL TRAFFIC DATA

Month	Weekday		Daily	
	Average	% AADT	Average	% AADT
January	24147	92	22864	87
February	22975	87	22281	85
March	25165	96	23895	91
April	27964	106	26778	102
May	29303	111	27836	106
June	31517	120	30359	115
July	30963	118	29611	113
August	28982	110	27939	106
September	28947	110	27499	105
October	26751	102	25718	98
November	26869	102	26097	99
December	25702	98	24337	93

Highest Hour

Date	Day	Hours of Day	Rank	Volume	% AADT
06/30/2023	Friday	2:00 - 3:00 pm	1	2957	11.2
07/01/2023	Saturday	11:00 - 12:00 am	10	2773	10.5
09/19/2023	Tuesday	11:00 - 12:00 am	20	2747	10.4
09/14/2023	Thursday	0:00 - 1:00 pm	30	2684	10.2
06/14/2023	Wednesday	3:00 - 4:00 pm	40	2673	10.2
07/01/2023	Saturday	1:00 - 2:00 pm	50	2641	10.0

Highest Day

Date	Day	Volume	% AADT
06/30/2023	Friday	37654	143.1

Comments:
2019 - Construction outages April — July.
2020 - Data not available for Nov and Dec 2020.
2021 - Data not available for entire year

Location	I-5; PACIFIC HIGHWAY NO. 1; 0.86 miles south of Rogue Valley Highway No. 63 Interchange (OR99)	Site Name	Neil Creek (15-002)
		Installed	November, 1964

HISTORICAL ANNUAL TRAFFIC DATA

Year	Annual Average Daily Traffic (AADT)	Critical Values as percent of Annual Average Daily Traffic (% AADT)				
		MaxDay	MaxHour	10thHour	20thHour	30thHour
2014	14961	178.7	17.9	14.3	13.3	12.7
2015	16219	178.0	18.3	13.7	13.0	12.2
2016	17000	170.6	16.7	13.0	12.2	11.7
2017	17247	173.1	15.3	13.7	12.9	12.4
2018	16908	166.7	15.5	13.3	12.5	11.8
2019	17326	***	***	***	***	***
2020	15760	***	***	***	***	***
2021	18253	171.0	15.4	12.0	11.4	11.1
2022	16843	153.6	14.7	12.9	12.0	11.5
2023	16128	161.6	14.6	12.6	11.9	11.5

2023 SEASONAL TRAFFIC DATA

Month	Weekday		Daily	
	Average	% AADT	Average	% AADT
January	13609	84	13584	84
February	12805	79	13216	82
March	13596	84	13172	82
April	15641	97	15662	97
May	16931	105	16623	103
June	19772	123	19589	121
July	19781	123	20158	125
August	18191	113	18286	113
September	16734	104	16542	103
October	15882	98	15791	98
November	15585	97	15998	99
December	15312	95	14922	93

Highest Hour

Date	Day	Hours of Day	Rank	Volume	% AADT
11/26/2023	Sunday	1:00 - 2:00 pm	1	2349	14.6
07/01/2023	Saturday	1:00 - 2:00 pm	10	2030	12.6
06/25/2023	Sunday	2:00 - 3:00 pm	20	1926	11.9
07/30/2023	Sunday	2:00 - 3:00 pm	30	1854	11.5
12/23/2023	Saturday	11:00 - 12:00 am	40	1824	11.3
07/23/2023	Sunday	1:00 - 2:00 pm	50	1805	11.2

Highest Day

Date	Day	Volume	% AADT
07/01/2023	Saturday	26058	161.6

Comments:
2019 - Construction outages July — December.
2020 - Construction zone throughout the year.
2021 - Equipment outage - December.
2022 - January was estimated

SANDOW ENGINEERING

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160 MADISON STREET SUITE A • EUGENE, OREGON 97402 • 541.513.3376

DATE: November 6, 2024

TO Robert Kendrick

FROM: Kelly Sandow PE
Sandow Engineering

RE: Grand Terrace- Traffic Impact Evaluation



RENEWAL 06/30/26

Sandow Engineering has performed an updated trip generation estimate for the current development proposal for the Grand Terrace residential development in Ashland, Oregon.

The previous analysis (as provided in the TIA dated August 5, 2019) evaluated the impacts of 251 apartment units, which is the maximum development potential allowed in the zoning. The estimated level of daily and peak hour trips used in the 2019 TIA is provided in Table 1 below.

The applicant is currently proposing the construction of 210 apartment units. The estimated levels of daily and peak-hour trips are provided in Table 2.

TABLE 1: TRIP GENERATION- 2019 TRAFFIC IMPACT ANALYSIS

			Trip Generation					
ITE Land Use	Size	Unit	Rate	Trips	% In	% Out	Trips In	Trips Out
AM								
220 Low-Rise Residential	251	Dwelling Unit	Ln(T) = 0.95 Ln(x) -0.51	114	0.23	0.77	26	88
PM								
220 Low-Rise Residential	251	Dwelling Unit	Ln(T) = 0.89 Ln(x) -0.02	134	0.63	0.37	84	50
Daily								
220 Low-Rise Residential	251	Dwelling Unit	T=7.56(x)-40.86	1857	50	50	929	928

TABLE 2: TRIP GENERATION-CURRENT DEVELOPMENT PROPOSAL

ITE Land Use	Size	Unit	Trip Generation					
			Rate	Trips	% In	% Out	Trips In	Trips Out
AM								
220 Low-Rise Residential	210	Dwelling Unit	Ln(T) = 0.95 Ln(x) -0.51	97	0.23	0.77	22	75
PM								
220 Low-Rise Residential	210	Dwelling Unit	Ln(T) = 0.89 Ln(x) -0.02	114	0.63	0.37	72	42
Daily								
220 Low-Rise Residential	210	Dwelling Unit	T=7.56(x)-40.86	1547	50	50	774	773

As demonstrated above, the proposed development of 210 apartment units will generate fewer development trips than the level evaluated in the 2019 Traffic Impact Analysis. Therefore, no further evaluation is necessary.

TRANSPORTATION
December 11, 2024

Grand Terrace development consist of 210 housing units with 176 parking spaces. For pedestrian, bicycle and vehicles transportation safety is important. The following describes how Grand Terrace has addressed their safety and mobility.

The development area is at the entrance to the city and in an area that is mostly avoided because its unsafe and at nighttime it's more dangerous. There are no safe Pedestrian or bike facilities that equal the standards of the city but only a ditch, a roadside strip on the highway shoulder with dirt and rocks with an exposed earth berm seven feet tall towering over the road and vehicles.

For nearly a mile this condition continues with no sidewalks, driveways, curbs, crosswalks or pedestrian street lighting. This is the entryway of the city. There are only two transit stops providing north and south bound trips that are nearly a mile apart. There are currently no sidewalks here either for nearly a mile. This severely limits pedestrian access and safety for north Ashland residents. Hwy 99 is the only street that borders the proposed development site.

For Pedestrian Transportation, the applicant has developed construction plans and is proposing new street frontage improvements that includes full sidewalk improvements for safer pedestrian travel. All these improvements will be connecting the area in the UGB where the sidewalks end and are nonexistent for a mile to where the sidewalks begin inside Ashland city limits. These public sidewalks connect to the onsite sidewalk system and together enhance connectivity that is safe with multiple accessible routes to the public areas. Pedestrian connections within the development connect the apartments to the parking areas, open spaces, and other apartments and to the public sidewalks along the frontage.

For Mass Transit The applicant has worked with RVTD Programs Manager and ODOT for a new stop directly in front of the development. The proposed stop has adequate bus pull out area and meets the dimensional requirements for the Transit Supportive Plaza area that will also be installed in the area. There are paths for pedestrians and bicyclist that are ADA accessible leading directly to the site from the public sidewalk and the transit stop. A bus pull out lane with a covered transit-oriented pedestrian plaza will be added here too.

Currently, the nearest transit stop is located south of the site between Main Street and Schofield St (approximately 950 feet to the south) and difficult and unsafe to get across the street. The applicant has designed a high visibility pedestrian crossing in the form of a Rectangular Rapid Flashing Beacon (RRFB). The crossing will be placed between N Main St at Schofield St near the transit stops. With the help of RVTD and ODOT the crossing at Scofield is being improved for pedestrians crossing Hwy 99 and waiting for the bus. Plans have been made by both entities for hard surface staging and waiting areas at the bus stop for pedestrians on foot, bike and wheelchair. The RRFB crossing is pedestrian activated making it much safer because the operator has control over the traffic. This will provide a safe crossing for pedestrian, bicycle and wheelchairs crossing to entry Grand Terrace and for north Ashland neighborhoods to cross Hwy 99 to access the transit stop.

Also, at the Railroad overpass safety additions are being added including raised sidewalks and lighting overhead. Presently it is dark and lacks improvements. ODOT has developed construction plans for a raised pedestrian sidewalk, overhead lighting, and a bike lane. An extra measure of caution is added by

including a vertical barrier or a separation wall atop the curb that is 3 feet high. This will provide a safer, well-lit area increasing the comfort and safety than currently exists.

On the Development site there are two dedicated pedestrian loading area for vans and buses that are located for easy access. This area will also serve those with disabilities.

Because the residential development would be creating traffic onto the Highway, the city, by order of the ODOT the jurisdiction authority, was required to conduct a study from a detailed list of items by ODOT about the impact on the highway and its safety, this is the TIA by Sandow Engineering. ODOT reviewed the study. The TIA was finalized and approved by ODOT. The report includes an analysis of safety for vehicles and pedestrians. The analysis is a study of Site Distance, Stopping Distance and Reaction Sight Distance for vehicles coming and going from the development and their interaction with pedestrians. The safety criteria for these studies were met and exceeded the criteria.

SIGHT DISTANCE: Clear line of sight, or sight distance for vehicles at the driveway that allows drivers entering and exiting to make safe turning movements and vehicles traveling on the roadway time to react to turning vehicles in a safe manner. The proposed location has the clear line of sight required for all conditions.

STOPPING SIGHT DISTANCE: Safe Stopping sight distance (SSD) is based on the speed of the roadway being traveled on Hwy 99 with a posted speed of 45 MPH and the required distance to see and stop. Based on AASHTO (The American Association of State Highways) this distance needed exceeds the amount required in either direction.

INTERSECTION SIGHT DISTANCE: Safe reaction time to turn meets the criteria. The Intersection Sight Distance (ISD) is a measure of the length of visibility of the roadway give to a stopped driveway on a minor road approach. The distance provides time to perceive and react to gaps in traffic and allow a driver to safely turn into the roadway. The recommended ISD is calculated for a vehicle turning from the access onto Hwy 99 for both left and right turn maneuvers. The ISD calculations are based on the AASHTO manual and the speed of 45 mph and ISD of 500 feet for this approach. The available ISD to the north was measured at 569 feet, and the available ISD to the south was measured at 577 feet both exceeding the required safe distance.

Bicycle

Safe and accessible bicycle facilities are being constructed adjacent to annexed area along the border of the street. Bike lanes are provided and will be constructed along the arterial street frontage of the annexed area. Hwy 99 currently has buffered bicycle lane (striping) along the frontage of the property. There are bike lanes on both sides of Hwy 99 that extend to the north of Valley View Road and south, into downtown Ashland. The bike lanes are ODOT width and striped with a buffer along the frontage and most of the improvement area. The development proposal includes two path connections into the site and bike racks at the Transit Plaza. The bicycle facilities that exist and designed in the plan are in compliance with the design and safety criteria of the governing jurisdiction, ODOT.

Pedestrian

Sidewalks are being provided as required by ordinance on all streets within the annexed area.

Transit

New and improved transit service will be made available to the annexed area. A Bus Stop, Pull Out Lane and Transit Plaza with overhead cover, lighting, seating and bike racks will be installed adjacent to the entryway.

The proposed development exceeds city standards, beautifies the entryway of Ashland, benefits the local businesses, protects the environment encourages multiple transit options of walking, cycling and mass transit that have no impact on the environment and connects the city for pedestrian use.

The purpose of site review is to regulate the manner land is developed, reduce adverse effects on surrounding property owners and the public and create an environment that is safe and comfortable, further energy conservation and enhance the environment for walking, cycling, and mass transit use, increase business activity and to ensure high quality development in the City. The proposed development will beautify the entryway of Ashland and benefit the local businesses and the environment.

Multiple pedestrian transportation options of new sidewalks, crosswalks, curbs and bus stops are being proposed. No new streets are being added but the applicant will be improving streets. Two driveways are included in the development with concrete aprons and a full commercial grade apron at the main entry where ODOT's safety standards are met for the ingress and egress to the highway. For pedestrians entering the development from the south a new crosswalk will be built with an RFB where people and bike will have control of the crossing.

A bus stop is located here too and by operating Rapid Flashing Beacon all pedestrians can notify vehicles to stop so they can safely cross the street and access Grand Terrace by foot, bike and wheelchair.

The proposal is consistent with the purpose, intent, and background of the street design standards in subsection 18.4.6.040 which are based on safety. The proposed improvements comply with the standards and specifications of the jurisdiction, the Oregon Dept. of Transportation. Through the installation of these improvement neighborhoods will be connected through the installation of 3,000 lineal feet of sidewalks, overhead lighting, crosswalk and flashing beacon, bus stops and transit plaza.

The public will have opportunities for multiple forms of transit. The improvements will also change the roadside culture and induce cars to lower their speed limit. The multiple transit options make for a safer environment by increasing the feeling of safety and security for pedestrians, cyclist and bus users. The proposed improvement which are an exception to the city standard comply with the standards of the jurisdictional authority, the Oregon Department of Transportation.

EV charging stations and infrastructure are being installed on the development, both pedestrian and multi modal paths throughout the site including paths from the public area to the development buildings are included too.

The amount of ADA parking exceeds the standards. They are immediately accessible to the entrance of the building and in most cases located nearest the dedicated handicap apartments whose total exceed the federal requirement. Predominantly flat, smooth and hard, ADA access roll up is made better from the parking area to the unit itself that has flat entrance areas. The American with Disability Act requires 6 parking spaces for lots over 150 spaces. Grand Terrace has 176 parking spaces with 20 ADA spaces.

Bike parking is provided by separate sheltered parking booths on concrete or asphalt base. They are immediate to and visible from the unit front door and easily accessible. The location from the unit to the bike parking is under 50 ft distance from the building and not further than the closest vehicle parking space. Lighting is provided in the shelters along with electric for charging.

On site sidewalks are safe with five feet and greater in width and curbs are six inches high. Curb ramps are located at all crossings with hash marked lines. Street trees are along the walkways, and pedestrian oriented lighting is in all pedestrian areas.

Parking lot areas include all parking spaces, driveways, circulation and maneuvering areas. They are designed to minimize the adverse environmental and microclimatic impacts with over 50% of the areas built with a lighter colored concrete with 40% shaded by trees**.** The areas include landscaped mediums and swales to divert the water toward capture areas. Storm water systems are not overburdened during a storm and the runoff is released at non-peak times. The captured water is treated in a containment system before being released. These are built under the parking lots and in open area retention ponds.

A circulation system map for pedestrians and bicycles consisting of sidewalks, ADA pathway, multi-use paths, bike paths, bike parking, bus stop and pull-out lane, transit center with seating and bike parking, secured pathways under the bridge, a crosswalk with RFB, pooling and van parking areas are included.

For all vehicles and emergency vehicles a circular system is designed in the plans to rotate vehicles around the development in a forward position without turning around. There are two dedicated pool van areas. Emergency vehicle access is made from two access points. The driveways meet the requirements for heavy equipped fire engines both in weight capacity and in turn around standards. FD personnel have approved safe and unobstructed access to all buildings from streets, driveways, and walkways at the sides, front and rear of all buildings. For driveways and areas, the distance between the applicants 'driveways is over 100 feet and none are as close as 24 feet, and over 100 feet from any intersection.

The subdivision meets the controlled access standards which can be made from two points. Separate egress and ingress is included with a turn lane in the street for safety and the lanes marked with center line paint. The street is already fully marked for left and right and turns along the frontage. The driveway design is clearly marked in all areas per code with clearly defined traffic areas and drive areas. The driveway accommodates two-way circulation, and the driveway meets the 20-foot width standard for two-way traffic and 22 feet back up distance.

Only one approach is at the developments frontage while the secondary one is over 800 feet away. The development frontage entry is safe and clear of other traffic from nearby driveways and there are no vertical clearance issues or Vision clearance obstructions from the driveways.

The main driveway grade is 5 percent far beneath the maximum standard and the secondary access driveway is 15% at the highest point for a short distance and is approved by the fire department for access and safety standards.

Driveways are designed to City standards. Lots and parcels conform to the lot standards of the applicable zoning district and the developments lots have been created through the Performance Standard Option and its criteria have been met through the PSO standards.

EVC infrastructure is included in the engineering plans. There are 76 car charging stations included in the design documents meeting the 40% criteria.

-All parking is visible and a close walking distance to units, and no parking abuts a unit, and all ADA parking is immediately available to ADA units.
-All parking areas are adjacent to walkways and paths located for immediate access to residential units by paths, sidewalks and breezeways. Windows are plentiful to all residential units allowing the units to be surveyed if needed.
t the Development entrance

The proposed development meets the purpose of Site Design Review because the development enhances the city and the property in the area with public facilities and adequate transportation.

For transit facilities and related improvements, access, wait time, and ride experience.
Sidewalks will provide safe access to neighborhoods and bus stops. Adding a bus stop and transit supportive plaza area will reduce wait time when north and south bound bus stops are closer. They also increase better ride experience, overhead street lighting will make the transit experience safe, a pedestrian activated flashing light crossing near the site entry and near the intersection of Schofield will give citizens control over the traffic, safer increased access and reduce wait times to cross HWY 99. and will greatly improve pedestrian and bicycle safety where non of these conditions presently exist.

For bicycle facilities, feeling of safety, quality of experience (i.e., comfort level of bicycling along the roadway), and frequency of conflicts with vehicle cross traffic. Improvements will make the bicycle more visible. Sidewalks and curbs, cross walks and beacons, bus stops with overhead cover, benches, bike racks and overhead lighting along the whole area change the transit environment for the bicyclist. Pedestrian walking on sidewalks creates a culture of calming the traffic. Bicyclist activated beacons make crossing the street safer and the user will be seen and the wait time to cross is reduced. A Transit Plaza with bike racks and benches make the user more comfortable. Combined the transit user feels safer, and their experience is of greater quality.

For pedestrian facilities, feeling of safety, quality of experience (i.e., comfort level of walking along roadway), and ability to safety and efficiency crossing roadway. Improvements will make the pedestrians more visible. Sidewalks and curbs, cross walks and beacons, bus stops with overhead cover, benches, and overhead lighting along the whole area change the transit environment for the pedestrian and visibly walking in the area will calm the traffic. Pedestrian activated beacons make crossing the street safer because the user will be seen and the wait time to cross is reduced. The Transit Plaza with bike racks and benches make the user more comfortable. Combined, the transit user feels safer and their experience is of greater quality.

The development plan demonstrates that a Continuous Walkway System extends throughout the development site, and to existing or planned off-site adjacent sidewalks, trails, common open space areas, bus stops and transit plazas and adjacent lands.

Routes are direct with access routes that do not deviate unnecessarily from a straight line or a route that does not involve a significant amount of out-of-direction travel for likely users. Walkways that cross a parking area or driveway are clearly marked with contrasting paving materials and they are all raised/hump crossing areas.

All units have direct access to and from the primary entrance courtyard of the building via sidewalks and breezeways on sidewalks and pathways to other buildings, other units, trash, recycling, parking spaces, open space areas, public sidewalks and transit station.

All units have direct access from their exterior to the courtyards primary entrance and breezeway from sidewalks to other buildings, units, trash, parking and open space areas.

All units have direct access to and from the primary entrance courtyard of the building via sidewalks and breezeways on sidewalks and pathways to other buildings, other units, trash, recycling, parking spaces, open space areas, public sidewalks and transit station.

All sidewalk walkways in the driveway areas are built with curbs that have a raise 6-inch curb. Walkways are both either concrete or asphalt and at least five feet wide. All surfaces are hard and smooth.

All walkway termination points have ADA compliant ramps as noted on the site plan.
The proposed development area is in the UGB and is undeveloped and vacant. It lacks all public facilities including transportation and utilities. It's at the entrance of Ashland and very distinguishable by the sloping topography and roadside ditches and high berms of earth along the roadway, vegetated wetlands including a number of various trees, open unirrigated fields on sloping lands along the roadway and forested hillsides adjacent. The area has remarkably dark streets unfit for pedestrians and wraps around unimproved commercial storefronts with unimproved parking lots, or safe driveways. The use is mixed with a body paint shop, storage facilities, animal hospital and car lots. For safety the area is spotted with bright blinding security lights on 30-foot poles for their own property protection due to the lack of secure sidewalks, lighting and pedestrian presence.

Updated Transportation Report

By Sandow Engineering

As per your request, Sandow Engineering has performed an evaluation of the adjacent roadway traffic volumes to determine if there is a significant enough change in traffic levels to warrant an update to the traffic analysis prepared for the Grand Terrace apartments in Ashland, Oregon.

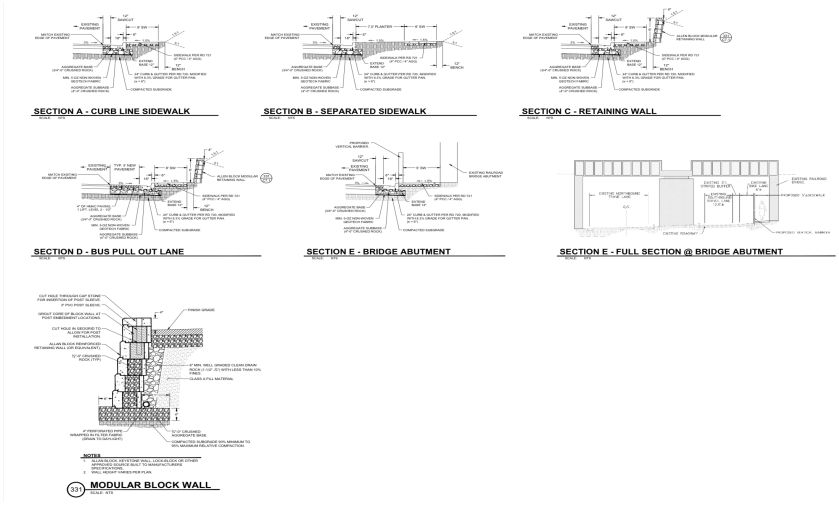
Sandow Engineering performed recent turning movement counts at the intersection of Highway 99 at Valley View Road on December 3, 2024, from 3-6 PM and December 4, 2024, from 6-9 AM. These counts were used to determine the peak one-hour traffic volumes at this intersection. The peak one-hour traffic volumes during the AM and PM time periods are adjusted to reflect the peak season conditions using ODOT's Seasonal Adjustment Methodology, as standard in performing Traffic Impact Analysis. The data for the "commuter" trend illustrates that the December volumes should be adjusted by a factor of 1.15 to represent peak season volumes. The peak season year 2024 volumes are compared to the base year 2019 volumes within the TIA. The volumes are provided in the illustrations below.

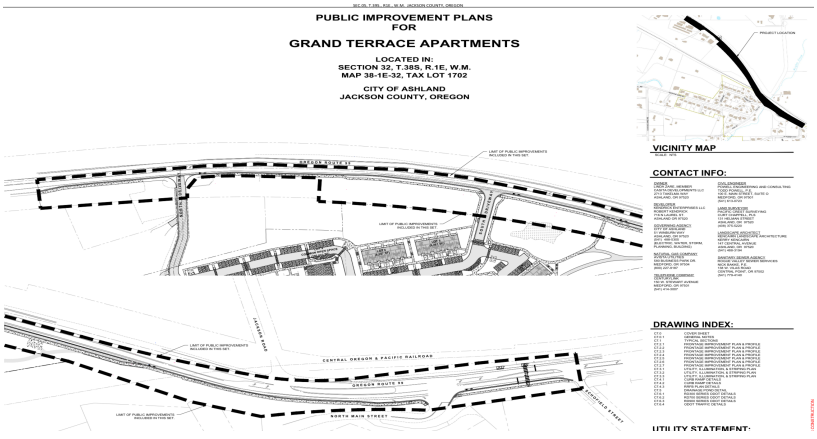
As demonstrated in the volume illustrations, the year 2024 traffic volumes at this intersection are approximately 20% lower during the AM peak hour and 8% lower during the PM peak hour than the year 2019 volumes.

Additionally, ODOT's Automatic Traffic Recorders located within the area were reviewed for traffic volume changes between the year 2019 and year 2024. ODOT has 3 ATRs located near Ashland: one is located on Highway 99 approximately 1 mile north of Valley View, one is located on I-5 just south of the Valley View interchange, and the third is located on I-5 just south of the Highway 99 interchange. The ATR data, provided below, illustrates a significant drop in traffic volumes at all three locations between the years 2019 and 2024.

As the volumes have not increased, the intersection evaluation in the existing Traffic Impact Analysis would be sufficient to evaluate impacts from the Grand Terrace A

TRANSPORTATION DISPLAYS





Grand Terrace
Ashland
Fire Code Consultation
January 23, 2022

The following comments are based on the information received for the Grand Terrace project in Ashland. As the project continues to develop, some comments may be revised to provide better specific application to the project. The following comments have incorporated the Oregon Fire Code, Ashland's amendments to the Oregon Fire Code, Ashland Municipal Code, and NFPA standards as appropriate.

ACCESS

1. Two separate and approved fire apparatus access roads are required. OFC Appendix D 106.

2. **Aerial Fire Apparatus Access Roads** of 26 feet in width are required to be provided in the immediate vicinity of any building or portion of a building when the roof height exceeds 24 feet in height above the lowest level of fire department vehicle access. One or more of these access roads shall be located between 15'-30' from the building and positioned parallel to one entire side of the building. AMC 15.28.070 Q & R and OFC Appendix D105

   **I have a question in to Ashland Fire & Rescue (AF&R) to ascertain if the northern egress from the parking lot can be 24' wide*

3. **Fire Apparatus Access -Shared Access Easement –** If a fire apparatus access road crosses onto or over another property owner's parcel, an easement must be obtained to provide access for fire apparatus. Easement language needs to include wording that indicates that the shared access easement may not be modified, removed, or obstructed in any way without prior written approval from Ashland Fire and Rescue.

4. **Access & Loading** – Access road shall be constructed of an approved material to support the imposed load of fire apparatus weighing up to 75,000 pounds. OFC Appendix D 102

5. **Maximum Slope -** Fire apparatus access roads in commercial developments are permitted to have a maximum slope of 15% grade based on the fire department's website. https://www.ashland.or.us/Page.asp?NavID=17586 OFC Appendix D 103.2

6. **Fire Apparatus Access Approach** -The angle of approach at the point where the public road transitions to the private fire apparatus access road must meet the City of Ashland Engineering Department specifications. OFC 503.2.8

7. **Firefighter Access Pathway** – An approved footpath around the structure is required so that all exterior portions of the structure can be reached with the fire hose. Any changes in elevation

greater than two feet in height (such as retaining walls) require stairs. The stairs shall be an all-weather surface, and meet the requirements as specified in the Oregon Structural Specialty Code. OFC 503.1.1

8. **Turning Radius** – Inside turning radius is at least 20 feet and outside turning radius is at least 40 feet and must be indicated on site plans submitted for-building permits.

9. **Addressing** - Building numbers or addresses must be at least 4 inches tall, be of a color that is in contrast to its background, and shall be plainly visible and legible from the street fronting the property. Additional directional signage may be necessary to guide emergency responders down a driveway, path or through a gate. All premises identification, street signs and building numbers, must be in place with temporary signs when construction begins and permanent signage prior to issuance of any occupancy. OFC 505

10. **Multi-Unit Address Sign** – The developer must provide a minimum access address sign. A pre-approved address sign can also be utilized. OFC 505 Verifying with AF&R the expectation for this.

11. **Gates** – If gates are installed, they shall comply with OFC Appendix D 103.5

12. **No Parking Signs** – "No Parking – Fire Lane" signs shall be installed on each side of a 20'-26' wide fire apparatus road. Signs shall be 12"x18" with red letters on a white reflective background. OFC Appendix D103.6

13. **KnoxBox -** Provision of at least one KnoxBox is required to allow fire department access to locked rooms related to electrical panels, fire protection systems and other maintenance related rooms. Based on our discussion, it sounds like you will place one KnoxBox on each building. This should be placed on the building near the mechanical or sprinkler riser room. KnoxBox can be ordered at this link. https://www.knoxbox.com/Products/Commercial-KnoxBoxes If 10 keys or less will be placed inside, order a KnoxBox 3200. If more than 10 keys will be placed inside, order a KnoxVault 4400**.** AMC 15.28.070 F

WATER SUPPLY & FIRE SPRINKLERS

14. **Fire Flow –** Assuming that these buildings will be no more than 29,000 square feet, a minimum fire flow of 1500 gpm will be required at the private hydrants. Engineer will need to design fire lines to meet this.

15. **Private Underground Fireline** – This is required to be designed, installed and tested in accordance with the 2016 NFPA 24 Standard for the Installation of Private Fire Service Mains and their Appurtenances which can be found at this link - https://www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-standards/detail?code=24 A free version can be viewed online but cannot be copied or printed. This can be purchased in pdf or print version for $65-70. Typically the City of Ashland will require that a vault with a DDC and water meter be installed at the property line with the private line extending from that location to the

buildings. This vault would not be equipped with an FDC. FDC's will be located on each building.

16. **Water Pressure** – We need to find out the minimum required water pressure necessary for the fire sprinkler system in order for the engineer to design the underground water supply appropriately. The fire sprinkler company will provide the needed pressure, and they may not need detailed plans to do this since the maximum design area is for four sprinkler heads. I think they can get us close to the needed pressure at the highest level of the building.

17. **Fire Sprinklers** – An NFPA 13R fire sprinkler system will be required for each building in this project.

18. **Fire Department Connection (FDC) –** The FDC is required to be a 2 ½" Siamese female connection installed 18" to 48" above finished grade. A single 2 ½" NST female swivel connection is acceptable if hydraulic calculations are provided that indicate a single 2 ½ " line will adequately serve the system. It is likely that a single connection will be sufficient, and the fire sprinkler company can determine this. Fire flow alarm shall be placed on the FDC. FDC shall be placed in a location approved by the fire department. Knox FDC locking caps shall be installed on all FDC connections. Knox FDC Locks can be purchased here https://www.knoxbox.com/Products/FDC-Locking-Caps

    **I'm asking AF&R if the FDC can be placed on the building or is required to be placed remotely.*

19. **Fire Hydrants** – As discussed in the meeting, let's propose two hydrants – one at the south end of the parking lot, and one in approximately the center of the parking lot. Based on OFC Appendix C, the average spacing of the hydrants for this project would be 625' which utilizes an increase in spacing because of the fire sprinkler installation. In addition, the location of these hydrants are well-within the maximum distance from the buildings.

    In the event that AF&R should want more, it would likely be one more at the north end of the parking lot. However, I think I would try to demonstrate that their pre-plan for entry to the Grand Terrace would be most practical if it indicated an entrance from the south of the property due to width and slope of the fire apparatus access thus making the two hydrants practical. AMC 15.28.070 G, OFC 507.5.1, OFC Appendix C 102.1

    - ❒ Fire Hydrants shall have a 3-foot clear space around the hydrant and visible from the road. OFC 507.5.5
    - ❒ Hydrants are required to be installed prior to the arrival of combustible materials.
    - ❒ Hydrants are required to have reflectors in the street.
    - ❒ If hydrants are subject to vehicle impact, guard posts shall comply with OFC 312.
    - ❒ Parking is prohibited within 10 feet of a hydrant. ORS 811.550 (16)

- ❒ Oregon PUC and National Electrical Safety Code requires a minimum of 4 feet from any supporting structure for electrical equipment such as transformers and poles. OAR 860-024-0010

WILDFIRE SAFETY

20. All lots within the City of Ashland are subject to the Wildfire Safety Ordinances that became effective on October 18, 2018. This page provides links to all of the applicable requirements: https://www.ashland.or.us/Page.asp?NavID=17670

21. A Fire Prevention and Control Plan is required to be submitted with a Residential Site Design Review. The requirements for this plan can be found at this link - https://www.ashland.or.us/Page.asp?NavID=17672 Note that there is an exception that may allow this requirement to be "reduced or waived when it is demonstrated that the fire risk has been reasonably reduced such as in cases where ignition resistant materials and construction methods, or vegetation type and separation, function to enhance the structure's protection from exterior wildfire exposure." Here is the link to the actual Land Use Code - https://ashland.municipal.codes/LandUse/18.3.10.100

22. **Fire Season** – If work will be completed during fire season, check fire season fire prevention requirements found at www.ashland.or.us/fireseason.

LANDSCAPING

23. The following link provides a list of prohibited flammable plants which applies to any new plantings in the city. https://www.ashland.or.us/Page.asp?NavID=17671

24. **Parking Areas** of more than seven parking spaces shall be served by a driveway 20 feet in width. AMC 18.4.3.080.D.3 - https://ashland.municipal.codes/LandUse/18.4.3.080.D.3

    Fire resistant requirements for walls and screening materials and requirement for parking areas and that these items shall not obstruct fire apparatus access, fire hydrants or other fire appliances. AMC 18.4.3.080.E.6 https://ashland.municipal.codes/LandUse/18.4.3.080.E.6

25. **Screening Materials** are required to be fire resistant. AMC 18.4.4.030.C.5 https://ashland.municipal.codes/LandUse/18.4.4.030.C.5

26. **Weed Abatement** - All vegetation and grass less than 1/4" in diameter is required to be maintained at less than 4" (four inches) in height from May 15 – September 30 or the end of fire season whichever is later. This would apply during the construction process as well. AMC 9.04 https://ashland.municipal.codes/AMC/9.04

OTHER

27. **Fire Extinguishers** – Fire extinguishers shall be installed in accordance with OFC 906 and NFPA 10. In general 2A10BC fire extinguishers should be installed as follows:
    - ❒ Install in each mechanical and/or laundry room

NORTHWEST BIOLOGICAL CONSULTING
HABITAT RESTORATION & ENVIRONMENTAL PLANNING
Engineering Contractor CA-599428 & OR-137378

Grand Terrace Wetland Verification Photos with Narrative

Completed by:

Northwest Biological Consulting

650 Ashland Street

Ashland, Oregon 97520

Ph: 541 041 2042

March 24, 2021

The following photos with narrative confirm the presence and boundaries of a wetland delineation that was completed by Pacific Habitat Services for Casita Developments in 2018 for the Grand Terrace ll project in Ashland, Oregon.



Photo 1: location of upland 2018 plot 6 as indicated by remnant blue flag. Vegetation matched plot data sheet 6a and 6b.



Photo 2: Location of 2018 wetland plot 5 as indicated by remnant blue flag. Wetland vegetation matches plot data sheet 5a and 5b. Wetland hydrology confirmed by Oxidized Rhizospheres.



Photo 3: Indicates location of data 2018 Plots 3 and 4. Upland and wetland plants generally match data sheets. Wetland hydrology confirmed in plot 3 by Oxidized Rhyzospheres. Unidentified grass listed in data sheet 3a is Juncus effuses, FACW.



Photo 4: illustrates overall wetland plant community for data plot 3.

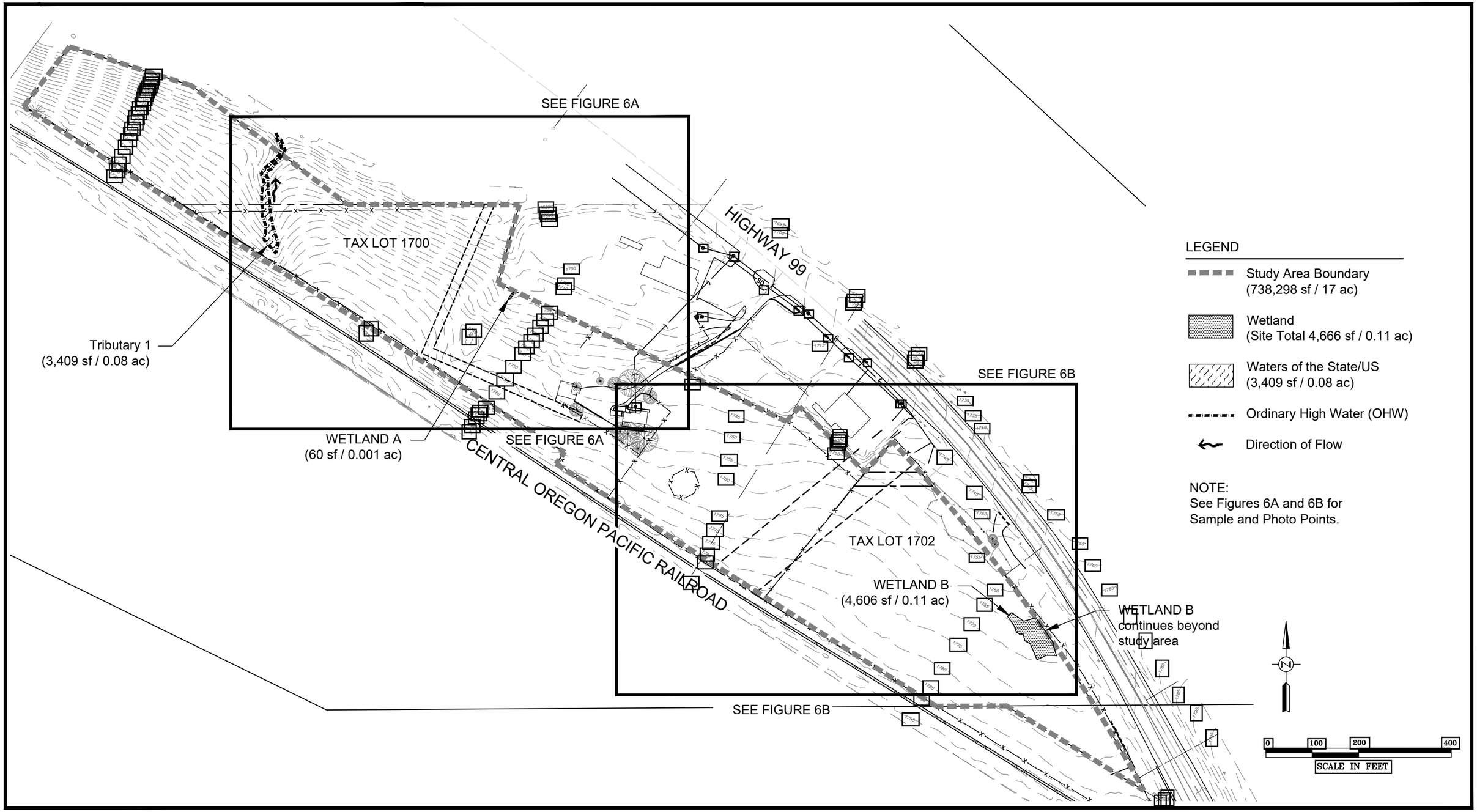


Photo 5: Image of active stream flowing from concrete pipe and grate in the vicinity of 2017 data plots 1 and 2.



Photo 6: Image of flowing stream and riparian vegetation that matches the vegetation description of data plots 1 and 2. Blue

flagging in tree in upper middle of photograph indicates 2017 plot locations.



Pacific Habitat Services,Inc.
9450 SW Commerce Circle, Suite 180 Wilsonville, Oregon 97070
Phone: (503) 570-0800 Fax (503) 570-0855

Survey provided by Polaris Land Surveying, LLC.
Survey accuracy is sub-centimeter. Sample point accuracy is sub-meter.

Wetland Delineation Overview
Grand Terrace II - Ashland , Oregon

FIGURE
6

8-21-2018

Wetland Delineation
for
Grand Terrace II, Ashland, Oregon

(Section 32, Township 38 South, Range 1 East,
Tax lot 1700 and Tax Lot 1702)

Prepared for

Casita Developments, LLC
Attn: Robert Kendrick
153 Will Dodge Way
Ashland, OR 97520

Prepared by

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PHS Project Number: 6326

August 17, 2018



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Figure 1: Vicinity Map (USGS)
Figure 2: Tax Lot Map
Figure 3: National Wetlands Inventory Map
Figure 4: Soil Survey Map
Figure 5: Recent Aerial Photograph
Figure 6: Wetland Delineation Map

APPENDIX B: Wetland Delineation Data Sheets
APPENDIX C: Study area Photos
APPENDIX D: Wetland Definitions, Methodology (client only)

I. INTRODUCTION

Pacific Habitat Services, Inc. (PHS) conducted a wetland delineation for the Grand Terrace II residential development in Ashland, Oregon (Township 38 South, Range 1 East, Section 32, Tax Lots 1700 and 1702). This report presents the results of PHS's delineation of the study area for potentially jurisdictional wetlands and waters of the United States and the state of Oregon. Figures, including a map depicting the location of wetlands within the study area, are in Appendix A. Data sheets documenting study area conditions are provided in Appendix B. Ground-level photos of the study area are included in Appendix C. A discussion of the wetland delineation methodology (for the client) is provided in Appendix D.

II. RESULTS AND DISCUSSION

A. Landscape Setting and Land Use

The approximately 17-acre study area is located at 1511 Highway 99 (North Main Street) in Ashland, Oregon in an area that is undergoing a gradual transition from rural homes on small acreage to commercial and residential development. The center of Ashland lies approximately one mile southeast and the City of Talent lies approximately 3.3 miles northwest. The north adjacent parcel is a car dealership, while other adjacent properties are agricultural or undeveloped, and a railroad line is adjacent to the site's southern boundary. The western portion of the study area is on a relatively steep north facing slope and is forested with Oregon white oak (*Quercus garryana*, UPL) being the dominant tree species and Ponderosa pine (*Pinus ponderosa*, FACU) and madrone (*Arbutus menziesii*, UPL) being subdominant. Thickets of Himalayan blackberry (*Rubus armeniacus*, FAC) and trailing blackberry (*Rubus ursinus*, FAC) shrubs are present in some areas. Dominant herbaceous species include bromes (*Bromus* spp.), tall fescue (*Schedonorus arundinaceus*, FACU), orchard grass (*Dactylis glomerata*, FACU), and bulbous bluegrass (*Poa bulbosa*, FACU).

A perennial stream in the western portion of the study area enters via a culvert and exits via the northern boundary. A very old excavated pit is also located in the western part of the study area and is dominated by a dense shrub layer of Himalayan blackberry with a minor component of poison hemlock (*Conium maculatum*, FACW). North (downslope) of the excavated pit there is a small section of a shallow ditch that was probably connected to the pit at one time; however, there is no longer a pipe or any other means of connecting the ditch to the pit. The ditch contains a small wetland with several large cottonwood trees (*Populus balsamifera*, ssp. *trichocarpa*, FAC) partially within its banks. Upslope areas from the ditch are dominated by Himalayan blackberry shrubs with small pockets of poison hemlock.

An older residence and a barn reside near the center of the study area with a gravel driveway that extends off-site to the north, Vegetation surrounding the house and barn consists of Oregon white oak trees and ruderal upland grasses, including bulbous bluegrass, bromes, and foxtail barley (*Hordeum murinum*, FACU). The eastern portion of the study area slopes gently to the northeast and consists of a pasture that does not appear to have been grazed or irrigated in recent years. The vegetation is mainly non-native grasses and herbaceous species, including foxtail barley, bulbous bluegrass, orchard grass, timothy (*Phleum pretense*, FACU), tall oat grass

(*Arrhenatherum elatius*, UPL), yellow star thistle (*Centaurea solstitialis*, UPL), ox-eye daisy (*Leucanthemum vulgare*, FACU), teasel (*Dipsacus fullonum*, FAC), and poison hemlock. A wetland dominated by lamp rush (*Juncus effusus*, FACW) is located in the southeast portion of the study area.

B. Site Alterations

The perennial stream enters the site via a culvert from under the railroad line adjacent to the southwestern boundary of the study area. The excavated pit in the western part of the study area appears to be a remnant of an abandoned stock pond, but it does not appear to have been filled/used in decades. Aerial photography indicates that a ditch (now abandoned), south of the pit, likely provided a water source and a smaller ditch approximately 80 feet north of the pit likely served as a drainageway. Sample Points 4, 6, 7, and 8, located in the southeastern part of the study area meet the requirements for depleted matrix, but do not meet the requirements for hydrophytic vegetation or wetland hydrology. It is likely that redoximorphic features in these soil samples are relict features from past irrigation practices.

C. Precipitation Data and Analysis

Table 1 compares the average monthly precipitation (Ashland WETS Table) to the observed monthly precipitation at the Ashland Weather Station, for the three months prior to the December 4 and 5, 2017 wetland delineation field work. Table 1 also compares the observed precipitation to the 30 percent average for the period of 1971 through 2000 (Ashland WETS table).

As shown in Table 1, observed precipitation was well below normal during September and October and within normal range during November. In the two weeks prior to the field visit, 0.76 inches of precipitation were recorded at the Ashland Weather Station, which is 143 percent of normal (0.53 inches). Hydrological conditions were considered to be slightly below normal for the December field work.

Table 1. Comparison of average and observed monthly precipitation for Ashland, prior to the December 2017 delineation field work.

Month	Average Precipitation[1]	30% chance will have[1]		Observed Precipitation[2]	Percent of Normal
		Less than	More than		
September	0.88	0.47	1.02	0.44	50
October	1.48	0.87	1.79	0.60	41
November	2.85	1.74	3.46	2.28	80

[1] NRCS WETS Table for the Ashland, OR Weather Station Source: (http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/technical/fotg/)
[2] Data obtained from the Ashland, OR Weather Station Source: (http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/technical/fotg/)

D. Methods

PHS delineated the limits of wetlands within the study area based on the presence of wetland hydrology, hydric soils, and hydrophytic vegetation, in accordance with the routine onsite determination method, as described in the *Corps of Engineers Wetland Delineation Manual, Wetlands Research Program Technical Report Y 87 1* ("The 1987 Manual") and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region.* PHS conducted the wetland/waters delineation and data collection on December 4 and 5, 2017. Because hydrological conditions were considered to be slightly below normal, oxidized rhizospheres along living roots were relied upon for evaluating hydrology when saturation and/or a high water table were not observed.

E. Description of all Wetlands and Other Waters

PHS identified the jurisdictional limits of two wetlands and a stream within the study area. A description of the delineated features is provided below.

Wetland A

Wetland A (0.001 acre / 60 square feet) is a palustrine emergent persistent, seasonally flooded excavated (PEM1Cx) wetland with a hydrogeomorphic (HGM) classification of Depressional, located in a narrow section of ditch that is part of the former drainageway of the abandoned stock pond. The ditch has been filled with dirt at either end so that it no longer conveys flows. Hydrology is mainly provided by runoff from adjacent slopes. Sample Point 11 characterizes the wetland, and vegetation consists of a tree layer of black cottonwood with no shrub or herbaceous layer. Soils meet the requirements for loamy mucky mineral and hydrogen sulfide. A restrictive layer of bedrock at eight inches depth inhibits drainage and surface water was approximately one inch deep.

Sample Point 12 characterizes the adjacent uplands, and vegetation consists of a tree layer of black cottonwood and Oregon white oak. A shrub layer of Himalayan blackberry is also present with a minor component of English hawthorn (*Crataegus monogyna*, FAC); there is no herbaceous layer. Hydric soils and wetland hydrology are absent.

Wetland B

Wetland B (0.11 acre / 4,606 square feet) is a palustrine emergent, persistent, seasonally flooded (PEM1C) wetland with a HGM classification of Slope. Sample Points 3 and 5 characterize the wetland. Vegetation consists of an herbaceous layer that is dominated by lamp rush, tall fescue, velvet grass (*Holcus lanatus*, FAC), colonial bentgrass (*Agrostis capillaris*, FAC), bird's-foot trefoil (*Lotus corniculatus*, FAC), and teasel. Hydric soils meet the requirements for redox dark surface and wetland hydrology meets the requirements for oxidized rhizospheres along living roots.

Sample points 4 and 6 characterize the adjacent uplands. The vegetation consists of an herbaceous layer that is dominated by foxtail barley and yellow star thistle. Both sample points meet the hydric soil requirements for redox dark surface; however, no wetland hydrology indicators are present. Wetland B continues to the east, outside of the study area.

Tributary 1

Tributary 1 (0.08 acre / 3,409 square feet) is a riverine upper perennial streambed (R3SB) with a HGM classification of riverine flow-through. The tributary enters the site via a very old culvert that conveys flows from upslope, below the railroad grade and flows northwest where it exits the study area, and enters another culvert, eventually discharging into Bear Creek. The ordinary high water (OHW) was identified by abrupt changes in contour and distinct vegetation community boundaries. Most of the streambed has down-cut to bedrock due to lack of sediment deposition and concentration of high energy flows from the culvert, particularly in the northern (downstream) reach. Areas below OHW are generally unvegetated with the exception of a few red alder (*Alnus rubra*, FAC), red-osier dogwood (*Cornus alba*, FACW), and ninebark (*Physocarpus capitatus*, FACW) rooted in rock crevices. Deposits of sand and gravel are only found in a few minor depressions within the rock channel.

Sample Points 1 and 2 characterize the riparian vegetation community above OHW, adjacent to the stream. A well-developed tree layer is present and consists of Oregon white oak, red alder, and ponderosa pine. A dense shrub understory is also present and consists of Pacific ninebark, red-osier dogwood, and snowberry *(Symphoricarpos albus*, FACU). The herbaceous layer is dominated by unidentified grasses and Siberian spring beauty (*Claytonia sibirica*, FACU). Hydric soils and wetland hydrology are absent.

F. Deviation from Local Wetland or National Wetland Inventories

The City of Ashland's Local Wetlands Inventory (LWI) prepared by SWCA Environmental Consultants (2007) depicts a "Possible Wetland" that generally corresponds with the boundaries of Wetland B. Wetland A was not depicted in the LWI, presumably due to a lack of site access and heavy cover of Himalayan blackberry. The LWI also depicts a tributary to Bear Creek in the same location as Tributary 1.

The Billings Siphon, an underground irrigation pipe in the eastern portion of the study area is depicted on the National Wetlands Inventory (NWI) but not the LWI; however, as it is an underground pipe, it was not part of the delineation prepared by PHS.

G. Mapping Method

PHS marked the boundaries of Wetlands A and B with blue pin flags and the OHW of Tributary 1 with blue flagging tape. Lime-green surveying tape was used to mark the locations of sample points. The wetland boundaries and OHW were surveyed by Polaris Land Surveying, LLC with an accuracy of sub-centimeter. Locations of sample points were drawn onto an aerial photo in the field and are estimate to have an accuracy of sub-meter.

H. Additional Information

According to Streamnet, Bear Creek, located approximately 900 feet northeast of the study area is a spawning and rearing tributary for steelhead and ESA-listed coho salmon. Tributary 1 is not listed in Streamnet, but discharges into Bear Creek. Wetlands A and B do not have a surface connection to Bear Creek or other off-site wetlands or waters.

I. Results and Conclusions

The following table summarizes the wetlands and waters of the state/U.S. delineated by PHS within the study area.

Table 2. Total wetland and other waters within the study area

Feature	Area square feet / acre	Cowardin Class	HGM Class
Wetland A	60 / 0.001	PEM1Cx	Depressional
Wetland B	4,606 / 0.11	PEM1C	Slope
Total Wetlands	**4,666 / 0.11**		
Tributary to Bear Creek	3,409 / 0.08	R3SB	Riverine Flow-Through
Total Waters	**3,409 / 0.08**		

J. Required Disclaimer

This report documents the investigation, best professional judgment, and conclusions of the investigators. It is correct and complete to the best of our knowledge. It should be considered a Preliminary Jurisdictional Determination of wetlands and other waters and used at your own risk unless it has been reviewed and approved in writing by the Oregon Department of State Lands in accordance with OAR 141-090-0005 through 141-090-0055.

III. REFERENCES

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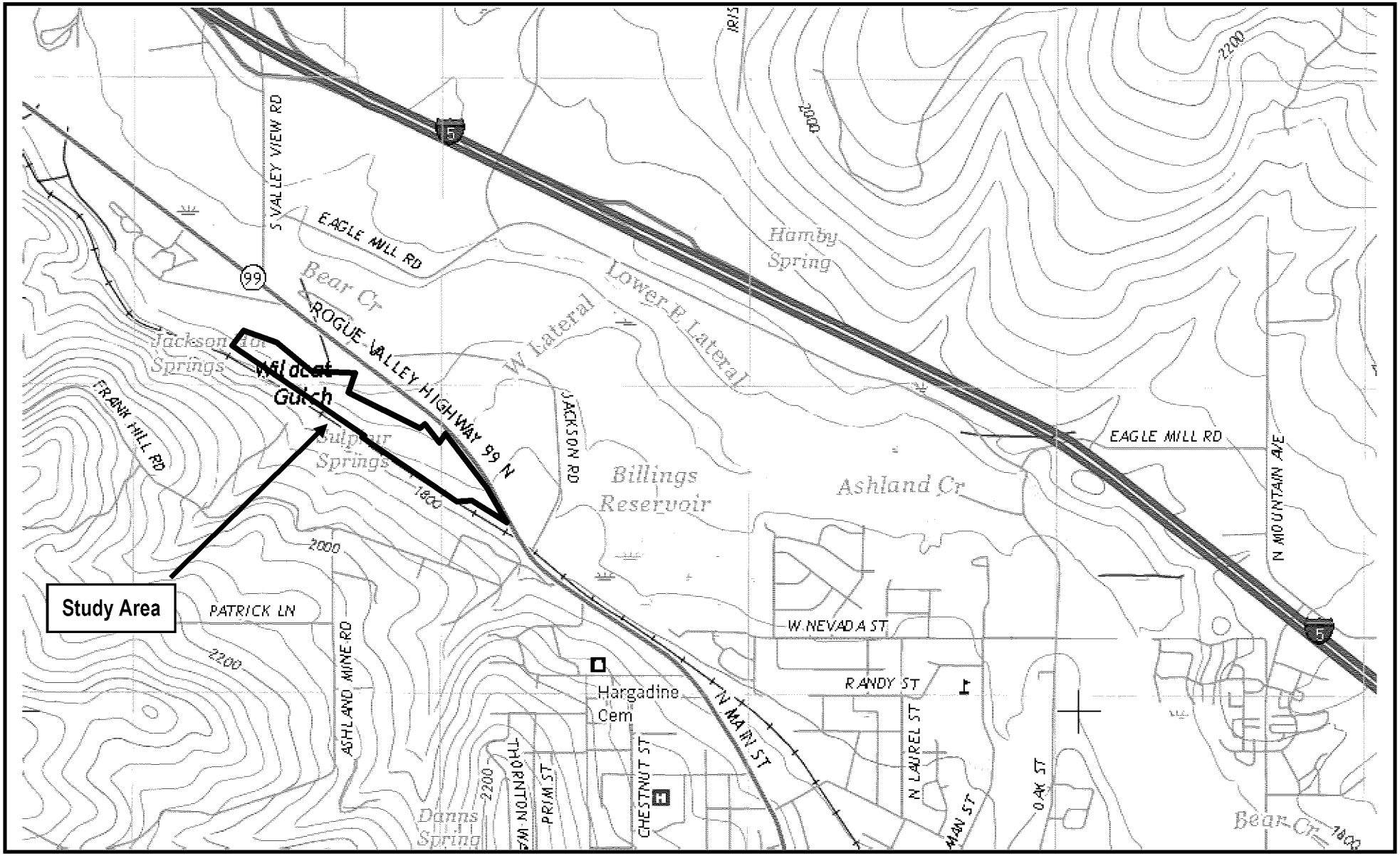
Appendix A

Figures





#6326
9/22/2017

PHS

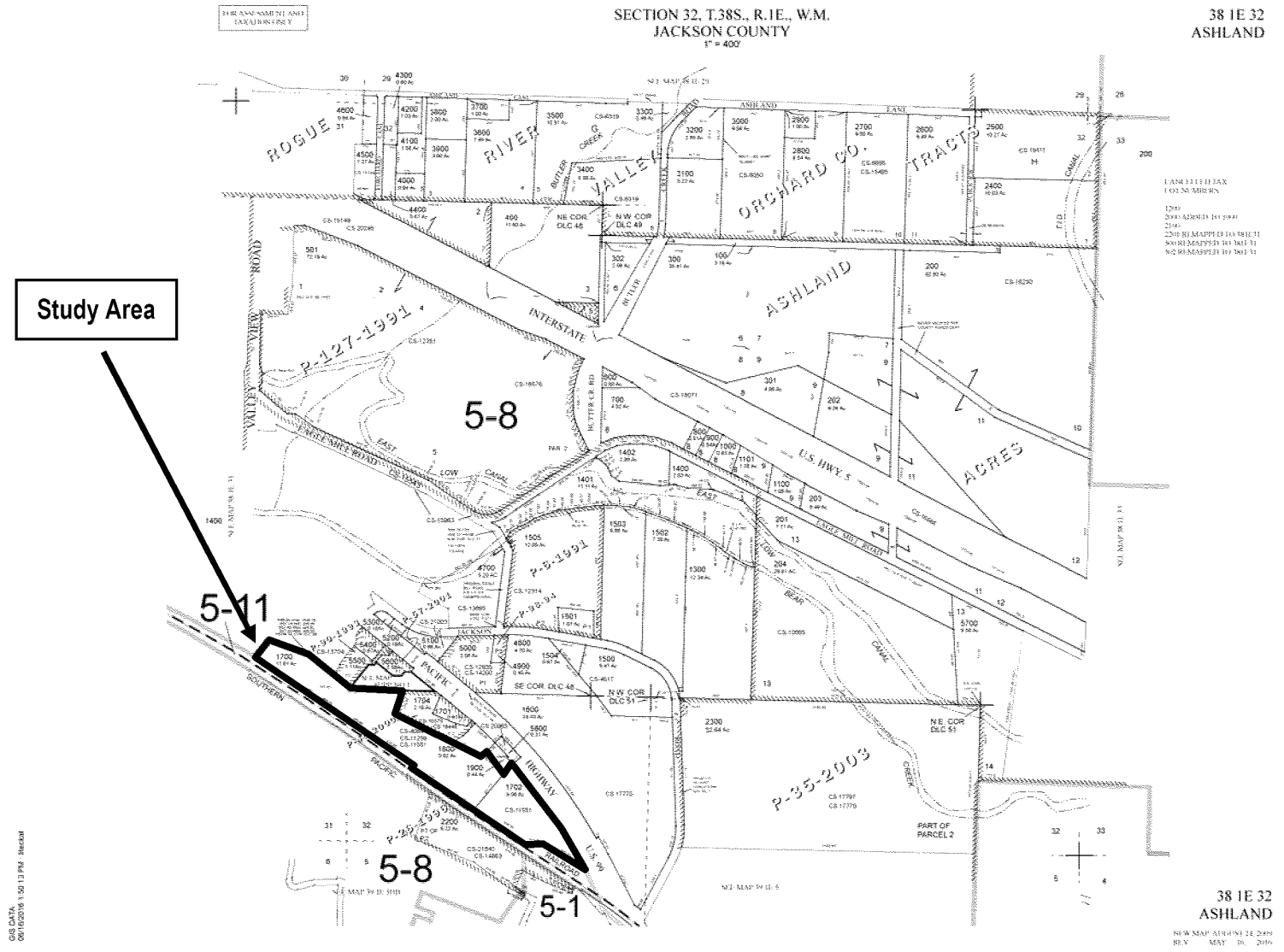
Pacific Habitat Services, Inc.
9450 SW Commerce Circle, Suite 180
Wilsonville, OR 97070

General Location and Topography
Grand Terrace II - Ashland, Oregon
United States Geological Survey (USGS), Ashland, Oregon-Jackson Co., 7.5 Quadrangle, 2017
(viewer/nationalmap.gov/basic)

FIGURE
1

Applicant Submittal: 473

Total Page Number: 535



#6326
9/22/2017

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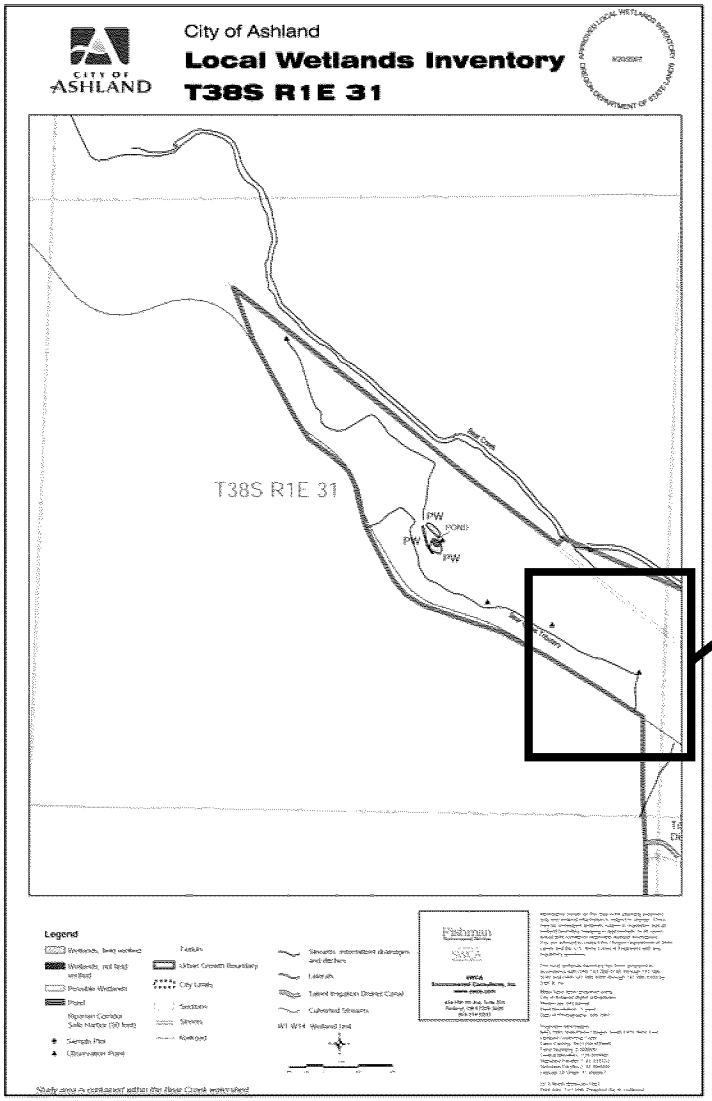
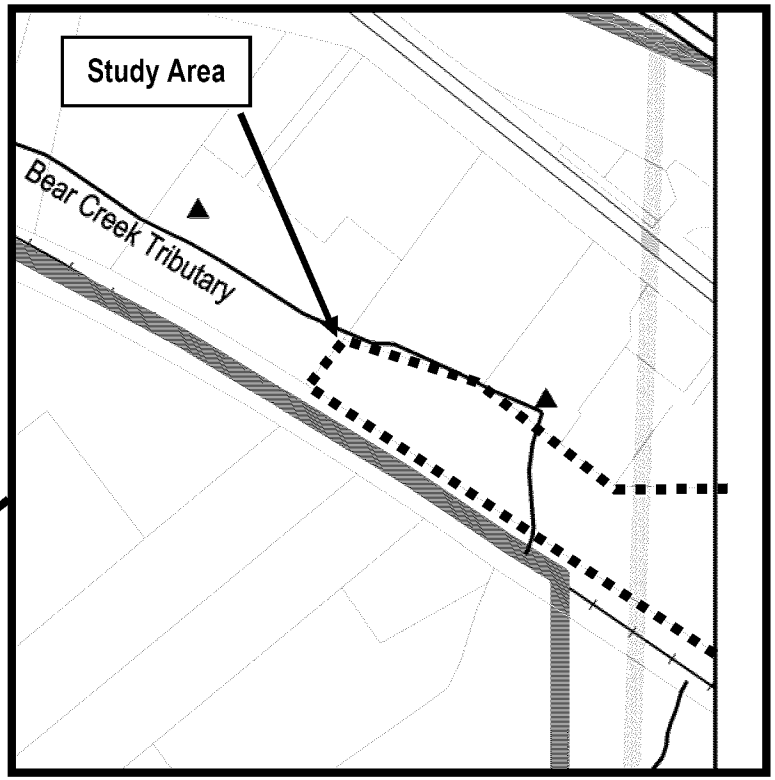
Wilsonville, OR 97070

Tax Lot Map
Grand Terrace II - Ashland, Oregon
The Oregon Map (ormap.net)

FIGURE
2

Applicant Submittal: 474
Total Page Number: 536





Legend

- Wetlands, field verified
- Wetlands, not field verified
- Possible Wetlands
- Pond
- Riparian Corridor Safe Harbor (50 feet)
- Sample Plot
- Observation Point
- Taxlots
- Urban Growth Boundary
- City Limits
- Sections
- Streets
- Railroad
- Streams, intermittent drainages, and ditches
- Laterals
- Talent Irrigation District Canal
- Culverted Streams
- W1-W14 Wetland Unit

#6326
6/15/2018

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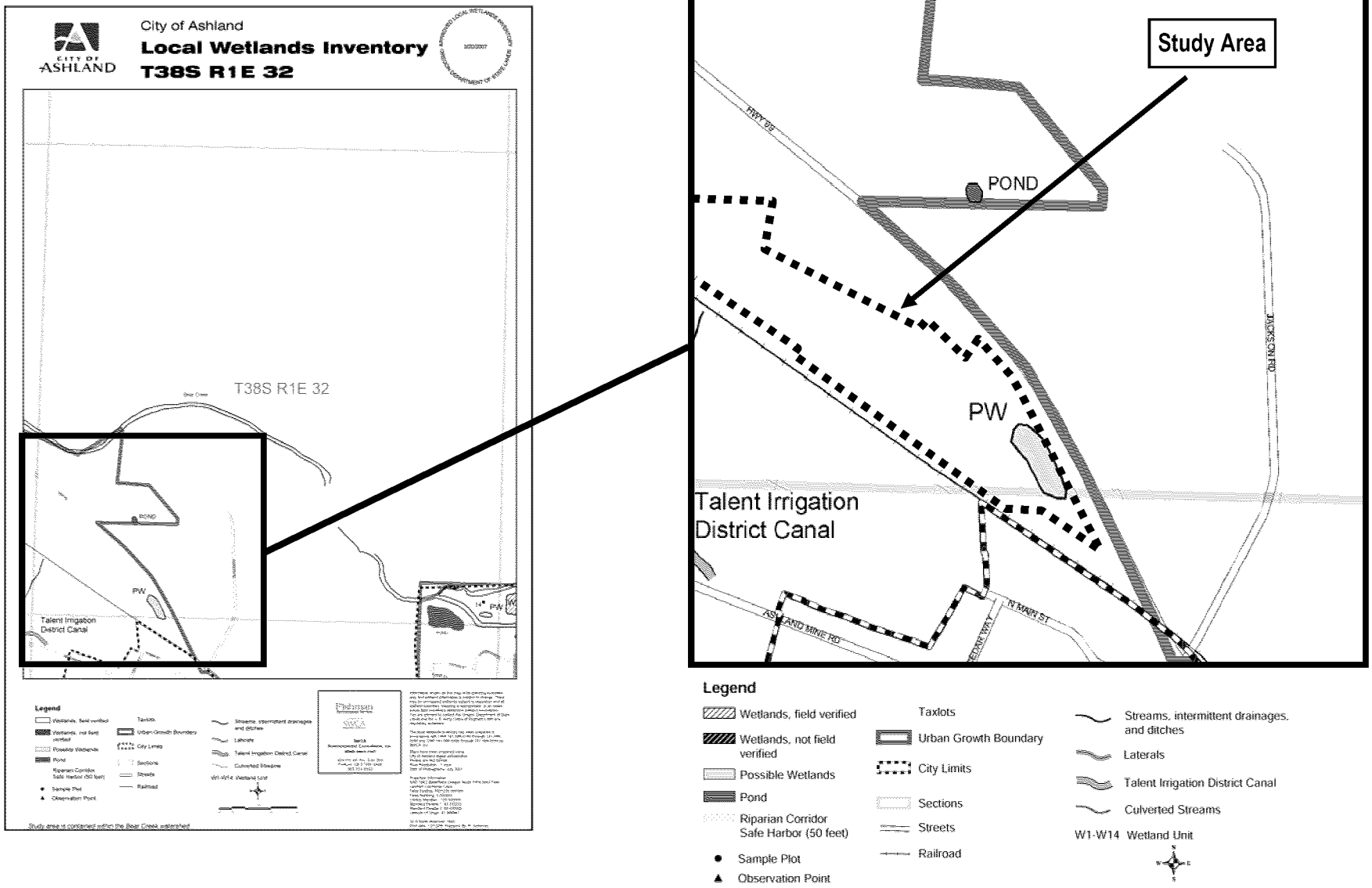
Wilsonville, OR 97070

Local Wetland Inventory Map
Grand Terrace II - Ashland, Oregon
SWCA Environmental Consultants, 2007

FIGURE
3A

Applicant Submittal: 475
Total Page Number: 537



#6326
6/15/2018

Pacific Habitat Services, Inc.
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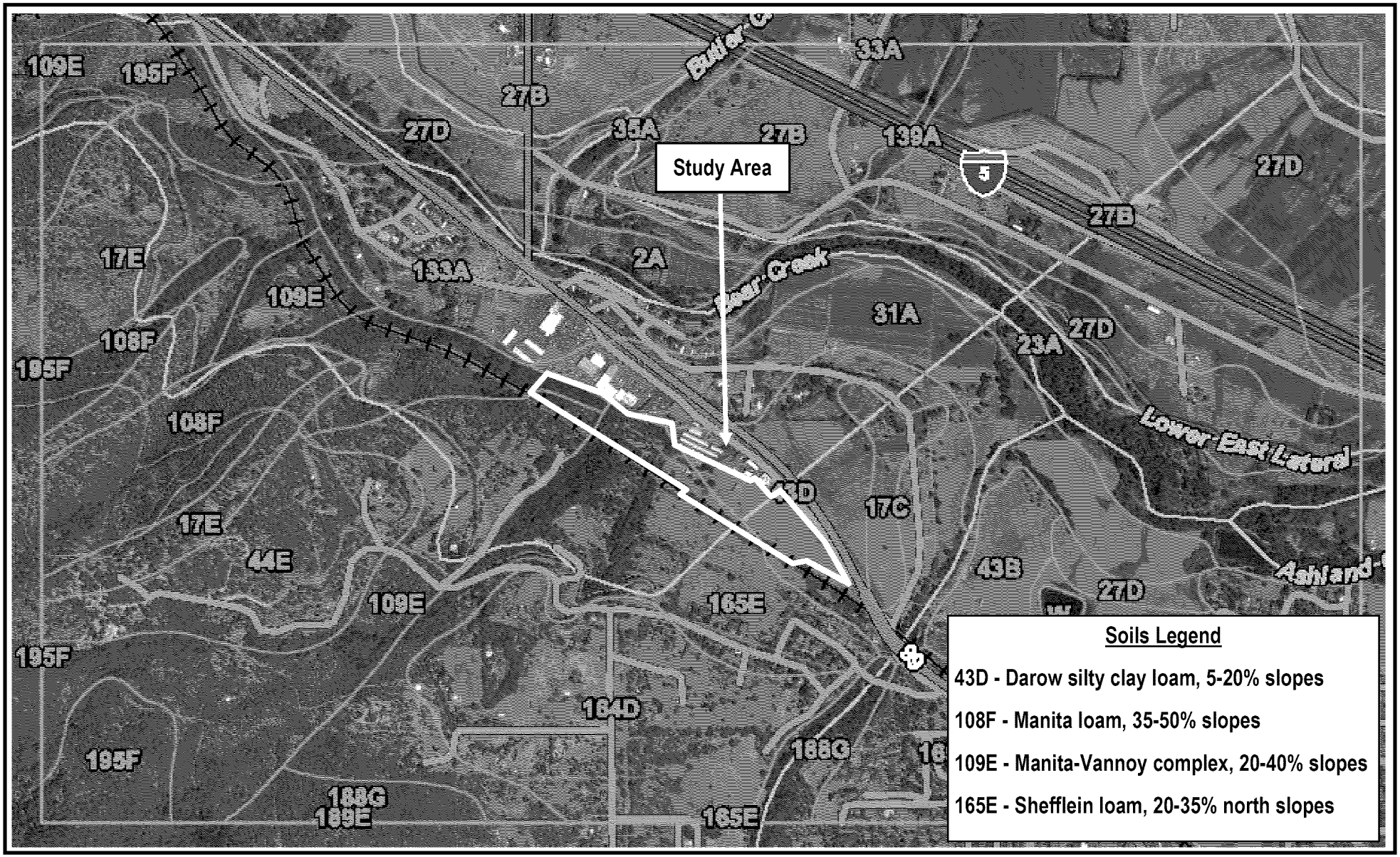
Wilsonville, OR 97070

Local Wetland Inventory Map
Grand Terrace II - Ashland, Oregon
SWCA Environmental Consultants, 2007

FIGURE
3B

Applicant Submittal: 476
Total Page Number: 538



#6326
9/22/2017

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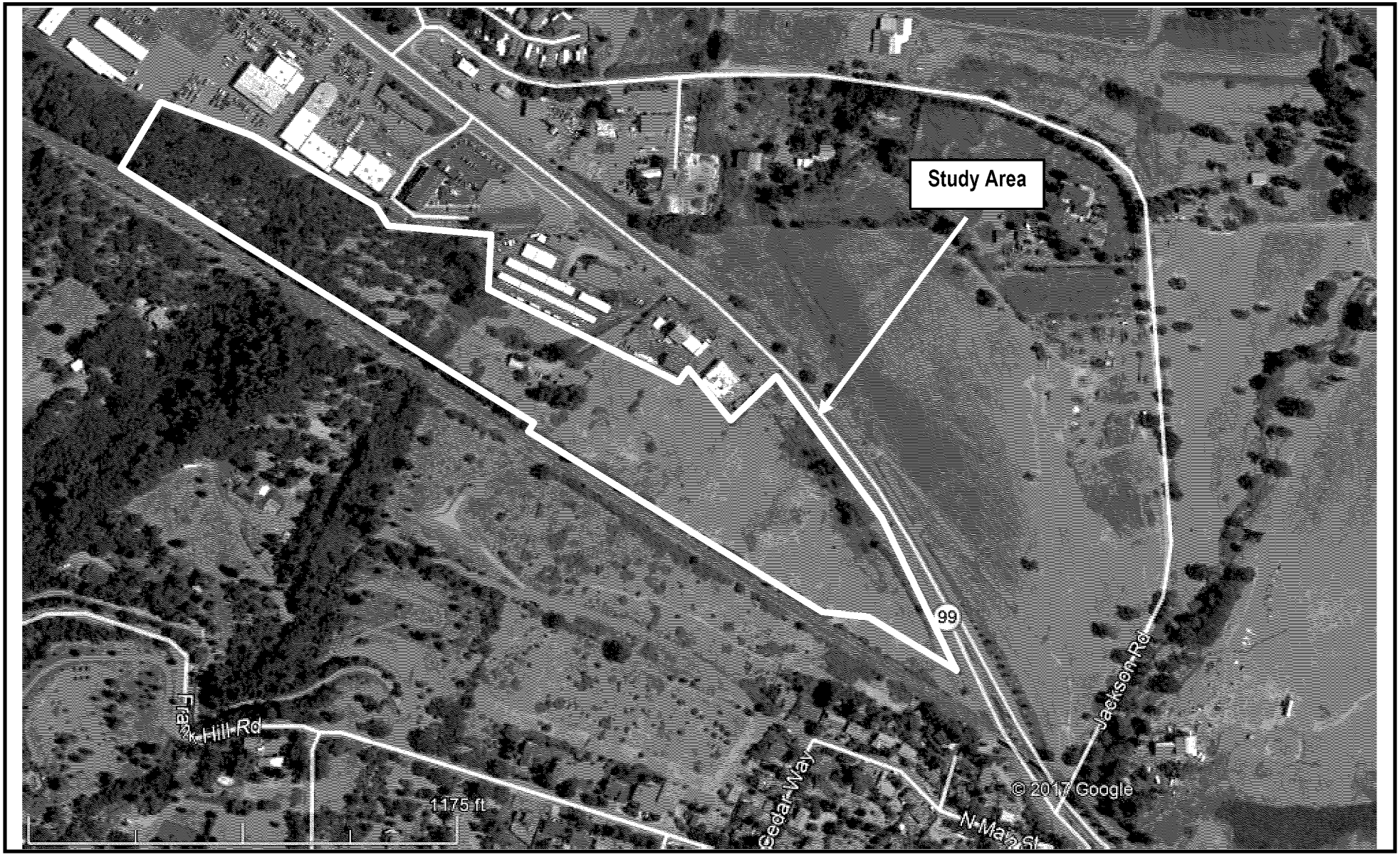
Soils
Grand Terrace II - Ashland, Oregon
Natural Resources Conservation Services, Web Soil Survey, 2017
(websoilsurvey.sc.egov.usda.gov)

FIGURE
4



#6326
9/22/2017

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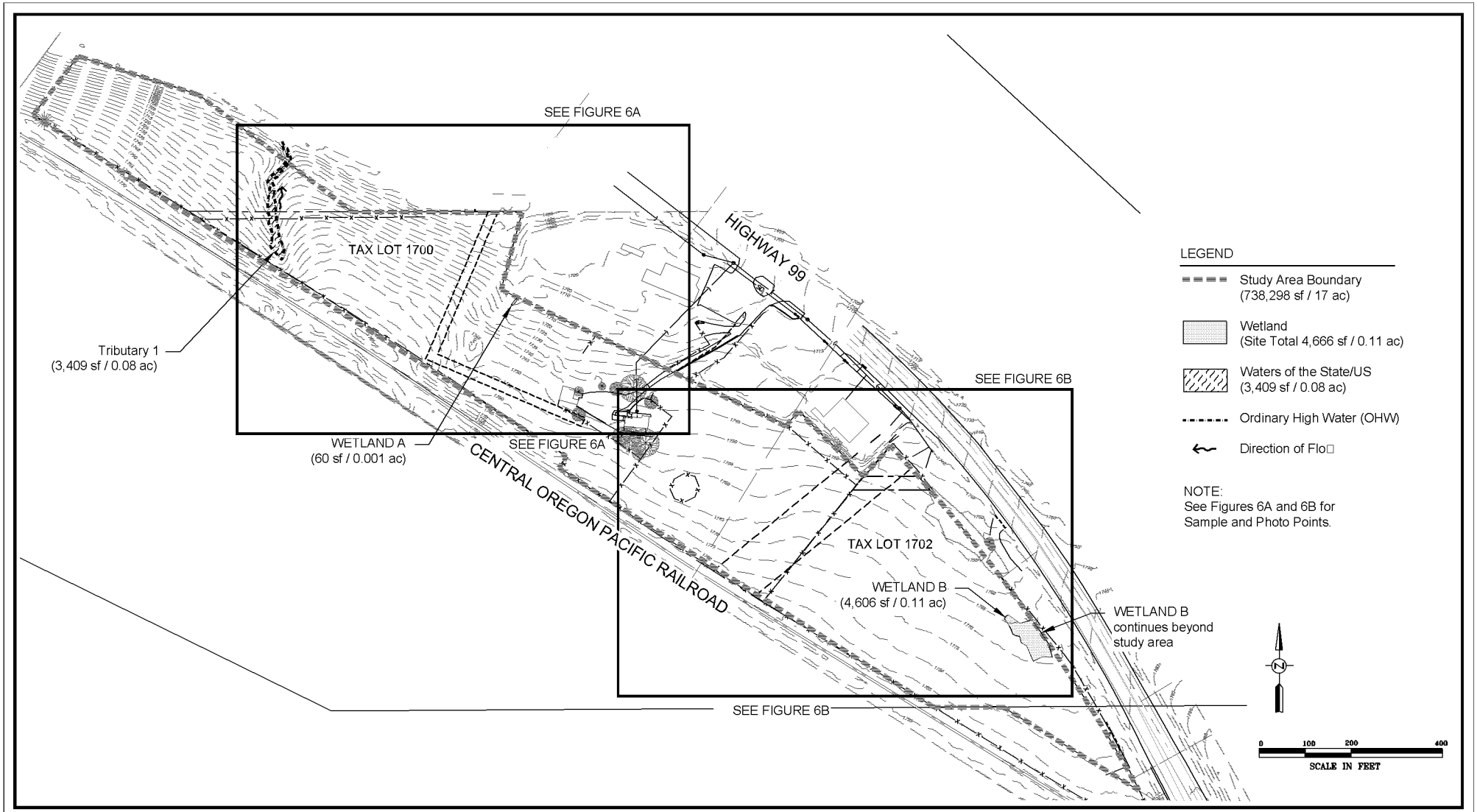
Wilsonville, OR 97070

Aerial Photo
Grand Terrace II - Ashland, Oregon
GoogleEarth, 2017

FIGURE
5

Applicant Submittal: 478
Total Page Number: 540



PHS

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Phone: (503) 570-0800 Fax: (503) 570-0855

Survey provided by Polaris Land Surveying, LLC.
Survey accuracy is sub-centimeter. Sample point accuracy is sub-meter.

Wetland Delineation Overvie
Grand Terrace II - Ashland , Oregon

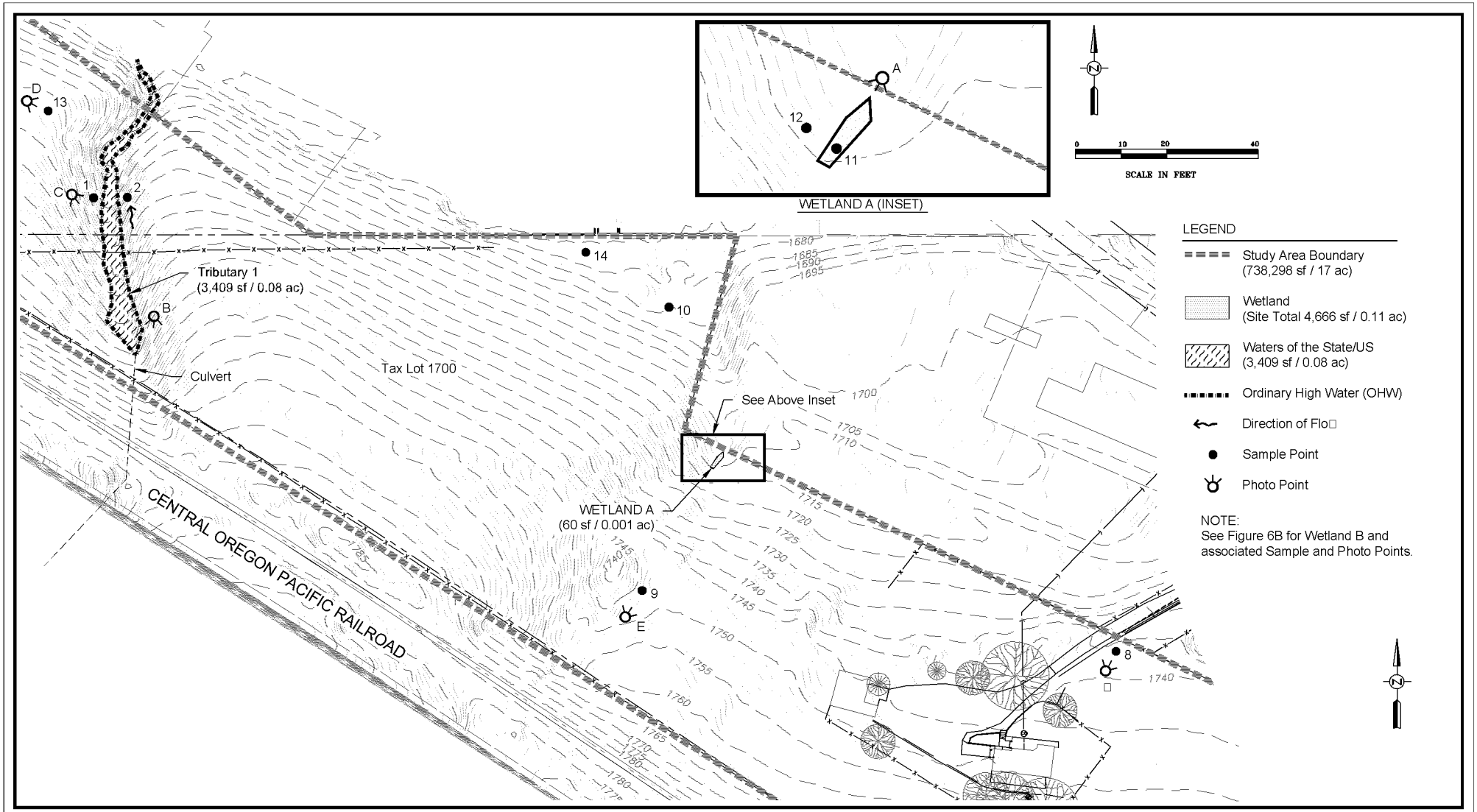
FIGURE 6

8-21-2018

C:\Project Directories\6300\6326 1511 Hwy. 99 North Main, Ashland\AutoCAD\Plot Dwg\Fig6 WetDel.dwg, 8/23/2018 9:06:50 AM

Applicant Submittal: 479

Total Page Number: 541



Survey provided by Polaris Land Surveying, LLC.
Survey accuracy is sub-centimeter. Sample point accuracy is sub-meter.

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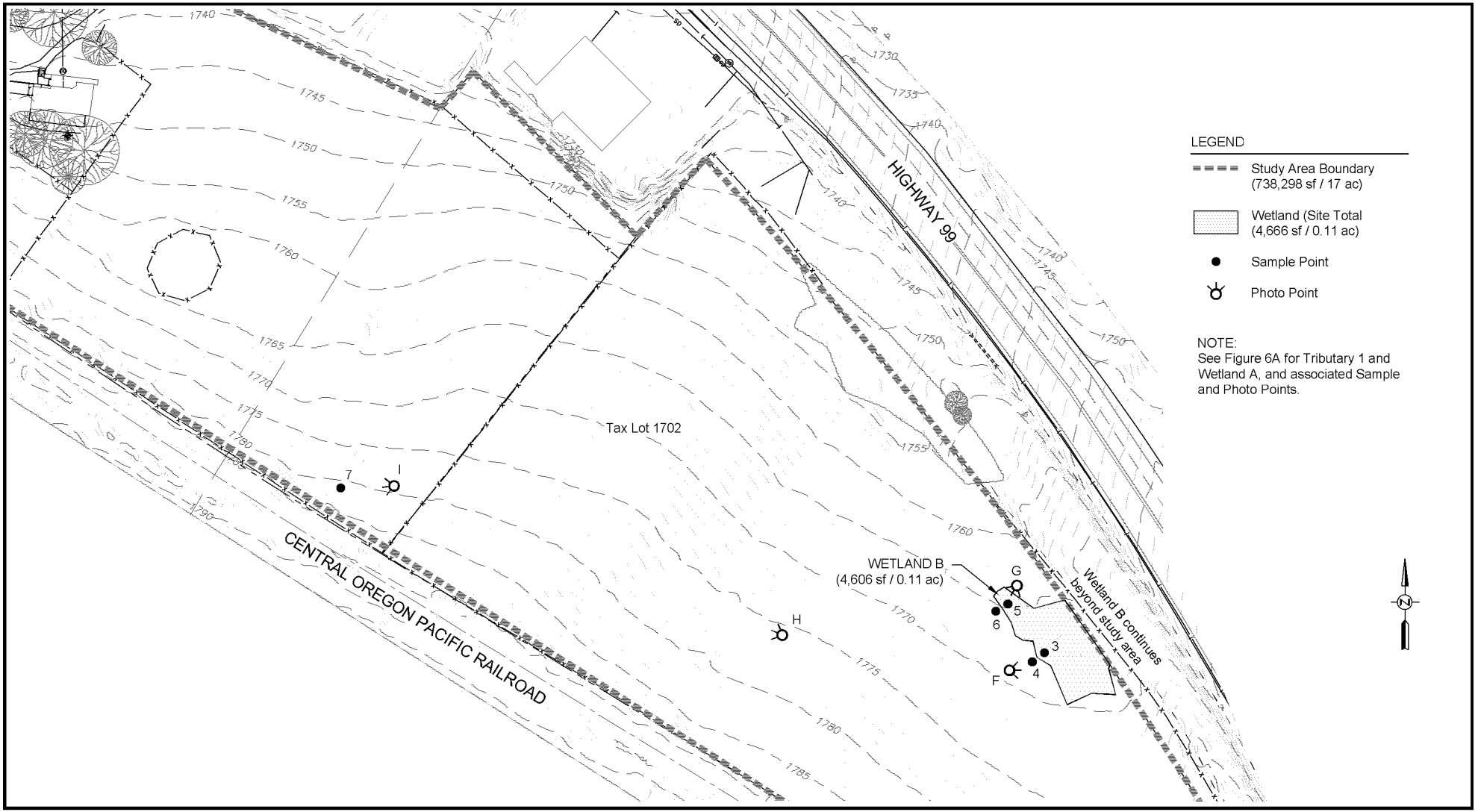
Wetland Delineation
Grand Terrace II - Ashland , Oregon

FIGURE 6A

8-21-2018

Applicant Submittal: 480
Total Page Number: 542



Survey provided by Polaris Land Surveying, LLC.
Survey accuracy is sub-centimeter. Sample point
accuracy is sub-meter.

Pacific Habitat Services,Inc.
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Wetland Delineation
Grand Terrace II - Ashland, Oregon

FIGURE
6B

8-21-2018

Applicant Submittal: 481
Total Page Number: 543

Appendix B

Wetland Determination Data Sheets



PHS # 6326

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Grand Terrace II | City/County: Ashland/Jackson | Sampling Date: 12/4/2017

Applicant/Owner: Casita Developments, LLC | State: OR | Sampling Point: 1

Investigator(s): JT/CM | Section, Township, Range: Section 32, Township 38S, Range 1E

Landform (hillslope, terrace, etc.): Slope of bank | Local relief (concave, convex, none): none | Slope (%): 50

Subregion (LRR): LRR A | Lat: 42.21769349 | Long: -122.7383932 | Datum: WGS84

Soil Map Unit Name: Manita Loam, 35-50% Slopes | NWI Classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No ____ (if no, explain in Remarks)

Are vegetation ____ Soil ____ or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? (Y/N) Y

Are vegetation ____ Soil ____ or Hydrology ____ naturally problematic? If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No		
Hydric Soil Present?	Yes		No	X	Is Sampled Area within a Wetland? Yes ____ No X
Wetland Hydrology Present?	Yes		No	X	

Remarks:

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status
Tree Stratum (plot size: 30)			
1 *Quercus garryana*	20	X	UPL
2			
3			
4			
	20	= Total Cover	
Sapling/Shrub Stratum (plot size: 15)			
1 *Physocarpus capitatus*	50	X	FACW
2 *Cornus alba*	20	X	FACW
3 *Rubus ursinus*	10		FAC
4			
5			
	80	= Total Cover	
Herb Stratum (plot size: 5)			
1 *Unidentified grass*	40	X	(FAC)
2 *Claytonia sibirica*	10	X	FAC
3			
4			
5			
6			
7			
8			
	50	= Total Cover	
Woody Vine Stratum (plot size:)			
1			
2			
	0	= Total Cover	

% Bare Ground in Herb Stratum 50

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 80% (A/B)

Prevalence Index Worksheet:

Total % Cover of		Multiply by:	
OBL Species		x 1 =	0
FACW species		x 2 =	0
FAC Species		x 3 =	0
FACU Species		x 4 =	0
UPL Species		x 5 =	0
Column Totals	0 (A)		0 (B)

Prevalence Index =B/A = #DIV/0!

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%

____ Prevalence Index is ≤ 3.0[1]

____ Morphological Adaptations[1] (provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:

SOIL

PHS # 6326 Sampling Point: 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(Inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-14	10YR 3/1	100					Silt Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- _____ Histosol (A1)
- _____ Histic Epipedon (A2)
- _____ Black Histic (A3)
- _____ Hydrogen Sulfide (A4)
- _____ Stratified Layers (A5) (LRR C)
- _____ 1 cm Muck (A9 (LRR D)
- _____ Depleted Below Dark Surface (A11)
- _____ Thick Dark Surface (A12)
- _____ Sandy Mucky Mineral (S1)
- _____ Sandy Gleyed Matrix (S4)
- _____ Sandy Redox (S5)
- _____ Stripped Matrix (S6)
- _____ Loamy Mucky Mineral (F1) (except MLRA 1)
- _____ Loamy Gleyed Matrix (F2)
- _____ Depleted Matrix (F3)
- _____ Redox Dark Surface (F6)
- _____ Depleted Dark Surface (F7)
- _____ Redox Depressions (F8)
- _____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- _____ 1 cm Muck (A9) (LRR C)
- _____ 2 cm Muck (A10) (LRR B)
- _____ Reduced Vertic (F18)
- _____ Red Parent Material (TF2)
- _____ Other (explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- _____ Surface Water (A1)
- _____ High Water Table (A2)
- _____ Saturation (A3)
- _____ Water Marks (B1) (Nonriverine)
- _____ Sediment Deposits (B2) (Nonriverine)
- _____ Drift Deposits (B3) (Nonriverine)
- _____ Surface Soil Cracks (B6)
- _____ Inundation Visible on Aerial Imagery (B7)
- _____ Water stained leaves (B9)
- _____ Salt Crust (B11)
- _____ Biotic Crust (B12)
- _____ Aquatic Invertebrates (B13)
- _____ Hydrogen Sulfide Odor (C1)
- _____ Oxidized Rhizospheres along Living Roots (C3)
- _____ Presence of Reduced Iron (C4)
- _____ Recent Iron Reduction in Tilled Soils (C6)
- _____ Thin Muck Surface (C7)
- _____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- _____ Water Marks (B1) (Riverine)
- _____ Sediment Deposits (B2) (Riverine)
- _____ Drift Deposits (B3) (Riverine)
- _____ Drainage Patterns (B10)
- _____ Dry-Season Water Table (C2)
- _____ Crayfish Burrows (C8)
- _____ Saturation Visible on Aerial Imagery (C9)
- _____ Shallow Aquitard (D3)
- _____ Fac-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	_____	No X	Depth (inches):	_____
Water Table Present?	Yes	_____	No X	Depth (inches):	>14
Saturation Present? (includes capillary fringe)	Yes	_____	No X	Depth (inches):	>14

Wetland Hydrology Present?

Yes _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

PHS # 6326

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Grand Terrace II | City/County: Ashland/Jackson | Sampling Date: 12/4/2017

Applicant/Owner: Casita Developments, LLC | State: OR | Sampling Point: 2

Investigator(s): JT/CM | Section, Township, Range: Section 32, Township 38S, Range 1E

Landform (hillslope, terrace, etc.): Slope of bank | Local relief (concave, convex, none): none | Slope (%): 50

Subregion (LRR): LRR A | Lat: 42.21767876 | Long: -12.7383418 | Datum: WGS84

Soil Map Unit Name: Shefflein Loam, 20-35% North Slopes | NWI Classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No ____ (if no, explain in Remarks)

Are vegetation ____ Soil ____ or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? (Y/N) Y

Are vegetation ____ Soil ____ or Hydrology ____ naturally problematic? If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No		
Hydric Soil Present?	Yes		No	X	**Is Sampled Area within a Wetland?** Yes ____ No X
Wetland Hydrology Present?	Yes		No	X	

Remarks:

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status
Tree Stratum (plot size: 30)			
1 *Alnus rubra*	40	X	FACW
2 *Quercus garryana*	20	X	UPL
3 *Pinus ponderosa*	10		FACU
4			
	70	= Total Cover	
Sapling/Shrub Stratum (plot size: 15)			
1 *Physocarpus capitatus*	30	X	FACW
2 *Rubus armeniacus*	10		FAC
3 *Alnus rubra*	10		FACW
4 *Symphoricarpos albus*	5		FACU
5			
	55	= Total Cover	
Herb Stratum (plot size: 5)			
1 *Claytonia sibirica*	10	X	FAC
2 *Unidentified grass*	5	X	(FAC)
3			
4			
5			
6			
7			
8			
	15	= Total Cover	
Woody Vine Stratum (plot size:)			
1			
2			
	0	= Total Cover	

% Bare Ground in Herb Stratum 85

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 80% (A/B)

Prevalence Index Worksheet:

Total % Cover of		Multiply by:	
OBL Species		x 1 =	0
FACW species		x 2 =	0
FAC Species		x 3 =	0
FACU Species		x 4 =	0
UPL Species		x 5 =	0
Column Totals	0 (A)		0 (B)

Prevalence Index =B/A = #DIV/0!

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%

____ Prevalence Index is ≤ 3.0[1]

____ Morphological Adaptations[1] (provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:

Ground covered in duff and leaf litter

SOIL

PHS # 6326 Sampling Point: 2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(Inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2	10YR 2/1	100					Loamy Sand	Medium
2-12	7.5YR 2.5/2	98					Loamy Sand	Medium
2-12	Gravel	2						Gravel

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- _____ Histosol (A1)
- _____ Histic Epipedon (A2)
- _____ Black Histic (A3)
- _____ Hydrogen Sulfide (A4)
- _____ Stratified Layers (A5) (LRR C)
- _____ 1 cm Muck (A9 (LRR D)
- _____ Depleted Below Dark Surface (A11)
- _____ Thick Dark Surface (A12)
- _____ Sandy Mucky Mineral (S1)
- _____ Sandy Gleyed Matrix (S4)
- _____ Sandy Redox (S5)
- _____ Stripped Matrix (S6)
- _____ Loamy Mucky Mineral (F1) (except MLRA 1)
- _____ Loamy Gleyed Matrix (F2)
- _____ Depleted Matrix (F3)
- _____ Redox Dark Surface (F6)
- _____ Depleted Dark Surface (F7)
- _____ Redox Depressions (F8)
- _____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- _____ 1 cm Muck (A9) (LRR C)
- _____ 2 cm Muck (A10) (LRR B)
- _____ Reduced Vertic (F18)
- _____ Red Parent Material (TF2)
- _____ Other (explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- _____ Surface Water (A1)
- _____ High Water Table (A2)
- _____ Saturation (A3)
- _____ Water Marks (B1) (Nonriverine)
- _____ Sediment Deposits (B2) (Nonriverine)
- _____ Drift Deposits (B3) (Nonriverine)
- _____ Surface Soil Cracks (B6)
- _____ Inundation Visible on Aerial Imagery (B7)
- _____ Water stained leaves (B9)
- _____ Salt Crust (B11)
- _____ Biotic Crust (B12)
- _____ Aquatic Invertebrates (B13)
- _____ Hydrogen Sulfide Odor (C1)
- _____ Oxidized Rhizospheres along Living Roots (C3)
- _____ Presence of Reduced Iron (C4)
- _____ Recent Iron Reduction in Tilled Soils (C6)
- _____ Thin Muck Surface (C7)
- _____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- _____ Water Marks (B1) (Riverine)
- _____ Sediment Deposits (B2) (Riverine)
- _____ Drift Deposits (B3) (Riverine)
- _____ Drainage Patterns (B10)
- _____ Dry-Season Water Table (C2)
- _____ Crayfish Burrows (C8)
- _____ Saturation Visible on Aerial Imagery (C9)
- _____ Shallow Aquitard (D3)
- _____ Fac-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	_____	No	X	Depth (inches):	_____
Water Table Present?	Yes	_____	No	X	Depth (inches):	>12
Saturation Present? (includes capillary fringe)	Yes	_____	No	X	Depth (inches):	>12

Wetland Hydrology Present?

Yes _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

PHS # 6326

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Grand Terrace II | City/County: Ashland/Jackson | Sampling Date: 12/4/2017

Applicant/Owner: Casita Developments, LLC | State: OR | Sampling Point: 3

Investigator(s): JT/CM | Section, Township, Range: Section 32, Township 38S, Range 1E

Landform (hillslope, terrace, etc.): Mild Slope | Local relief (concave, convex, none): none | Slope (%): 0

Subregion (LRR): LRR A | Lat: 42.2149352 | Long: -122.7321763 | Datum: WGS84

Soil Map Unit Name: Darrow Silty Clay Loam, 5-20% Slopes | NWI Classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No ____ (if no, explain in Remarks)

Are vegetation ____ Soil ____ or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? (Y/N) Y

Are vegetation ____ Soil ____ or Hydrology ____ naturally problematic? If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No		
Hydric Soil Present?	Yes	X	No	**Is Sampled Area within a Wetland?**	Yes X No
Wetland Hydrology Present?	Yes	X	No		

Remarks:

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status
Tree Stratum (plot size: ____)			
1			
2			
3			
4			
	0	= Total Cover	
Sapling/Shrub Stratum (plot size: ____)			
1			
2			
3			
4			
5			
	0	= Total Cover	
Herb Stratum (plot size: 5)			
1 *Unidentified grass*	40	X	(FAC)
2 *Agrostis capillaris*	20	X	FAC
3 *Holcus lanatus*	20	X	FAC
4 *Hordeum murinum*	20	X	FACU
5 *Dipsacus fullonum*	<1		FAC
6			
7			
8			
	100	= Total Cover	
Woody Vine Stratum (plot size: ____)			
1			
2			
	0	= Total Cover	

% Bare Ground in Herb Stratum ____

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 75% (A/B)

Prevalence Index Worksheet:

Total % Cover of		Multiply by:	
OBL Species		x 1 =	0
FACW species		x 2 =	0
FAC Species		x 3 =	0
FACU Species		x 4 =	0
UPL Species		x 5 =	0
Column Totals	0 (A)		0 (B)

Prevalence Index =B/A = #DIV/0!

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%

____ Prevalence Index is ≤ 3.0[1]

____ Morphological Adaptations[1] (provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:

SOIL

PHS # 6326 Sampling Point: 3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(Inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10YR 2/1	100					Silty Clay	
7-14	10YR 2/1	96	7.5YR 4/6	3	C	PL	Silty Clay	
7-14			7.5YR 4/6	1	C	M	Silty Clay	Fine

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

	Histosol (A1)		Sandy Redox (S5)
	Histic Epipedon (A2)		Stripped Matrix (S6)
	Black Histic (A3)		Loamy Mucky Mineral (F1) (except MLRA 1)
	Hydrogen Sulfide (A4)		Loamy Gleyed Matrix (F2)
	Stratified Layers (A5) (LRR C)		Depleted Matrix (F3)
	1 cm Muck (A9 (LRR D)	X	Redox Dark Surface (F6)
	Depleted Below Dark Surface (A11)		Depleted Dark Surface (F7)
	Thick Dark Surface (A12)		Redox Depressions (F8)
	Sandy Mucky Mineral (S1)		Vernal Pools (F9)
	Sandy Gleyed Matrix (S4)		

Indicators for Problematic Hydric Soils[3]:

	1 cm Muck (A9) (LRR C)
	2 cm Muck (A10) (LRR B)
	Reduced Vertic (F18)
	Red Parent Material (TF2)
	Other (explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)				Secondary Indicators (2 or more required)	
	Surface Water (A1)		Salt Crust (B11)		Water Marks (B1) (Riverine)
	High Water Table (A2)		Biotic Crust (B12)		Sediment Deposits (B2) (Riverine)
	Saturation (A3)		Aquatic Invertebrates (B13)		Drift Deposits (B3) (Riverine)
	Water Marks (B1) (Nonriverine)		Hydrogen Sulfide Odor (C1)	X	Drainage Patterns (B10)
	Sediment Deposits (B2) (Nonriverine)	X	Oxidized Rhizospheres along Living Roots (C3)		Dry-Season Water Table (C2)
	Drift Deposits (B3) (Nonriverine)		Presence of Reduced Iron (C4)		Crayfish Burrows (C8)
	Surface Soil Cracks (B6)		Recent Iron Reduction in Tilled Soils (C6)		Saturation Visible on Aerial Imagery (C9)
	Inundation Visible on Aerial Imagery (B7)		Thin Muck Surface (C7)		Shallow Aquitard (D3)
	Water stained leaves (B9)		Other (Explain in Remarks)		Fac-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes		No	X	Depth (inches):	
Water Table Present?	Yes		No	X	Depth (inches):	>14
Saturation Present? (includes capillary fringe)	Yes		No	X	Depth (inches):	>14

Wetland Hydrology Present?

Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

PHS # 6326

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Grand Terrace II | City/County: Ashland/Jackson | Sampling Date: 12/4/2017

Applicant/Owner: Casita Developments, LLC | State: OR | Sampling Point: 4

Investigator(s): JT/CM | Section, Township, Range: Section 32, Township 38S, Range 1E

Landform (hillslope, terrace, etc.): Slope | Local relief (concave, convex, none): none | Slope (%): 0

Subregion (LRR): LRR A | Lat: 42.24190578 | Long: -122.7322303 | Datum: WGS84

Soil Map Unit Name: Darrow Silty Clay Loam, 5-20% Slopes | NWI Classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No ____ (if no, explain in Remarks)

Are vegetation ____ Soil X or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? (Y/N) Y

Are vegetation ____ Soil ____ or Hydrology ____ naturally problematic? If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X	Is Sampled Area within a Wetland? Yes ____ No X
Hydric Soil Present?	Yes	X	No		
Wetland Hydrology Present?	Yes		No	X	

Remarks:
Hydric soil indicators are likely a relect of past irrigation.

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status
Tree Stratum (plot size: ____)			
1			
2			
3			
4			
	0	= Total Cover	
Sapling/Shrub Stratum (plot size: ____)			
1			
2			
3			
4			
5			
	0	= Total Cover	
Herb Stratum (plot size: 5)			
1 *Hordeum murinum*	50	X	FACU
2 *Centaurea solstitialis*	20	X	UPL
3 *Unidentified grass*	10		(FAC)
4 *Holcus lanatus*	9		FAC
5 *Leucanthemum vulgare*	5		UPL
6 *Dipsacus fullonum*	5		FAC
7 *Rumex crispus*	1		FAC
8			
	100	= Total Cover	
Woody Vine Stratum (plot size: ____)			
1			
2			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index Worksheet:

Total % Cover of		Multiply by:	
OBL Species		x 1 =	0
FACW species		x 2 =	0
FAC Species		x 3 =	0
FACU Species		x 4 =	0
UPL Species		x 5 =	0
Column Totals	0 (A)		0 (B)

Prevalence Index =B/A = #DIV/0!

Hydrophytic Vegetation Indicators:

____ Dominance Test is >50%

____ Prevalence Index is ≤ 3.0[1]

____ Morphological Adaptations[1] (provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No X

Remarks:

SOIL

PHS # 6326 Sampling Point: 4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(Inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2	10YR 2/1	99	10YR 4/6	1	C	PL	Silty Clay	Medium
2-6	10YR 2/1	99	10YR 5/6	1	C	M	Silty Clay	Medium
6-14	10YR 2/1	97	10YR 5/6	3	C	M	Silty Clay	Medium

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

	Histosol (A1)		Sandy Redox (S5)
	Histic Epipedon (A2)		Stripped Matrix (S6)
	Black Histic (A3)		Loamy Mucky Mineral (F1) (except MLRA 1)
	Hydrogen Sulfide (A4)		Loamy Gleyed Matrix (F2)
	Stratified Layers (A5) (LRR C)		Depleted Matrix (F3)
	1 cm Muck (A9 (LRR D)	X	Redox Dark Surface (F6)
	Depleted Below Dark Surface (A11)		Depleted Dark Surface (F7)
	Thick Dark Surface (A12)		Redox Depressions (F8)
	Sandy Mucky Mineral (S1)		Vernal Pools (F9)
	Sandy Gleyed Matrix (S4)		

Indicators for Problematic Hydric Soils[3]:

	1 cm Muck (A9) (LRR C)
	2 cm Muck (A10) (LRR B)
	Reduced Vertic (F18)
	Red Parent Material (TF2)
	Other (explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (2 or more required)
	Surface Water (A1)		Salt Crust (B11)		Water Marks (B1) (Riverine)
	High Water Table (A2)		Biotic Crust (B12)		Sediment Deposits (B2) (Riverine)
	Saturation (A3)		Aquatic Invertebrates (B13)		Drift Deposits (B3) (Riverine)
	Water Marks (B1) (Nonriverine)		Hydrogen Sulfide Odor (C1)		Drainage Patterns (B10)
	Sediment Deposits (B2) (Nonriverine)		Oxidized Rhizospheres along Living Roots (C3)		Dry-Season Water Table (C2)
	Drift Deposits (B3) (Nonriverine)		Presence of Reduced Iron (C4)		Crayfish Burrows (C8)
	Surface Soil Cracks (B6)		Recent Iron Reduction in Tilled Soils (C6)		Saturation Visible on Aerial Imagery (C9)
	Inundation Visible on Aerial Imagery (B7)		Thin Muck Surface (C7)		Shallow Aquitard (D3)
	Water stained leaves (B9)		Other (Explain in Remarks)		Fac-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes		No X	Depth (inches):	
Water Table Present?	Yes		No X	Depth (inches):	>14
Saturation Present? (includes capillary fringe)	Yes		No X	Depth (inches):	>14

Wetland Hydrology Present?

Yes No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

PHS # 6326

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Grand Terrace II | City/County: Ashland/Jackson | Sampling Date: 12/4/2017

Applicant/Owner: Casita Developments, LLC | State: OR | Sampling Point: 5

Investigator(s): JT/CM | Section, Township, Range: Section 32, Township 38S, Range 1E

Landform (hillslope, terrace, etc.): Slope | Local relief (concave, convex, none): none | Slope (%): 0

Subregion (LRR): LRR A | Lat: 42.215096 | Long: -122.7323261 | Datum: WGS84

Soil Map Unit Name: Darrow Silty Clay Loam, 5-20% Slopes | NWI Classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No ____ (if no, explain in Remarks)

Are vegetation ____ Soil ____ or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? (Y/N) Y

Are vegetation ____ Soil ____ or Hydrology ____ naturally problematic? If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No		
Hydric Soil Present?	Yes	X	No	**Is Sampled Area within a Wetland?**	Yes X No
Wetland Hydrology Present?	Yes	X	No		

Remarks:

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status
Tree Stratum (plot size: ____)			
1			
2			
3			
4			
	0	= Total Cover	
Sapling/Shrub Stratum (plot size: ____)			
1			
2			
3			
4			
5			
	0	= Total Cover	
Herb Stratum (plot size: 5)			
1 *Holcus lanatus*	30	X	FAC
2 *Dipsacus fullonum*	20	X	FAC
3 *Lotus corniculatus*	20	X	FAC
4 *Alopecurus pratensis*	10		FACW
5 *Epilobium ciliatum*	10		FACW
6 *Agrostis capillaris*	5		FAC
7 *Rumex crispus*	5		FAC
8			
	100	= Total Cover	
Woody Vine Stratum (plot size: ____)			
1			
2			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index Worksheet:

Total % Cover of		Multiply by:	
OBL Species		x 1 =	0
FACW species		x 2 =	0
FAC Species		x 3 =	0
FACU Species		x 4 =	0
UPL Species		x 5 =	0
Column Totals	0 (A)		0 (B)

Prevalence Index =B/A = #DIV/0!

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%

____ Prevalence Index is ≤ 3.0[1]

____ Morphological Adaptations[1] (provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:

SOIL

PHS # 6326 Sampling Point: 5

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(Inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 2/1	100					Silty Clay	
4-14	10YR 2/1	96	7.5YR 4/4	2	C	PL	Silty Clay	
4-14			7.5YR 4/4	2	C	M	Silty Clay	Fine/Medium

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

	Histosol (A1)		Sandy Redox (S5)
	Histic Epipedon (A2)		Stripped Matrix (S6)
	Black Histic (A3)		Loamy Mucky Mineral (F1) (except MLRA 1)
	Hydrogen Sulfide (A4)		Loamy Gleyed Matrix (F2)
	Stratified Layers (A5) (LRR C)		Depleted Matrix (F3)
	1 cm Muck (A9 (LRR D)	X	Redox Dark Surface (F6)
	Depleted Below Dark Surface (A11)		Depleted Dark Surface (F7)
	Thick Dark Surface (A12)		Redox Depressions (F8)
	Sandy Mucky Mineral (S1)		Vernal Pools (F9)
	Sandy Gleyed Matrix (S4)		

Indicators for Problematic Hydric Soils[3]:

	1 cm Muck (A9) (LRR C)
	2 cm Muck (A10) (LRR B)
	Reduced Vertic (F18)
	Red Parent Material (TF2)
	Other (explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (2 or more required)
	Surface Water (A1)		Salt Crust (B11)		Water Marks (B1) (Riverine)
	High Water Table (A2)		Biotic Crust (B12)		Sediment Deposits (B2) (Riverine)
	Saturation (A3)		Aquatic Invertebrates (B13)		Drift Deposits (B3) (Riverine)
	Water Marks (B1) (Nonriverine)		Hydrogen Sulfide Odor (C1)		Drainage Patterns (B10)
	Sediment Deposits (B2) (Nonriverine)	X	Oxidized Rhizospheres along Living Roots (C3)		Dry-Season Water Table (C2)
	Drift Deposits (B3) (Nonriverine)		Presence of Reduced Iron (C4)		Crayfish Burrows (C8)
	Surface Soil Cracks (B6)		Recent Iron Reduction in Tilled Soils (C6)		Saturation Visible on Aerial Imagery (C9)
	Inundation Visible on Aerial Imagery (B7)		Thin Muck Surface (C7)		Shallow Aquitard (D3)
	Water stained leaves (B9)		Other (Explain in Remarks)		Fac-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes		No	X	Depth (inches):	
Water Table Present?	Yes		No	X	Depth (inches):	>14
Saturation Present? (includes capillary fringe)	Yes		No	X	Depth (inches):	>14

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

PHS # 6326

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Grand Terrace II | City/County: Ashland/Jackson | Sampling Date: 12/4/2017

Applicant/Owner: Casita Developments, LLC | State: OR | Sampling Point: 6

Investigator(s): JT/CM | Section, Township, Range: Section 32, Township 38S, Range 1E

Landform (hillslope, terrace, etc.): Slope | Local relief (concave, convex, none): | Slope (%):

Subregion (LRR): LRR A | Lat: 42.21509126 | Long: -122.7324065 | Datum: WGS84

Soil Map Unit Name: Darrow Silty Clay Loam, 5-20% Slopes | NWI Classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No ____ (if no, explain in Remarks)

Are vegetation ____ Soil X or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? (Y/N) Y

Are vegetation ____ Soil ____ or Hydrology ____ naturally problematic? If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X	**Is Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes	X	No		
Wetland Hydrology Present?	Yes		No	X	

Remarks:
Hydric soil indicators are likely a relect of past irrigation.

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status
Tree Stratum (plot size: ____)			
1			
2			
3			
4			
	0	= Total Cover	
Sapling/Shrub Stratum (plot size: ____)			
1			
2			
3			
4			
5			
	0	= Total Cover	
Herb Stratum (plot size: 5)			
1 *Hordeum murinum*	60	X	FACU
2 *Centaurea solstitialis*	15		UPL
3 *Schedonorus arundinaceus*	10		FACU
4 *Alopecurus pratensis*	5		FACW
5 *Dipsacus fullonum*	5		FAC
6 *Geranium lucidium*	3		UPL
7 *Poa bulbosa*	1		FACU
8 *Rumex crispus*	1		FAC
	100	= Total Cover	
Woody Vine Stratum (plot size: ____)			
1			
2			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index Worksheet:

Total % Cover of		Multiply by:	
OBL Species		x 1 =	0
FACW species		x 2 =	0
FAC Species		x 3 =	0
FACU Species		x 4 =	0
UPL Species		x 5 =	0
Column Totals	0 (A)		0 (B)

Prevalence Index =B/A = #DIV/0!

Hydrophytic Vegetation Indicators:

____ Dominance Test is >50%

____ Prevalence Index is ≤ 3.0[1]

____ Morphological Adaptations[1] (provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No X

Remarks:

SOIL

PHS # 6326 Sampling Point: 6

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(Inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 2/1	99	10YR 4/6	1	C	PL	Silty Clay	Medium
4-16	10YR 3/1	97	10YR 4/6	3	C	M	Clay	Fine

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

	Histosol (A1)		Sandy Redox (S5)
	Histic Epipedon (A2)		Stripped Matrix (S6)
	Black Histic (A3)		Loamy Mucky Mineral (F1) (except MLRA 1)
	Hydrogen Sulfide (A4)		Loamy Gleyed Matrix (F2)
	Stratified Layers (A5) (LRR C)		Depleted Matrix (F3)
	1 cm Muck (A9 (LRR D)	X	Redox Dark Surface (F6)
	Depleted Below Dark Surface (A11)		Depleted Dark Surface (F7)
	Thick Dark Surface (A12)		Redox Depressions (F8)
	Sandy Mucky Mineral (S1)		Vernal Pools (F9)
	Sandy Gleyed Matrix (S4)		

Indicators for Problematic Hydric Soils[3]:

	1 cm Muck (A9) (LRR C)
	2 cm Muck (A10) (LRR B)
	Reduced Vertic (F18)
	Red Parent Material (TF2)
	Other (explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (2 or more required)
	Surface Water (A1)		Salt Crust (B11)		Water Marks (B1) (Riverine)
	High Water Table (A2)		Biotic Crust (B12)		Sediment Deposits (B2) (Riverine)
	Saturation (A3)		Aquatic Invertebrates (B13)		Drift Deposits (B3) (Riverine)
	Water Marks (B1) (Nonriverine)		Hydrogen Sulfide Odor (C1)		Drainage Patterns (B10)
	Sediment Deposits (B2) (Nonriverine)		Oxidized Rhizospheres along Living Roots (C3)		Dry-Season Water Table (C2)
	Drift Deposits (B3) (Nonriverine)		Presence of Reduced Iron (C4)		Crayfish Burrows (C8)
	Surface Soil Cracks (B6)		Recent Iron Reduction in Tilled Soils (C6)		Saturation Visible on Aerial Imagery (C9)
	Inundation Visible on Aerial Imagery (B7)		Thin Muck Surface (C7)		Shallow Aquitard (D3)
	Water stained leaves (B9)		Other (Explain in Remarks)		Fac-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes		No X	Depth (inches):	
Water Table Present?	Yes		No X	Depth (inches):	>16
Saturation Present? (includes capillary fringe)	Yes		No X	Depth (inches):	>16

Wetland Hydrology Present?

Yes No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

PHS # 6326

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Grand Terrace II | City/County: Ashland/Jackson | Sampling Date: 12/4/2017

Applicant/Owner: Casita Developments, LLC | State: OR | Sampling Point: 7

Investigator(s): JT/CM | Section, Township, Range: Section 32, Township 38S, Range 1E

Landform (hillslope, terrace, etc.): Slope | Local relief (concave, convex, none): none | Slope (%): 5

Subregion (LRR): LRR A | Lat: 42.21551048 | Long: -122.7346118 | Datum: WGS84

Soil Map Unit Name: Shefflein Loam, 20-35% North Slope | NWI Classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No ____ (if no, explain in Remarks)

Are vegetation ____ Soil X or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? (Y/N) Y

Are vegetation ____ Soil ____ or Hydrology ____ naturally problematic? If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X	**Is Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes	X	No		
Wetland Hydrology Present?	Yes		No	X	

Remarks:
Hydric soil indicators are likely a relect of past irrigation.

VEGETATION - Use scientific names of plants.

		absolute % cover	Dominant Species?	Indicator Status
Tree Stratum (plot size: ____)				
1				
2				
3				
4				
		0	= Total Cover	
Sapling/Shrub Stratum (plot size: ____)				
1				
2				
3				
4				
5				
		0	= Total Cover	
Herb Stratum (plot size: 5)				
1	*Hordeum murinum*	80	X	FACU
2	*Poa bulbosa*	10		FACU
3	*Lactuca serriola*	5		FACU
4	*Dipsacus fullonum*	3		FAC
5	*Cardaria draba*	2		UPL
6				
7				
8				
		100	= Total Cover	
Woody Vine Stratum (plot size: ____)				
1				
2				
		0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index Worksheet:

Total % Cover of		Multiply by:	
OBL Species		x 1 =	0
FACW species		x 2 =	0
FAC Species		x 3 =	0
FACU Species		x 4 =	0
UPL Species		x 5 =	0
Column Totals	0 (A)		0 (B)

Prevalence Index =B/A = #DIV/0!

Hydrophytic Vegetation Indicators:

____ Dominance Test is >50%

____ Prevalence Index is ≤ 3.0[1]

____ Morphological Adaptations[1] (provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No X

Remarks:

SOIL PHS # 6326 Sampling Point: 7

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(Inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR 3/1	99	5YR 3/4	1	C	PL	Clay	
3-10	10YR 3/1	96	5YR 3/4	3	C	M	Clay	
3-10			5YR 3/4	1	C	PL	Clay	
10-14	10YR 4/2	99	10YR 4/6	1	C	M	Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- _____ Histosol (A1)
- _____ Histic Epipedon (A2)
- _____ Black Histic (A3)
- _____ Hydrogen Sulfide (A4)
- _____ Stratified Layers (A5) (LRR C)
- _____ 1 cm Muck (A9 (LRR D)
- _____ Depleted Below Dark Surface (A11)
- _____ Thick Dark Surface (A12)
- _____ Sandy Mucky Mineral (S1)
- _____ Sandy Gleyed Matrix (S4)
- _____ Sandy Redox (S5)
- _____ Stripped Matrix (S6)
- _____ Loamy Mucky Mineral (F1) (except MLRA 1)
- _____ Loamy Gleyed Matrix (F2)
- _____ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- _____ Depleted Dark Surface (F7)
- _____ Redox Depressions (F8)
- _____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- _____ 1 cm Muck (A9) (LRR C)
- _____ 2 cm Muck (A10) (LRR B)
- _____ Reduced Vertic (F18)
- _____ Red Parent Material (TF2)
- _____ Other (explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X **No** _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- _____ Surface Water (A1)
- _____ High Water Table (A2)
- _____ Saturation (A3)
- _____ Water Marks (B1) (Nonriverine)
- _____ Sediment Deposits (B2) (Nonriverine)
- _____ Drift Deposits (B3) (Nonriverine)
- _____ Surface Soil Cracks (B6)
- _____ Inundation Visible on Aerial Imagery (B7)
- _____ Water stained leaves (B9)
- _____ Salt Crust (B11)
- _____ Biotic Crust (B12)
- _____ Aquatic Invertebrates (B13)
- _____ Hydrogen Sulfide Odor (C1)
- _____ Oxidized Rhizospheres along Living Roots (C3)
- _____ Presence of Reduced Iron (C4)
- _____ Recent Iron Reduction in Tilled Soils (C6)
- _____ Thin Muck Surface (C7)
- _____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- _____ Water Marks (B1) (Riverine)
- _____ Sediment Deposits (B2) (Riverine)
- _____ Drift Deposits (B3) (Riverine)
- _____ Drainage Patterns (B10)
- _____ Dry-Season Water Table (C2)
- _____ Crayfish Burrows (C8)
- _____ Saturation Visible on Aerial Imagery (C9)
- _____ Shallow Aquitard (D3)
- _____ Fac-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No X	Depth (inches):		
Water Table Present?	Yes _____	No X	Depth (inches):	>14	
Saturation Present? (includes capillary fringe)	Yes _____	No X	Depth (inches):	>14	

Wetland Hydrology Present?

Yes _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

PHS # 6326

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Grand Terrace II | City/County: Ashland/Jackson | Sampling Date: 12/4/2017

Applicant/Owner: Casita Developments, LLC | State: OR | Sampling Point: 8

Investigator(s): JT/CM | Section, Township, Range: Section 32, Township 38S, Range 1E

Landform (hillslope, terrace, etc.): Slope | Local relief (concave, convex, none): none | Slope (%): 2

Subregion (LRR): LRR A | Lat: 42.2165538 | Long: -122.7350433 | Datum: WGS84

Soil Map Unit Name: Darrow Silty Clay Loam, 5-20% Slopes | NWI Classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No ____ (if no, explain in Remarks)

Are vegetation ____ Soil X or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? (Y/N) Y

Are vegetation ____ Soil ____ or Hydrology ____ naturally problematic? If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X	**Is Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes	X	No		
Wetland Hydrology Present?	Yes		No	X	

Remarks:
Hydric soil indicators are likely a relect of past irrigation.

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status
Tree Stratum (plot size: ____)			
1			
2			
3			
4			
	0	= Total Cover	
Sapling/Shrub Stratum (plot size: 15)			
1 *Rubus armeniacus*	40	X	FAC
2			
3			
4			
5			
	40	= Total Cover	
Herb Stratum (plot size: 5)			
1 *Brassica nigra*	80	X	UPL
2 *Conium maculatum*	8		FACW
3 *Dipsacus fullonum*	5		FAC
4 *Cirsium vulgare*	5		FACU
5 *Rumex crispus*	2		FAC
6			
7			
8			
	100	= Total Cover	
Woody Vine Stratum (plot size: ____)			
1			
2			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index Worksheet:

Total % Cover of		Multiply by:	
OBL Species		x 1 =	0
FACW species		x 2 =	0
FAC Species		x 3 =	0
FACU Species		x 4 =	0
UPL Species		x 5 =	0
Column Totals	0 (A)		0 (B)

Prevalence Index =B/A = #DIV/0!

Hydrophytic Vegetation Indicators:

____ Dominance Test is >50%

____ Prevalence Index is ≤ 3.0[1]

____ Morphological Adaptations[1] (provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No X

Remarks:

SOIL

PHS # 6326 Sampling Point: 8

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(Inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 3/1	100					Silty Clay Loam	
4-14	10YR 3/1	98	7.5YR 6/8	2	C	M	Silty Clay Loam	Fine

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

	Histosol (A1)		Sandy Redox (S5)
	Histic Epipedon (A2)		Stripped Matrix (S6)
	Black Histic (A3)		Loamy Mucky Mineral (F1) (except MLRA 1)
	Hydrogen Sulfide (A4)		Loamy Gleyed Matrix (F2)
	Stratified Layers (A5) (LRR C)		Depleted Matrix (F3)
	1 cm Muck (A9 (LRR D)	X	Redox Dark Surface (F6)
	Depleted Below Dark Surface (A11)		Depleted Dark Surface (F7)
	Thick Dark Surface (A12)		Redox Depressions (F8)
	Sandy Mucky Mineral (S1)		Vernal Pools (F9)
	Sandy Gleyed Matrix (S4)		

Indicators for Problematic Hydric Soils[3]:

	1 cm Muck (A9) (LRR C)
	2 cm Muck (A10) (LRR B)
	Reduced Vertic (F18)
	Red Parent Material (TF2)
	Other (explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (2 or more required)
	Surface Water (A1)		Salt Crust (B11)		Water Marks (B1) (Riverine)
	High Water Table (A2)		Biotic Crust (B12)		Sediment Deposits (B2) (Riverine)
	Saturation (A3)		Aquatic Invertebrates (B13)		Drift Deposits (B3) (Riverine)
	Water Marks (B1) (Nonriverine)		Hydrogen Sulfide Odor (C1)		Drainage Patterns (B10)
	Sediment Deposits (B2) (Nonriverine)		Oxidized Rhizospheres along Living Roots (C3)		Dry-Season Water Table (C2)
	Drift Deposits (B3) (Nonriverine)		Presence of Reduced Iron (C4)		Crayfish Burrows (C8)
	Surface Soil Cracks (B6)		Recent Iron Reduction in Tilled Soils (C6)		Saturation Visible on Aerial Imagery (C9)
	Inundation Visible on Aerial Imagery (B7)		Thin Muck Surface (C7)		Shallow Aquitard (D3)
	Water stained leaves (B9)		Other (Explain in Remarks)		Fac-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes		No	X	Depth (inches):	
Water Table Present?	Yes		No	X	Depth (inches):	>14
Saturation Present? (includes capillary fringe)	Yes		No	X	Depth (inches):	>14

Wetland Hydrology Present?

Yes No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

PHS # 6326

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Grand Terrace II | City/County: Ashland/Jackson | Sampling Date: 12/4/2017

Applicant/Owner: Casita Developments, LLC | State: OR | Sampling Point: 9

Investigator(s): JT/CM | Section, Township, Range: Section 32, Township 38S, Range 1E

Landform (hillslope, terrace, etc.): Slope | Local relief (concave, convex, none): concave | Slope (%): 5

Subregion (LRR): LRR A | Lat: 42.21667004 | Long: -122.7366447 | Datum: WGS84

Soil Map Unit Name: Shefflein Loam, 20-35% North Slope | NWI Classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No ____ (if no, explain in Remarks)

Are vegetation ____ Soil ____ or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? (Y/N) Y

Are vegetation ____ Soil ____ or Hydrology ____ naturally problematic? If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No		
Hydric Soil Present?	Yes		No	X	**Is Sampled Area within a Wetland?** Yes ____ No X
Wetland Hydrology Present?	Yes		No	X	

Remarks:

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status
Tree Stratum (plot size: ____)			
1			
2			
3			
4			
	0	= Total Cover	
Sapling/Shrub Stratum (plot size: 15)			
1 *Rubus armeniacus*	100	X	FAC
2			
3			
4			
5			
	100	= Total Cover	
Herb Stratum (plot size: 5)			
1 *Conium maculatum*	90	X	FACW
2			
3			
4			
5			
6			
7			
8			
	90	= Total Cover	
Woody Vine Stratum (plot size: ____)			
1			
2			
	0	= Total Cover	

% Bare Ground in Herb Stratum 10

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index Worksheet:

Total % Cover of		Multiply by:	
OBL Species		x 1 =	0
FACW species		x 2 =	0
FAC Species		x 3 =	0
FACU Species		x 4 =	0
UPL Species		x 5 =	0
Column Totals	0 (A)		0 (B)

Prevalence Index =B/A = #DIV/0!

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%

____ Prevalence Index is ≤ 3.0[1]

____ Morphological Adaptations[1] (provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:

SOIL

PHS # 6326 Sampling Point: 9

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(Inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR 3/1	100					Silt Loam	
10-16	10YR 3/1	98	7.5YR 3/4	2	C	M	Silty Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- _____ Histosol (A1)
- _____ Histic Epipedon (A2)
- _____ Black Histic (A3)
- _____ Hydrogen Sulfide (A4)
- _____ Stratified Layers (A5) (LRR C)
- _____ 1 cm Muck (A9 (LRR D)
- _____ Depleted Below Dark Surface (A11)
- _____ Thick Dark Surface (A12)
- _____ Sandy Mucky Mineral (S1)
- _____ Sandy Gleyed Matrix (S4)
- _____ Sandy Redox (S5)
- _____ Stripped Matrix (S6)
- _____ Loamy Mucky Mineral (F1) (except MLRA 1)
- _____ Loamy Gleyed Matrix (F2)
- _____ Depleted Matrix (F3)
- _____ Redox Dark Surface (F6)
- _____ Depleted Dark Surface (F7)
- _____ Redox Depressions (F8)
- _____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- _____ 1 cm Muck (A9) (LRR C)
- _____ 2 cm Muck (A10) (LRR B)
- _____ Reduced Vertic (F18)
- _____ Red Parent Material (TF2)
- _____ Other (explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- _____ Surface Water (A1)
- _____ High Water Table (A2)
- _____ Saturation (A3)
- _____ Water Marks (B1) (Nonriverine)
- _____ Sediment Deposits (B2) (Nonriverine)
- _____ Drift Deposits (B3) (Nonriverine)
- _____ Surface Soil Cracks (B6)
- _____ Inundation Visible on Aerial Imagery (B7)
- _____ Water stained leaves (B9)
- _____ Salt Crust (B11)
- _____ Biotic Crust (B12)
- _____ Aquatic Invertebrates (B13)
- _____ Hydrogen Sulfide Odor (C1)
- _____ Oxidized Rhizospheres along Living Roots (C3)
- _____ Presence of Reduced Iron (C4)
- _____ Recent Iron Reduction in Tilled Soils (C6)
- _____ Thin Muck Surface (C7)
- _____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- _____ Water Marks (B1) (Riverine)
- _____ Sediment Deposits (B2) (Riverine)
- _____ Drift Deposits (B3) (Riverine)
- _____ Drainage Patterns (B10)
- _____ Dry-Season Water Table (C2)
- _____ Crayfish Burrows (C8)
- _____ Saturation Visible on Aerial Imagery (C9)
- _____ Shallow Aquitard (D3)
- _____ Fac-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	_____	No	X	Depth (inches):	_____
Water Table Present?	Yes	_____	No	X	Depth (inches):	>16
Saturation Present? (includes capillary fringe)	Yes	_____	No	X	Depth (inches):	>16

Wetland Hydrology Present?

Yes _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

PHS # 6326

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Grand Terrace II | City/County: Ashland/Jackson | Sampling Date: 12/4/2017

Applicant/Owner: Casita Developments, LLC | State: OR | Sampling Point: 10

Investigator(s): JT/CM | Section, Township, Range: Section 32, Township 38S, Range 1E

Landform (hillslope, terrace, etc.): Slope/Swale | Local relief (concave, convex, none): none | Slope (%): 5

Subregion (LRR): LRR A | Lat: 42.21736203 | Long: -122.7365298 | Datum: WGS84

Soil Map Unit Name: Shefflein Loam, 20-35% North Slope | NWI Classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No ____ (if no, explain in Remarks)

Are vegetation ____ Soil ____ or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? (Y/N) Y

Are vegetation ____ Soil ____ or Hydrology ____ naturally problematic? If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X	**Is Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes		No	X	
Wetland Hydrology Present?	Yes		No	X	

Remarks:

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status
Tree Stratum (plot size: 30)			
1 *Quercus garryana*	30	X	UPL
2 *Arbutus menziesii*	10	X	UPL
3			
4			
	40	= Total Cover	
Sapling/Shrub Stratum (plot size: 15)			
1 *Rubus armeniacus*	40	X	FAC
2			
3			
4			
5			
	40	= Total Cover	
Herb Stratum (plot size: 5)			
1 *Schedonorus arundinaceus*	60	X	FACU
2 *Conium maculatum*	20	X	FACW
3 *Claytonia siberica*	10		FAC
4			
5			
6			
7			
8			
	90	= Total Cover	
Woody Vine Stratum (plot size:)			
1			
2			
	0	= Total Cover	

% Bare Ground in Herb Stratum ____

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 40% (A/B)

Prevalence Index Worksheet:

Total % Cover of		Multiply by:	
OBL Species		x 1 =	0
FACW species		x 2 =	0
FAC Species		x 3 =	0
FACU Species		x 4 =	0
UPL Species		x 5 =	0
Column Totals	0 (A)		0 (B)

Prevalence Index =B/A = #DIV/0!

Hydrophytic Vegetation Indicators:

____ Dominance Test is >50%

____ Prevalence Index is ≤ 3.0[1]

____ Morphological Adaptations[1] (provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No X

Remarks:

SOIL

PHS # 6326 Sampling Point: 10

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(Inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 2/1	100					Loam	Coarse

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- _____ Histosol (A1)
- _____ Histic Epipedon (A2)
- _____ Black Histic (A3)
- _____ Hydrogen Sulfide (A4)
- _____ Stratified Layers (A5) (LRR C)
- _____ 1 cm Muck (A9 (LRR D)
- _____ Depleted Below Dark Surface (A11)
- _____ Thick Dark Surface (A12)
- _____ Sandy Mucky Mineral (S1)
- _____ Sandy Gleyed Matrix (S4)
- _____ Sandy Redox (S5)
- _____ Stripped Matrix (S6)
- _____ Loamy Mucky Mineral (F1) (except MLRA 1)
- _____ Loamy Gleyed Matrix (F2)
- _____ Depleted Matrix (F3)
- _____ Redox Dark Surface (F6)
- _____ Depleted Dark Surface (F7)
- _____ Redox Depressions (F8)
- _____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- _____ 1 cm Muck (A9) (LRR C)
- _____ 2 cm Muck (A10) (LRR B)
- _____ Reduced Vertic (F18)
- _____ Red Parent Material (TF2)
- _____ Other (explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- _____ Surface Water (A1)
- _____ High Water Table (A2)
- _____ Saturation (A3)
- _____ Water Marks (B1) (Nonriverine)
- _____ Sediment Deposits (B2) (Nonriverine)
- _____ Drift Deposits (B3) (Nonriverine)
- _____ Surface Soil Cracks (B6)
- _____ Inundation Visible on Aerial Imagery (B7)
- _____ Water stained leaves (B9)
- _____ Salt Crust (B11)
- _____ Biotic Crust (B12)
- _____ Aquatic Invertebrates (B13)
- _____ Hydrogen Sulfide Odor (C1)
- _____ Oxidized Rhizospheres along Living Roots (C3)
- _____ Presence of Reduced Iron (C4)
- _____ Recent Iron Reduction in Tilled Soils (C6)
- _____ Thin Muck Surface (C7)
- _____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- _____ Water Marks (B1) (Riverine)
- _____ Sediment Deposits (B2) (Riverine)
- _____ Drift Deposits (B3) (Riverine)
- _____ Drainage Patterns (B10)
- _____ Dry-Season Water Table (C2)
- _____ Crayfish Burrows (C8)
- _____ Saturation Visible on Aerial Imagery (C9)
- _____ Shallow Aquitard (D3)
- _____ Fac-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	_____	No X	Depth (inches):	_____
Water Table Present?	Yes	_____	No X	Depth (inches):	>12
Saturation Present? (includes capillary fringe)	Yes	_____	No X	Depth (inches):	>12

Wetland Hydrology Present?

Yes _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

PHS # 6326

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Grand Terrace II | City/County: Ashland/Jackson | Sampling Date: 12/4/2017

Applicant/Owner: Casita Developments, LLC | State: OR | Sampling Point: 11

Investigator(s): JT/CM | Section, Township, Range: Section 32, Township 38S, Range 1E

Landform (hillslope, terrace, etc.): Ditch | Local relief (concave, convex, none): none | Slope (%): 10

Subregion (LRR): LRR A | Lat: 42.21701438 | Long: -122.7364326 | Datum: WGS84

Soil Map Unit Name: Shefflein Loam, 20-35% North Slope | NWI Classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No ____ (if no, explain in Remarks)

Are vegetation ____ Soil ____ or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? (Y/N) Y

Are vegetation ____ Soil ____ or Hydrology ____ naturally problematic? If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No		
Hydric Soil Present?	Yes	X	No	**Is Sampled Area within a Wetland?**	Yes X No
Wetland Hydrology Present?	Yes	X	No		

Remarks:

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status
Tree Stratum (plot size: 30)			
1 *Populus balsamifera*	100	X	FAC
2			
3			
4			
	100	= Total Cover	
Sapling/Shrub Stratum (plot size: ____)			
1			
2			
3			
4			
5			
	0	= Total Cover	
Herb Stratum (plot size: ____)			
1			
2			
3			
4			
5			
6			
7			
8			
	0	= Total Cover	
Woody Vine Stratum (plot size: ____)			
1			
2			
	0	= Total Cover	

% Bare Ground in Herb Stratum 100

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index Worksheet:

Total % Cover of		Multiply by:	
OBL Species		x 1 =	0
FACW species		x 2 =	0
FAC Species		x 3 =	0
FACU Species		x 4 =	0
UPL Species		x 5 =	0
Column Totals	0 (A)		0 (B)

Prevalence Index =B/A = #DIV/0!

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%

____ Prevalence Index is ≤ 3.0[1]

____ Morphological Adaptations[1] (provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:

SOIL PHS # 6326 Sampling Point: 11

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(Inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 2/1	100					Silt Loam	Mucky

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

	Histosol (A1)		Sandy Redox (S5)
	Histic Epipedon (A2)		Stripped Matrix (S6)
	Black Histic (A3)	X	Loamy Mucky Mineral (F1) (except MLRA 1)
X	Hydrogen Sulfide (A4)		Loamy Gleyed Matrix (F2)
	Stratified Layers (A5) (LRR C)		Depleted Matrix (F3)
	1 cm Muck (A9 (LRR D)		Redox Dark Surface (F6)
	Depleted Below Dark Surface (A11)		Depleted Dark Surface (F7)
	Thick Dark Surface (A12)		Redox Depressions (F8)
	Sandy Mucky Mineral (S1)		Vernal Pools (F9)
	Sandy Gleyed Matrix (S4)		

Indicators for Problematic Hydric Soils[3]:

	1 cm Muck (A9) (LRR C)
	2 cm Muck (A10) (LRR B)
	Reduced Vertic (F18)
	Red Parent Material (TF2)
	Other (explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Bed Rock

Depth (inches): 8

Hydric Soil Present? Yes X **No**

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (2 or more required)
X	Surface Water (A1)		Salt Crust (B11)		Water Marks (B1) (Riverine)
	High Water Table (A2)		Biotic Crust (B12)		Sediment Deposits (B2) (Riverine)
X	Saturation (A3)		Aquatic Invertebrates (B13)		Drift Deposits (B3) (Riverine)
	Water Marks (B1) (Nonriverine)		Hydrogen Sulfide Odor (C1)		Drainage Patterns (B10)
	Sediment Deposits (B2) (Nonriverine)		Oxidized Rhizospheres along Living Roots (C3)		Dry-Season Water Table (C2)
	Drift Deposits (B3) (Nonriverine)		Presence of Reduced Iron (C4)		Crayfish Burrows (C8)
	Surface Soil Cracks (B6)		Recent Iron Reduction in Tilled Soils (C6)		Saturation Visible on Aerial Imagery (C9)
	Inundation Visible on Aerial Imagery (B7)		Thin Muck Surface (C7)		Shallow Aquitard (D3)
	Water stained leaves (B9)		Other (Explain in Remarks)		Fac-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	X	No		Depth (inches):	1
Water Table Present?	Yes		No	X	Depth (inches):	>8
Saturation Present? (includes capillary fringe)	Yes	X	No		Depth (inches):	0

Wetland Hydrology Present? Yes X **No**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

PHS # 6326

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Grand Terrace II | City/County: Ashland/Jackson | Sampling Date: 12/4/2017

Applicant/Owner: Casita Developments, LLC | State: OR | Sampling Point: 12

Investigator(s): JT/CM | Section, Township, Range: Section 32, Township 38S, Range 1E

Landform (hillslope, terrace, etc.): Slope | Local relief (concave, convex, none): concave | Slope (%): 0

Subregion (LRR): LRR A | Lat: 42.21702911 | Long: -122.7364839 | Datum: WGS84

Soil Map Unit Name: Shefflein Loam, 20-35% North Slope | NWI Classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No ____ (if no, explain in Remarks)

Are vegetation ____ Soil ____ or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? (Y/N) Y

Are vegetation ____ Soil ____ or Hydrology ____ naturally problematic? If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No		
Hydric Soil Present?	Yes		No	X	**Is Sampled Area within a Wetland?** Yes ____ No X
Wetland Hydrology Present?	Yes		No	X	

Remarks:

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status
Tree Stratum (plot size: 30)			
1 *Populus balsamifera*	60	X	FAC
2 *Quercus garryana*	20	X	UPL
3			
4			
	80	= Total Cover	
Sapling/Shrub Stratum (plot size: 15)			
1 *Rubus armeniacus*	80	X	FAC
2 *Crataegus monogyna*	10		FAC
3			
4			
5			
	90	= Total Cover	
Herb Stratum (plot size:)			
1			
2			
3			
4			
5			
6			
7			
8			
	0	= Total Cover	
Woody Vine Stratum (plot size:)			
1			
2			
	0	= Total Cover	

% Bare Ground in Herb Stratum 100

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 67% (A/B)

Prevalence Index Worksheet:

Total % Cover of		Multiply by:	
OBL Species		x 1 =	0
FACW species		x 2 =	0
FAC Species		x 3 =	0
FACU Species		x 4 =	0
UPL Species		x 5 =	0
Column Totals	0 (A)		0 (B)

Prevalence Index =B/A = #DIV/0!

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%

____ Prevalence Index is ≤ 3.0[1]

____ Morphological Adaptations[1] (provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:

Duff covering 100% of ground

SOIL

PHS # 6326 Sampling Point: 12

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(Inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 2/1	100					Loam	Medium

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- _____ Histosol (A1)
- _____ Histic Epipedon (A2)
- _____ Black Histic (A3)
- _____ Hydrogen Sulfide (A4)
- _____ Stratified Layers (A5) (LRR C)
- _____ 1 cm Muck (A9 (LRR D)
- _____ Depleted Below Dark Surface (A11)
- _____ Thick Dark Surface (A12)
- _____ Sandy Mucky Mineral (S1)
- _____ Sandy Gleyed Matrix (S4)
- _____ Sandy Redox (S5)
- _____ Stripped Matrix (S6)
- _____ Loamy Mucky Mineral (F1) (except MLRA 1)
- _____ Loamy Gleyed Matrix (F2)
- _____ Depleted Matrix (F3)
- _____ Redox Dark Surface (F6)
- _____ Depleted Dark Surface (F7)
- _____ Redox Depressions (F8)
- _____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- _____ 1 cm Muck (A9) (LRR C)
- _____ 2 cm Muck (A10) (LRR B)
- _____ Reduced Vertic (F18)
- _____ Red Parent Material (TF2)
- _____ Other (explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- _____ Surface Water (A1)
- _____ High Water Table (A2)
- _____ Saturation (A3)
- _____ Water Marks (B1) (Nonriverine)
- _____ Sediment Deposits (B2) (Nonriverine)
- _____ Drift Deposits (B3) (Nonriverine)
- _____ Surface Soil Cracks (B6)
- _____ Inundation Visible on Aerial Imagery (B7)
- _____ Water stained leaves (B9)
- _____ Salt Crust (B11)
- _____ Biotic Crust (B12)
- _____ Aquatic Invertebrates (B13)
- _____ Hydrogen Sulfide Odor (C1)
- _____ Oxidized Rhizospheres along Living Roots (C3)
- _____ Presence of Reduced Iron (C4)
- _____ Recent Iron Reduction in Tilled Soils (C6)
- _____ Thin Muck Surface (C7)
- _____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- _____ Water Marks (B1) (Riverine)
- _____ Sediment Deposits (B2) (Riverine)
- _____ Drift Deposits (B3) (Riverine)
- _____ Drainage Patterns (B10)
- _____ Dry-Season Water Table (C2)
- _____ Crayfish Burrows (C8)
- _____ Saturation Visible on Aerial Imagery (C9)
- _____ Shallow Aquitard (D3)
- _____ Fac-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	_____	No	X	Depth (inches):	_____
Water Table Present?	Yes	_____	No	X	Depth (inches):	>12
Saturation Present? (includes capillary fringe)	Yes	_____	No	X	Depth (inches):	>12

Wetland Hydrology Present?

Yes _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

PHS # 6326

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Grand Terrace II | City/County: Ashland/Jackson | Sampling Date: 12/4/2017

Applicant/Owner: Casita Developments, LLC | State: OR | Sampling Point: 13

Investigator(s): JT/CM | Section, Township, Range: Section 32, Township 38S, Range 1E

Landform (hillslope, terrace, etc.): Slope | Local relief (concave, convex, none): none | Slope (%): 5

Subregion (LRR): LRR A | Lat: 42.21791288 | Long: -122.7364839 | Datum: WGS84

Soil Map Unit Name: Manita Loam, 35-50% Slopes | NWI Classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No ____ (if no, explain in Remarks)

Are vegetation ____ Soil ____ or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? (Y/N) Y

Are vegetation ____ Soil ____ or Hydrology ____ naturally problematic? If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X	**Is Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes		No	X	
Wetland Hydrology Present?	Yes		No	X	

Remarks:

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status
Tree Stratum (plot size: 30)			
1 *Pinus ponderosa*	70	X	FACU
2 *Quercus garryana*	50	X	UPL
3			
4			
	120	= Total Cover	
Sapling/Shrub Stratum (plot size: ____)			
1			
2			
3			
4			
5			
	0	= Total Cover	
Herb Stratum (plot size: 5)			
1 *Unidentified grass*	90	X	(FAC)
2 *Claytonia siberica*	3		FAC
3 *Vicia sp.*	2		(FAC)
4			
5			
6			
7			
8			
	95	= Total Cover	
Woody Vine Stratum (plot size: ____)			
1			
2			
	0	= Total Cover	

% Bare Ground in Herb Stratum 5

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 33% (A/B)

Prevalence Index Worksheet:

Total % Cover of		Multiply by:	
OBL Species		x 1 =	0
FACW species		x 2 =	0
FAC Species		x 3 =	0
FACU Species		x 4 =	0
UPL Species		x 5 =	0
Column Totals	0 (A)		0 (B)

Prevalence Index =B/A = #DIV/0!

Hydrophytic Vegetation Indicators:

____ Dominance Test is >50%

____ Prevalence Index is ≤ 3.0[1]

____ Morphological Adaptations[1] (provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No X

Remarks:

SOIL

PHS # 6326 Sampling Point: 13

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(Inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	7.5YR 2.5/2	100						

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- _____ Histosol (A1)
- _____ Histic Epipedon (A2)
- _____ Black Histic (A3)
- _____ Hydrogen Sulfide (A4)
- _____ Stratified Layers (A5) (LRR C)
- _____ 1 cm Muck (A9 (LRR D)
- _____ Depleted Below Dark Surface (A11)
- _____ Thick Dark Surface (A12)
- _____ Sandy Mucky Mineral (S1)
- _____ Sandy Gleyed Matrix (S4)
- _____ Sandy Redox (S5)
- _____ Stripped Matrix (S6)
- _____ Loamy Mucky Mineral (F1) (except MLRA 1)
- _____ Loamy Gleyed Matrix (F2)
- _____ Depleted Matrix (F3)
- _____ Redox Dark Surface (F6)
- _____ Depleted Dark Surface (F7)
- _____ Redox Depressions (F8)
- _____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- _____ 1 cm Muck (A9) (LRR C)
- _____ 2 cm Muck (A10) (LRR B)
- _____ Reduced Vertic (F18)
- _____ Red Parent Material (TF2)
- _____ Other (explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- _____ Surface Water (A1)
- _____ High Water Table (A2)
- _____ Saturation (A3)
- _____ Water Marks (B1) (Nonriverine)
- _____ Sediment Deposits (B2) (Nonriverine)
- _____ Drift Deposits (B3) (Nonriverine)
- _____ Surface Soil Cracks (B6)
- _____ Inundation Visible on Aerial Imagery (B7)
- _____ Water stained leaves (B9)
- _____ Salt Crust (B11)
- _____ Biotic Crust (B12)
- _____ Aquatic Invertebrates (B13)
- _____ Hydrogen Sulfide Odor (C1)
- _____ Oxidized Rhizospheres along Living Roots (C3)
- _____ Presence of Reduced Iron (C4)
- _____ Recent Iron Reduction in Tilled Soils (C6)
- _____ Thin Muck Surface (C7)
- _____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- _____ Water Marks (B1) (Riverine)
- _____ Sediment Deposits (B2) (Riverine)
- _____ Drift Deposits (B3) (Riverine)
- _____ Drainage Patterns (B10)
- _____ Dry-Season Water Table (C2)
- _____ Crayfish Burrows (C8)
- _____ Saturation Visible on Aerial Imagery (C9)
- _____ Shallow Aquitard (D3)
- _____ Fac-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	_____	No	X	Depth (inches):	_____
Water Table Present?	Yes	_____	No	X	Depth (inches):	>12
Saturation Present? (includes capillary fringe)	Yes	_____	No	X	Depth (inches):	>12

Wetland Hydrology Present?

Yes _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

PHS # 6326

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Grand Terrace II | City/County: Ashland/Jackson | Sampling Date: 12/4/2017

Applicant/Owner: Casita Developments, LLC | State: OR | Sampling Point: 14

Investigator(s): JT/CM | Section, Township, Range: Section 32, Township 38S, Range 1E

Landform (hillslope, terrace, etc.): Slope | Local relief (concave, convex, none): none | Slope (%): 5

Subregion (LRR): LRR A | Lat: 42.21752982 | Long: -122.7368027 | Datum: WGS84

Soil Map Unit Name: Shefflein Loam, 20-35% North Slope | NWI Classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No ____ (if no, explain in Remarks)

Are vegetation ____ Soil ____ or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? (Y/N) Y

Are vegetation ____ Soil ____ or Hydrology ____ naturally problematic? If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No		
Hydric Soil Present?	Yes		No	X	**Is Sampled Area within a Wetland?** Yes ____ No X
Wetland Hydrology Present?	Yes		No	X	

Remarks:

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status
Tree Stratum (plot size: 30)			
1 *Quercus garryana*	10	X	UPL
2			
3			
4			
	10	= Total Cover	
Sapling/Shrub Stratum (plot size: 15)			
1 *Crataegus monogyna*	20	X	FAC
2 *Rubus armeniacus*	5	X	FAC
3			
4			
5			
	25	= Total Cover	
Herb Stratum (plot size: 5)			
1 *Brassica nigra*	5	X	UPL
2 *Poa sp.*	5	X	(FAC)
3 *Conium maculatum*	2		FACW
4			
5			
6			
7			
8			
	12	= Total Cover	
Woody Vine Stratum (plot size:)			
1			
2			
	0	= Total Cover	

% Bare Ground in Herb Stratum 88

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 60% (A/B)

Prevalence Index Worksheet:

Total % Cover of		Multiply by:	
OBL Species		x 1 =	0
FACW species		x 2 =	0
FAC Species		x 3 =	0
FACU Species		x 4 =	0
UPL Species		x 5 =	0
Column Totals	0 (A)		0 (B)

Prevalence Index =B/A = #DIV/0!

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%

____ Prevalence Index is ≤ 3.0[1]

____ Morphological Adaptations[1] (provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:

Ground is worked and bare; used as a small garden.

SOIL PHS # 6326 Sampling Point: 14

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(Inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 2/1	100					Silty Clay Loam	Medium

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (LRR C)
- ___ 1 cm Muck (A9 (LRR D)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) (except MLRA 1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (LRR C)
- ___ 2 cm Muck (A10) (LRR B)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: ___

Depth (inches): ___

Hydric Soil Present? Yes ___ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (Nonriverine)
- ___ Sediment Deposits (B2) (Nonriverine)
- ___ Drift Deposits (B3) (Nonriverine)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water stained leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (Riverine)
- ___ Sediment Deposits (B2) (Riverine)
- ___ Drift Deposits (B3) (Riverine)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ Fac-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	___	No	X	Depth (inches):	___
Water Table Present?	Yes	___	No	X	Depth (inches):	>12
Saturation Present? (includes capillary fringe)	Yes	___	No	X	Depth (inches):	>12

Wetland Hydrology Present?

Yes ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Appendix C

Site Photos





Photo A:

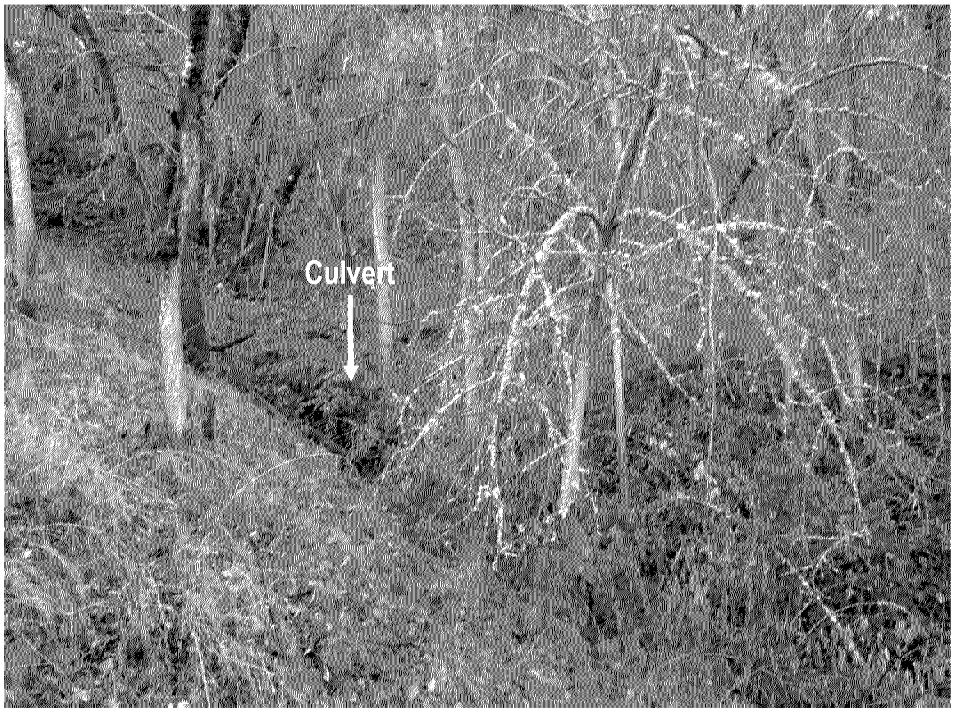
Looking south at Wetland A and Sample Point 11.

Photo taken on 12/4/2017

Photo B:

Looking south at Tributary 1, which enters the site via a culvert.

Photo taken on 12/4/2017



Project #6326
12/8/2017

Pacific Habitat Services, Inc.
9450 SW Commerce Circle, Suite 180
Wilsonville, OR 97070

Photo documentation

Grand Terrace II Residential Development

Ashland, Oregon



Photo C:

Looking southeast at Tributary 1 and Sample Point 1.

Photo taken on 12/4/2017

Photo D:

Looking east at Sample Point 13, which characterizes the upland habitat of the western portion of the study area. The vegetation community is dominated by Oregon white oak *(Quercus garryana*, FACU) with occasional ponderosa pine (*Pinus ponderosa*, FACU) and madrone (*Arbutus menziesii*, UPL) on moderate to steep slopes.

Photo taken on 12/5/2017



Project #6326
12/8/2017

Pacific Habitat Services, Inc.
9450 SW Commerce Circle, Suite 180
Wilsonville, OR 97070

Photo documentation
Grand Terrace II Residential Development
Ashland, Oregon

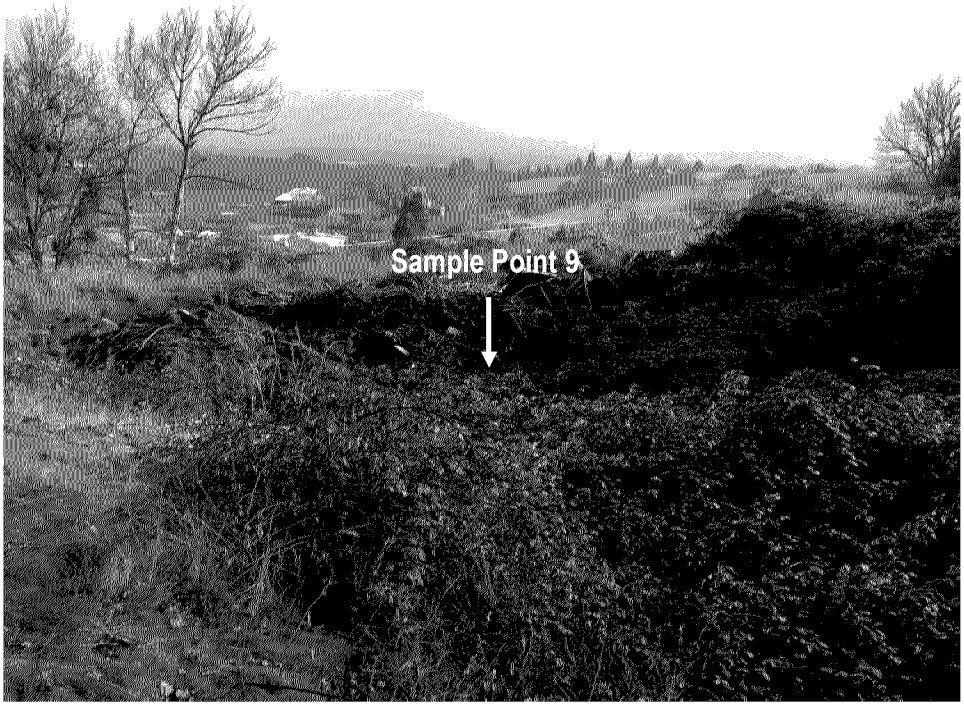


Photo E:

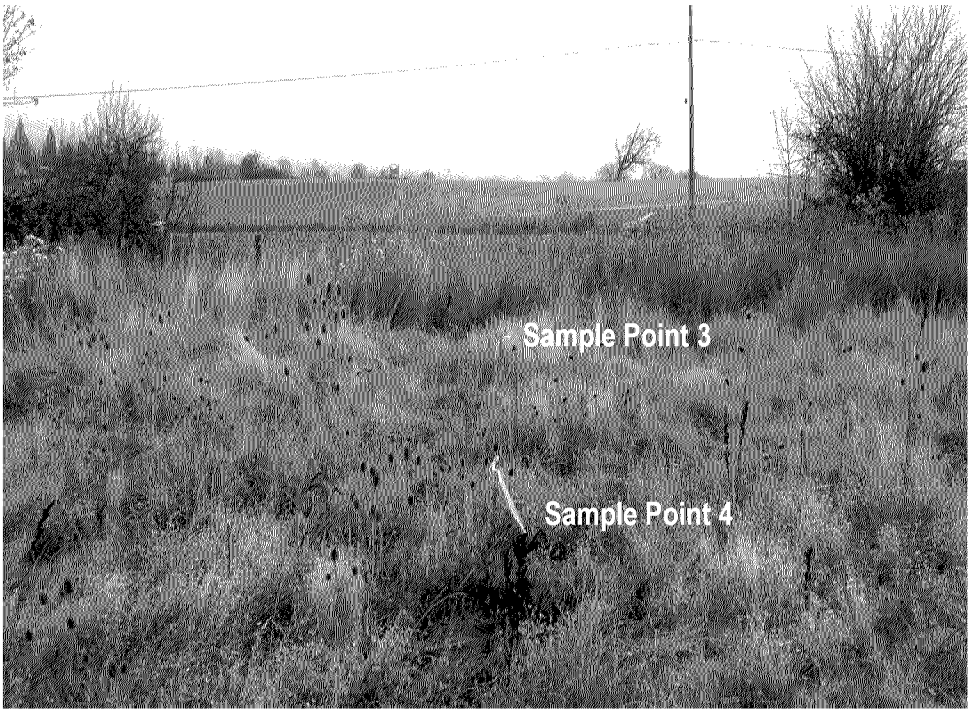
Looking northeast at an abandoned former stock pond and Sample Point 9. The excavated basin is dominated by Himalayan blackberry (*Rubus armeniacus*, FAC) and poison hemlock (*Conium maculatum*, FAC).

Photo taken on 12/5/2017

Photo F:

Looking east at Wetland B and Sample Points 3 (wetland) and 4 (upland). The wetland is dominated by soft rush (*Juncus effusus*, FACW) and the adjacent upland is dominated by foxtail barley (*Hordeum murinum*, FACU) .

Photo taken on 12/5/2017



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12/8/2017

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Wilsonville, OR 97070

Photo documentation
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Ashland, Oregon



Photo G:

Looking south at the northern boundary of Wetland B. Hydrophytic vegetation at the wetland boundary in this location includes teasel (*Dipsacus fallonum*, FAC) and fringed willowherb (*Epilobium ciliatum*, FACW). Adjacent upland vegetation includes foxtail barley and yellow star thistle (*Centaurea solstitialis,* UPL).

Photo taken on 12/5/2017

Photo H:

Looking northwest at the eastern portion of the study area. The upland vegetation community is dominated by foxtail barley, yellow star thistle and ox-eye daisy (*Leucanthemum vulgare*, FACU).

Photo taken on 12/5/2017



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12/8/2017

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Photo I:

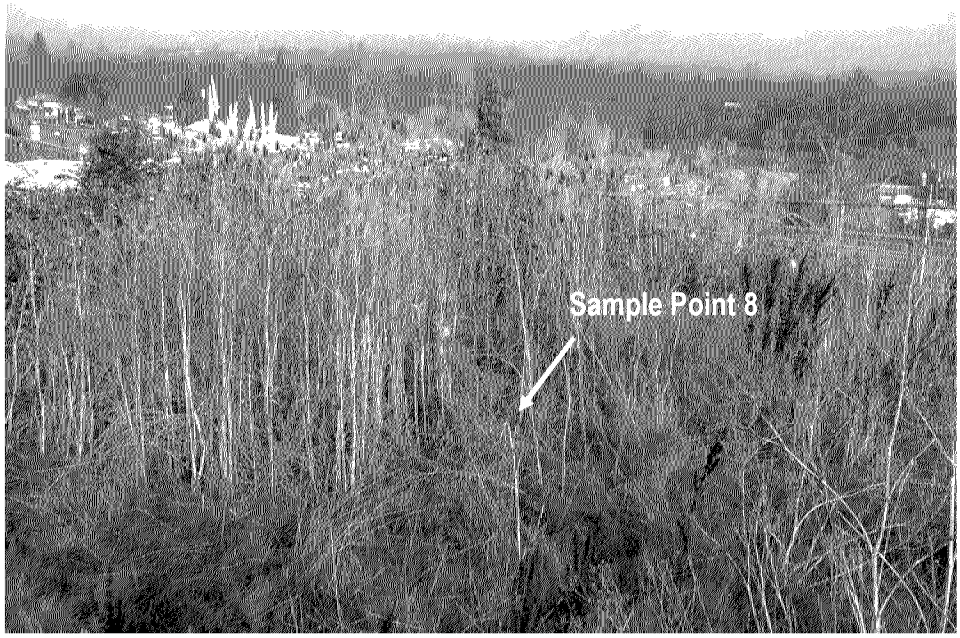
Looking west at Sample Point 7. This area meets the requirements for hydric soil (redox dark surface). Wetland vegetation and hydrology indicators, however, were not present. The vegetation community was dominated by foxtail barley.

Photo taken on 12/5/2017

Photo J:

Looking north at Sample Point 8, which was investigated due to the presence of poison hemlock. This area meets the requirements for hydric soil (redox dark surface). Wetland vegetation and hydrology indicators, however, were not present. The vegetation community was dominated by black mustard (*Brassica nigra*, UPL) and Himalayan blackberry.

Photo taken on 12/5/2017



Project #6326
12/8/2017

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Wilsonville, OR 97070

Photo documentation
Grand Terrace II Residential Development
Ashland, Oregon

Appendix D

Wetland Definitions, Methodology



WATERS OF THE STATE AND WETLAND DEFINITION AND CRITERIA

Regulatory Jurisdiction

Wetlands and water resources in Oregon are regulated by the Oregon Department of State Lands (DSL) under the Removal-Fill Law (ORS 196.800-196.990) and by the U.S. Army Corps of Engineers (COE) through Section 404 of the Clean Water Act.

The primary source documents for wetland delineations within Oregon is the *Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1* (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Supplement (Version 2.0)* (U.S. Army Corps of Engineers, 2010), which are required by both DSL and COE.

Waters of This State and Wetland Definition

Waters of This State are defined as "all natural waterways, all tidal and non-tidal bays, intermittent streams, constantly flowing streams, lakes, wetlands, that portion of the Pacific Ocean that is in the boundaries of this state, all other navigable and non-navigable bodies of water in this state and those portions of the ocean shore …" (DSL, 2009).

Wetlands are defined as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (DSL 2009).

Wetland Criteria

Based on the above definition, three major factors characterize a wetland: hydrology, substrate, and biota.

Wetland Hydrology

Wetland hydrology is related to duration of saturation, frequency of saturation, and critical depth of saturation. The 1987 manual defines wetland hydrology as inundation or saturation within a major portion of the root zone (usually above 12 inches), typically for at least 12.5% of the growing season. The wetland hydrology criterion can be met, however, if saturation within the major portion of the root zone is present for only 5% of the growing season, depending on other evidence.

The growing season is defined as the portion of the year when soil temperatures at 12.0 inches below the soil surface are higher than biological zero (41 degrees Fahrenheit, 5 degrees Celsius), but also allows approximation from frost-free days, based on air temperature. The growing season for any given study area or location is determined from US Natural Resources Conservation Service, (formerly Soil Conservation Service) data and information.

Wetland hydrologic indicators include the following: visual observation of inundation or saturation, watermarks, drift lines, sediment deposits, and/or oxidized rhizospheres with living roots. Oxidized rhizospheres are defined as yellowish-red zones around the roots and rhizomes of some plants that grow in frequently saturated soils. Other indicators of hydrology, including algal mats or crust, iron deposits, surface soil cracks, sparsely vegetated concave surface, salt crust, aquatic invertebrates, hydrogen sulfide odor, reduced iron, iron reduction in tilled soils, and stunted or stressed plants can also be used to determine the presence of wetland hydrology.

Wetland Substrate (Soils)

Most wetlands are characterized by hydric soils. Hydric soils are those that are ponded, flooded, or saturated for long enough during the growing season to develop anaerobic conditions. Periodic saturation of soils causes alternation of reduced and oxidized conditions, which leads to the formation of redoximorphic features (gleying and mottling). Mineral hydric soils will be either gleyed or will have bright mottles and/or low matrix chroma. The redoximorphic feature known as gley is a result of greatly reduced soil conditions, which result in a characteristic grayish, bluish or greenish soil color. The term mottling is used to describe areas of contrasting color within a soil matrix. The soil matrix is the portion of the soil layer that has the predominant color. Soils that have brightly colored mottles and a low matrix chroma are indicative of a fluctuating water table.

Hydric soil indicators include organic content of greater than 50% by volume, and/or presence of redoximorphic features and dark soil matrix, as determined by the use of a Munsell Soil Color Chart. This chart establishes the chroma, value and hue of soils based on comparison with color chips. Mineral hydric soil must meet one of the 16 definitions for hydric soil indicators, or be classified as a "problem soil" in the Regional Supplement.

Wetland Biota (Vegetation)

Wetland biota is defined as hydrophytic vegetation. A hydrophyte is a plant species that is capable of growing in substrates that are periodically deficient in oxygen as a result of saturated soil conditions. The U.S. Fish and Wildlife Service, in the *National List of Plant Species that Occur in Wetlands*, has established five basic groups of vegetation based on their frequency of occurrence in wetlands. These categories, referred to as the "wetland indicator status", are as follows: obligate wetland plants (OBL), facultative wetland (FACW), facultative (FAC), facultative upland (FACU), and obligate upland (UPL). Table 1 gives a definition of the plant indicator codes.

Table 1. Description of Wetland Plant Indicator Status Codes

Indicator Code	Status
OBL	Obligate wetland. Plants that always occur in standing water or in saturated soils.
FACW	Facultative wetland. Plants that nearly always occur in areas of prolonged flooding or require standing water or saturated soils but may, on rare occasions, occur in non-wetlands.
FAC	Facultative. Plants that occur in a variety of habitats, including wetland and mesic to xeric non-wetland habitats but commonly occur in standing water or saturated soils.
FACU	Facultative upland. Plants that typically occur in xeric or mesic non-wetland habitats but may frequently occur in standing water or saturated soils.
UPL	Obligate upland. Plants that rarely occur in water or saturated soils.

Observations of hydrology, soils, and vegetation, were made using the "Routine On-study area" delineation method as defined in the 1987 manual and the Regional Supplement for areas that were not currently in agricultural production. One-foot diameter soil pits were excavated to 20 inches and soil profiles were examined for hydric soil and wetland hydrology field indicators. In addition, a visual absolute-cover estimate of the dominant species of the plant community was performed using soil pit locations as a center of reference. Dominant plant species are based on estimates of absolute cover for herbaceous, and shrub species within a 5-foot radius of the sample point, and basal area cover for tree and woody vine species within a 30 foot radius of the sample point. Plant species in each vegetative layer, which are estimated at less than 20% of the total cover, are not considered dominant. The wetland indicator status is then used to determine if there is an overall dominance (greater than 50%) of wetland or upland plant species. If less than 50% of the dominant species are hydrophytic, then the prevalence index may be used to determine if the subdominant species are hydrophytic. If the prevalence index is less than or equal to three, hydrophytic vegetation criterion is met.

During data collection, the soil profiles were examined for hydric soil and wetland hydrology field indicators. Plant species and cover were recorded. Data was recorded on standard data sheets, which contain the information specified in the 1987 Corps Manual and the Regional Supplement.

MAP OF SURVEY

LYING SITUATE WITHIN

THE NORTHWEST QUARTER OF SECTION 5
TOWNSHIP 39 SOUTH, RANGE 1 EAST, WILLAMETTE MERIDIAN
& SOUTHEAST 1/4 OF SECTION 31 & SOUTHWEST 1/4 OF SECTION 32
TOWNSHIP 38 SOUTH, RANGE 1 EAST, WILLAMETTE MERIDIAN
JACKSON COUNTY, OREGON

FOR

Cassita Developments LLC

153 Will Dodge Way
Ashland, Oregon 97520

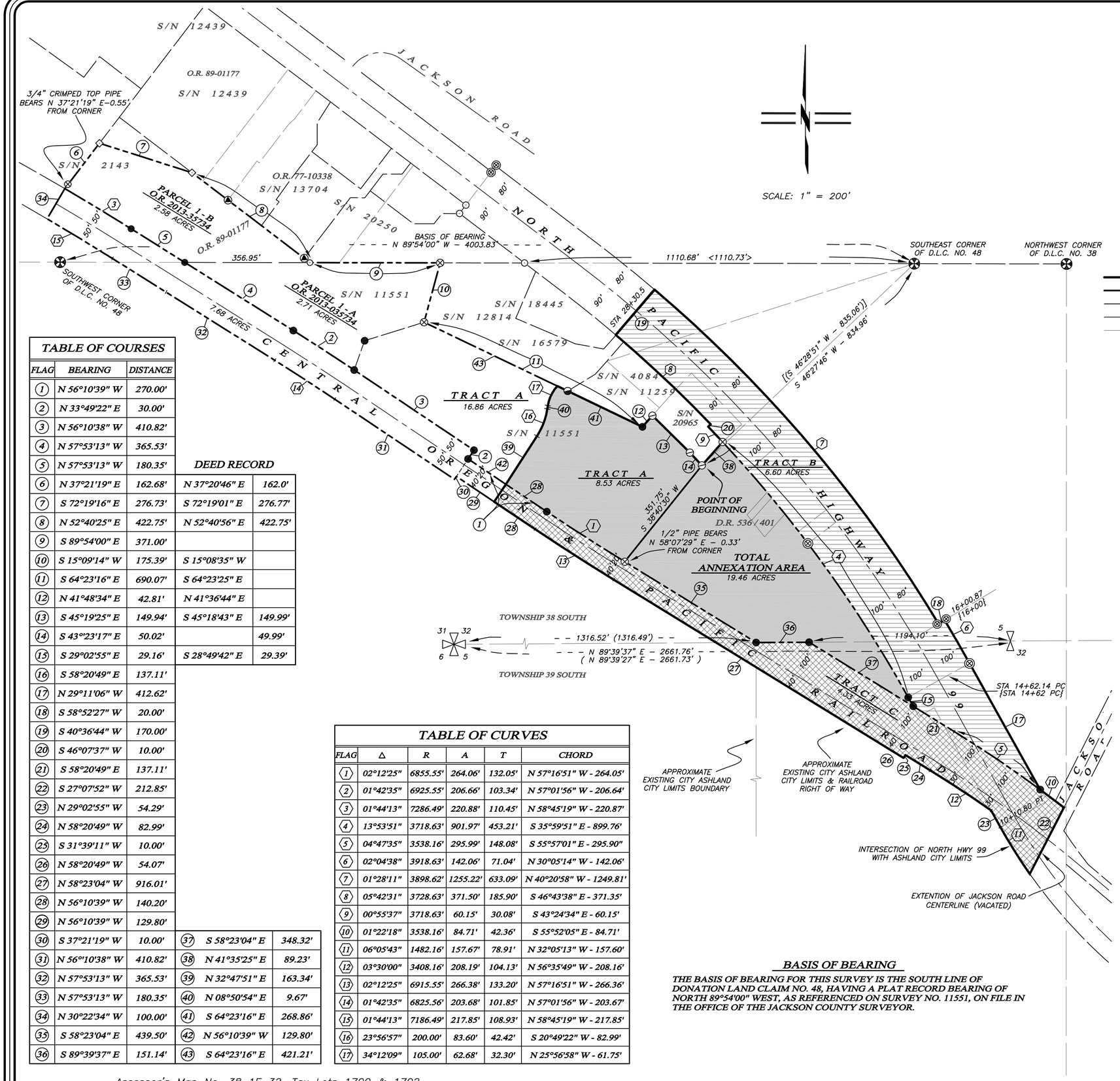

TABLE OF COURSES

FLAG	BEARING	DISTANCE	DEED RECORD		
(1)	N 56°10'39" W	270.00'			
(2)	N 33°49'22" E	30.00'			
(3)	N 56°10'38" W	410.82'			
(4)	N 57°53'13" W	365.53'			
(5)	N 57°53'13" W	180.35'			
(6)	N 37°21'19" E	162.68'	N 37°20'46" E	162.0'	
(7)	S 72°19'16" E	276.73'	S 72°19'01" E	276.77'	
(8)	N 52°40'25" E	422.75'	N 52°40'56" E	422.75'	
(9)	S 89°54'00" E	371.00'			
(10)	S 15°09'14" W	175.39'	S 15°08'35" W		
(11)	S 64°23'16" E	690.07'	S 64°23'25" E		
(12)	N 41°48'34" E	42.81'	N 41°36'44" E		
(13)	S 45°19'25" E	149.94'	S 45°18'43" E	149.99'	
(14)	S 43°23'17" E	50.02'		49.99'	
(15)	S 29°02'55" E	29.16'	S 28°49'42" E	29.39'	
(16)	S 58°20'49" E	137.11'			
(17)	N 29°11'06" W	412.62'			
(18)	S 58°52'27" W	20.00'			
(19)	S 40°36'44" W	170.00'			
(20)	S 46°07'37" W	10.00'			
(21)	S 58°20'49" E	137.11'			
(22)	S 27°07'52" W	212.85'			
(23)	N 29°02'55" W	54.29'			
(24)	N 58°20'49" W	82.99'			
(25)	S 31°39'11" W	10.00'			
(26)	N 58°20'49" W	54.07'			
(27)	N 58°23'04" W	916.01'			
(28)	N 56°10'39" W	140.20'			
(29)	N 56°10'39" W	129.80'			
(30)	S 37°21'19" W	10.00'	(37) S 58°23'04" E	348.32'	
(31)	N 56°10'38" W	410.82'	(38) N 41°35'25" E	89.23'	
(32)	N 57°53'13" W	365.53'	(39) N 32°47'51" E	163.34'	
(33)	N 57°53'13" W	180.35'	(40) N 08°50'54" E	9.67'	
(34)	N 30°22'34" W	100.00'	(41) S 64°23'16" E	268.86'	
(35)	S 58°23'04" E	439.50'	(42) N 56°10'39" W	129.80'	
(36)	S 89°39'37" E	151.14'	(43) S 64°23'16" E	421.21'	

TABLE OF CURVES

FLAG	Δ	R	A	T	CHORD
(1)	02°12'25"	6855.55'	264.06'	132.05'	N 57°16'51" W - 264.05'
(2)	01°42'35"	6925.55'	206.66'	103.34'	N 57°01'56" W - 206.64'
(3)	01°44'13"	7286.49'	220.88'	110.45'	N 58°45'19" W - 220.87'
(4)	13°53'51"	3718.63'	901.97'	453.21'	S 35°59'51" E - 899.76'
(5)	04°47'35"	3538.16'	295.99'	148.08'	S 55°57'01" E - 295.90"
(6)	02°04'38"	3918.63'	142.06'	71.04'	N 30°05'14" W - 142.06'
(7)	01°28'11"	3898.62'	1255.22'	633.09'	N 40°20'58" W - 1249.81'
(8)	05°42'31"	3728.63'	371.50'	185.90'	S 46°43'38" E - 371.35'
(9)	00°55'37"	3718.63'	60.15'	30.08'	S 43°24'34" E - 60.15'
(10)	01°22'18"	3538.16'	84.71'	42.36'	S 55°52'05" E - 84.71'
(11)	06°05'43"	1482.16'	157.67'	78.91'	N 32°05'13" W - 157.60'
(12)	03°30'00"	3408.16'	208.19'	104.13'	N 56°35'49" W - 208.16'
(13)	02°12'25"	6915.55'	266.38'	133.20'	N 57°16'51" W - 266.36'
(14)	01°42'35"	6825.56'	203.68'	101.85'	N 57°01'56" W - 203.67'
(15)	01°44'13"	7186.49'	217.85'	108.93'	N 58°45'19" W - 217.85'
(16)	23°56'57"	200.00'	83.60'	42.42'	S 20°49'22" W - 82.99'
(17)	34°12'09"	105.00'	62.68'	32.30'	N 25°56'58" W - 61.75'

LEGEND

- *ANNEXATION LINE*
- *PROJECT PROPERTY LINE*
- *BOUNDARY LINE*
- *CENTERLINE*
- *PREVIOUS DEED LINE*
- *2 1/2" BRASS CAPPED IRON PIPE SECTION CORNER PER SURVEY NO. 11551 AND JACKSON COUNTY SURVEYOR RE-ESTAB. NOTES (RECOVERED)*
- *2 1/2" BRASS CAPPED IRON PIPE QUARTER SECTION CORNER PER SURVEY NO. 11551 & JACKSON COUNTY SURVEYOR RE-ESTAB. NOTES (RECOVERED)*
- *2 1/2" BRASS CAPPED IRON PIPE DONATION LAND CLAIM CORNER PER SURVEY NO. 11551 & JACKSON COUNTY SURVEYOR RE-ESTAB. NOTES (RECOVERED)*
- *5/8" IRON PIN - NO OTHER MARKINGS - PER O.S.H.D. 1952 RIGHT-OF-WAY SURVEY & S/N 7020, 11551 & 18445 (RECOVERED)*
- *5/8" IRON PIN w/ 2" ALUMINUM CAP STAMPED "SWAIN LS 759 1990" PER S/N 12047 (RECOVERED)*
- *1/2" IRON PIPE w/ YELLOW PLASTIC PLUG STAMPED "SWAIN LS 759" PER S/N 11259, 11551, 12814 (RECOVERED)*
- *5/8" IRON PIN w/ RED PLASTIC CAP STAMPED "D. HUCK LS 2023 " PER S/N 17105 & 20250 (RECOVERED)*
- *5/8" IRON PIN w/ ORANGE PLASTIC CAP STAMPED "R. ROBERTS LS 1656" PER S/N 13704 (RECOVERED)*
- *5/8" IRON PIN w/ RED PLASTIC CAP STAMPED "RPLS-2339" PER S/N 12439 (RECOVERED)*
- *1/2" IRON PIPE - NO OTHER MARKINGS - PER BURRELL S/N 4084 (RECOVERED)*
- *5/8" IRON PIN w/ ORANGE PLASTIC CAP STAMPED "KAMPMANN PLS 2883" PER S/N 16579 & 18445 (RECOVERED)*
- *5/8" x 24" IRON PIN w/ ORANGE PLASTIC CAP STAMPED "KAMPMANN PLS 2883" (ESTABLISHED)*

O.R.	*OFFICIAL RECORDS, JACKSON COUNTY CLERK*
D.R.	*DEED RECORD VOLUME / PAGE, JACKSON COUNTY CLERK*
S/N	*SURVEY FILE NUMBER, JACKSON COUNTY SURVEYOR*
D.L.C.	*DONATION LAND CLAIM, AS DESCRIBED*
O.S.H.D.	*OREGON STATE HIGHWAY DEPARTMENT (O.D.O.T.)*
STA.	*OREGON DEPT. OF TRANSPORTATION HIGHWAY STATION*
[ ]	*DEED RECORD DATA PER 2013-035734*
( )	*SURVEY RECORD DATA PER S/N 11551, 12047, 12814 (SWAIN)*
< >	*SURVEY RECORD DATA PER S/N 12439 & 13704 (EDWARDS)*
{ }	*SURVEY RECORD DATA PER OREGON STATE HIGHWAY DEPT.*

BASIS OF BEARING

THE BASIS OF BEARING FOR THIS SURVEY IS THE SOUTH LINE OF DONATION LAND CLAIM NO. 48, HAVING A PLAT RECORD BEARING OF NORTH 89°54'00" WEST, AS REFERENCED ON SURVEY NO. 11551, ON FILE IN THE OFFICE OF THE JACKSON COUNTY SURVEYOR.

REGISTERED PROFESSIONAL LAND SURVEYOR
PRELIMINARY COPY
OREGON
JULY 14, 1998
SHAWN KAMPMANN
2883 LS

RENEWAL DATE: 6/30/2025

SURVEYED BY:
POLARIS LAND SURVEYING LLC
P.O. BOX 459
ASHLAND, OREGON 97520
(541) 482–5009

DATE: JANUARY 24, 2025
PROJECT NO. 855–14

Assessor's Map No. 38 1E 32, Tax Lots 1700 & 1702

POLARIS LAND SURVEYING

These Supplementary Applicant Submittal Materials were received on May 6, 2025, as the staff Report was being completed.



PROPOSED FRONT ELEVATION

SCALE: $\frac{1}{4}$"=1'-0"

General Notes

1. ALL WORK SHALL CONFORM TO THE OREGON STRUCTURAL SPECIALTY CODE.
2. ATTIC VENTILATION SHALL BE 1/150TH OF ATTIC AREA.
3. PROVIDE MINIMUM OF 22"x30" READILY ACCESSIBLE ATTIC ACCESS
4. PROVIDE MINIMUM OF 18"x24" CRAWL SPACE ACCESS
5. FOUNDATION VENTS:
   a. PROVIDE A NET VENTILATION AREA OF NOT LESS THAN 1 SQUARE FOOT FOR EACH 150 SQUARE FEET.
   b. PROVIDE ONE VENTILATION OPENING WITHIN 3 FEET OF EACH CORNER OF THE BUILDING.

DESIGN LOADS

SNOW LOAD	25 PSF	
ROOF DEAD LOAD	15 PSF	
FLOOR LIVE LOAD	40 PSF	
FLOOR DEAD LOAD	15 PSF	
WIND PRESSURE	18 PSF	
WIND SPEED	95 MPH	EXP. B
SEISMIC ZONE	D1	

PROJECT DATA

PROPOSED APARTMENT BUILDING

PROPOSED LIVING AREA

BASEMENT	1763 SQ.FT.
MAIN FLOOR	4589 SQ.FT.
UPPER FLOOR	4589 SQ.FT.
TOTAL PROPOSED AREA	10,941 SQ.FT./BLDG.

OWNER: KENDRICK ENTERPRISES, LLC
153 WILL DODGE WAY,
ASHLAND, OR 97520

PROJECT ADDRESS: BUILDING #1
HIGHWAY 99,
ASHLAND, OR 97520
MAP & TAX LOT# 38-1E-32, 1700 & 1702

MINIMUM ENERGY COMPLIANCE NOTES

WALL INSULATION	R-21 INTERMEDIATE
WALL INSULATION---BELOW GRADE	R-21 c.i. / R-21
FLAT CEILINGS	R-49
VAULTED CEILINGS	R-30/R30A
UNDERFLOOR INSULATION	R-30
SLAB FLOOR EDGE INSULATION	R-15
HEATED SLAB INTERIOR	R-10
WINDOW S	U = 0.27
SKYLIGHT CLASS	U = 0.50
EXTERIOR DOORS	U = 0.20
EXTERIOR DOORS > 2.5sqft GLAZING	U = 0.40

CONDITIONED SPACE SHALL COMPLY WITH TABLE N1101.1(1) AND ONE ADDITIONAL MEASURE PICKED FROM TABLE N1101.1(2)

SHEET INDEX

A1.0	PROJECT INFORMATION, BUILDING ELEVATIONS
A1.1	BUILDING ELEVATIONS
A1.2	BUILDING SECTION, FLOOR AND WALL ASSEMBLIES
A2.0	BASEMENT, CRAWLSPACE FLOOR PLAN
A2.1	MAIN FLOOR PLAN
A2.2	UPPER FLOOR PLAN
S1.0	GENERAL NOTES AND STRUCTURAL DETAILS
S1.1	STRUCTURAL DETAILS CONT'D
S1.2	STRUCTURAL DETAILS CONT'D
S1.3	STRUCTURAL DETAILS CONT'D
S2.0	FOUNDATION & CRAWLSPACE PLAN
S3.0	MAIN FLOOR FRAMING PLAN
S3.1	UPPER FLOOR FRAMING PLAN
S3.2	ROOF FRAMING PLAN
S4.0	BASEMENT, CRAWLSPACE WIND AND SEISMIC LATERAL PLAN
S4.1	MAIN FLOOR WIND AND SEISMIC LATERAL PLAN
S4.2	UPPER FLOOR WIND AND SEISMIC LATERAL PLAN



PROPOSED RIGHT ELEVATION

SCALE: $\frac{1}{4}$"=1'-0"

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REVISIONS

NO.	BY	DESCRIPTION	DATE

Mockridge Engineering
PO Box 1395 Merlin, OR 97532
Phone: 541-892-3289;

Stamp:

REGISTERED PROFESSIONAL ENGINEER
82248PE
OREGON
JANUARY 13, 2009
BRIAN MOCKRIDGE
EXPIRES: 12/2026

GRAND TERRACE
APARTMENT BLDG. #1
HWY 99, Ashland OR
Map & Tax Lot 38-1E-32, 1700 & 1702

Client: Kendrick Enterprises

Phone: 541-944-0131

Drawn By: BM

Checked By: BM

Issue Date: 09/25/2024

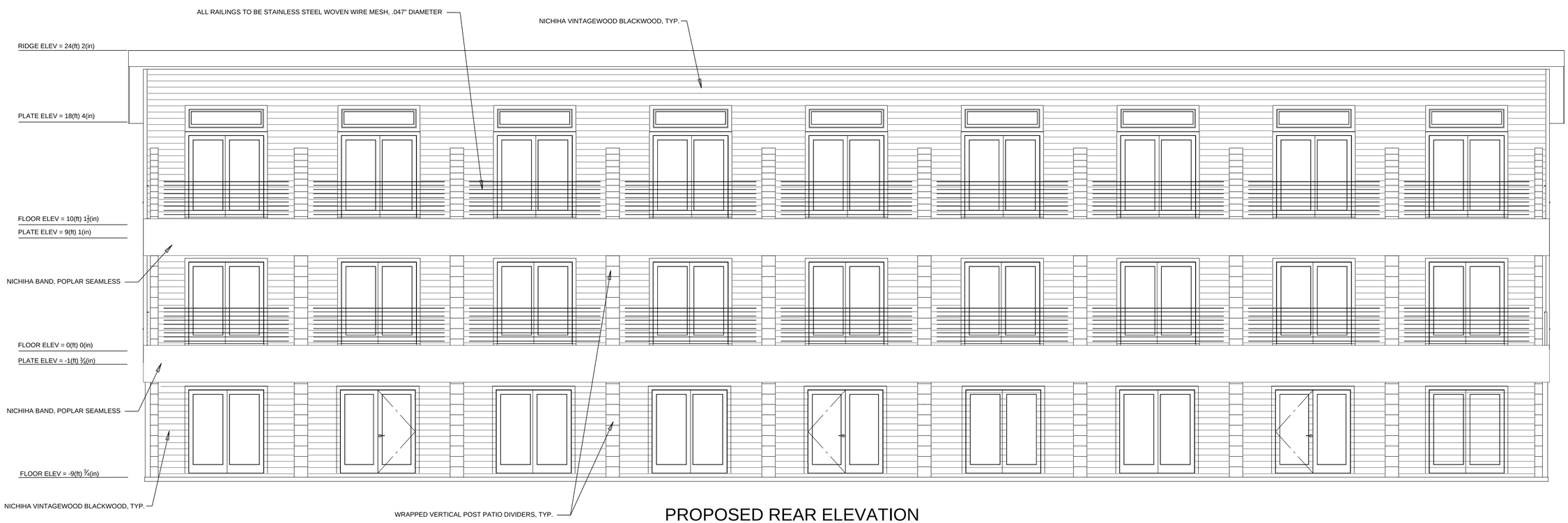
ME Job #: 23-062a

Scale: AS NOTED

Title: ELEVATIONS

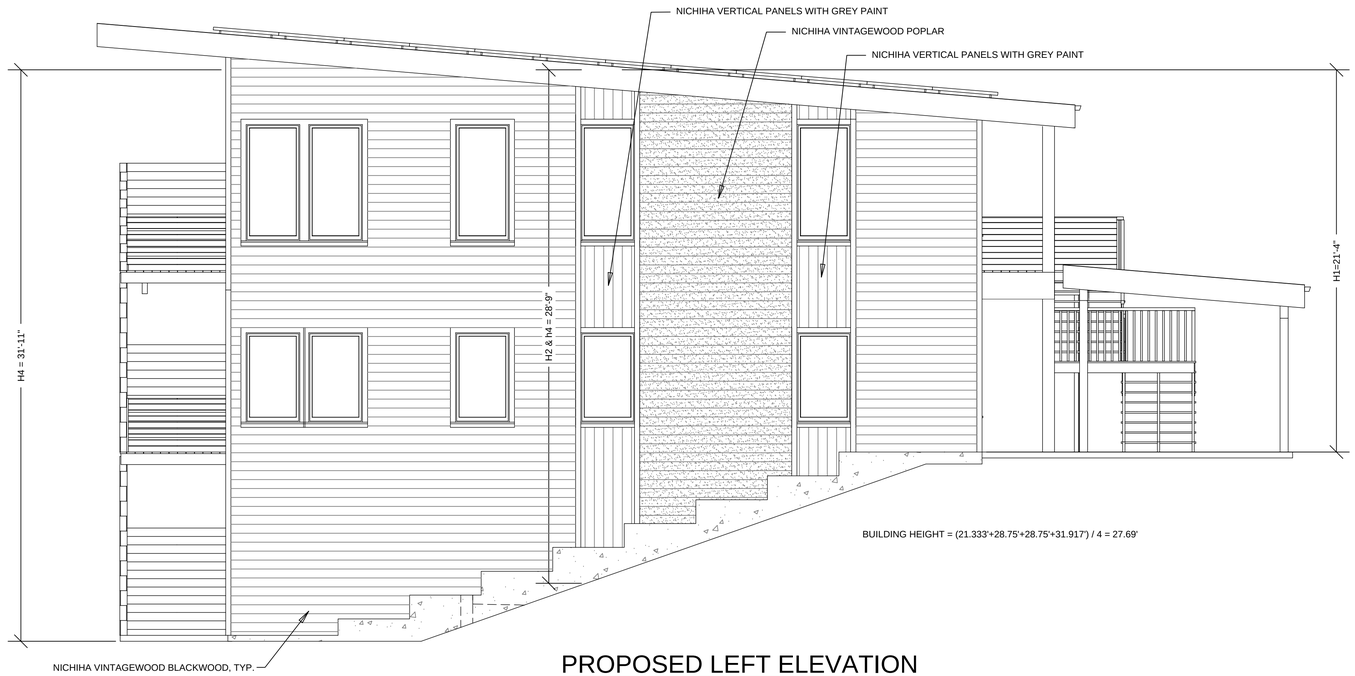
SHEET

A1.0



PROPOSED REAR ELEVATION

SCALE: $\frac{1}{4}$"=1'-0"



PROPOSED LEFT ELEVATION

SCALE: $\frac{1}{4}$"=1'-0"

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EXPIRES: 12/2026

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HWY 99, Ashland OR
Map & Tax Lot 38-1E-32, 1700 & 1702

Client: Kendrick Enterprises

Phone: 541-944-0131

Drawn By: BM

Checked By: BM

Issue Date: 09/25/2024

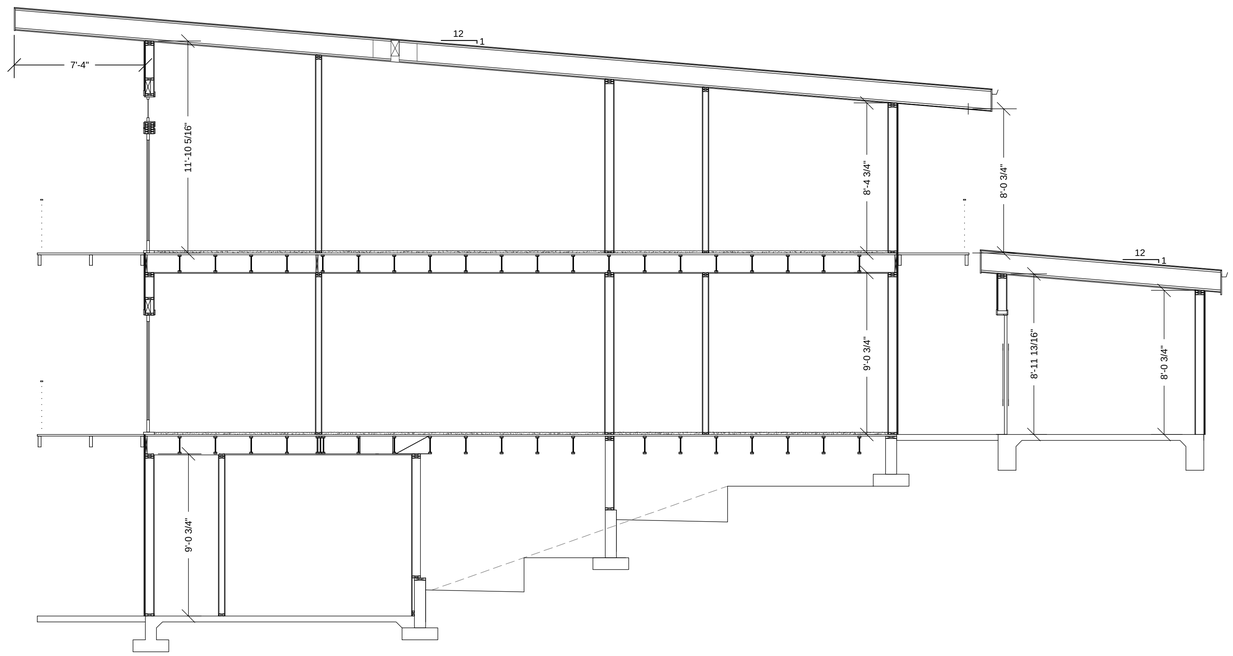
ME Job #: 23-062a

Scale: AS NOTED

Title: ELEVATIONS

SHEET

A1.1



TYPICAL BUILDING / SECTION A

SCALE: $\frac{1}{4}$"=1'-0"

REFERENCE.	FIRE RATING	TEST NO.	STC	OC ASSEMBLY NO.	CONSTRUCTION DESCRIPTION
NBC-W13a (16" o.c.)	1 h, L.B.	NBC-W13a (16" o.c.)	57	SLDWS217	Double 38 mm x 89 mm (1-1/2" x 3-1/2") wood studs spaced 400 mm (16") or 600 mm (24") o.c., on separate 38 mm x 89 mm (1-1/2" x 3-1/2") wood plates set 25 mm (1") apart; single layer 15.9 mm (5/8") type "x" gypsum board each side; two thicknesses, 89 mm (3-1/2") thick EcoTouch™ QuietZone® PINK™ FIBERGLAS® Acoustic Batt Insulation.
NBC-W13a (16" o.c.)	1 h, N.L.B.	NBC-W13a (24" o.c.)	57		
NBC-W13a (24" o.c.)	1 h, L.B.	NRC-TL-93-266 (16" o.c.)	58		
NBC-W13a (24" o.c.)	1 h, N.L.B.	W02985 (24" o.c.)	60		

PROPOSED WALL ASSEMBLY

SCALE: $\frac{1}{4}$"=1'-0"

UL DESIGN NO. L570 2

FIRE RATING:	1 HOUR	IIC:	57
STC:	59	SOUND TEST:	H50408.04
SOUND TEST:	H50408.04		
SYSTEM THICKNESS:	1' 4 3/32"		

ASSEMBLY OPTIONS:

FINISH FLOORING:	
FLOOR TOPPING MIXTURE:	3/4" USG LEVELROCK® BRAND 2500 SERIES UNDERLAYMENT
FLOOR MAT:	1/8" USG LEVELROCK® BRAND SAM-N12™ SOUND ATTENUATION MAT
SUBFLOORING:	23/32" PLYWOOD PANEL
STRUCTURAL WOOD MEMBERS:	11-7/8" WOOD I-JOISTS
INSULATION:	3-1/2" UNFACED GLASS FIBERGLASS INSULATION
RESILIENT CHANNELS:	25 GA. RESILIENT CHANNELS SPACED 16" O.C. (SOUND TESTED WITH RC DELUXE®)
GYPSUM BOARD:	TWO LAYERS 5/8" USG SHEETROCK® BRAND ECOSMART PANELS FIRECODE® X (UL TYPE ULIX™)

PROPOSED FLOOR ASSEMBLY

SCALE: $\frac{1}{4}$"=1'-0"

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MockridgeEngineering
PO Box 1395 Merlin, OR 97532
Phone: 541-892-3289;

Stamp:

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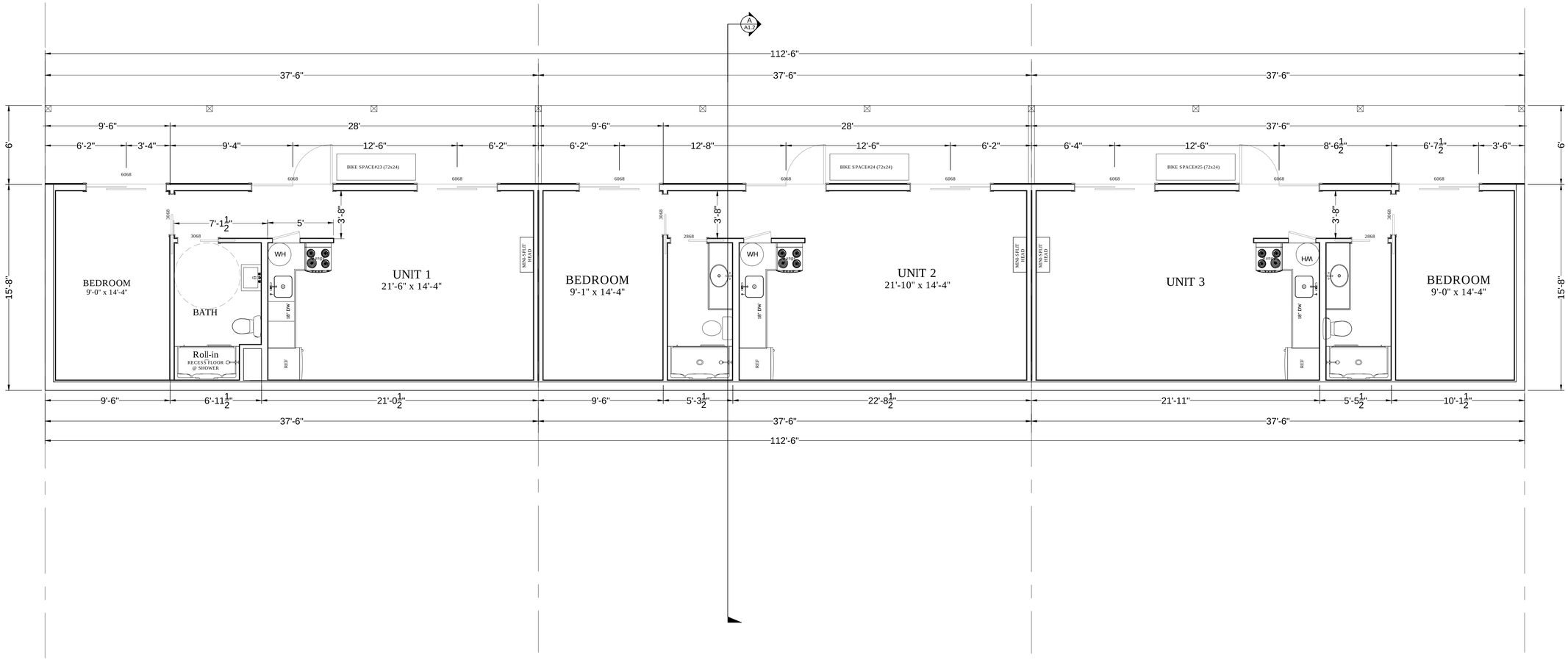
82248PE
OREGON
JANUARY 13, 2009
BRIAN MOCKRIDGE
EXPIRES: 12/2026

GRAND TERRACE
APARTMENT BLDG. #1
HWY 99, Ashland OR
Map & Tax Lot 38-1E-32, 1700 & 1702

Client: Kendrick Enterprises
Phone: 541-944-0131
Drawn By: BM
Checked By: BM
Issue Date: 09/25/2024
ME Job #: 23-062a
Scale: AS NOTED
Title: BUILDING SECTIONS
SHEET
A1.2



PROPOSED BASEMENT FLOOR PLAN

SCALE: $\frac{1}{4}$"=1'-0"

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Mockridge Engineering
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Phone: 541-892-3289;

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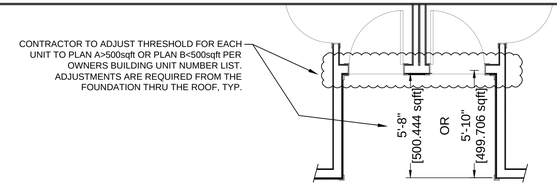
REGISTERED PROFESSIONAL ENGINEER
82248PE
OREGON
JANUARY 13, 2009
BRIAN MOCKRIDGE
EXPIRES: 12/2026

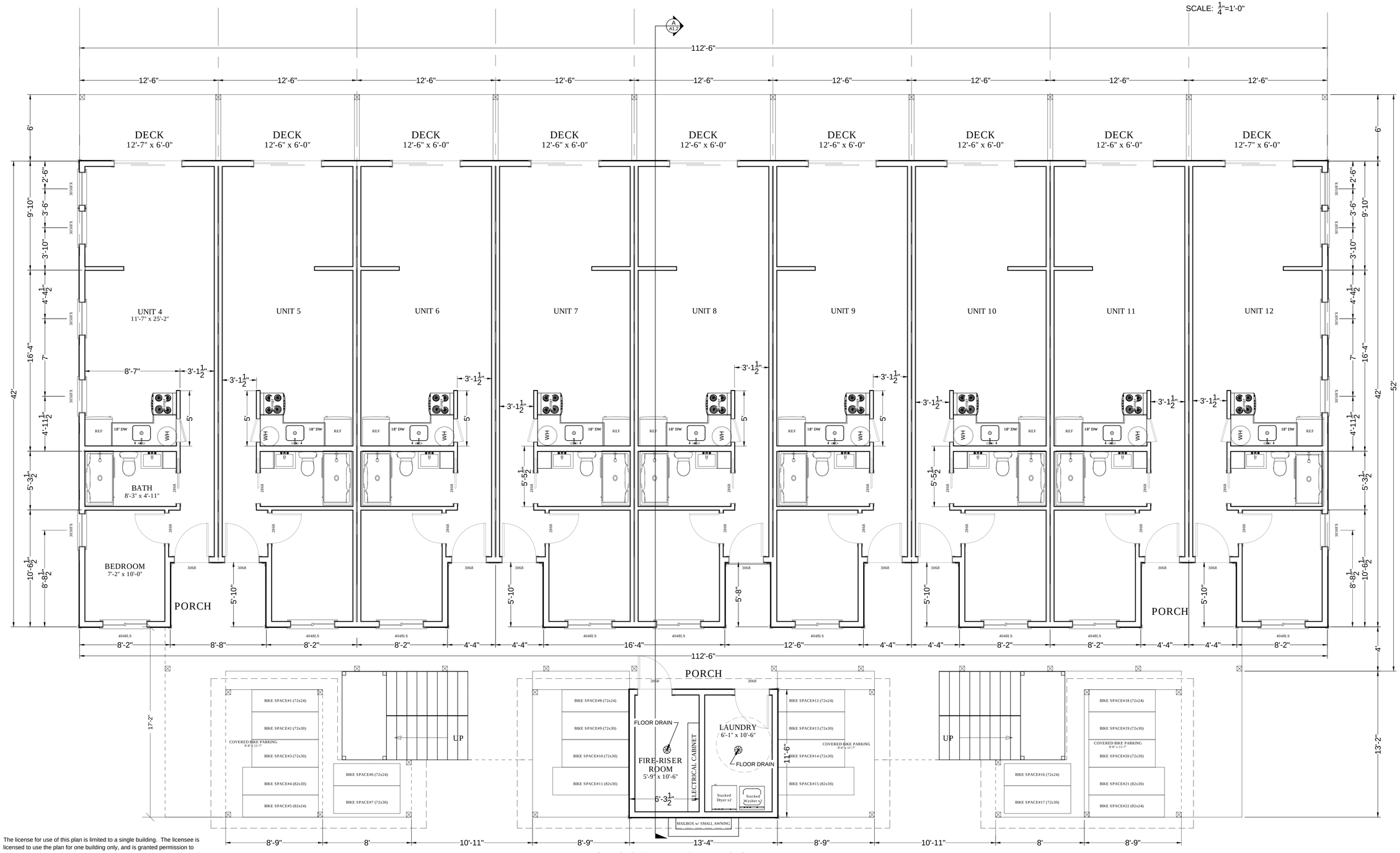
GRAND TERRACE
APARTMENT BLDG. #1
HWY 99, Ashland OR
Map & Tax Lot 38-1E-32, 1700 & 1702

Client: Kendrick Enterprises
Phone: 541-944-0131
Drawn By: BM
Checked By: BM
Issue Date: 09/25/2024
ME Job #: 23-062a
Scale: AS NOTED
Title: Basement Floor Plan
SHEET
A2.0



ENTRY THRESHOLD PLAN

SCALE: $\frac{1}{4}$"=1'-0"



PROPOSED MAIN FLOOR PLAN

SCALE: $\frac{1}{4}$"=1'-0"

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REVISIONS			
NO.	BY	DESCRIPTION	DATE
01	BM	Porch Size	5/05/25

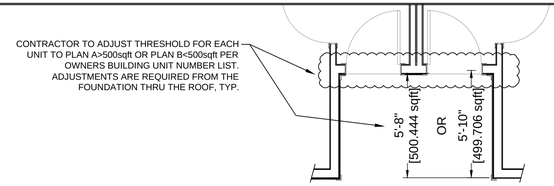
Mockridge Engineering
PO Box 1395 Merlin, OR 97532
Phone: 541-892-3289;

Stamp:

REGISTERED PROFESSIONAL ENGINEER
82248PE
OREGON
JANUARY 13, 2006
BRIAN MOCKRIDGE
EXPIRES: 12/2026

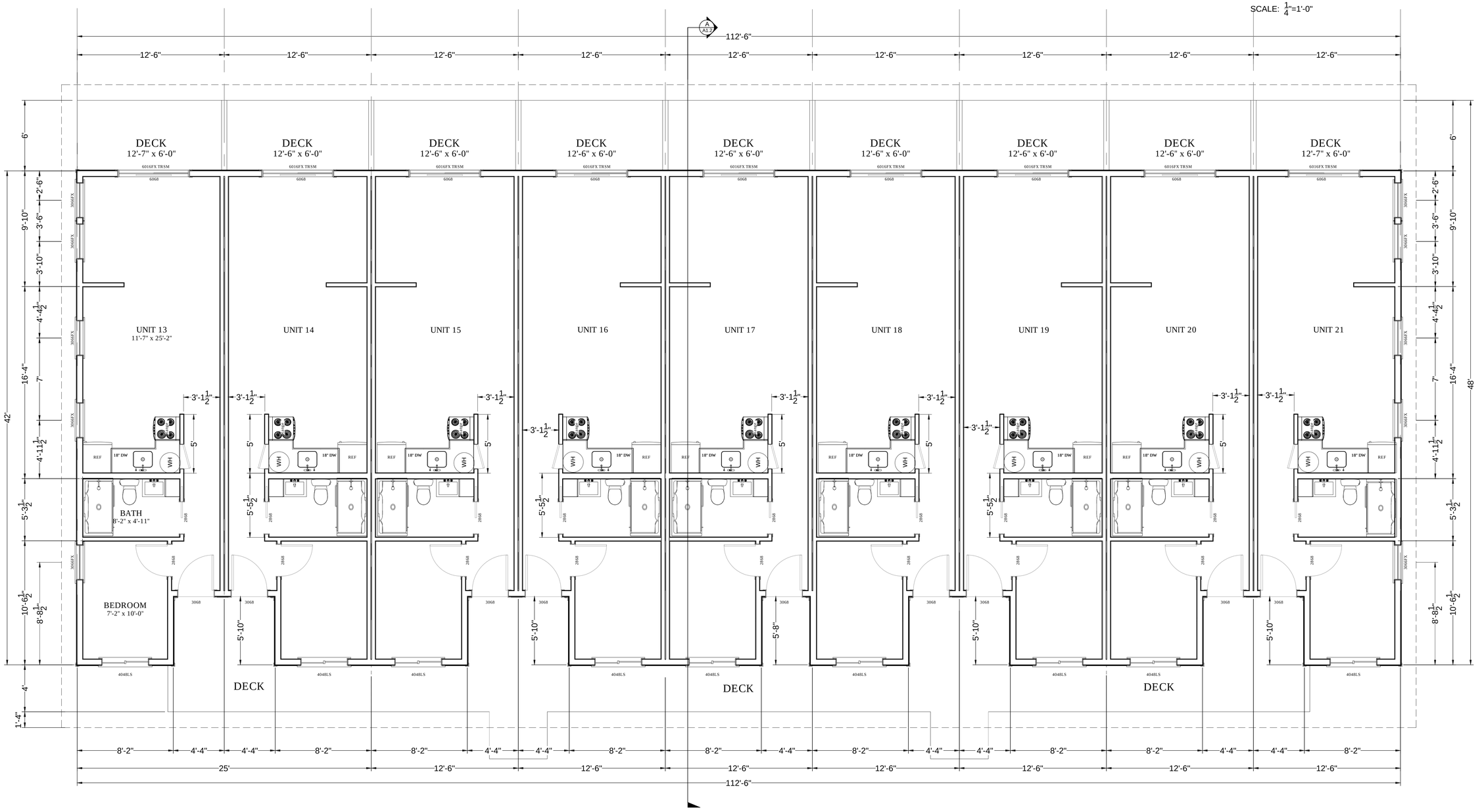
GRAND TERRACE
APARTMENT BLDG. #1
HWY 99, Ashland OR
Map & Tax Lot 38-1E-32, 1700 & 1702

Client: Kendrick Enterprises	
Phone: 541-944-0131	
Drawn By:	BM
Checked By:	BM
Issue Date:	09/25/2024
ME Job #:	23-062a
Scale:	AS NOTED
Title:	Main Floor Plan
SHEET	A2.1



ENTRY THRESHOLD PLAN

SCALE: $\frac{1}{4}$"=1'-0"



PROPOSED UPPER FLOOR PLAN

SCALE: $\frac{1}{4}$"=1'-0"

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REVISIONS

NO.	BY	DESCRIPTION	DATE
01	BM	Porch Size	5/05/25

Mockridge**E**ngineering
PO Box 1395 Merlin, OR 97532
Phone: 541-892-3289;

Stamp:

REGISTERED PROFESSIONAL ENGINEER
82248PE
OREGON
JANUARY 13, 2006
BRIAN MOCKRIDGE
EXPIRES: 12/2026

GRAND TERRACE
APARTMENT BLDG. #1
HWY 99, Ashland OR
Map & Tax Lot 38-1E-32, 1700 & 1702

Client: Kendrick Enterprises
Phone: 541-944-0131
Drawn By: BM
Checked By: BM
Issue Date: 09/25/2024
ME Job #: 23-062a
Scale: AS NOTED
Title: Upper Floor Plan
SHEET
A2.2

GENERAL
1. NOT USED.
2. THE STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE, AND, EXCEPT WHERE SPECIFICALLY SHOWN, DO NOT INDICATE THE METHOD OR MEANS OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, PROCEDURES, TECHNIQUES, AND SEQUENCE. ALL APPLICABLE SAFETY REGULATIONS TO BE STRICTLY FOLLOWED.
3. THE STRUCTURE HAS BEEN DESIGNED TO RESIST DESIGN LOADS ONLY AS A COMPLETED STRUCTURE. APPLICATIONS OF CONSTRUCTION LOADS TO THE PARTIALLY COMPLETED STRUCTURE SHALL BE CONSIDERED BY THE CONTRACTOR AND SO INCLUDED IN THE DESIGN OF SHORING, BRACING, FORMWORK, AND ANY OTHER SUPPORTING ELEMENTS PROVIDED FOR CONSTRUCTION OF THE STRUCTURE. DURING ERECTION AND UNTIL ALL PERMANENT CONNECTIONS ARE MADE, THE CONTRACTOR MUST PROVIDE TEMPORARY BRACING FOR THE STRUCTURE IN ALL DIRECTIONS.
4. THE GENERAL CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND GRADE CONDITIONS, (BOTH NEW AND EXISTING) REPORTING ANY DISCREPANCIES TO THE ARCHITECT OR ENGINEER PRIOR TO ORDERING MATERIALS OR PROCEEDING WITH ANY PHASE OF THE WORK.
5. THE CONTRACTOR SHALL COMPARE STRUCTURAL SECTIONS WITH ON-SITE SECTIONS AND REPORT ANY DISCREPANCY TO THE ENGINEER PRIOR TO FABRICATION OR INSTALLATION OF STRUCTURAL MEMBERS.
6. DO NOT SCALE DIMENSIONS FROM DRAWINGS. THE CONTRACTOR SHALL REQUEST, FROM THE ENGINEER, NECESSARY DIMENSIONS NOT SHOWN ON THE DRAWINGS.

INSPECTIONS
1. ALL CONSTRUCTION SHALL BE INSPECTED BY THE LOCAL BUILDING OFFICIAL ACCORDING TO THE BUILDING CODE LISTED BELOW.
2. IT IS RECOMENDED THAT THE OWNER/CONTRACTOR HIRE MOCKRIDGE ENGINEERING OR OTHER QUALIFIED ENGINEER TO PROVIDE STRUCTURAL INSPECTION PRIOR TO COVERING OF STRUCTURAL MEMBERS.

DESIGN CRITERIA
1. APPLICABLE CODES:
   A. OREGON STRUCTURAL SPECIALTY CODE
   B. NOT USED
   C. BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE (ACI 318)
   D. BUILDING CODE REQUIREMNETS FOR MASONRY STRUCTURES (ACI 530)
   E. MIN. DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES (ASCE 7)
2. SNOW LOAD:
   GROUND SNOW LOAD (Pg). . . . . 25 PSF
   ROOF SNOW LOAD (Pf) . . . . . 25 PSF
3. WIND LOAD: (ORSC)
   BASIC DESIGN WIND VELOCITY . . . 95 MPH
   EXPOSURE CATEGORY. . . . . B
   COMPONENTS AND CLADDING:
   ALL BUILDING COMPONENTS AND CLADDING ENGINEERED BY THE COMPONENT MANUFACTURER ARE TO BE DESIGNED BY THE MANUFACTURER'S ENGINEER FOR WIND LOADS DETERMINED PER THE OREGON STRUCTURAL SPECIALTY CODE FOR THE BASIC DESIGN WIND VELOCITY, AND EXPOSURE LISTED ABOVE.
4. SEISMIC CRITERIA
   DESIGN CATEGORY. D1
5. FUTURE LOADS: UNLESS SPECIFICALLY NOTED, THERE ARE NO PROVISIONS MADE FOR FUTURE FLOORS, ROOFS, OR OTHER LOADS.

FOUNDATIONS
1. IT IS RECOMENDED THAT THE OWNER/CONTRACTOR ORDER A GEOTECHNICAL INVESTIGATION REPORT. DUE TO THE LACK OF SPECIFIC GEOTECHNICAL INFORMATION FOR THIS SITE, THE FOUNDATION HAS BEEN DESIGNED ON AN ASSUMED BEARING CAPACITY OF 1500 PSF. MOCKRIDGE ENGINEERING IS NOT RESPONSIBLE FOR ANY FUTURE DEFECTS RESULTING FROM UNREPORTED CONDITIONS MITIGATING THE ABOVE ASSUMPTION.
2. SOFT SOIL AND FILL SHALL BE REMOVED AND REPLACED AS INDICATED BELOW, AND BE CAPABLE OF SUPPORTING THE BEARING CPACITY STATED ABOVE.
3. MINIMUM SUBGRADE PREPARATION REQUIREMENTS ARE AS FOLLOWS: COMPACT ALL FILL UNDER BUILDING TO 98% MAXIMUM DENSITY AS DETERMINED BY ASTM D698. PLACE IN LAYERS OF 8" MAXIMUM LOOSE THICKNESS. VERIFY FIELD DENSITY, ASTM D1556, WITH AT LEAST ONE TEST PER 2000 SQUARE FEET PER LAYER.

CONCRETE/REINFORCING STEEL
1. CONCRETE COMPRESSIVE STRENGTH IN 28 DAYS:
   SLAB ON GRADE, FOOTINGS, GRADE BEAMS. . . 2500 PSI DESIGN, 3000 PSI MIX, NORMAL WEIGHT
2. PROVIDE SLAB CONTROL JOINTS AS INDICATED PER PLAN. WHERE NOT SHOWN ON PLAN LIMIT THE SPACING OF CONTROL JOINTS TO 15' FOR INDOOR SLABS, 8' FOR OUTDOOR DRIVEWAYS, 5' FOR SIDEWALKS.
3. REINFORCING:
   ASTM A615 - GRADE 60.
   WELDED WIRE FABRIC - ASTM A185 (FLAT SHEETS ONLY)
4. GROUT UNDER BASE PLATES TO BE HIGH STRENGTH, NON-SHRINK.
5. REFER TO THE DRAWINGS FOR REINFORCING LAP REQUIREMENTS, WHERE LAP SPLICES ARE NOT SHOWN, LAP PER ACI 318 STANDARDS.
6. LAP WELDED WIRE FABRIC SHEETS 8" MINIMUM.
7. CLEAR COVER FROM FACE OF CONCRETE:
   CAST IN PLACE CONCRETE(measure to outermost reinforcing):
   FOOTINGS, ... 3"
8. PROVIDE REINFORCING IN SLABS ON GRADE, PLACE AT MID-THICKNESS OF SLAB:
   4" SLABS 6x6-W2.1xW2.1
   6" SLABS . . . . . #4 @ 24" O.C. EA. WAY
9. REBAR SHALL NOT BE HEATED WITH A TORCH IN THE FIELD.

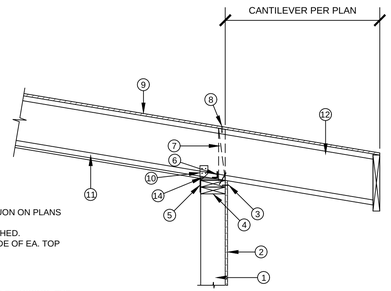
WOOD:
1. ALL WOOD EXPOSED TO THE WEATHER OR IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE TREATED OR PROTECTED WITH A WATERPROOF MEMBRANE. NEWLY EXPOSED SURFACES RESULTING FROM FIELD CUTTING, BORING OR HANDLING SHALL BE FIELD TREATED IN ACCORDANCE WITH AWPA M-4.
2. ALL WOOD STICK FRAMING SHALL BE DOUGLAS FIR/LARCH #2 (DF #2) OR BETTER UNLESS OTHERWISE NOTED ON THE DRAWINGS.
3. ALL ENGINEERED WOOD SHALL BE INSTALLED ACCORDING TO THE MANUFACTURER RECOMMENDATIONS AND AS DETAILED ON DRAWINGS.
4. ALL JOISTS, CEILING JOISTS AND RAFTERS SHALL HAVE A MINIMUM OF 1-1/2 INCHES BEARING AT EACH END ON TOP PLATES.
5. TOP PLATES OR CHORDS SHALL BE CONTINUOUS OVER HEADERS UON.
6. TOP PLATES SHALL BE TWO PIECES, SAME SIZE AS STUDS. STAGGER SPLICES 6'-0" MINIMUM. CENTER SPLICES OVER STUDS.

WOOD CONNECTIONS:
1. ALL FRAMING HARDWARE SHALL BE MANUFACTURED BY USP STRUCTURAL CONNECTORS OR SIMPSON STRONG-TIE. ALL FASTENER HOLES SHALL BE FILLED WITH NAILS, SCREWS OR BOLTS AS SPECIFIED BY THE MANUFACTURER'S LITERATURE
2. HOLDOWNS ANCHOR BOLTS SHALL BE FINGER TIGHT PLUS AN ADDITIONAL 1/3 TURN WITH A WRENCH.
3. STRUCTURAL CONNECTORS PLACED IN CONTACT WITH PRESERVATIVE TREATED WOOD OR IN EXTERIOR APPLICATIONS SHALL HAVE A COATING AS INDICATED ON THE RECOMMENDED CONNECTOR COATING FOR CORROSION PROTECTION CHART.
4. CONNECTOR HARDWARE MODEL NUMBERS ARE THOSE FOR THE SIMPSON-STRONG TIE COMPANY.
5. CONNECTIONS SHALL BE AS DETAILED ON THE DRAWINGS. IF NOT SHOWN, MINIMUM CONNECTIONS SHALL BE AS FOLLOWS:
   A) JOIST OR RAFTER TO SILL OR GIRDER, TOE NAIL.....3-8d
   B) BRIDGING TO JOIST, TOENAIL EACH END.....2-8d
   C) SILL PLATE TO JOIST, SOLID DECK, OR BLOCKING, FACE NAIL [SN].....16d AT 6" O.C.
   D) TOP PLATE TO STUD, END NAIL.....2-16d
   E) STUD TO SILL PLATE.....4-8d TOENAIL, OR 2-16d END NAIL
   F) DOUBLE STUDS, FACE NAIL.....16d AT 12" O.C. STAGGERED
   G) DOUBLE TOP PLATES:
      TOP PLATE TO LOWER PLATE, FACE NAIL.....16d @ 18" O.C.
      TOP PLATE TO LOWER PLATE AT LAP SPLICE [4'-0" MINIMUM].....8-16d EA. SIDE OF SPLICE,
   H) BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE, TOENAIL.....3-8d
   I) RIM JOIST TO TOP PLATE, TOENAIL.....8d @ 6" O.C.
   J) TOP PLATES, LAPS AND INTERSECTIONS.....3-16d
   K) CEILING JOISTS TO PLATE, TOENAIL.....3-8d
   L) CEILING JOISTS, LAPS OVER PARTITIONS, FACE NAIL.....3-16d
   M) CEILING JOISTS TO PARALLEL RAFTERS, FACE NAIL.....3-16d
   N) RAFTER TO PLATE, TOENAIL.....2-16d
   O) BUILT-UP CORNER STUDS.....16d @ 12" O.C.
   P) WOOD STRUCTURAL PANELS, SUBFLOOR, ROOF AND WALL SHEATHING TO FRAMING, UON ON PLANS
      5/16"-1"".....8d COMMON @ 6" O.C. AT ALL PANEL EDGES.....8d COMMON @ 12" O.C. (6" O.C. @ GABLE END WALLS) AT INTERMEDIATE SUPPORTS
      1-1/8"-1-1/4".....10d COMMON @ 6" O.C. AT ALL PANEL EDGES.....10d COMMON @ 12" O.C. (6" O.C. @ GABLE END WALLS) AT INTERMEDIATE SUPPORTS
   Q) FOR ADDITIONAL CONNECTIONS REFER TO THE LOCAL BUILDING CODE OR CONTACT THE ENGINEER OF RECORD.

REPRODUCTION NOTE
1. THE USE OF REPRODUCTIONS OF THESE CONTRACT DRAWINGS BY ANY CONTRACTOR, SUBCONTRACTOR, ERECTOR, FABRICATOR, OR MATERIAL SUPPLIER IN LIEU OF PREPARATION OF SHOP DRAWINGS SIGNIFIES HIS ACCEPTANCE OF ALL INFORMATION SHOWN HEREON AS CORRECT, AND OBLIGATES HIMSELF TO ANY JOB EXPENSE, REAL OR IMPLIED, ARISING DUE TO ANY ERRORS THAT MAY OCCUR HEREON.

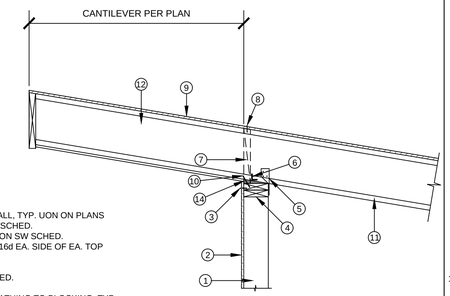
ABBREVIATIONS:

AB	ANCHOR BOLT	BN	BOUNDARY NAILING	CLR	CLEAR
EA	EACH	EOR	ENGINEER OF RECORD	EN	EDGE NAILING
NTS	NOT TO SCALE	OH	OPPOSITE HAND	PT	PRESSURE TREATED
SN	SHEAR NAILING	STD	STANDARD	SW	BRACED/SHEAR WALL
TYP.	TYPICAL	UON	UNLESS OTHERWISE NOTED		



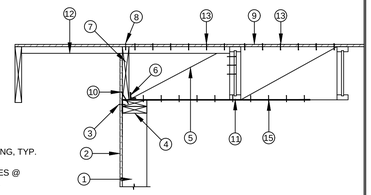
1- 2x6 @ 16" O.C. BEARING WALL, TYP. UON ON PLANS
2- WALL SHEATHING PER SW SCHED.
3- EN-8d @ 6" O.C., TYP. UON ON SW SCHED.
4- DOUBLE TOP PLATES, (20) 16d EA. SIDE OF EA. TOP PLATE SPLICE
5- H2.5, EA. RAFTER
6- RBC, AS REQ'D BY SW SCHED.
7- RIM JOIST BLOCKING
8- BN-8d @ 6" O.C. ROOF SHEATHING TO BLOCKING, TYP.
9- ROOF SHEATHING PER PLAN
10- 10d TOENAILS, BLOCKING TO WALL TOP PLATES @ MATCH SPACING TO SW EN, TYP., 6" O.C. MIN.
11- I-JOIST ROOF RAFTERS PER PLAN
12- CANTILEVER RAFTERS PER PLAN
13- NOT USED
14- 2x BEVELED PLATE BETWEEN RAFTER AND WALL TOP PLATES
15- REFER TO MANUFACTURER ROOF FRAMING DETAILS FOR ADDITIONAL DETAILS

2 I-JOIST RAFTER TO WALL CONNECTION DETAILS
Scale: NTS (ROOF PITCH <3:12)



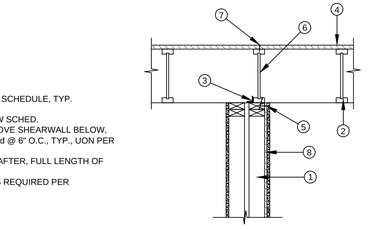
1- 2x6 @ 16" O.C. BEARING WALL, TYP. UON ON PLANS
2- WALL SHEATHING PER SW SCHED.
3- EN-8d @ 6" O.C., TYP. UON ON SW SCHED.
4- DOUBLE TOP PLATES, (20) 16d EA. SIDE OF EA. TOP PLATE SPLICE
5- H2.5, EA. RAFTER
6- RBC, AS REQ'D BY SW SCHED.
7- RIM JOIST BLOCKING
8- BN-8d @ 6" O.C. ROOF SHEATHING TO BLOCKING, TYP.
9- ROOF SHEATHING PER PLAN
10- 10d TOENAILS, BLOCKING TO WALL TOP PLATES @ MATCH SPACING TO SW EN, TYP., 6" O.C. MIN.
11- I-JOIST ROOF RAFTERS PER PLAN
12- CANTILEVER RAFTERS PER PLAN
13- NOT USED
14- 2x BEVELED PLATE BETWEEN RAFTER AND WALL TOP PLATES
15- REFER TO MANUFACTURER ROOF FRAMING DETAILS FOR ADDITIONAL DETAILS

3 I-JOIST RAFTER TO WALL CONNECTION DETAILS
Scale: NTS (ROOF PITCH <3:12)



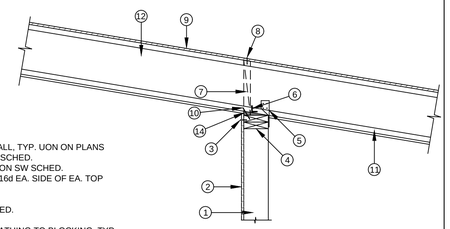
1- 2x6 @ 16" O.C. BEARING WALL, TYP. UON ON PLANS
2- WALL SHEATHING PER SW SCHED.
3- EN-8d @ 6" O.C., TYP. UON ON SW SCHED.
4- DOUBLE TOP PLATES, (20) 16d EA. SIDE OF EA. TOP PLATE SPLICE
5- RAFTER BLOCKING @ 8'O.C., FIRST TWO RAFTER BAYS
6- RBC, AS REQ'D BY SW SCHED.
7- GABLE END JOIST PER PLAN, NOTCH TO FIT OUTRIGGERS, TYP.
8- BN-8d @ 6" O.C. ROOF SHEATHING TO BLOCKING, TYP.
9- ROOF SHEATHING PER PLAN
10- 10d TOENAILS, BLOCKING TO WALL TOP PLATES @ MATCH SPACING TO SW EN, TYP., 6" O.C. MIN.
11- I-JOIST ROOF RAFTERS PER PLAN
12- 2x6 MIN. OUTRIGGER @ 24" O.C. MAX
13- 8d @ 4" O.C., ROOF SHEATHING TO OUTRIGGER AND RAFTER BLOCKING, TYP.
14- REFER TO MANUFACTURER ROOF FRAMING DETAILS FOR ADDITIONAL DETAILS
15- CMST16 STRAP, LENGTH=42", BEND 3" OVER TOP PLATES AND FASTEN TO UNDERSIDE OF RAFTER BLOCKING

4 I-JOIST GABLE WALL CONNECTION DETAILS
Scale: NTS



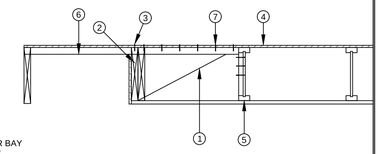
1- WALL STUDS PER PLAN
2- ROOF RAFTERS PER PLAN
3- A35 OR RBC IF REQUIRED PER SW SCHEDULE, TYP.
4- ROOF SHEATHING PER PLAN
5- EN-8d @ 6" O.C., TYP., UON PER SW SCHED.
6- PROVIDE ADDITIONAL RAFTER ABOVE SHEARWALL BELOW, TOENAIL TO WALL BELOW WITH 10d @ 6" O.C., TYP., UON PER SW SCHEDULE
7- BN-8d @ 4" O.C., SHEATHING TO RAFTER, FULL LENGTH OF RAFTER
8- WALL SHEATHING AND NAILING AS REQUIRED PER LATERAL PLAN

6 RAFTER CONNECTION DETAILS @ SHEARWALL BELOW
Scale: NTS



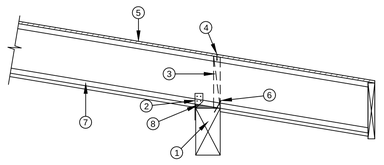
1- 2x6 @ 16" O.C. BEARING WALL, TYP. UON ON PLANS
2- WALL SHEATHING PER SW SCHED.
3- EN-8d @ 6" O.C., TYP. UON ON SW SCHED.
4- DOUBLE TOP PLATES, (20) 16d EA. SIDE OF EA. TOP PLATE SPLICE
5- H2.5, EA. RAFTER
6- RBC, AS REQ'D BY SW SCHED.
7- RIM JOIST BLOCKING
8- BN-8d @ 6" O.C. ROOF SHEATHING TO BLOCKING, TYP.
9- ROOF SHEATHING PER PLAN
10- 10d TOENAILS, BLOCKING TO WALL TOP PLATES @ MATCH SPACING TO SW EN, TYP., 6" O.C. MIN.
11- I-JOIST ROOF RAFTERS PER PLAN
12- CANTILEVER RAFTERS PER PLAN
13- NOT USED
14- 2x BEVELED PLATE BETWEEN RAFTER AND WALL TOP PLATES
15- REFER TO MANUFACTURER ROOF FRAMING DETAILS FOR ADDITIONAL DETAILS

7 I-JOIST RAFTER TO WALL CONNECTION DETAILS
Scale: NTS (ROOF PITCH <3:12)



1- RAFTER BLOCKING @ 8' O.C., FIRST RAFTER BAY
2- GABLE END JOIST PER PLAN, NOTCH TO FIT OUTRIGGERS, TYP.
3- BN-8d @ 6" O.C. ROOF SHEATHING TO BLOCKING, TYP.
4- ROOF SHEATHING PER PLAN
5- I-JOIST ROOF RAFTERS PER PLAN
6- 2x6 MIN. OUTRIGGER @ 24" O.C. MAX
7- 8d @ 4" O.C., ROOF SHEATHING TO OUTRIGGER AND RAFTER BLOCKING, TYP.

8 I-JOIST GABLE WALL CONNECTION DETAILS
Scale: NTS



1- BEAM PER PLAN
2- H2.5, EA. RAFTER, SIMPSON SDWC15600 UPLIFT SCREW MAY BE USED IN LIEU OF H2.5
3- RIM JOIST BLOCKING
4- BN-8d @ 6" O.C. ROOF SHEATHING TO BLOCKING, TYP.
5- ROOF SHEATHING PER PLAN
6- 10d @ 6" O.C. TOENAILS, BLOCKING TO BEAM
7- I-JOIST ROOF RAFTERS PER PLAN
8- 2x BEVELED PLATE BETWEEN RAFTER AND WALL TOP PLATES
9- REFER TO MANUFACTURER ROOF FRAMING DETAILS FOR ADDITIONAL DETAILS

2 I-JOIST RAFTER TO WALL CONNECTION DETAILS
Scale: NTS (ROOF PITCH <3:12)

REVISIONS

NO.	BY	DESCRIPTION	DATE

MockridgeEngineering
PO Box 1395 Merlin, OR 97532
Phone: 541-892-3289;

Stamp:

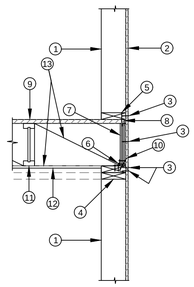
REGISTERED PROFESSIONAL ENGINEER
82248PE
OREGON
JANUARY 13, 2006
BRIAN MOCKRIDGE
EXPIRES: 12/2026

GRAND TERRACE
APARTMENT BLDG. #1
HWY 99, Ashland OR
Map & Tax Lot 38-1E-32, 1700 & 1702

Client:	Kendrick Enterprises
Phone:	541-944-0131
Drawn By:	BM
Checked By:	BM
Issue Date:	09/25/2024
ME Job #:	23-062a
Scale:	AS NOTED
Title:	GEN. NOTES-DETAILS
SHEET	S1.0

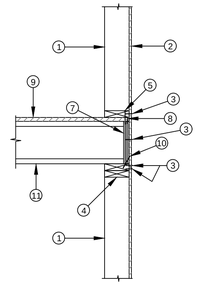
Total Page Number: 593

1- 2x6 @ 16" O.C. BEARING WALL, TYP. UON ON PLANS
2- WALL SHEATHING PER SW SCHED.
3- EN-8d @ 6" O.C., TYP. UON ON SW SCHED.
4- DOUBLE TOP PLATES, (20) 16d EA. SIDE OF EA. TOP PLATE SPLICE
5- SN-16d @ 6" O.C., TYP., UON ON SW SCHED.
6- A35, IF REQ'D PER SW SCHED.
7- RIM JOIST
8- BN-8d @ 6" O.C., TYP.
9- FLOOR SHEATHING PER PLAN
10- 8d TOENAILS @ MATCH SPACING TO SW EN, TYP., 6" O.C. MIN.
11- FLOOR JOISTS PER PLAN
12- DRYWALL
13- JOISTS BLOCKING FIRST TWO JOIST BAYS, FASTEN FLOOR SHEATHING TO BLOCKING w(8) 8d AND BLOCKING TO WALL TOP PLATES w/(2)A35 CLIP ANGLES OR PERPENDICULAR INTERIOR WALL @ 12' O.C. MAX, TYP.



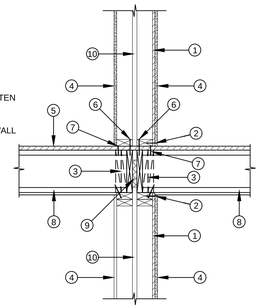
1 JOIST CONNECTION DETAILS
Scale: NTS

1- 2x6 BEARING WALL
2- WALL SHEATHING PER LATERAL PLAN
3- EN-8d @ 6" O.C., TYP.
4- DOUBLE TOP PLATES, (8) 16d EA. SIDE OF EA. TOP PLATE SPLICE
5- SN-16d @ 6" O.C., TYP.
6- NOT USED
7- RIM JOIST
8- BN-8d @ 6" O.C., TYP.
9- FLOOR SHEATHING PER PLAN
10- 8d TOENAILS @ 6" O.C. MIN.
11- FLOOR JOISTS PER PLAN



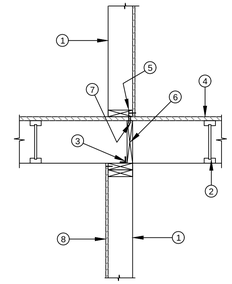
2 JOIST CONNECTION DETAILS
Scale: NTS

1- WALL SHEATHING AS REQUIRED PER LATERAL PLAN, INSTALL BEFORE SHEETROCK, TYP.
2- EN-8d @ 6" O.C., TYP. UON ON SW SCHED.
3- CONTINUOUS RIM JOIST w/ DOUBLE 2x BLOCKING EA BAY, FASTEN TO WALL TOP PLATES w/10d TOENAILS @ 6" O.C., TYP.
4- (1) LAYERS 5/8" TYPE "X" GYP. BRD.
5- FLOOR SHEATHING PER PLAN, CONTINUOUS THRU DIVIDING WALL
6- SN-16d @ 6" O.C., TYP.
7- BN-8d @ 6" O.C., TYP.
8- FLOOR JOISTS PER PLAN
9- FIREBLOCK AT CEILING
10- 1" AIR SPACE BETWEEN WALLS, FIREBLOCK AT 10' o.c. HORIZ. AND VERT.

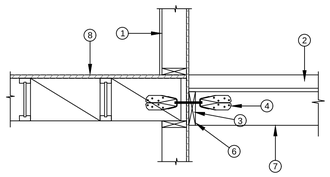


3 1HR FIREWALL CONNECTION DETAILS
Scale: NTS

1- WALL STUDS PER PLAN
2- FLOOR JOISTS PER PLAN
3- A35 @ 12" O.C. RIM JOIST DRAG TO WALL PLATES BELOW
4- FLOOR SHEATHING PER PLAN
5- SN-16d @ 6" O.C., WALL PLATE TO JOIST BELOW
6- RIM JOIST DRAG ABOVE SHEARWALL BELOW, TOENAIL TO WALL BELOW WITH 8d @ 6" O.C.
7- BN-8d @ 4" O.C., SHEATHING TO RIM JOIST DRAG, FULL LENGTH OF DRAG
8- WALL SHEATHING AND NAILING AS REQUIRED PER LATERAL PLAN



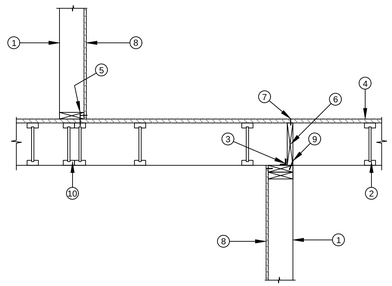
4 JOIST CONNECTION DETAILS
Scale: NTS



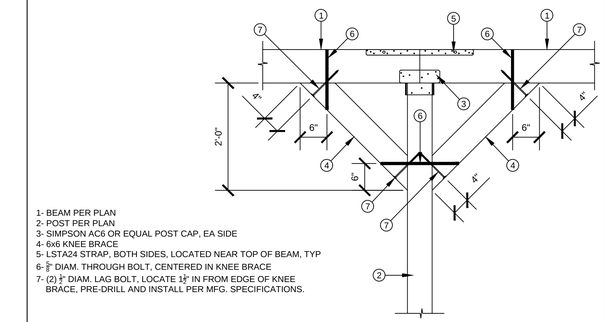
1- WALL STUDS BY OTHERS
2- DECKING PER PLAN
3- 2x8 PRESSURE TREATED LEDGER, FASTEN TO 1 1/2" LVL RIM BOARD WITH (3) ROWS SIMPSON SDS1/4"X3 1/2" WOOD SCREWS @ 12" O.C. STAGGERED. [(3) SCREWS PER FOOT]
4- SIMPSON LATERAL TIE PER PLAN @ BEGINNING OF DECK, END OF DECK, AND @ 12'-0" O.C. MAX IN BETWEEN
5- NOT USED
6- LUS28 JOIST HANGER
7- DECK JOISTS PER PLAN
8- RESIDENCE FLOOR FRAMING

5 LEDGER CONNECTION DETAIL
Scale: NTS

1- WALL STUDS PER PLAN
2- FLOOR JOISTS PER PLAN
3- A35 @ 16" O.C. RIM JOIST DRAG TO WALL PLATES BELOW
4- FLOOR SHEATHING PER PLAN
5- SN-16d @ 6" O.C., WALL PLATE TO JOIST BELOW
6- RIM JOIST DRAG ABOVE SHEARWALL BELOW, TOENAIL TO WALL BELOW WITH 8d @ 6" O.C.
7- BN-8d @ 4" O.C., SHEATHING TO RIM JOIST DRAG, FULL LENGTH OF DRAG
8- WALL SHEATHING AND NAILING AS REQUIRED PER LATERAL PLAN
9- 8d TOENAILS @ 4" O.C., RIM JOIST DRAG TO WALL TOP PLATES, TYP.
10- DOUBLE JOISTS BENEATH SHEARWALL ABOVE



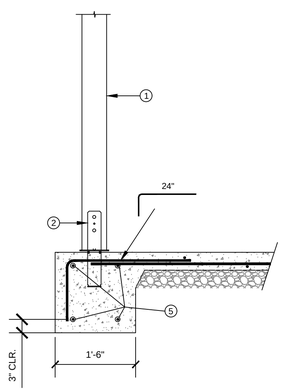
6 JOIST CONNECTION DETAILS
Scale: NTS



1- BEAM PER PLAN
2- POST PER PLAN
3- SIMPSON AC6 OR EQUAL POST CAP, EA SIDE
4- 6x6 KNEE BRACE
5- LSTA24 STRAP, BOTH SIDES, LOCATED NEAR TOP OF BEAM, TYP
6- 3/8" DIAM. THROUGH BOLT, CENTERED IN KNEE BRACE
7- (2) 1/2" DIAM. LAG BOLT, LOCATE 1 1/2" IN FROM EDGE OF KNEE BRACE, PRE-DRILL AND INSTALL PER MFG. SPECIFICATIONS.

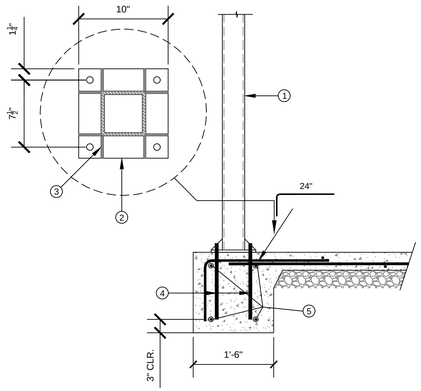
8 DECK BEAM/BRACE CONNECTION DETAILS
Scale: NTS

1- WOOD POST PER PLAN
2- SIMPSON CB POST BASE
3- NOT USED
4- NOT USED
5- (2) #5 CONT. TOP & BOTTOM BARS IN CONCRETE GRADE BEAM, TYP.

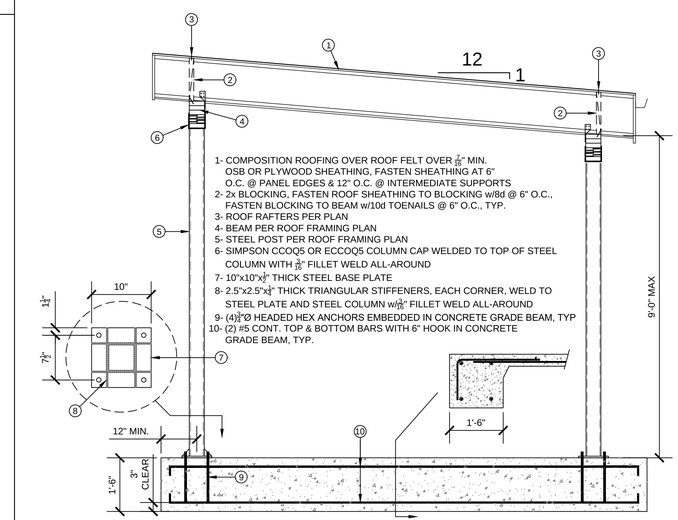


11 WOOD POST TO GRADE BEAM/FOOTING DETAIL
Scale: NTS

1- STEEL POST PER FRAMING PLAN w/ SIMPSON CCOQ5 OR ECCOQ5 COLUMN CAP WELDED TO TOP OF STEEL COLUMN WITH 3/16" FILLET WELD ALL-AROUND
2- 10"x10"x1/4" THICK STEEL BASE PLATE
3- 3"x3"x1/4" THICK TRIANGULAR STIFFENERS, EACH CORNER, WELD TO STEEL PLATE AND STEEL COLUMN w/3/16" FILLET WELD ALL-AROUND
4- (4)3/4"Ø HEADED HEX ANCHORS EMBEDDED IN CONCRETE GRADE BEAM, TYP
5- (2) #5 CONT. TOP & BOTTOM BARS IN CONCRETE GRADE BEAM, TYP.



OPTIONAL STEEL POST TO GRADE BEAM/FOOTING DETAIL
Scale: NTS



1- COMPOSITION ROOFING OVER ROOF FELT OVER 7/16" MIN. OSB OR PLYWOOD SHEATHING, FASTEN SHEATHING AT 6" O.C. @ PANEL EDGES & 12" O.C. @ INTERMEDIATE SUPPORTS
2- 2x BLOCKING, FASTEN ROOF SHEATHING TO BLOCKING w/8d @ 6" O.C., FASTEN BLOCKING TO BEAM w/10d TOENAILS @ 6" O.C., TYP.
3- ROOF RAFTERS PER PLAN
4- BEAM PER ROOF FRAMING PLAN
5- STEEL POST PER ROOF FRAMING PLAN
6- SIMPSON CCOQ5 OR ECCOQ5 COLUMN CAP WELDED TO TOP OF STEEL COLUMN WITH 3/16" FILLET WELD ALL-AROUND
7- 10"x10"x1/4" THICK STEEL BASE PLATE
8- 2.5"x2.5"x1/4" THICK TRIANGULAR STIFFENERS, EACH CORNER, WELD TO STEEL PLATE AND STEEL COLUMN w/3/16" FILLET WELD ALL-AROUND
9- (4)3/4"Ø HEADED HEX ANCHORS EMBEDDED IN CONCRETE GRADE BEAM, TYP
10- (2) #5 CONT. TOP & BOTTOM BARS WITH 6" HOOK IN CONCRETE GRADE BEAM, TYP.

12 TYPICAL COVERED BIKE BUILDING SECTION
Scale: NTS

REVISIONS

NO.	BY	DESCRIPTION	DATE

Mockridge**E**ngineering
PO Box 1395 Merlin, OR 97532
Phone: 541-892-3289;

Stamp:

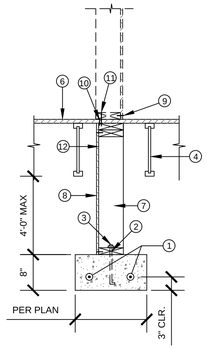
REGISTERED PROFESSIONAL ENGINEER
82248PE
OREGON
JANUARY 13, 2009
BRIAN MOCKRIDGE
EXPIRES: 12/2026

GRAND TERRACE
APARTMENT BLDG. #1
HWY 99, Ashland OR
Map & Tax Lot 38-1E-32, 1700 & 1702

Client: Kendrick Enterprises	
Phone: 541-944-0131	
Drawn By: BM	
Checked By: BM	
Issue Date: 09/25/2024	
ME Job #: 23-062a	
Scale: AS NOTED	
Title: DETAILS	
SHEET	S1.1

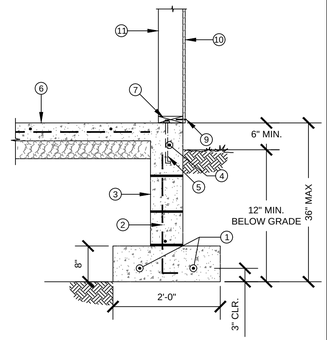
1- (1) #4 CONT. BOTTOM BAR FOR 12" FOOTINGS, (2) #4 CONT. BOTTOM BARS FOR 16" FOOTINGS
2- 2x PT SILL PLATE
3- ⅝"Ø AB @ 60" O.C. MAX, 7" MIN. EMBEDMENT
4- FLOOR JOISTS PER PLAN
5- NOT USED
6- FLOOR SHEATHING PER PLAN
7- 2x6 CRIPPLE WALL STUDS, MATCH SPACING TO WALL FRAMING ABOVE

**NOTES 8-12 APPLICABLE @ SHEARWALL AND/OR BRACED WALL PANEL ABOVE LOCATIONS ONLY
8- ½" WALL SHEATHING, BENEATH BRACED/SHEARWALL LOCATIONS ABOVE, TYP.
9- WALL EN PER BRACED/SHEAR WALL SCHEDULE
10- BN-8d @ 4" O.C., FLOOR SHEATHING TO CRIPPLE WALL TOP PLATES
11- SN-16d @ 6" O.C.



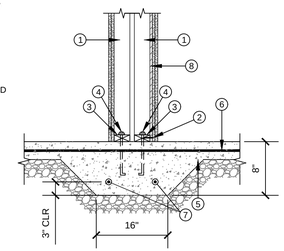
1 CRIPPLE WALL FOUNDATION PARALELL TO JOIST DETAIL
Scale: NTS

1- (2) #4 CONT. BOTTOM BARS
2- #4 VERTICAL W/ STD. HOOK @ 48" O.C., MAX
3- 8" CONCRETE OR FULLY GROUTED MASONRY STEMWALL
4- #4 HORIZONTAL BARS @ 24" O.C. & AT TOP OF WALL
5- AB SIZE AND SPACING PER SW SCHED. AND WITHIN 12" OF SILL PLATE ENDS, 7" MIN. EMBEDMENT.
6- SLAB, BASE COARSE, AND REINFORCMENT PER PLAN
7- 2x PT SILL PLATE
8- NOT USED
9- EN, SIZE AND SPACING PER SW SCHED. MIN. 8d @ 6" O.C., TYP.
10- WALL SHEATHING PER SW SCHED., MIN.⅜" PLYWOOD OR OSB, TYP.
11- 2x6 @ 16" O.C. WALL STUDS, TYP. UON ON PLANS.



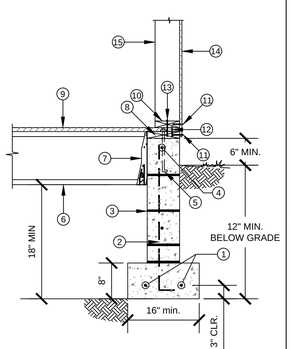
2 DAYLIGHT BASEMENT FOUNDATION DETAIL
Scale: NTS

1- WALL STUDS PER PLAN
2- EN-8d @ 6" O.C., TYP. UON PER LATERAL PLAN
3- PT SILL PLATE
4- J-BOLTS OR SIMPSON "TITEN HD" AB's SPACED AS INDICATED BY SW SCHEDULE, PROVIDE 3x3x¼" PLATE WASHERS AT SHEARWALLS/ BRACED WALLS, TYP.
5- SLAB AND BASE COURSE PER PLAN
6- SLAB REINFORCEMENT PER PLAN
7- (2) #4 CONTINUOUS BOTTOM BAR
8- WALL SHEATHING AS SPECIFIED PER SW SCHEDULE.
9- FOOTING SHALL BE POURED AGAINST UNDISTURBED NATIVE SOIL OR APPROVED STRUCTURAL FILL.



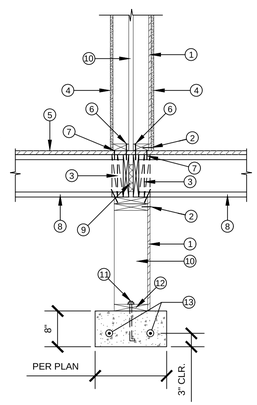
3 THICKENED SLAB AT INTERIOR BEARING
Scale: NTS

1- (2)#4 BOTTOM BARS
2- #4 VERTICAL W/ STD. HOOK @ 48" O.C., MAX
3- CONCRETE OR 8" FULLY GROUTED MASONRY STEMWALL.
4- #4 HORIZONTAL BARS @ 24" O.C. & AT TOP OF WALL
5- AB SIZE AND SPACING PER SW SCHED. AND WITHIN 12" OF SILL PLATE ENDS, 7" MIN. EMBEDMENT.
6- FLOOR JOISTS PER PLAN
7- ITS JOIST HANGER
8- 2x PT SILL PLATE
9- FLOOR SHEATHING PER PLAN
10- 2x BOTTOM PLATE, UON PER PLAN
11- EN, SIZE AND SPACING PER SW SCHED. MIN. 8d @ 6" O.C., TYP.
12- BN-8d @ 6" O.C. FLOOR SHEATHING TO SILL, TYP.
13- SN, SIZE AND SPACING PER SW SCHED., MIN 16d @ 6" O.C., TYP.
14- WALL SHEATHING PER SW SCHED., MIN.⅞" PLYWOOD OR OSB, TYP.
15- 2x6 @ 16" O.C. WALL STUDS, TYP. UON ON PLANS.



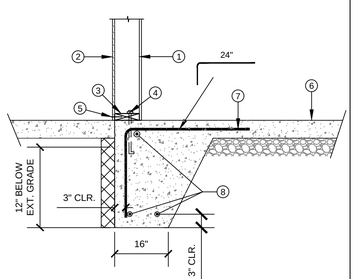
9 FOUNDATION DETAIL
Scale: NTS

1- WALL SHEATHING AS REQUIRED PER LATERAL PLAN, INSTALL BEFORE SHEETROCK, TYP.
2- EN-8d @ 6" O.C., TYP. UON ON SW SCHED.
3- CONTINUOUS RIM JOIST w/ DOUBLE 2x BLOCKING EA BAY, FASTEN TO WALL TOP PLATES w/10d TOENAILS @ 6" O.C., TYP.
4- (1) LAYER⅝" TYPE "X" GYP. BRD.
5- FLOOR SHEATHING PER PLAN, CONTINUOUS THRU DIVIDING WALL
6- SN-16d @ 6" O.C., TYP.
7- BN-8d @ 6" O.C., TYP.
8- FLOOR JOISTS PER PLAN
9- FIREBLOCK AT CEILING
10- 2x8 CRIPPLE WALL STUDS @ 16" O.C.
11- ⅝"Ø AB @ 48" O.C. MAX, TYP., UON PER SW SCHEDULE, 6" MIN. EMBEDMENT
12- 2x PT SILL PLATE
13- (2) #4 CONT. BOTTOM BARS



6 CRIPPLE WALL FOUNDATION DETAIL
Scale: NTS

1- 2x6 WALL STUDS @ 24" O.C. MAX
2- WALL SHEATHING PER SW SCHED.
3- PT SILL PLATE
4- J-BOLTS OR SIMPSON "TITEN HD" AB's SPACED AS SPECIFIED BY SW SCHED.
5- EN-8d @ 6" O.C., TYP. UON ON SW SCHED.
6- SLAB AND BASE COURSE PER PLAN
7- #4 DOWELS @ 24" O.C., TYP
8- (2) #4 CONTINUOUS BOTTOM BARS AND (1)#4 TOP BAR
9- EXTERIOR FINISHED GRADE, SLOPE AWAY FROM BUILDING, TYP.
10- FOOTING SHALL BE POURED AGAINST UNDISTURBED NATIVE SOIL OR APPROVED STRUCTURAL FILL.



10 EXTERIOR FOOTING DETAIL
Scale: NTS

RETAINING WALL NOTES:

1. PROVIDE 2FTx2FT CORNER BARS FOR ALL HORIZONTAL WALL REINFORCING AT ALL CORNERS AND INTERSECTIONS UNLESS SHOWN OR NOTED OTHERWISE. BARS TO BE THE SAME SIZE AND SPACING AS HORIZONTAL REINFORCING.
2. ALL BENT REBAR (90 DEGREES) TO HAVE A RADIUS OF 4 BAR DIAMETERS AND A HOOK LENGTH OF 12 BAR DIAMETERS.
3. REFER TO FOUNDATION DETAILS FOR CONNECTION DETAILS OF WALL AND JOIST FRAMING AS APPLICABLE, TYP.

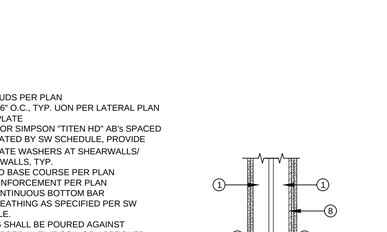
SPECIAL NOTE:

GROUNDWATER ELEVATION IS ASSUMED TO BE BELOW FOOTING LEVEL.

ALL DAMPPROOFING, WATERPROOFING, DRAINAGE COLLECTION, & DRAINAGE DISCHARGE IS THE RESPONSIBILITY OF THE CONTRACTOR / OWNER.

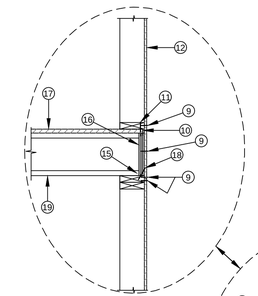
G.C. TO BACKFILL RETAINING WALL PRIOR TO CONSTRUCTING WOOD FRAMED STRUCTURAL COMPONENTS.

1- 8" NOMINAL CONCRETE BLOCK or POURED CONCRETE STEMWALL
2- 2x6 @ 16" O.C. WALL STUDS, TYP. UON ON PLANS.
3- #5 @ 32" O.C. L-SHAPED BAR CONTINUE INTO FTG. TOE.
4- WALL SHEATHING PER SW SCHED., MIN.⅞" PLYWOOD OR OSB, TYP.
5- (3)#5 CONTINUOUS
6- 2x PT SILL PLATE
7- CONCRETE SLAB PER PLAN, REINFORCE W/ MIN. OF #3 @ 18" O.C. E.W.
8- #4 @ 24" O.C. DOWELS INTO SLAB
9- #4 @ 32" O.C. CONT. HORIZ. REIN.
10- #4 CONTINUOUS W/ CORNER BARS @ WALL TOP.
11- 4" DRAIN PIPE WITH FABRIC, SLOPE TO DRAIN.
12- 12" MIN. OF DRAIN ROCK W/ NO FINES. OR EQUIVALENT MATERIAL.
13- FABRIC
14- FOOTING SHALL BE POURED AGAINST UNDISTURBED NATIVE SOIL
15- AB SIZE AND SPACING PER SW SCHED. AND WITHIN 12" OF SILL PLATE ENDS
16- IMPERVIOUS CLAY TYPE MATERIAL
17- WATERPROOFING MEMBRANE, TYP.
18- FINISHED GRADE BY OTHERS, SLOPE AWAY FOR MIN. OF 4'
19- SN, SIZE AND SPACING PER SW SCHED., MIN 16d @ 6" O.C., TYP.
20- EN, SIZE AND SPACING PER SW SCHED. MIN. 8d @ 6" O.C., TYP.
21- 8d TOENAILS @ MATCH SPACING TO SW EN, TYP., 6" O.C. MIN.
22- BN-8d @ 6" O.C. FLOOR SHEATHING TO RIM, TYP.
23- RIM JOIST
24- A35, IF REQ'D PER SW SCHED.
25- FLOOR SHEATHING PER PLAN
26- FLOOR JOISTS PER PLAN
27- JOISTS BLOCKING FIRST JOIST BAY EACH SIDE OF WALL, FASTEN FLOOR SHEATHING TO BLOCKING w(8) 8d AND BLOCKING TO WALL TOP PLATES w/(2)A35 CLIP ANGLES
28- DOUBLE TOP PLATES w/(15) 16d EACH SIDE OF EACH SPLICE, TYP.



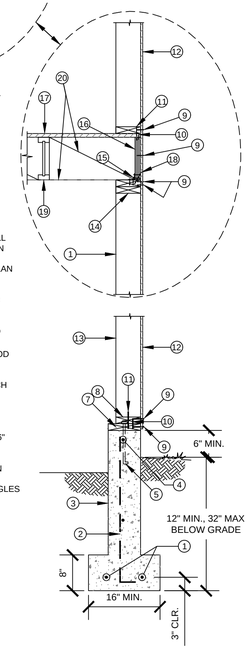
11 4' BASEMENT RETAINING WALL SECTION
Scale: N.T.S.

NOTE: MASONRY RETAINING WALLS REQUIRE SPECIAL INSPECTION. CONTRACTOR SHALL BE BILLED FOR THE ENGINEERS INSPECTION.



B JOIST PERPENDICULAR

1- (2)#4 BOTTOM BARS
2- #4 VERTICAL W/ STD. HOOK @ 48" O.C., MAX
3- 8" CONCRETE STEMWALL
4- #4 HORIZONTAL BARS @ 24" O.C. & AT TOP OF WALL
5- AB SIZE AND SPACING PER SW SCHED. AND WITHIN 12" OF SILL PLATE ENDS, 7" MIN. EMBEDMENT.
6- SLAB, BASE COARSE, AND REINFORCMENT PER PLAN
7- 2x PT SILL PLATE
8- 2x BOTTOM PLATE, UON PER PLAN
9- EN, SIZE AND SPACING PER SW SCHED. MIN. 8d @ 6" O.C., TYP.
10- BN-8d @ 6" O.C. FLOOR SHEATHING TO RIM, TYP.
11- SN, SIZE AND SPACING PER SW SCHED., MIN 16d @ 6" O.C., TYP.
12- WALL SHEATHING PER SW SCHED., MIN.⅜" PLYWOOD OR OSB, TYP.
13- 2x6 @ 16" O.C. WALL STUDS, TYP. UON ON PLANS.
14- DOUBLE TOP PLATES w/(15) 16d EACH SIDE OF EACH SPLICE, TYP.
15- A35, IF REQ'D PER SW SCHED.
16- RIM JOIST
17- FLOOR SHEATHING PER PLAN
18- 8d TOENAILS @ MATCH SPACING TO SW EN, TYP., 6" O.C. MIN.
19- FLOOR JOISTS PER PLAN
20- JOISTS BLOCKING FIRST TWO JOIST BAYS, FASTEN FLOOR SHEATHING TO BLOCKING w(8) 8d AND BLOCKING TO WALL TOP PLATES w/(2)A35 CLIP ANGLES



12 CRIPPLE WALL FOUNDATION DETAIL

REVISIONS			
NO.	BY	DESCRIPTION	DATE

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Stamp:

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OREGON
JANUARY 13, 2009
BRIAN MOCKRIDGE
EXPIRES: 12/2026

GRAND TERRACE
APARTMENT BLDG. #1
HWY 99, Ashland OR
Map & Tax Lot 38-1E-32, 1700 & 1702

Client:	Kendrick Enterprises
Phone:	541-944-0131
Drawn By:	BM
Checked By:	BM
Issue Date:	09/25/2024
ME Job #:	23-062a
Scale:	AS NOTED
Title:	DETAILS

SHEET
S1.2

LEGEND:

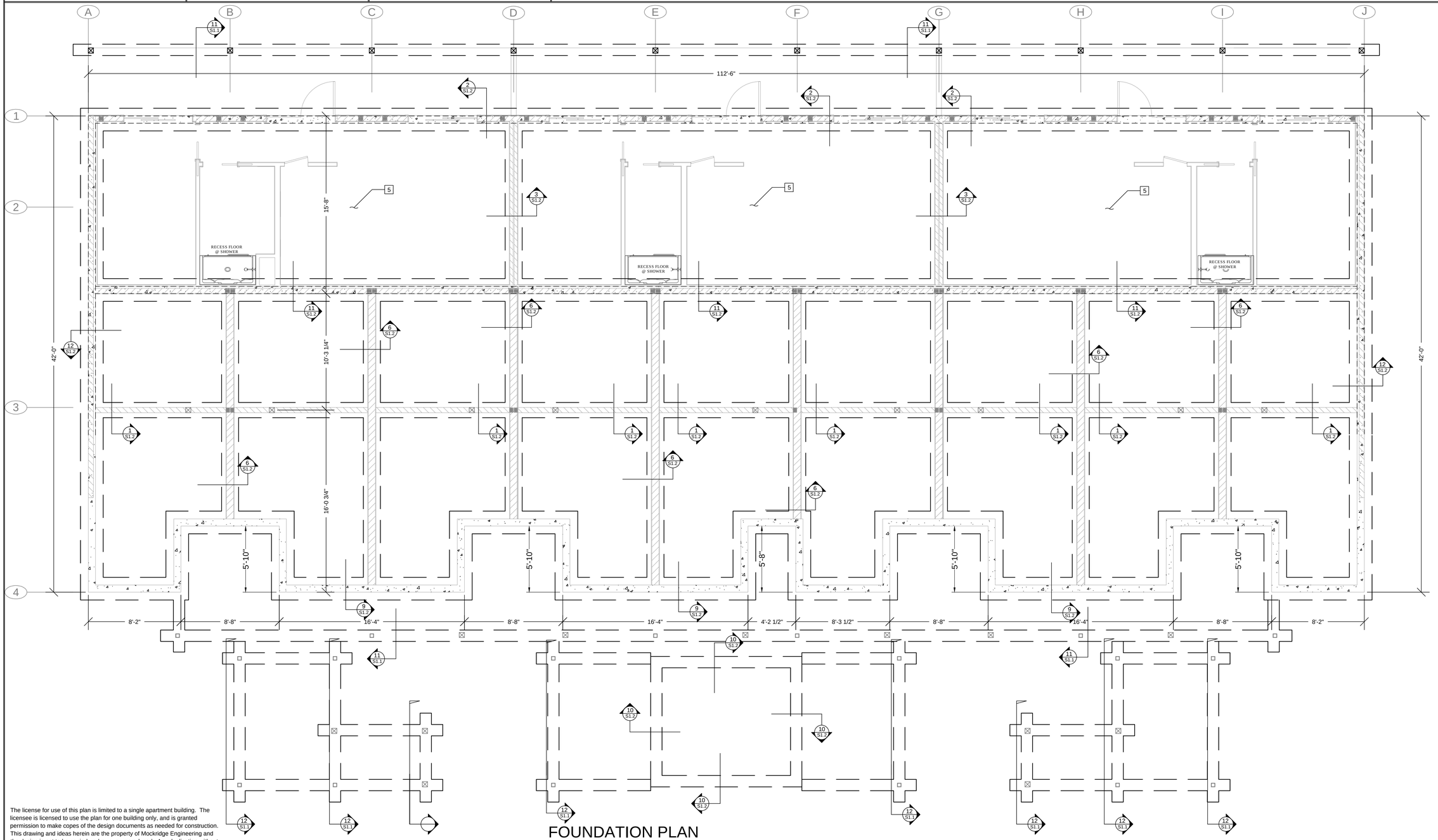
- Load bearing wall above this floor
- Load bearing wall below this floor
- Load bearing wall above and below this floor

GENERAL SHEET NOTES:

1. Provide multiple studs beneath beams/trusses to match width of supported member, typ. Continue multiple studs in lower floors/crawlspace to foundation.
2. Provide solid blocking beneath posts/multiple studs to transfer loads to posts/multiple studs below.
3. Lay floor and roof structural panel sheathing perpendicular to the joist/rafter direction and continuous over two or more spans.
4. All exterior walls shall be type 6 per SW sched. unless otherwise noted on plans.
5. All posts that are not in a wall shall have post cap AND base capable of resisting 1000(lb) lateral load and 1500(lb) uplift, ref: Simpson CCQ
6. Floor sheathing shall be 7/8" or more thick with 48"/24" span rating. Use 8d @ 4" o.c. (BN) at exterior walls and interior shearwalls. 8d @ 6" o.c. at all panel edges and 8d @ 10" o.c. along intermediate supports. Provide 1 1/2" min. penetration into framing.
7. 11 7/8" BCI 6000's @ 16" o.c., typ., refer to floor assembly on sheet A1.2 for floor topping, sound mat, resilient channel, etc.
8. 4" thick concrete slab-on-grade over 4" of 3/4" compacted crushed rock. It is recomended that the slab be reinforced with #3 @ 18" o.c. EW or #4 @ 24" o.c. EW at mid-thickness of slab.
9. Center footing under post/walls uon on plans or details.

MARK	DIMENSIONS			BOTTOM REINFORCMENT (3" CLEAR)	
(FX)	LENGTH	WIDTH	DEPTH	LONGITUDINAL	TRANSVERSE
F18	1'-6"	1'-6"	0'-8"	(3) #4	(3) #4
F24	2'-0"	2'-0"	0'-8"	(3) #4	(3) #4
F30	2'-6"	2'-6"	1'-0"	(4) #4	(4) #4
F36	3'-0"	3'-0"	1'-0"	(5) #4	(5) #4
F42	3'-6"	3'-6"	1'-0"	(5) #5	(5) #5
F48	4'-0"	4'-0"	1'-0"	(6) #5	(6) #5
F54	4'-6"	2'-6"	1'-0"	(4) #5	(6) #5

COLUMN FOOTING SCHEDULE



FOUNDATION PLAN

SCALE: 1/4"=1'-0"

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REVISIONS

NO.	BY	DESCRIPTION	DATE
01	BM	Porch Size	5/05/25

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JANUARY 13, 2009
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EXPIRES: 12/2026

GRAND TERRACE
APARTMENT BLDG. #1
HWY 99, Ashland OR
Map & Tax Lot 38-1E-32, 1700 & 1702

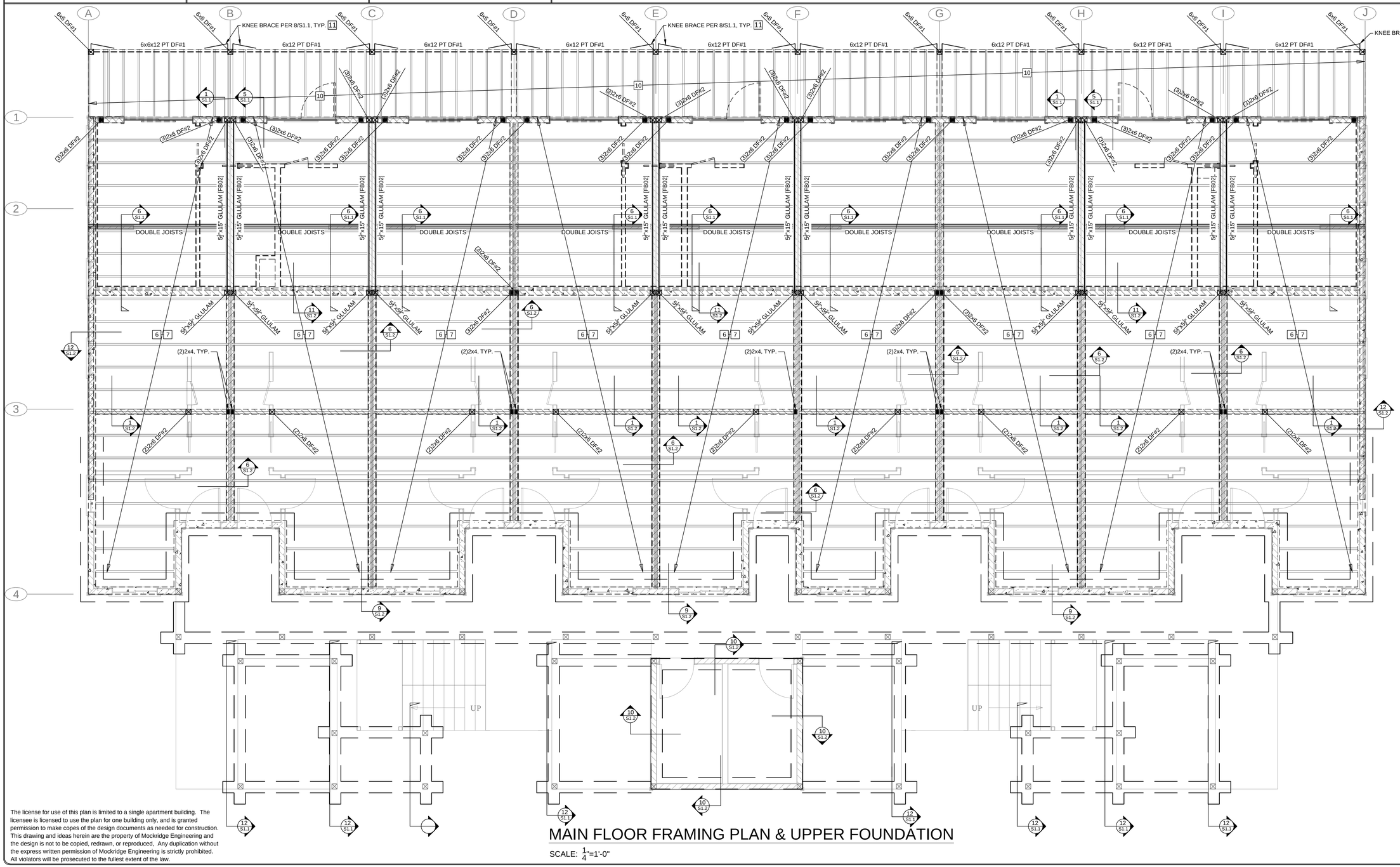
Client: Kendrick Enterprises
Phone: 541-944-0131
Drawn By: BM
Checked By: BM
Issue Date: 09/25/2024
ME Job #: 23-062a
Scale: AS NOTED
Title: FOUNDATION PLAN
SHEET
S2.0

LEGEND:

- Load bearing wall above this floor
- Load bearing wall below this floor
- Load bearing wall above and below this floor

GENERAL SHEET NOTES:

1. Provide multiple studs beneath beams/trusses to match width of supported member, typ. Continue multiple studs in lower floors/crawlspace to foundation.
2. Provide solid blocking beneath posts/multiple studs to transfer loads to posts/multiple studs below.
3. Lay floor and roof structural panel sheathing perpendicular to the joist/rafter direction and continuous over two or more spans.
4. All exterior walls shall be type 6 per SW sched. unless otherwise noted on plans.
5. All posts that are not in a wall shall have post cap AND base capable of resisting 1000(lb) lateral load and 1500(lb) uplift, ref: Simpson CCQ
6. Floor sheathing shall be 7/8" or more thick with 48"/24" span rating. Use 8d @ 4" o.c. (BN) at exterior walls and interior shearwalls. 8d @ 6" o.c. at all panel edges and 8d @ 10" o.c. along intermediate supports. Provide 1 1/2" min. penetration into framing.
7. 11 7/8" BCI 6000's @ 16" o.c., typ., refer to floor assembly on sheet A1.2 for floor topping, sound mat, resilient channel, etc.
8. 4" thick concrete slab-on-grade over 4" of 3/4" compacted crushed rock. It is recomended that the slab be reinforced with #3 @ 18" o.c. EW or #4 @ 24" o.c. EW at mid-thickness of slab.
9. Center footing under post/walls uon on plans or details.
10. 4" max Lightweight concrete over 3/4" min. marine grade plywood over 2x8 treated DF#2 @ 16" o.c., typ.
11. Knee braces may be eliminated by use 6x6x1/2" thick steel post continuous from foundation to second floor deck beams



MAIN FLOOR FRAMING PLAN & UPPER FOUNDATION

SCALE: 1/4"=1'-0"

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REVISIONS

NO.	BY	DESCRIPTION	DATE

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OREGON
JANUARY 13, 2009
BRIAN MOCKRIDGE
EXPIRES: 12/2026

GRAND TERRACE
APARTMENT BLDG. #1
HWY 99, Ashland OR
Map & Tax Lot 38-1E-32, 1700 & 1702

Client: Kendrick Enterprises	
Phone: 541-944-0131	
Drawn By:	BM
Checked By:	BM
Issue Date:	09/25/2024
ME Job #:	23-062a
Scale:	AS NOTED
Title:	Main Floor Framing

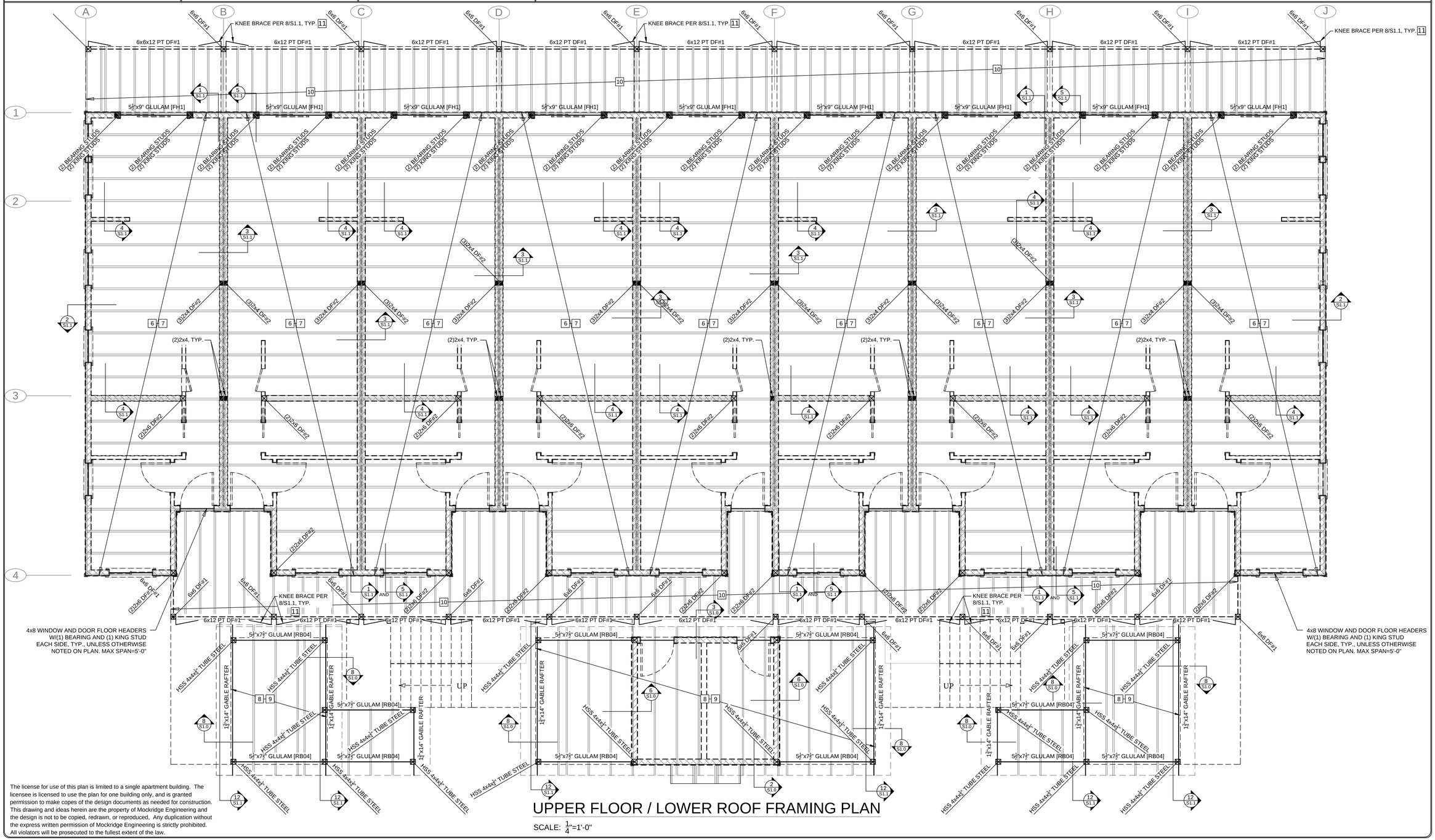
SHEET
S3.0

LEGEND:

- Load bearing wall above this floor
- Load bearing wall below this floor
- Load bearing wall above and below this floor

GENERAL SHEET NOTES:

1. Provide multiple studs beneath beams/trusses to match width of supported member, typ. UON on plans Continue multiple studs in lower floors/crawlspace to foundation.
2. Provide solid blocking beneath posts/multiple studs to transfer loads to posts/multiple studs below.
3. Lay floor and roof structural panel sheathing perpendicular to the joist/rafter direction and continuous over two or more spans.
4. All load-bearing wall studs shall be 2x6 DF#2 spaced no more than 24" o.c., studs spaced more than 16" o.c. shall be framed in-line with joists and/or trusses above, typ.
5. All posts that are not in a wall shall have post cap AND base capable of resisting 1000(lb) lateral load and 1500(lb) uplift, ref: Simpson CCQ
6. Floor sheathing shall be 7/8" or more thick with 48"/24" span rating. Use 8d @ 4" o.c. (BN) at exterior walls and interior shearwalls. 8d @ 6" o.c. at all panel edges and 8d @ 10" o.c. along intermediate supports. Provide 1½" min. penetration into framing.
7. 11½" BCI 6000's @ 16" o.c., typ., refer to floor assembly on sheet A1.2 for floor topping, sound mat, resilient channel, etc.
8. Roof sheathing shall be 1/2" MIN., 5/8" recommended, APA rated plywood or OSB with 24/16 span rating. Fasten with 8d ring shank nails @ 6" o.c.(panel edges), 12" o.c.(field nailing), uon on plans.
9. 14" BCI 6000's Roof Rafters @ 24" o.c., typ.
10. 4" max Lightweight concrete over ¾" min. marine grade plywood over 2x8 treated DF#2 @ 16" o.c., typ.
11. Knee braces may be eliminated by use 6x6x½" thick steel post continuous from foundation to second floor deck beams



UPPER FLOOR / LOWER ROOF FRAMING PLAN

SCALE: $\frac{1}{4}$"=1'-0"

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REVISIONS

NO.	BY	DESCRIPTION	DATE

Mockridge Engineering
PO Box 1395 Merlin, OR 97532
Phone: 541-892-3289;

Stamp:

REGISTERED PROFESSIONAL ENGINEER
82248PE
OREGON
JANUARY 13, 2009
BRIAN MOCKRIDGE
EXPIRES: 12/2026

GRAND TERRACE
APARTMENT BLDG. #1
HWY 99, Ashland OR
Map & Tax Lot 38-1E-32, 1700 & 1702

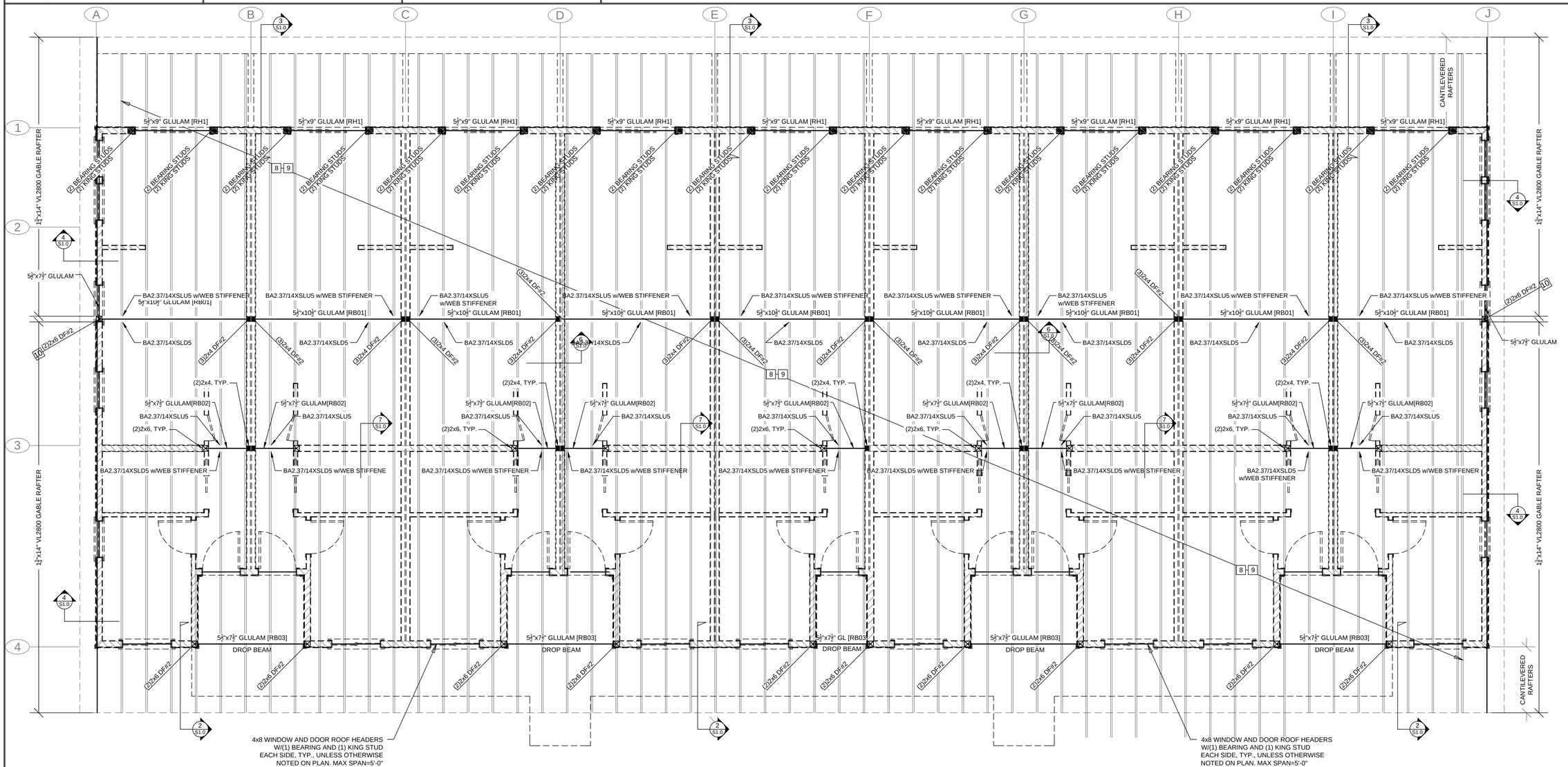
Client: Kendrick Enterprises	
Phone: 541-944-0131	
Drawn By:	BM
Checked By:	BM
Issue Date:	09/25/2024
ME Job #:	23-062a
Scale:	AS NOTED
Title:	Upper Floor Framing
SHEET	S3.1

LEGEND:

- Load bearing wall above this floor
- Load bearing wall below this floor
- Load bearing wall above and below this floor

GENERAL SHEET NOTES:

1. Provide multiple studs beneath beams/trusses to match width of supported member, typ. UON on plans Continue multiple studs in lower floors/crawlspace to foundation.
2. Provide solid blocking beneath posts/multiple studs to transfer loads to posts/multiple studs below.
3. Lay floor and roof structural panel sheathing perpendicular to the joist/rafter direction and continuous over two or more spans.
4. All load-bearing wall studs shall be 2x6 DF#2 spaced no more than 24" o.c., studs spaced more than 16" o.c. shall be framed in-line with joists and/or trusses above, typ.
5. All posts that are not in a wall shall have post cap AND base capable of resisting 1000(lb) lateral load and 1500(lb) uplift, ref: Simpson CCQ
6. Not Used
7. Not Used
8. Roof sheathing shall be 1/2" MIN., 5/8" recommended, APA rated plywood or OSB with 24/16 span rating. Fasten with 8d ring shank nails @ 6" o.c.(panel edges), 12" o.c.(field nailing), uon on plans.
9. 14" BCI 6000's Roof Rafters @ 24" o.c., typ.
10. Stub post to roof header below



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ROOF FRAMING PLAN

SCALE: $\frac{1}{4}$"=1'-0"

REVISIONS

NO.	BY	DESCRIPTION	DATE

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Phone: 541-892-3289;

Stamp:

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OREGON
JANUARY 13, 2009
BRIAN MOCKRIDGE
EXPIRES: 12/2026

GRAND TERRACE
APARTMENT BLDG. #1
HWY 99, Ashland OR
Map & Tax Lot 38-1E-32, 1700 & 1702

Client: Kendrick Enterprises	
Phone: 541-944-0131	
Drawn By:	BM
Checked By:	BM
Issue Date:	09/25/2024
ME Job #:	23-062a
Scale:	AS NOTED
Title:	Roof Framing

SHEET
S3.2

LEGEND:

- Shear wall / braced wall
- Portal frame per details
- XXXX — Indicates holddown anchor
- XX — Shearwall type and length, nailing per sw schedule

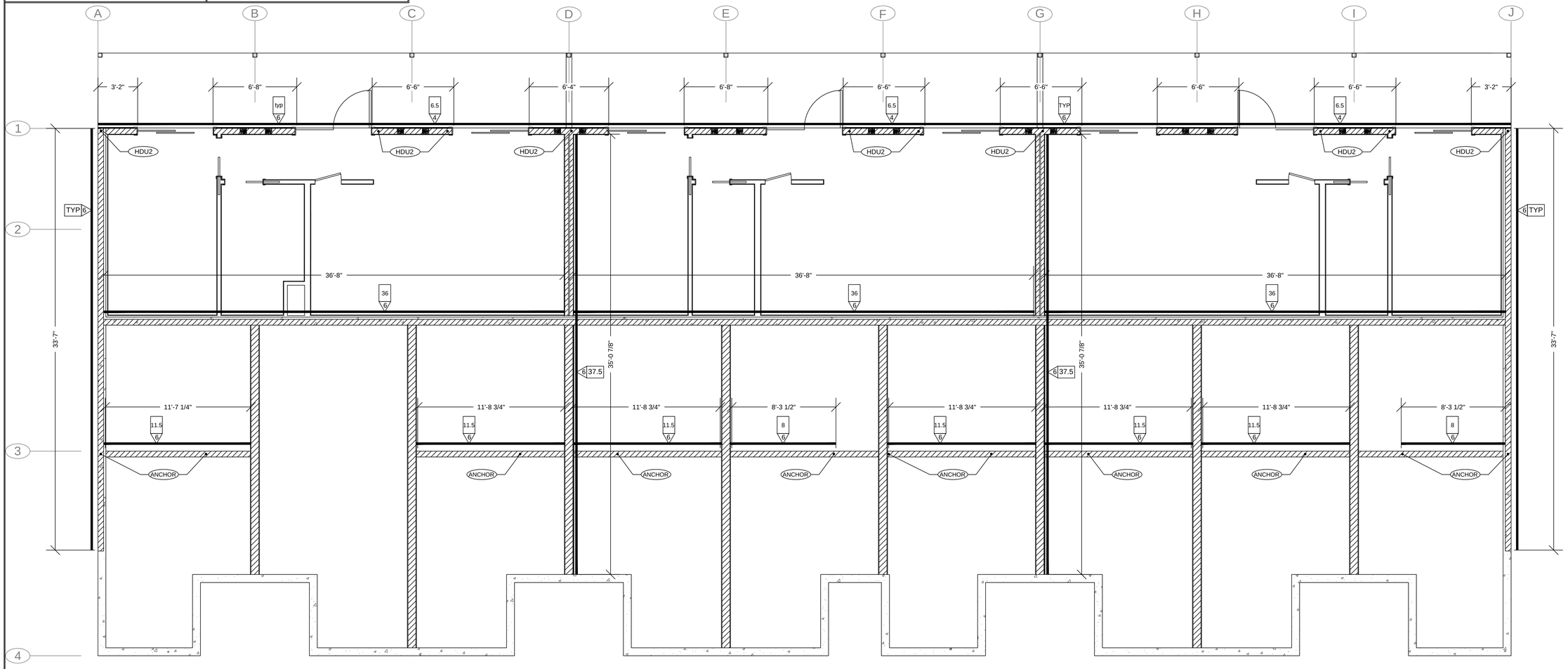
GENERAL SHEET NOTES:

1. All exterior walls shall have structural sheathing applied and fastened to wall studs @ 6" o.c. max at all panel edges and 12" o.c. max at intermediate supports. Block all panel edges, typ.
2. Not used
3. Not used
4. Anchor schedule for HDU holdowns
   HDU2 . . . . . USE SSTB16
   HDU4 . . . . . USE SSTB24
   HDU5 . . . . . USE SSTB24
   All anchors shall be installed following all manufacturers specifications and recommendations. For alternative anchorage methods submit shop drawing to EOR for approval.

MARK XX	SHEATHING	SHEATHING EDGE NAILING (EN)	BOT. PLATE SHEAR NAILING (SN)	BOT. PLATE ANCHOR BOLTS (AB)	BLOCKING/RIM CONNECTION AT WALL TOP
A	7/16" APA RATED PLYWOOD/OSB	8d @ 3" O.C.	16d @ 3" O.C.	5/8"Ø @ 24" OR 1/2"Ø @ 16" O.C.	A35 OR RBC @ 24" O.C.
B	7/16" APA RATED PLYWOOD/OSB	8d @ 4" O.C.	16d @ 4" O.C.	5/8"Ø @ 32" OR 1/2"Ø @ 24" O.C.	8d TOENAIL @ 4" OC.
C	7/16" APA RATED PLYWOOD/OSB	8d @ 6" O.C.	16d @ 6" O.C.	5/8"Ø @ 60" OR 1/2"Ø @ 48" O.C.	8d TOENAIL @ 6" O.C.
D	3/8" APA RATED PLYWOOD/OSB	10d @ 4" O.C.	16d @ 4" O.C.	5/8"Ø @ 24" OR 1/2"Ø @ 16" O.C.	10d TOENAIL @ 4" OC.
PF1	APA SINGLE PORTAL FRAME PER PORTAL FRAME DETAILS				

NOTES
1) XX — MIN. LENGTH OF SHEAR WALL REQ'D (FT) / SHEAR WALL MARK
2) NAILING AT INTERMEDIATE SUPPORTS (FIELD NAILING) SHALL BE SAME PENNY AS EN SPACED @ 12" O.C.
3) STUD SPACING SHALL BE 16" O.C. MAX
4) WALLS NOTED ON THIS PLAN REFER TO THE WALLS SUPPORTING THE FRAMING ABOVE

SHEAR WALL SCHEDULE



BASEMENT/CRAWLSAPCE WIND/SEISMIC PLAN

SCALE: 1/4"=1'-0"

REVISIONS

NO.	BY	DESCRIPTION	DATE

Mockridge Engineering
PO Box 1395 Merlin, OR 97532
Phone: 541-892-3289;

Stamp:

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82248PE
OREGON
JANUARY 13, 2009
BRIAN MOCKRIDGE
EXPIRES: 12/2026

GRAND TERRACE
APARTMENT BLDG. #1
HWY 99, Ashland OR
Map & Tax Lot 38-1E-32, 1700 & 1702

Client: Kendrick Enterprises
Phone: 541-944-0131
Drawn By: BM
Checked By: BM
Issue Date: 09/25/2024
ME Job #: 23-062a
Scale: AS NOTED
Title: Basement Lateral Plan
SHEET
S4.0

LEGEND:

- Shear wall / braced wall
- Portal frame per details
- XXXX — Indicates holddown anchor
- XX — Shearwall type and length, nailing per sw schedule

GENERAL SHEET NOTES:

1. All exterior walls shall have structural sheathing applied and fastened to wall studs @ 6" o.c. max at all panel edges and 12" o.c. max at intermediate supports. Block all panel edges, typ.
2. Not used
3. Not used
4. Anchor schedule for HDU holdowns
   - HDU2 . . . . . USE SSTB16
   - HDU4 . . . . . USE SSTB24
   - HDU5 . . . . . USE SSTB24

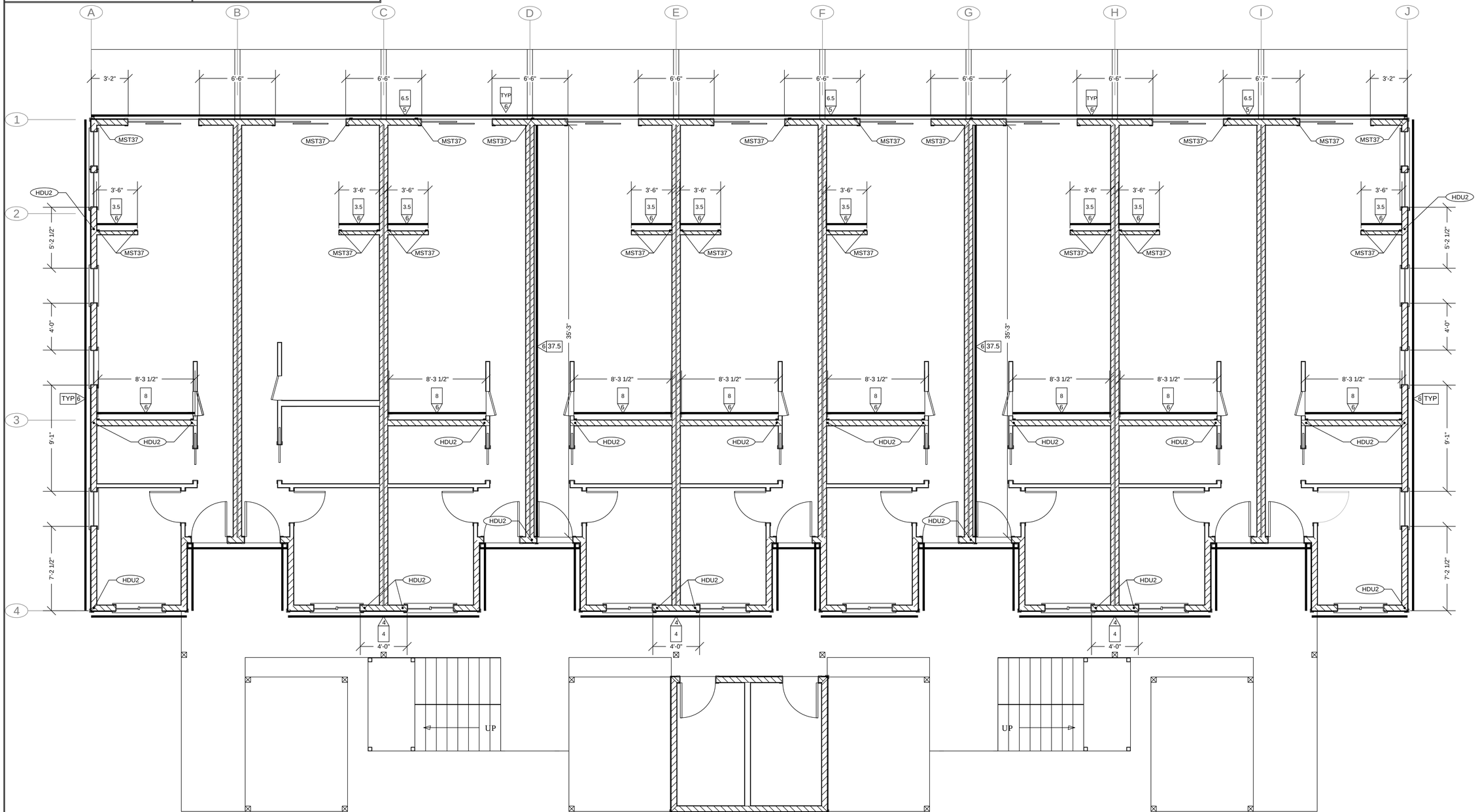
   All anchors shall be installed following all manufacturers specifications and recommendations. For alternative anchorage methods submit shop drawing to EOR for approval.

MARK	SHEATHING	SHEATHING EDGE NAILING (EN)	BOT. PLATE SHEAR NAILING (SN)	BOT. PLATE ANCHOR BOLTS (AB)	BLOCKING/RIM CONNECTION AT WALL TOP
A	7/16" APA RATED PLYWOOD/OSB	8d @ 3" O.C.	16d @ 3" O.C.	5/8"Ø @ 24" OR 1/2"Ø@ 16" O.C.	A35 OR RBC @ 24" O.C.
B	7/16" APA RATED PLYWOOD/OSB	8d @ 4" O.C.	16d @ 4" O.C.	5/8"Ø @ 32" OR 1/2"Ø@ 24" O.C.	8d TOENAIL @ 4" OC.
C	7/16" APA RATED PLYWOOD/OSB	8d @ 6" O.C.	16d @ 6" O.C.	5/8"Ø @ 60" OR 1/2"Ø@ 48" O.C.	8d TOENAIL @ 6" O.C.
D	1/2" APA RATED PLYWOOD/OSB	10d @ 4" O.C.	16d @ 4" O.C.	5/8"Ø @ 24" OR 1/2"Ø@ 16" O.C.	10d TOENAIL @ 4" OC.
PF1	APA SINGLE PORTAL FRAME PER PORTAL FRAME DETAILS				

NOTES

1) XX — MIN. LENGTH OF SHEAR WALL REQ'D (FT) — SHEAR WALL MARK
2) NAILING AT INTERMEDIATE SUPPORTS (FIELD NAILING) SHALL BE SAME PENNY AS EN SPACED @ 12" O.C.
3) STUD SPACING SHALL BE 16" O.C. MAX
4) WALLS NOTED ON THIS PLAN REFER TO THE WALLS SUPPORTING THE FRAMING ABOVE

SHEAR WALL SCHEDULE



MAIN FLOOR WIND/SEISMC PLAN

SCALE: $\frac{1}{4}$"=1'-0"

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OREGON
JANUARY 13, 2009
BRIAN MOCKRIDGE
EXPIRES: 12/2026

GRAND TERRACE APARTMENT BLDG. #1
HWY 99, Ashland OR
Map & Tax Lot 38-1E-32, 1700 & 1702

Client: Kendrick Enterprises
Phone: 541-944-0131
Drawn By: BM
Checked By: BM
Issue Date: 09/25/2024
ME Job #: 23-062a
Scale: AS NOTED
Title: Main Floor Lateral Plan
SHEET
S4.1

LEGEND:

- Shear wall / braced wall
- Portal frame per details
- XXXX — Indicates holddown anchor
- XX — Shearwall type and length, nailing per sw schedule

GENERAL SHEET NOTES:

1. All exterior walls shall have structural sheathing applied and fastened to wall studs @ 6" o.c. max at all panel edges and 12" o.c. max at intermediate supports. Block all panel edges, typ.
2. Not used
3. Not used
4. Anchor schedule for HDU holdowns
   - HDU2 . . . . . USE SSTB16
   - HDU4 . . . . . USE SSTB24
   - HDU5 . . . . . USE SSTB24

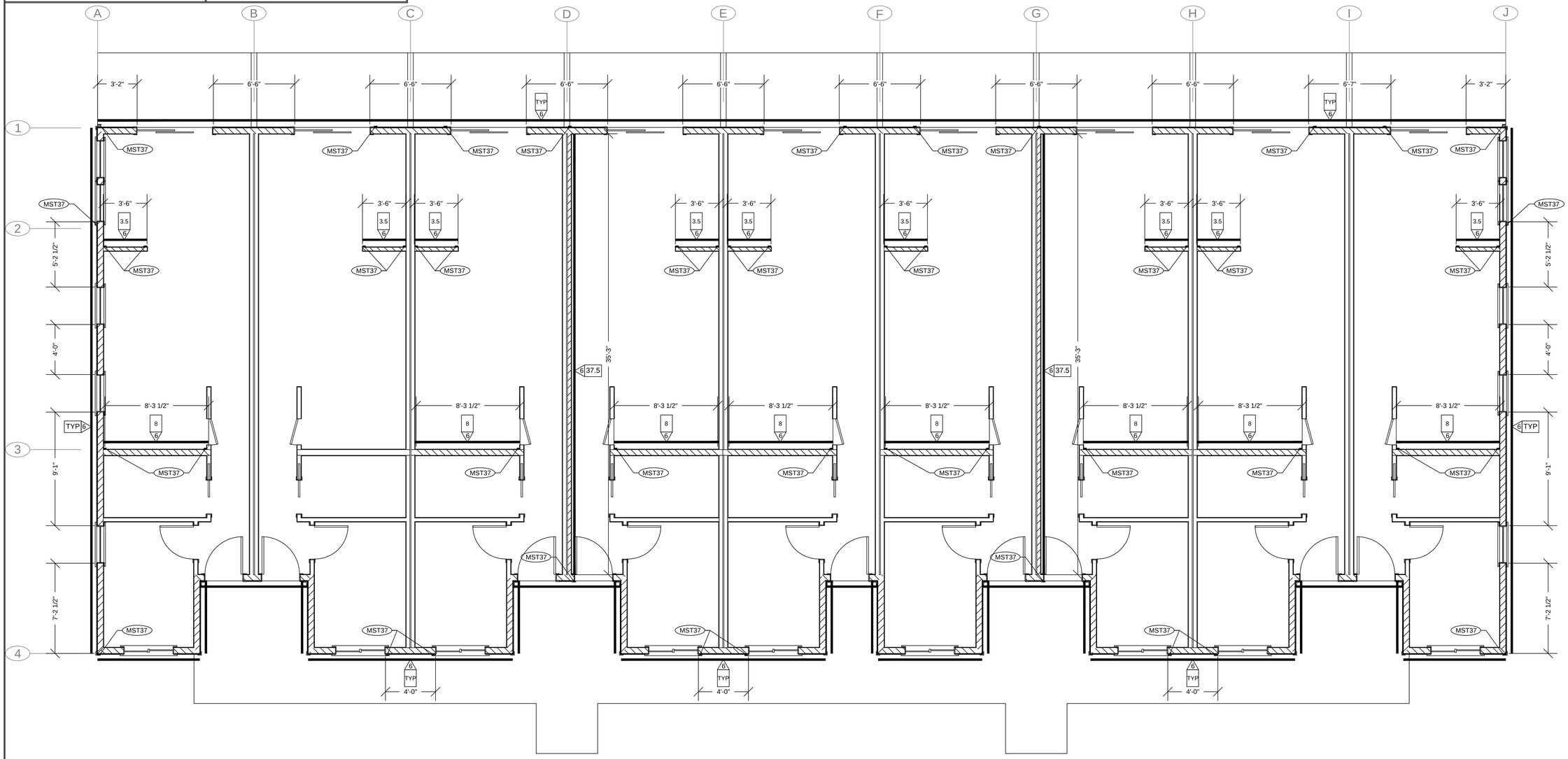
   All anchors shall be installed following all manufacturers specifications and recommendations. For alternative anchorage methods submit shop drawing to EOR for approval.

MARK	SHEATHING	SHEATHING EDGE NAILING (EN)	BOT. PLATE SHEAR NAILING (SN)	BOT. PLATE ANCHOR BOLTS (AB)	BLOCKING/RIM CONNECTION AT WALL TOP
A	7/16" APA RATED PLYWOOD/OSB	8d @ 3" O.C.	16d @ 3" O.C.	5/8"Ø @ 24" OR 1/2"Ø@ 16" O.C.	A35 OR RBC @ 24" O.C.
B	7/16" APA RATED PLYWOOD/OSB	8d @ 4" O.C.	16d @ 4" O.C.	5/8"Ø @ 32" OR 1/2"Ø@ 24" O.C.	8d TOENAIL @ 4" OC.
C	7/16" APA RATED PLYWOOD/OSB	8d @ 6" O.C.	16d @ 6" O.C.	5/8"Ø @ 60" OR 1/2"Ø@ 48" O.C.	8d TOENAIL @ 6" O.C.
D	3/8" APA RATED PLYWOOD/OSB	10d @ 4" O.C.	16d @ 4" O.C.	5/8"Ø @ 24" OR 1/2"Ø@ 16" O.C.	10d TOENAIL @ 4" OC.
PF1	APA SINGLE PORTAL FRAME PER PORTAL FRAME DETAILS				

NOTES

1) XX — MIN. LENGTH OF SHEAR WALL REQ'D (FT) / SHEAR WALL MARK
2) NAILING AT INTERMEDIATE SUPPORTS (FIELD NAILING) SHALL BE SAME PENNY AS EN SPACED @ 12" O.C.
3) STUD SPACING SHALL BE 16" O.C. MAX
4) WALLS NOTED ON THIS PLAN REFER TO THE WALLS SUPPORTING THE FRAMING ABOVE

SHEAR WALL SCHEDULE



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UPPER FLOOR WIND/SEISMC PLAN

SCALE: $\frac{1}{4}$"=1'-0"

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PO Box 1395 Merlin, OR 97532
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JANUARY 13, 2009
BRIAN MOCKRIDGE
EXPIRES: 12/2026

GRAND TERRACE APARTMENT BLDG. #1
HWY 99, Ashland OR
Map & Tax Lot 38-1E-32, 1700 & 1702

Client: Kendrick Enterprises
Phone: 541-944-0131
Drawn By: BM
Checked By: BM
Issue Date: 09/25/2024
ME Job #: 23-062a
Scale: AS NOTED
Title: Upper Floor Lateral Plan

SHEET
S4.2



PROPOSED FRONT ELEVATION

SCALE: $\frac{1}{4}$"=1'-0"

General Notes

1. ALL WORK SHALL CONFORM TO THE OREGON STRUCTURAL SPECIALTY CODE.
2. ATTIC VENTILATION SHALL BE 1/150TH OF ATTIC AREA.
3. PROVIDE MINIMUM OF 22"x30" READILY ACCESSIBLE ATTIC ACCESS
4. PROVIDE MINIMUM OF 18"x24" CRAWL SPACE ACCESS
5. FOUNDATION VENTS:
   a. PROVIDE A NET VENTILATION AREA OF NOT LESS THAN 1 SQUARE FOOT FOR EACH 150 SQUARE FEET.
   b. PROVIDE ONE VENTILATION OPENING WITHIN 3 FEET OF EACH CORNER OF THE BUILDING.

DESIGN LOADS

SNOW LOAD	25 PSF	
ROOF DEAD LOAD	15 PSF	
FLOOR LIVE LOAD	40 PSF	
FLOOR DEAD LOAD	15 PSF	
WIND PRESSURE	18 PSF	
WIND SPEED	95 MPH	EXP. B
SEISMIC ZONE	D1	

PROJECT DATA

PROPOSED APARTMENT BUILDING

PROPOSED LIVING AREA

BASEMENT	1763 SQ.FT.
MAIN FLOOR	4589 SQ.FT.
UPPER FLOOR	4589 SQ.FT.
TOTAL PROPOSED AREA	10,941 SQ.FT./BLDG.

OWNER: KENDRICK ENTERPRISES, LLC
153 WILL DODGE WAY,
ASHLAND, OR 97520

PROJECT ADDRESS: BUILDING #5
HIGHWAY 99,
ASHLAND, OR 97520
MAP & TAX LOT# 38-1E-32, 1700 & 1702

MINIMUM ENERGY COMPLIANCE NOTES

WALL INSULATION	R-21 INTERMEDIATE
WALL INSULATION---BELOW GRADE	R-21 c.i. / R-21
FLAT CEILINGS	R-49
VAULTED CEILINGS	R-30/R30A
UNDERFLOOR INSULATION	R-30
SLAB FLOOR EDGE INSULATION	R-15
HEATED SLAB INTERIOR	R-10
WINDOW S	U = 0.27
SKYLIGHT CLASS	U = 0.50
EXTERIOR DOORS	U = 0.20
EXTERIOR DOORS > 2.5sqft GLAZING	U = 0.40

CONDITIONED SPACE SHALL COMPLY WITH TABLE N1101.1(1) AND ONE ADDITIONAL MEASURE PICKED FROM TABLE N1101.1(2)

SHEET INDEX

A1.0	PROJECT INFORMATION, BUILDING ELEVATIONS
A1.1	BUILDING ELEVATIONS
A1.2	BUILDING SECTION, FLOOR AND WALL ASSEMBLIES
A2.0	BASEMENT, CRAWLSPACE FLOOR PLAN
A2.1	MAIN FLOOR PLAN
A2.2	UPPER FLOOR PLAN
S1.0	GENERAL NOTES AND STRUCTURAL DETAILS
S1.1	STRUCTURAL DETAILS CONT'D
S1.2	STRUCTURAL DETAILS CONT'D
S1.3	STRUCTURAL DETAILS CONT'D
S2.0	FOUNDATION & CRAWLSPACE PLAN
S3.0	MAIN FLOOR FRAMING PLAN
S3.1	UPPER FLOOR FRAMING PLAN
S3.2	ROOF FRAMING PLAN
S4.0	BASEMENT, CRAWLSPACE WIND AND SEISMIC LATERAL PLAN
S4.1	MAIN FLOOR WIND AND SEISMIC LATERAL PLAN
S4.2	UPPER FLOOR WIND AND SEISMIC LATERAL PLAN



PROPOSED RIGHT ELEVATION

SCALE: $\frac{1}{4}$"=1'-0"

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Stamp:

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OREGON
JANUARY 13, 2009
BRIAN MOCKRIDGE
EXPIRES: 12/2026

GRAND TERRACE
APARTMENT BLDG. #5
HWY 99, Ashland OR
Map & Tax Lot 38-1E-32, 1700 & 1702

Client: Kendrick Enterprises

Phone: 541-944-0131

Drawn By: BM

Checked By: BM

Issue Date: 09/27/24

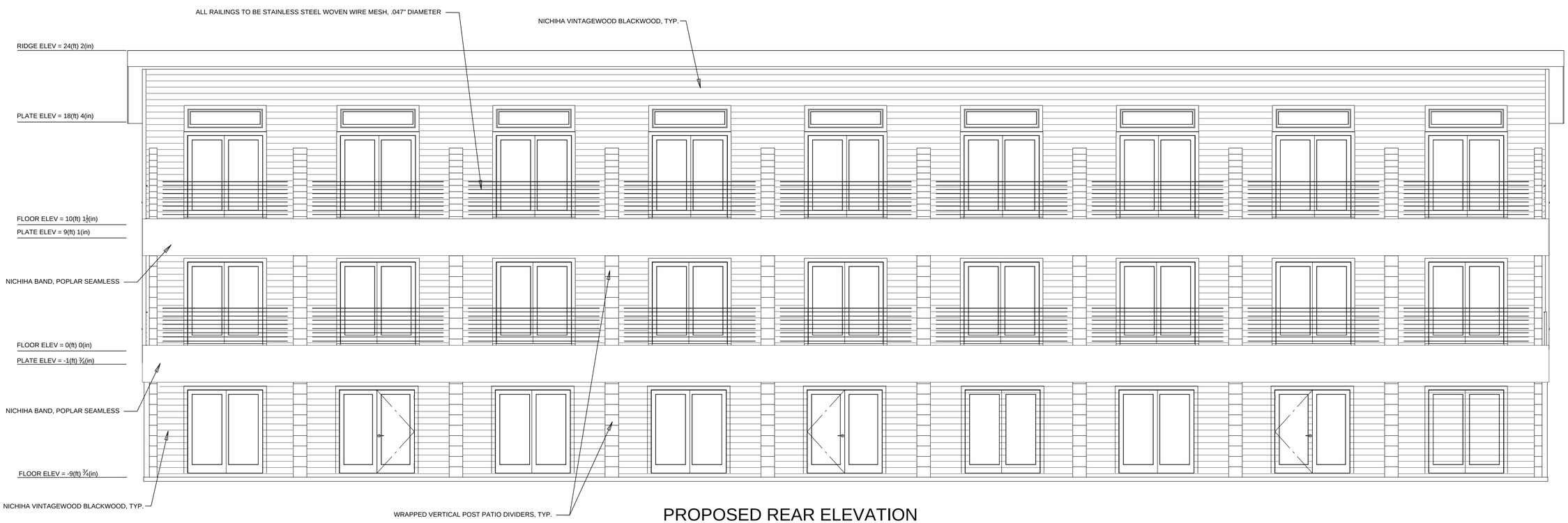
ME Job #: 23-062e

Scale: AS NOTED

Title: ELEVATIONS

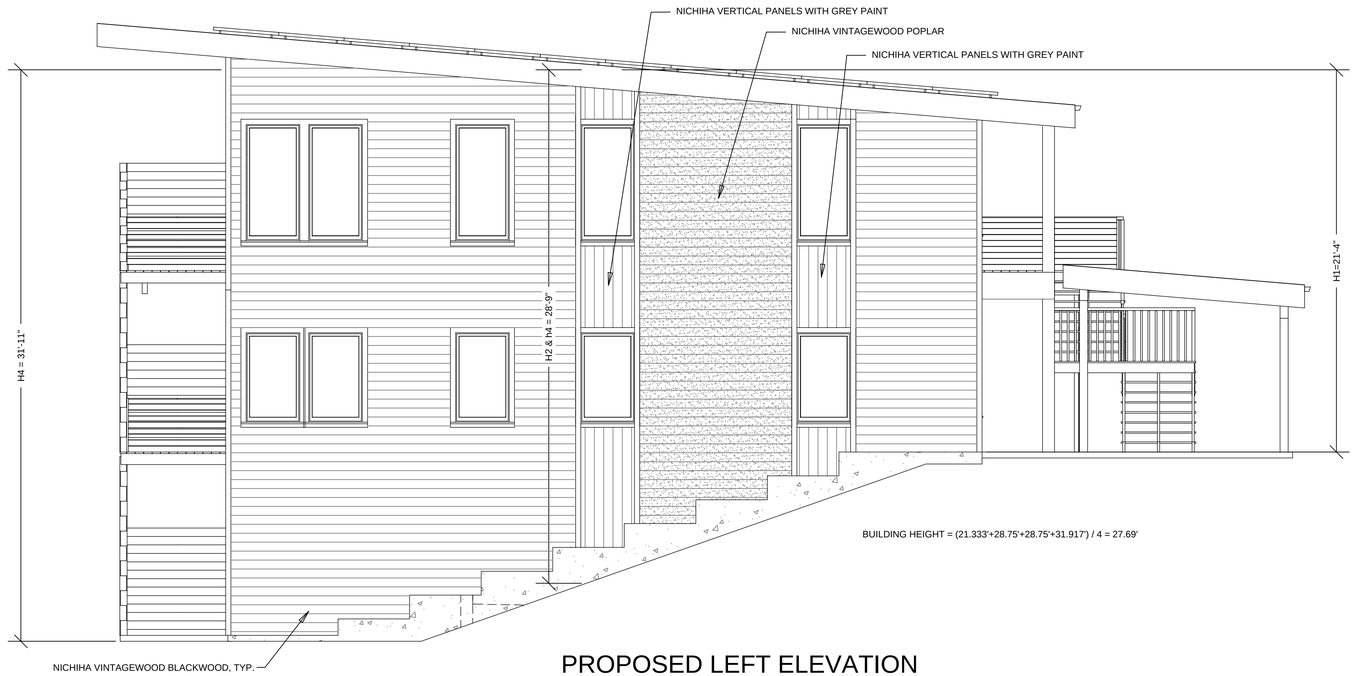
SHEET

A1.0



PROPOSED REAR ELEVATION

SCALE: ¼"=1'-0"



PROPOSED LEFT ELEVATION

SCALE: ¼"=1'-0"

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OREGON
JANUARY 13, 2006
BRIAN MOCKRIDGE
EXPIRES: 12/2026

GRAND TERRACE
APARTMENT BLDG. #5
HWY 99, Ashland OR
Map & Tax Lot 38-1E-32, 1700 & 1702

Client: Kendrick Enterprises

Phone: 541-944-0131

Drawn By: BM

Checked By: BM

Issue Date: 09/27/24

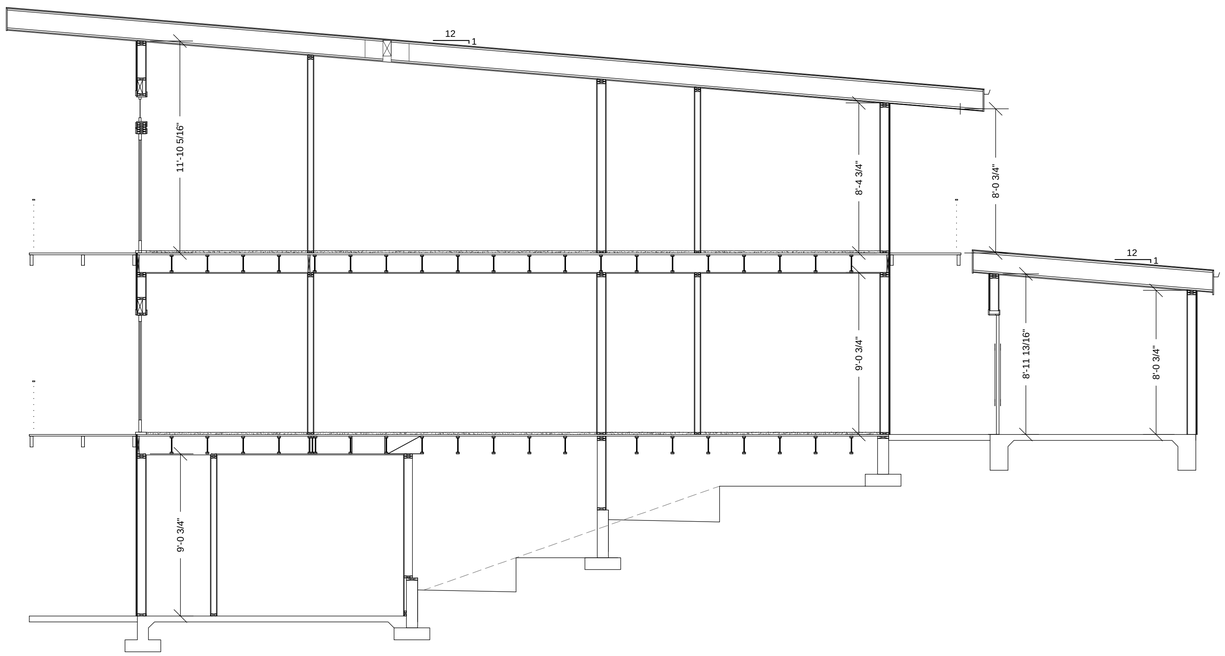
ME Job #: 23-062

Scale: AS NOTED

Title: ELEVATIONS

SHEET

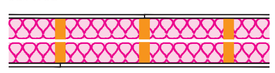
A1.1



TYPICAL BUILDING / SECTION A

SCALE: $\frac{1}{4}$"=1'-0"

REFERENCE.	FIRE RATING	TEST NO.	STC	OC ASSEMBLY NO.	CONSTRUCTION DESCRIPTION
NBC-W13a (16" o.c.)	1 h, L.B.	NBC-W13a (16" o.c.)	57	SLDWS217	Double 38 mm x 89 mm (1-1/2" x 3-1/2") wood studs spaced 400 mm (16") or 600 mm (24") o.c., on separate 38 mm x 89 mm (1-1/2" x 3-1/2") wood plates set 25 mm (1") apart; single layer 15.9 mm (5/8") type "x" gypsum board each side; two thicknesses, 89 mm (3-1/2") thick EcoTouch™ QuietZone® PINK™ FIBERGLAS® Acoustic Batt Insulation.
NBC-W13a (16" o.c.)	1 h, N.L.B.	NBC-W13a (24" o.c.)	57		
NBC-W13a (24" o.c.)	1 h, L.B.	NRC-TL-93-266 (16" o.c.)	58		
NBC-W13a (24" o.c.)	1 h, N.L.B.	W02985 (24" o.c.)	60		

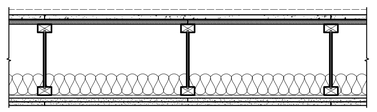


PROPOSED WALL ASSEMBLY

SCALE: $\frac{1}{4}$"=1'-0"

UL DESIGN NO. L570 2

FIRE RATING:	1 HOUR	IIC:	57
STC:	59	SOUND TEST:	H50408.04
SOUND TEST:	H50408.04		
SYSTEM THICKNESS:	1' 4 3/32"		



ASSEMBLY OPTIONS:

FINISH FLOORING:	
FLOOR TOPPING MIXTURE:	3/4" USG LEVELROCK® BRAND 2500 SERIES UNDERLAYMENT
FLOOR MAT:	1/8" USG LEVELROCK® BRAND SAM-N12™ SOUND ATTENUATION MAT
SUBFLOORING:	23/32" PLYWOOD PANEL
STRUCTURAL WOOD MEMBERS:	11-7/8" WOOD I-JOISTS
INSULATION:	3-1/2" UNFACED GLASS FIBERLASS INSULATION
RESILIENT CHANNELS:	25 GA. RESILIENT CHANNELS SPACED 16" O.C. (SOUND TESTED WITH RC DELUXE®)
GYPSUM BOARD:	TWO LAYERS 5/8" USG SHEETROCK® BRAND ECOSMART PANELS FIRECODE® X (UL TYPE ULIX™)

PROPOSED FLOOR ASSEMBLY

SCALE: $\frac{1}{4}$"=1'-0"

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REVISIONS

NO.	BY	DESCRIPTION	DATE

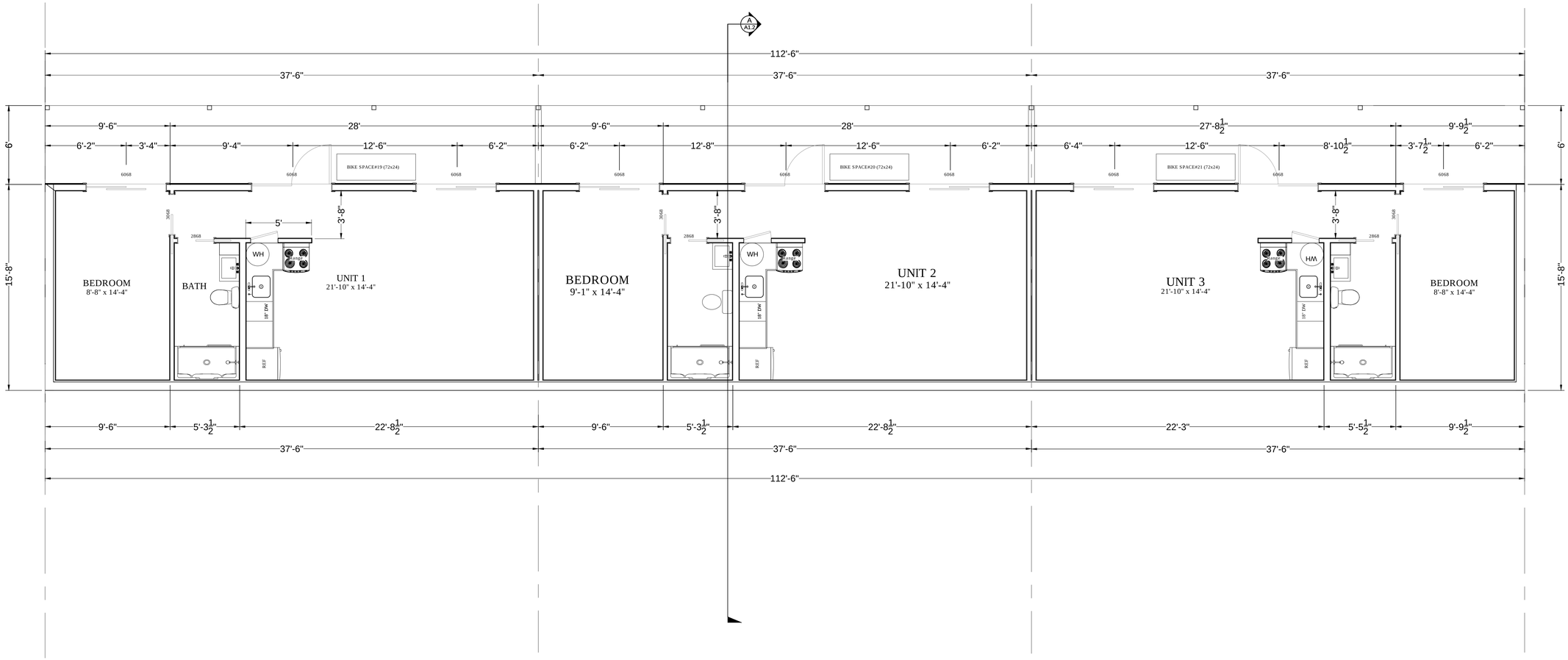
MockridgeEngineering
PO Box 1395 Merlin, OR 97532
Phone: 541-892-3289;

Stamp:

REGISTERED PROFESSIONAL ENGINEER
8248PE
OREGON
JANUARY 13, 2009
BRIAN MOCKRIDGE
EXPIRES: 12/2026

GRAND TERRACE
APARTMENT BLDG. #5
HWY 99, Ashland OR
Map & Tax Lot 38-1E-32, 1700 & 1702

Client: Kendrick Enterprises
Phone: 541-944-0131
Drawn By: BM
Checked By: BM
Issue Date: 09/27/24
ME Job #: 23-062e
Scale: AS NOTED
Title: BUILDING SECTIONS
SHEET
A1.2



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PROPOSED BASEMENT FLOOR PLAN

SCALE: $\frac{1}{4}$"=1'-0"

REVISIONS

NO.	BY	DESCRIPTION	DATE
01	BM	Porch Size	5/05/25

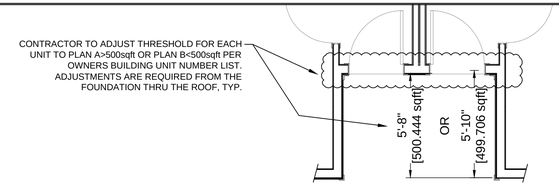
Mockridge Engineering
PO Box 1395 Merlin, OR 97532
Phone: 541-892-3289;

Stamp:

REGISTERED PROFESSIONAL ENGINEER
82248PE
OREGON
JANUARY 13, 2009
BRIAN MOCKRIDGE
EXPIRES: 12/2026

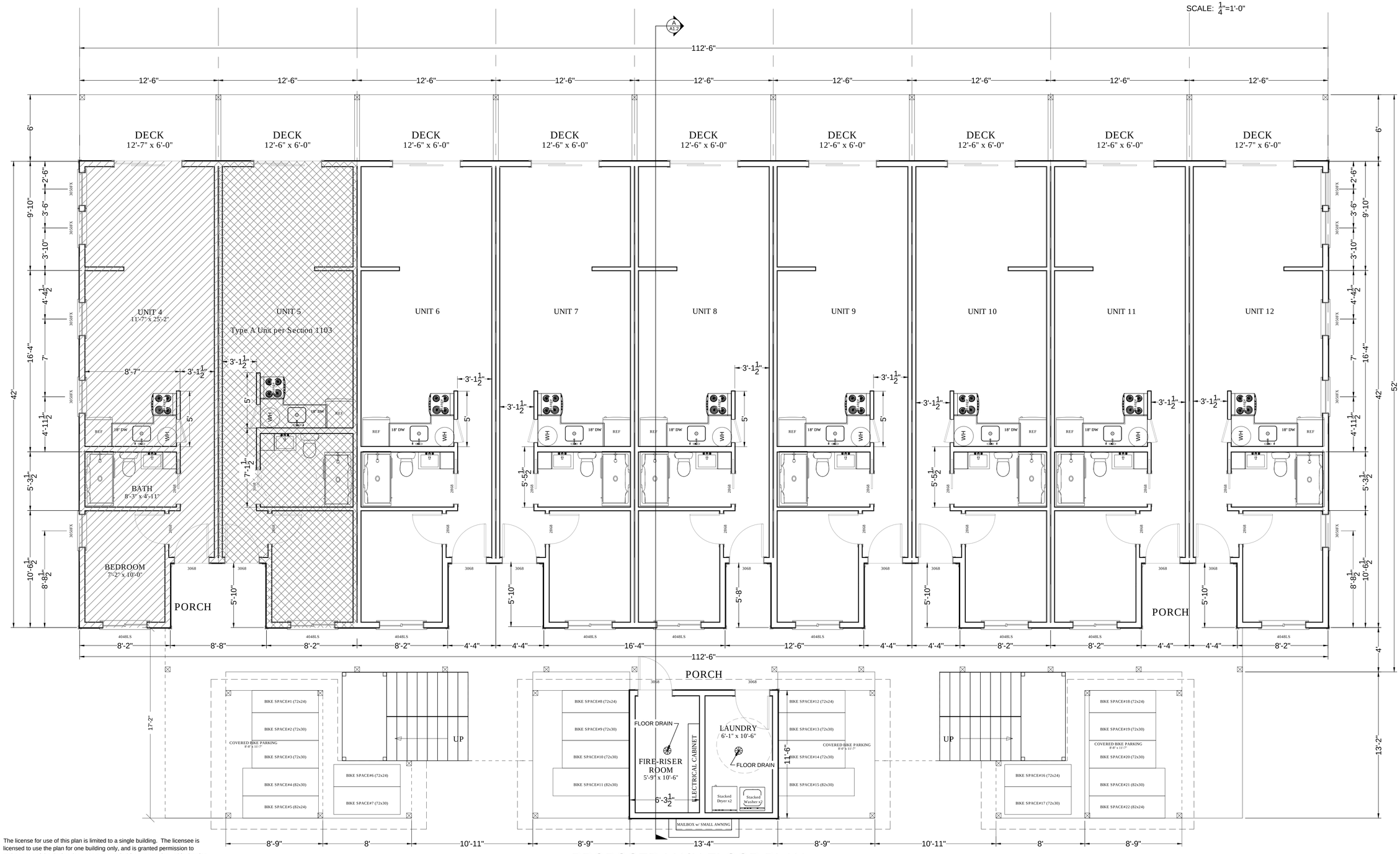
GRAND TERRACE
APARTMENT BLDG. #5
HWY 99, Ashland OR
Map & Tax Lot 38-1E-32, 1700 & 1702

Client: Kendrick Enterprises
Phone: 541-944-0131
Drawn By: BM
Checked By: BM
Issue Date: 09/27/24
ME Job #: 23-062e
Scale: AS NOTED
Title: Basement Floor Plan
SHEET
A2.0



ENTRY THRESHOLD PLAN

SCALE: $\frac{1}{4}$"=1'-0"



PROPOSED MAIN FLOOR PLAN

SCALE: $\frac{1}{4}$"=1'-0"

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REVISIONS

NO.	BY	DESCRIPTION	DATE
01	BM	Porch Size	5/05/25

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PO Box 1395 Merlin, OR 97532
Phone: 541-892-3289;

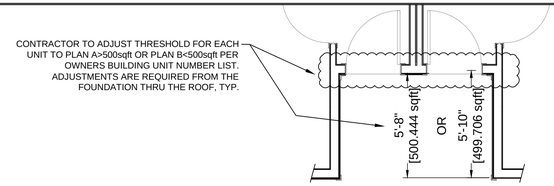
Stamp:

REGISTERED PROFESSIONAL ENGINEER
8224BPE
OREGON
JANUARY 13, 2009
BRIAN MOCKRIDGE
EXPIRES: 12/2026

GRAND TERRACE
APARTMENT BLDG. #5
HWY 99, Ashland OR
Map & Tax Lot 38-1E-32, 1700 & 1702

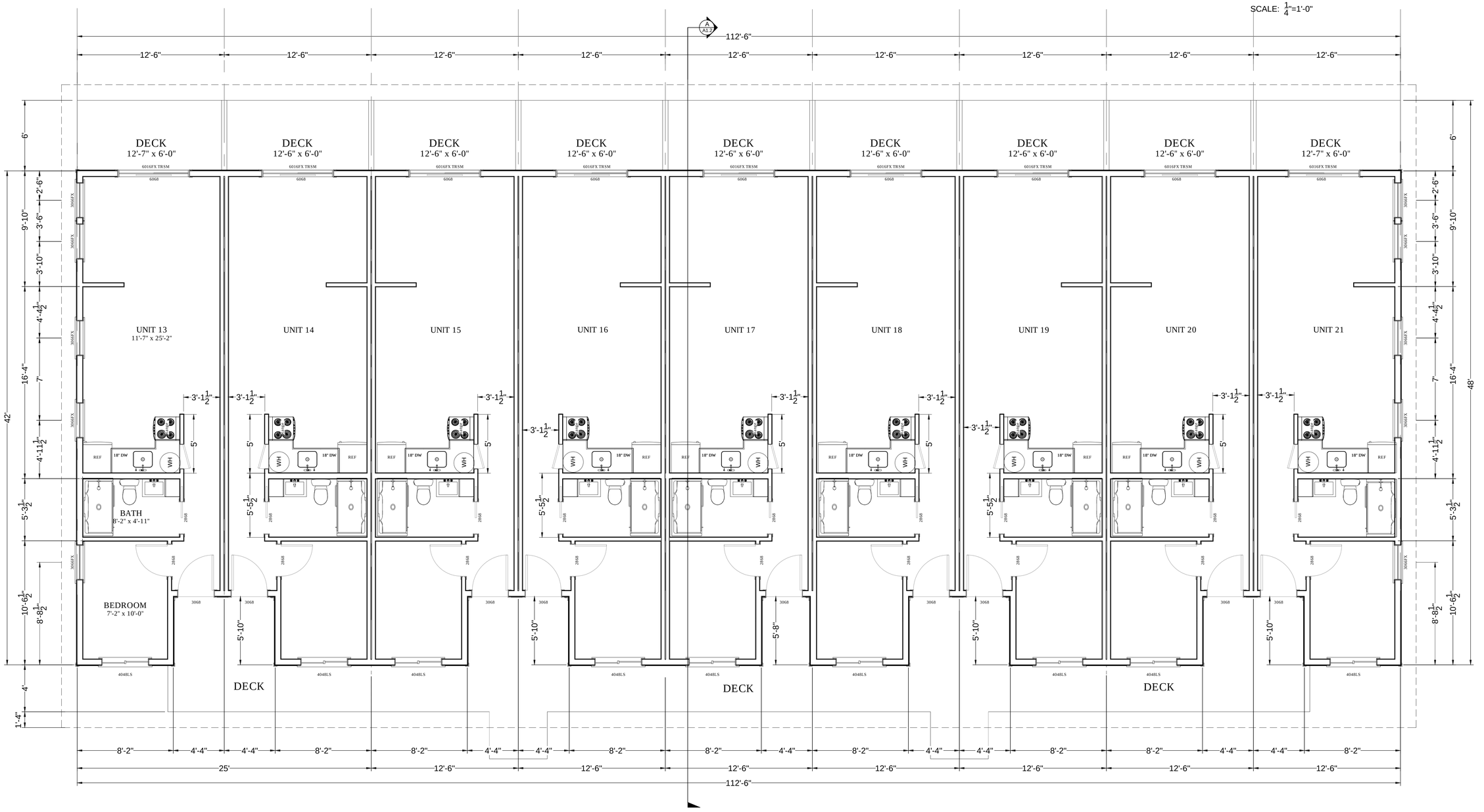
Client: Kendrick Enterprises	
Phone: 541-944-0131	
Drawn By:	BM
Checked By:	BM
Issue Date:	09/27/24
ME Job #:	23-062e
Scale:	AS NOTED
Title:	Main Floor Plan

SHEET
A2.1



ENTRY THRESHOLD PLAN

SCALE: $\frac{1}{4}$"=1'-0"



PROPOSED UPPER FLOOR PLAN

SCALE: $\frac{1}{4}$"=1'-0"

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REVISIONS

NO.	BY	DESCRIPTION	DATE
01	BM	Porch Size	5/05/25

Mockridge Engineering
PO Box 1395 Merlin, OR 97532
Phone: 541-892-3289;

Stamp:

REGISTERED PROFESSIONAL ENGINEER
82248PE
OREGON
JANUARY 13, 2006
BRIAN MOCKRIDGE
EXPIRES: 12/2026

GRAND TERRACE
APARTMENT BLDG. #5
HWY 99, Ashland OR
Map & Tax Lot 38-1E-32, 1700 & 1702

Client: Kendrick Enterprises	
Phone: 541-944-0131	
Drawn By:	BM
Checked By:	BM
Issue Date:	09/27/24
ME Job #:	23-062e
Scale:	AS NOTED
Title:	Upper Floor Plan
SHEET	A2.2

GENERAL
1. NOT USED.
2. THE STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE, AND, EXCEPT WHERE SPECIFICALLY SHOWN, DO NOT INDICATE THE METHOD OR MEANS OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, PROCEDURES, TECHNIQUES, AND SEQUENCE. ALL APPLICABLE SAFETY REGULATIONS TO BE STRICTLY FOLLOWED.
3. THE STRUCTURE HAS BEEN DESIGNED TO RESIST DESIGN LOADS ONLY AS A COMPLETED STRUCTURE. APPLICATIONS OF CONSTRUCTION LOADS TO THE PARTIALLY COMPLETED STRUCTURE SHALL BE CONSIDERED BY THE CONTRACTOR AND SO INCLUDED IN THE DESIGN OF SHORING, BRACING, FORMWORK, AND ANY OTHER SUPPORTING ELEMENTS PROVIDED FOR CONSTRUCTION OF THE STRUCTURE. DURING ERECTION AND UNTIL ALL PERMANENT CONNECTIONS ARE MADE, THE CONTRACTOR MUST PROVIDE TEMPORARY BRACING FOR THE STRUCTURE IN ALL DIRECTIONS.
4. THE GENERAL CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND GRADE CONDITIONS, (BOTH NEW AND EXISTING) REPORTING ANY DISCREPANCIES TO THE ARCHITECT OR ENGINEER PRIOR TO ORDERING MATERIALS OR PROCEEDING WITH ANY PHASE OF THE WORK.
5. THE CONTRACTOR SHALL COMPARE STRUCTURAL SECTIONS WITH ON-SITE SECTIONS AND REPORT ANY DISCREPANCY TO THE ENGINEER PRIOR TO FABRICATION OR INSTALLATION OF STRUCTURAL MEMBERS.
6. DO NOT SCALE DIMENSIONS FROM DRAWINGS. THE CONTRACTOR SHALL REQUEST, FROM THE ENGINEER, NECESSARY DIMENSIONS NOT SHOWN ON THE DRAWINGS.

INSPECTIONS
1. ALL CONSTRUCTION SHALL BE INSPECTED BY THE LOCAL BUILDING OFFICIAL ACCORDING TO THE BUILDING CODE LISTED BELOW.
2. IT IS RECOMENDED THAT THE OWNER/CONTRACTOR HIRE MOCKRIDGE ENGINEERING OR OTHER QUALIFIED ENGINEER TO PROVIDE STRUCTURAL INSPECTION PRIOR TO COVERING OF STRUCTURAL MEMBERS.

DESIGN CRITERIA
1. APPLICABLE CODES:
   A. OREGON STRUCTURAL SPECIALTY CODE
   B. NOT USED
   C. BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE (ACI 318)
   D. BUILDING CODE REQUIREMNETS FOR MASONRY STRUCTURES (ACI 530)
   E. MIN. DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES (ASCE 7)
2. SNOW LOAD:
   GROUND SNOW LOAD (Pg). . . . . 25 PSF
   ROOF SNOW LOAD (Pf) . . . . . 25 PSF
3. WIND LOAD: (ORSC)
   BASIC DESIGN WIND VELOCITY . . . 95 MPH
   EXPOSURE CATEGORY. . . . . B
   COMPONENTS AND CLADDING:
   ALL BUILDING COMPONENTS AND CLADDING ENGINEERED BY THE COMPONENT MANUFACTURER ARE TO BE DESIGNED BY THE MANUFACTURER'S ENGINEER FOR WIND LOADS DETERMINED PER THE OREGON STRUCTURAL SPECIALTY CODE FOR THE BASIC DESIGN WIND VELOCITY, AND EXPOSURE LISTED ABOVE.
4. SEISMIC CRITERIA
   DESIGN CATEGORY. D1
5. FUTURE LOADS: UNLESS SPECIFICALLY NOTED, THERE ARE NO PROVISIONS MADE FOR FUTURE FLOORS, ROOFS, OR OTHER LOADS.

FOUNDATIONS
1. IT IS RECOMENDED THAT THE OWNER/CONTRACTOR ORDER A GEOTECHNICAL INVESTIGATION REPORT. DUE TO THE LACK OF SPECIFIC GEOTECHNICAL INFORMATION FOR THIS SITE, THE FOUNDATION HAS BEEN DESIGNED ON AN ASSUMED BEARING CAPACITY OF 1500 PSF. MOCKRIDGE ENGINEERING IS NOT RESPONSIBLE FOR ANY FUTURE DEFECTS RESULTING FROM UNREPORTED CONDITIONS MITIGATING THE ABOVE ASSUMPTION.
2. SOFT SOIL AND FILL SHALL BE REMOVED AND REPLACED AS INDICATED BELOW, AND BE CAPABLE OF SUPPORTING THE BEARING CPACITY STATED ABOVE.
3. MINIMUM SUBGRADE PREPARATION REQUIREMENTS ARE AS FOLLOWS: COMPACT ALL FILL UNDER BUILDING TO 98% MAXIMUM DENSITY AS DETERMINED BY ASTM D698. PLACE IN LAYERS OF 8" MAXIMUM LOOSE THICKNESS. VERIFY FIELD DENSITY, ASTM D1556, WITH AT LEAST ONE TEST PER 2000 SQUARE FEET PER LAYER.

CONCRETE/REINFORCING STEEL
1. CONCRETE COMPRESSIVE STRENGTH IN 28 DAYS:
   SLAB ON GRADE, FOOTINGS, GRADE BEAMS. . . 2500 PSI DESIGN, 3000 PSI MIX, NORMAL WEIGHT
2. PROVIDE SLAB CONTROL JOINTS AS INDICATED PER PLAN. WHERE NOT SHOWN ON PLAN LIMIT THE SPACING OF CONTROL JOINTS TO 15' FOR INDOOR SLABS, 8' FOR OUTDOOR DRIVEWAYS, 5' FOR SIDEWALKS.
3. REINFORCING:
   ASTM A615 - GRADE 60.
   WELDED WIRE FABRIC - ASTM A185 (FLAT SHEETS ONLY)
4. GROUT UNDER BASE PLATES TO BE HIGH STRENGTH, NON-SHRINK.
5. REFER TO THE DRAWINGS FOR REINFORCING LAP REQUIREMENTS, WHERE LAP SPLICES ARE NOT SHOWN, LAP PER ACI 318 STANDARDS.
6. LAP WELDED WIRE FABRIC SHEETS 8" MINIMUM.
7. CLEAR COVER FROM FACE OF CONCRETE:
   CAST IN PLACE CONCRETE(measure to outermost reinforcing):
   FOOTINGS, ... 3"
8. PROVIDE REINFORCING IN SLABS ON GRADE, PLACE AT MID-THICKNESS OF SLAB:
   4" SLABS 6x6-W2.1xW2.1
   6" SLABS . . . . . #4 @ 24" O.C. EA. WAY
9. REBAR SHALL NOT BE HEATED WITH A TORCH IN THE FIELD.

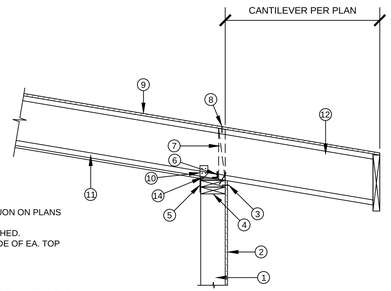
WOOD:
1. ALL WOOD EXPOSED TO THE WEATHER OR IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE TREATED OR PROTECTED WITH A WATERPROOF MEMBRANE. NEWLY EXPOSED SURFACES RESULTING FROM FIELD CUTTING, BORING OR HANDLING SHALL BE FIELD TREATED IN ACCORDANCE WITH AWPA M-4.
2. ALL WOOD STICK FRAMING SHALL BE DOUGLAS FIR/LARCH #2 (DF #2) OR BETTER UNLESS OTHERWISE NOTED ON THE DRAWINGS.
3. ALL ENGINEERED WOOD SHALL BE INSTALLED ACCORDING TO THE MANUFACTURER RECOMMENDATIONS AND AS DETAILED ON DRAWINGS.
4. ALL JOISTS, CEILING JOISTS AND RAFTERS SHALL HAVE A MINIMUM OF 1-1/2 INCHES BEARING AT EACH END ON TOP PLATES.
5. TOP PLATES OR CHORDS SHALL BE CONTINUOUS OVER HEADERS UON.
6. TOP PLATES SHALL BE TWO PIECES, SAME SIZE AS STUDS. STAGGER SPLICES 6'-0" MINIMUM. CENTER SPLICES OVER STUDS.

WOOD CONNECTIONS:
1. ALL FRAMING HARDWARE SHALL BE MANUFACTURED BY USP STRUCTURAL CONNECTORS OR SIMPSON STRONG-TIE. ALL FASTENER HOLES SHALL BE FILLED WITH NAILS, SCREWS OR BOLTS AS SPECIFIED BY THE MANUFACTURER'S LITERATURE
2. HOLDOWNS ANCHOR BOLTS SHALL BE FINGER TIGHT PLUS AN ADDITIONAL 1/3 TURN WITH A WRENCH.
3. STRUCTURAL CONNECTORS PLACED IN CONTACT WITH PRESERVATIVE TREATED WOOD OR IN EXTERIOR APPLICATIONS SHALL HAVE A COATING AS INDICATED ON THE RECOMMENDED CONNECTOR COATING FOR CORROSION PROTECTION CHART.
4. CONNECTOR HARDWARE MODEL NUMBERS ARE THOSE FOR THE SIMPSON-STRONG TIE COMPANY.
5. CONNECTIONS SHALL BE AS DETAILED ON THE DRAWINGS. IF NOT SHOWN, MINIMUM CONNECTIONS SHALL BE AS FOLLOWS:
   A) JOIST OR RAFTER TO SILL OR GIRDER, TOE NAIL.....3-8d
   B) BRIDGING TO JOIST, TOENAIL EACH END.....2-8d
   C) SILL PLATE TO JOIST, SOLID DECK, OR BLOCKING, FACE NAIL [SN].....16d AT 6" O.C.
   D) TOP PLATE TO STUD, END NAIL.....2-16d
   E) STUD TO SILL PLATE.....4-8d TOENAIL, OR 2-16d END NAIL
   F) DOUBLE STUDS, FACE NAIL.....16d AT 12" O.C. STAGGERED
   G) DOUBLE TOP PLATES:
      TOP PLATE TO LOWER PLATE, FACE NAIL.....16d @ 18" O.C.
      TOP PLATE TO LOWER PLATE AT LAP SPLICE [4'-0" MINIMUM].....8-16d EA. SIDE OF SPLICE,
   H) BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE, TOENAIL.....3-8d
   I) RIM JOIST TO TOP PLATE, TOENAIL.....8d @ 6" O.C.
   J) TOP PLATES, LAPS AND INTERSECTIONS.....3-16d
   K) CEILING JOISTS TO PLATE, TOENAIL.....3-8d
   L) CEILING JOISTS, LAPS OVER PARTITIONS, FACE NAIL.....3-16d
   M) CEILING JOISTS TO PARALLEL RAFTERS, FACE NAIL.....3-16d
   N) RAFTER TO PLATE, TOENAIL.....2-16d
   O) BUILT-UP CORNER STUDS.....16d @ 12" O.C.
   P) WOOD STRUCTURAL PANELS, SUBFLOOR, ROOF AND WALL SHEATHING TO FRAMING, UON ON PLANS
      5/16"-1".....8d COMMON @ 6" O.C. AT ALL PANEL EDGES.....8d COMMON @ 12" O.C. (6" O.C. @ GABLE END WALLS) AT INTERMEDIATE SUPPORTS
      1-1/8"-1-1/4".....10d COMMON @ 6" O.C. AT ALL PANEL EDGES.....10d COMMON @ 12" O.C. (6" O.C. @ GABLE END WALLS) AT INTERMEDIATE SUPPORTS
   Q) FOR ADDITIONAL CONNECTIONS REFER TO THE LOCAL BUILDING CODE OR CONTACT THE ENGINEER OF RECORD.

REPRODUCTION NOTE
1. THE USE OF REPRODUCTIONS OF THESE CONTRACT DRAWINGS BY ANY CONTRACTOR, SUBCONTRACTOR, ERECTOR, FABRICATOR, OR MATERIAL SUPPLIER IN LIEU OF PREPARATION OF SHOP DRAWINGS SIGNIFIES HIS ACCEPTANCE OF ALL INFORMATION SHOWN HEREON AS CORRECT, AND OBLIGATES HIMSELF TO ANY JOB EXPENSE, REAL OR IMPLIED, ARISING DUE TO ANY ERRORS THAT MAY OCCUR HEREON.

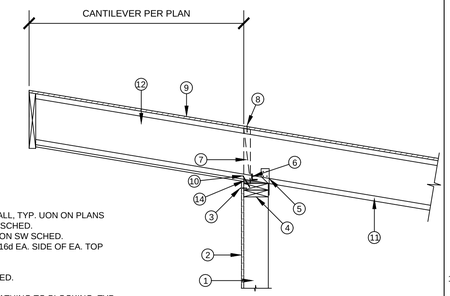
ABBREVIATIONS:

AB	ANCHOR BOLT	BN	BOUNDARY NAILING	CLR	CLEAR
EA	EACH	EOR	ENGINEER OF RECORD	EN	EDGE NAILING
NTS	NOT TO SCALE	OH	OPPOSITE HAND	PT	PRESSURE TREATED
SN	SHEAR NAILING	STD	STANDARD	SW	BRACED/SHEAR WALL
TYP.	TYPICAL	UON	UNLESS OTHERWISE NOTED		



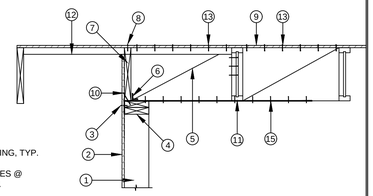
1- 2x6 @ 16" O.C. BEARING WALL, TYP. UON ON PLANS
2- WALL SHEATHING PER SW SCHED.
3- EN-8d @ 6" O.C., TYP. UON ON SW SCHED.
4- DOUBLE TOP PLATES, (20) 16d EA. SIDE OF EA. TOP PLATE SPLICE
5- H2.5, EA. RAFTER
6- RBC, AS REQ'D BY SW SCHED.
7- RIM JOIST BLOCKING
8- BN-8d @ 6" O.C. ROOF SHEATHING TO BLOCKING, TYP.
9- ROOF SHEATHING PER PLAN
10- 10d TOENAILS, BLOCKING TO WALL TOP PLATES @ MATCH SPACING TO SW EN, TYP., 6" O.C. MIN.
11- I-JOIST ROOF RAFTERS PER PLAN
12- CANTILEVER RAFTERS PER PLAN
13- NOT USED
14- 2x BEVELED PLATE BETWEEN RAFTER AND WALL TOP PLATES
15- REFER TO MANUFACTURER ROOF FRAMING DETAILS FOR ADDITIONAL DETAILS

2 I-JOIST RAFTER TO WALL CONNECTION DETAILS
Scale: NTS (ROOF PITCH <3:12)



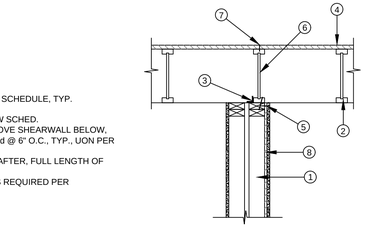
1- 2x6 @ 16" O.C. BEARING WALL, TYP. UON ON PLANS
2- WALL SHEATHING PER SW SCHED.
3- EN-8d @ 6" O.C., TYP. UON ON SW SCHED.
4- DOUBLE TOP PLATES, (20) 16d EA. SIDE OF EA. TOP PLATE SPLICE
5- H2.5, EA. RAFTER
6- RBC, AS REQ'D BY SW SCHED.
7- RIM JOIST BLOCKING
8- BN-8d @ 6" O.C. ROOF SHEATHING TO BLOCKING, TYP.
9- ROOF SHEATHING PER PLAN
10- 10d TOENAILS, BLOCKING TO WALL TOP PLATES @ MATCH SPACING TO SW EN, TYP., 6" O.C. MIN.
11- I-JOIST ROOF RAFTERS PER PLAN
12- CANTILEVER RAFTERS PER PLAN
13- NOT USED
14- 2x BEVELED PLATE BETWEEN RAFTER AND WALL TOP PLATES
15- REFER TO MANUFACTURER ROOF FRAMING DETAILS FOR ADDITIONAL DETAILS

3 I-JOIST RAFTER TO WALL CONNECTION DETAILS
Scale: NTS (ROOF PITCH <3:12)



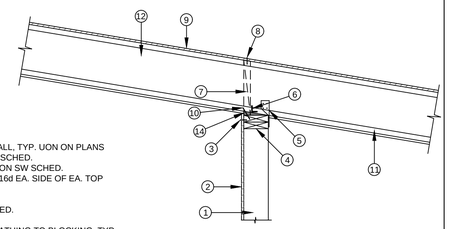
1- 2x6 @ 16" O.C. BEARING WALL, TYP. UON ON PLANS
2- WALL SHEATHING PER SW SCHED.
3- EN-8d @ 6" O.C., TYP. UON ON SW SCHED.
4- DOUBLE TOP PLATES, (20) 16d EA. SIDE OF EA. TOP PLATE SPLICE
5- RAFTER BLOCKING @ 8'O.C., FIRST TWO RAFTER BAYS
6- RBC, AS REQ'D BY SW SCHED.
7- GABLE END JOIST PER PLAN, NOTCH TO FIT OUTRIGGERS, TYP.
8- BN-8d @ 6" O.C. ROOF SHEATHING TO BLOCKING, TYP.
9- ROOF SHEATHING PER PLAN
10- 10d TOENAILS, BLOCKING TO WALL TOP PLATES @ MATCH SPACING TO SW EN, TYP., 6" O.C. MIN.
11- I-JOIST ROOF RAFTERS PER PLAN
12- 2x6 MIN. OUTRIGGER @ 24" O.C. MAX
13- 8d @ 4" O.C., ROOF SHEATHING TO OUTRIGGER AND RAFTER BLOCKING, TYP.
14- REFER TO MANUFACTURER ROOF FRAMING DETAILS FOR ADDITIONAL DETAILS
15- CMST16 STRAP, LENGTH=42", BEND 3" OVER TOP PLATES AND FASTEN TO UNDERSIDE OF RAFTER BLOCKING

4 I-JOIST GABLE WALL CONNECTION DETAILS
Scale: NTS



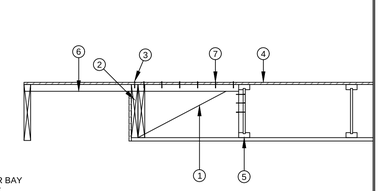
1- WALL STUDS PER PLAN
2- ROOF RAFTERS PER PLAN
3- A35 OR RBC IF REQUIRED PER SW SCHEDULE, TYP.
4- ROOF SHEATHING PER PLAN
5- EN-8d @ 6" O.C., TYP., UON PER SW SCHED.
6- PROVIDE ADDITIONAL RAFTER ABOVE SHEARWALL BELOW, TOENAIL TO WALL BELOW WITH 10d @ 6" O.C., TYP., UON PER SW SCHEDULE
7- BN-8d @ 4" O.C., SHEATHING TO RAFTER, FULL LENGTH OF RAFTER
8- WALL SHEATHING AND NAILING AS REQUIRED PER LATERAL PLAN

6 RAFTER CONNECTION DETAILS @ SHEARWALL BELOW
Scale: NTS



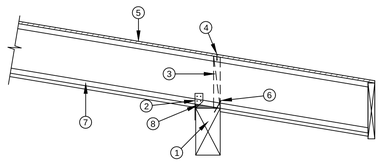
1- 2x6 @ 16" O.C. BEARING WALL, TYP. UON ON PLANS
2- WALL SHEATHING PER SW SCHED.
3- EN-8d @ 6" O.C., TYP. UON ON SW SCHED.
4- DOUBLE TOP PLATES, (20) 16d EA. SIDE OF EA. TOP PLATE SPLICE
5- H2.5, EA. RAFTER
6- RBC, AS REQ'D BY SW SCHED.
7- RIM JOIST BLOCKING
8- BN-8d @ 6" O.C. ROOF SHEATHING TO BLOCKING, TYP.
9- ROOF SHEATHING PER PLAN
10- 10d TOENAILS, BLOCKING TO WALL TOP PLATES @ MATCH SPACING TO SW EN, TYP., 6" O.C. MIN.
11- I-JOIST ROOF RAFTERS PER PLAN
12- CANTILEVER RAFTERS PER PLAN
13- NOT USED
14- 2x BEVELED PLATE BETWEEN RAFTER AND WALL TOP PLATES
15- REFER TO MANUFACTURER ROOF FRAMING DETAILS FOR ADDITIONAL DETAILS

7 I-JOIST RAFTER TO WALL CONNECTION DETAILS
Scale: NTS (ROOF PITCH <3:12)



1- RAFTER BLOCKING @ 8' O.C., FIRST RAFTER BAY
2- GABLE END JOIST PER PLAN, NOTCH TO FIT OUTRIGGERS, TYP.
3- BN-8d @ 6" O.C. ROOF SHEATHING TO BLOCKING, TYP.
4- ROOF SHEATHING PER PLAN
5- I-JOIST ROOF RAFTERS PER PLAN
6- 2x6 MIN. OUTRIGGER @ 24" O.C. MAX
7- 8d @ 4" O.C., ROOF SHEATHING TO OUTRIGGER AND RAFTER BLOCKING, TYP.

8 I-JOIST GABLE WALL CONNECTION DETAILS
Scale: NTS



1- BEAM PER PLAN
2- H2.5, EA. RAFTER, SIMPSON SDWC15600 UPLIFT SCREW MAY BE USED IN LIEU OF H2.5
3- RIM JOIST BLOCKING
4- BN-8d @ 6" O.C. ROOF SHEATHING TO BLOCKING, TYP.
5- ROOF SHEATHING PER PLAN
6- 10d @ 6" O.C. TOENAILS, BLOCKING TO BEAM
7- I-JOIST ROOF RAFTERS PER PLAN
8- 2x BEVELED PLATE BETWEEN RAFTER AND WALL TOP PLATES
9- REFER TO MANUFACTURER ROOF FRAMING DETAILS FOR ADDITIONAL DETAILS

2 I-JOIST RAFTER TO WALL CONNECTION DETAILS
Scale: NTS (ROOF PITCH <3:12)

REVISIONS

NO.	BY	DESCRIPTION	DATE

MockridgeEngineering
PO Box 1395 Merlin, OR 97532
Phone: 541-892-3289;

Stamp:

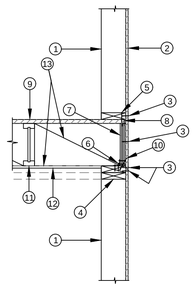
REGISTERED PROFESSIONAL ENGINEER
82248PE
OREGON
JANUARY 13, 2006
BRIAN MOCKRIDGE
EXPIRES: 12/2026

GRAND TERRACE
APARTMENT BLDG. #5
HWY 99, Ashland OR
Map & Tax Lot 38-1E-32, 1700 & 1702

Client: Kendrick Enterprises
Phone: 541-944-0131
Drawn By: BM
Checked By: BM
Issue Date: 09/27/24
ME Job #: 23-062e
Scale: AS NOTED
Title: GEN. NOTES-DETAILS
SHEET
S1.0

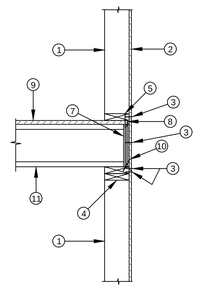
Total Page Number: 609

1- 2x6 @ 16" O.C. BEARING WALL, TYP. UON ON PLANS
2- WALL SHEATHING PER SW SCHED.
3- EN-8d @ 6" O.C., TYP. UON ON SW SCHED.
4- DOUBLE TOP PLATES, (20) 16d EA. SIDE OF EA. TOP PLATE SPLICE
5- SN-16d @ 6" O.C., TYP., UON ON SW SCHED.
6- A35, IF REQ'D PER SW SCHED.
7- RIM JOIST
8- BN-8d @ 6" O.C., TYP.
9- FLOOR SHEATHING PER PLAN
10- 8d TOENAILS @ MATCH SPACING TO SW EN, TYP., 6" O.C. MIN.
11- FLOOR JOISTS PER PLAN
12- DRYWALL
13- JOISTS BLOCKING FIRST TWO JOIST BAYS, FASTEN FLOOR SHEATHING TO BLOCKING w(8) 8d AND BLOCKING TO WALL TOP PLATES w/(2)A35 CLIP ANGLES OR PERPENDICULAR INTERIOR WALL @ 12' O.C. MAX, TYP.



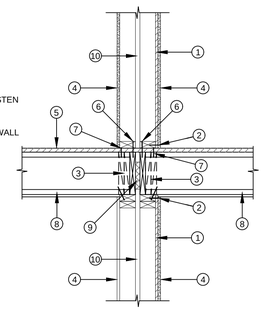
1 JOIST CONNECTION DETAILS
Scale: NTS

1- 2x6 BEARING WALL
2- WALL SHEATHING PER LATERAL PLAN
3- EN-8d @ 6" O.C., TYP.
4- DOUBLE TOP PLATES, (8) 16d EA. SIDE OF EA. TOP PLATE SPLICE
5- SN-16d @ 6" O.C., TYP.
6- NOT USED
7- RIM JOIST
8- BN-8d @ 6" O.C., TYP.
9- FLOOR SHEATHING PER PLAN
10- 8d TOENAILS @ 6" O.C. MIN.
11- FLOOR JOISTS PER PLAN



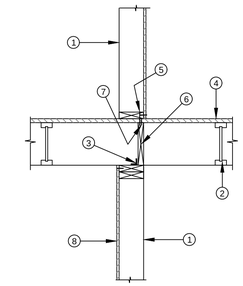
2 JOIST CONNECTION DETAILS
Scale: NTS

1- WALL SHEATHING AS REQUIRED PER LATERAL PLAN, INSTALL BEFORE SHEETROCK, TYP.
2- EN-8d @ 6" O.C., TYP. UON ON SW SCHED.
3- CONTINUOUS RIM JOIST w/ DOUBLE 2x BLOCKING EA BAY, FASTEN TO WALL TOP PLATES w/10d TOENAILS @ 6" O.C., TYP.
4- (1) LAYERS 5/8" TYPE "X" GYP. BRD.
5- FLOOR SHEATHING PER PLAN, CONTINUOUS THRU DIVIDING WALL
6- SN-16d @ 6" O.C., TYP.
7- BN-8d @ 6" O.C., TYP.
8- FLOOR JOISTS PER PLAN
9- FIREBLOCK AT CEILING
10- 1" AIR SPACE BETWEEN WALLS, FIREBLOCK AT 10' o.c. HORIZ. AND VERT.

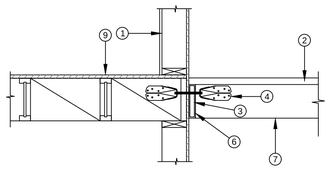


3 1HR FIREWALL CONNECTION DETAILS
Scale: NTS

1- WALL STUDS PER PLAN
2- FLOOR JOISTS PER PLAN
3- A35 @ 12" O.C. RIM JOIST DRAG TO WALL PLATES BELOW
4- FLOOR SHEATHING PER PLAN
5- SN-16d @ 6" O.C., WALL PLATE TO JOIST BELOW
6- RIM JOIST DRAG ABOVE SHEARWALL BELOW, TOENAIL TO WALL BELOW WITH 8d @ 6" O.C.
7- BN-8d @ 4" O.C., SHEATHING TO RIM JOIST DRAG, FULL LENGTH OF DRAG
8- WALL SHEATHING AND NAILING AS REQUIRED PER LATERAL PLAN



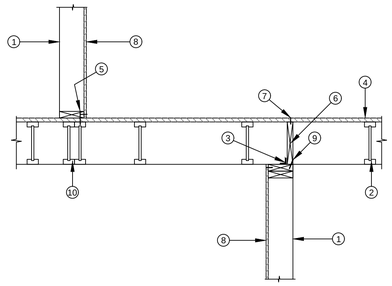
4 JOIST CONNECTION DETAILS
Scale: NTS



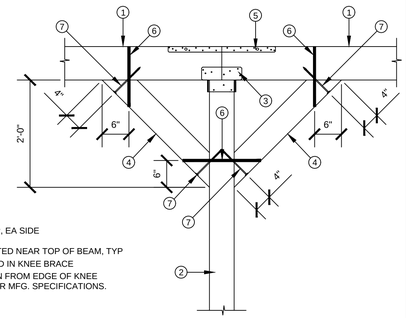
1- WALL STUDS BY OTHERS
2- DECKING BY OTHERS
3- TUBE STEEL LEDGER, FASTEN TO 1 1/4" LVL RIM BOARD WITH (3) ROWS SIMPSON SDS2"X3" WOOD SCREWS @ 12" O.C. STAGGERED. [(3) SCREWS PER FOOT]
4- SIMPSON LATERAL TIE PER PLAN @ BEGINNING OF DECK, END OF DECK, AND @ 12'-0" O.C. MAX IN BETWEEN
5- NOT USED
6- JOIST CONNECTION PER APPROVED SHOP DRAWINGS
7- DECK JOISTS PER PLAN
8- RESIDENCE FLOOR FRAMING

5 LEDGER CONNECTION DETAIL
Scale: NTS

1- WALL STUDS PER PLAN
2- FLOOR JOISTS PER PLAN
3- A35 @ 16" O.C. RIM JOIST DRAG TO WALL PLATES BELOW
4- FLOOR SHEATHING PER PLAN
5- SN-16d @ 6" O.C., WALL PLATE TO JOIST BELOW
6- RIM JOIST DRAG ABOVE SHEARWALL BELOW, TOENAIL TO WALL BELOW WITH 8d @ 6" O.C.
7- BN-8d @ 4" O.C., SHEATHING TO RIM JOIST DRAG, FULL LENGTH OF DRAG
8- WALL SHEATHING AND NAILING AS REQUIRED PER LATERAL PLAN
9- 8d TOENAILS @ 4" O.C., RIM JOIST DRAG TO WALL TOP PLATES, TYP.
10- DOUBLE JOISTS BENEATH SHEARWALL ABOVE



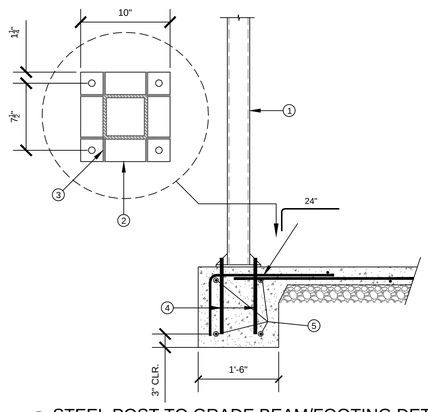
6 JOIST CONNECTION DETAILS
Scale: NTS



1- BEAM PER PLAN
2- POST PER PLAN
3- SIMPSON AC6 OR EQUAL POST CAP, EA SIDE
4- 6x6 KNEE BRACE
5- LSTA24 STRAP, BOTH SIDES, LOCATED NEAR TOP OF BEAM, TYP
6- 3/4" DIAM. THROUGH BOLT, CENTERED IN KNEE BRACE
7- (2) 1/4" DIAM. LAG BOLT, LOCATE 1 1/2" IN FROM EDGE OF KNEE BRACE, PRE-DRILL AND INSTALL PER MFG. SPECIFICATIONS.

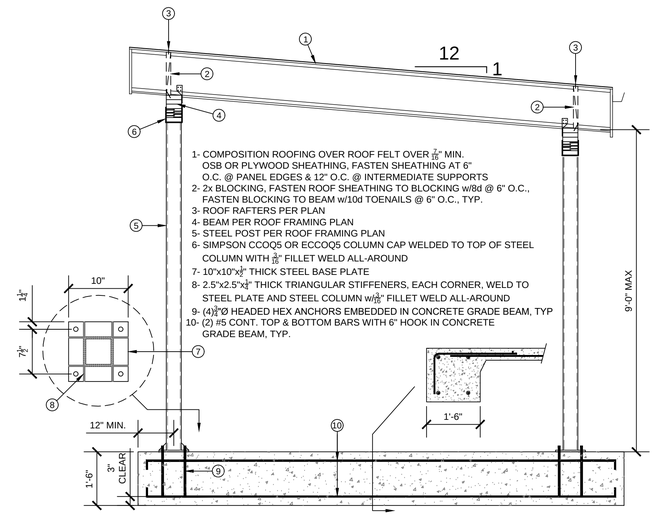
8 DECK BEAM/BRACE CONNECTION DETAILS
Scale: NTS

1- STEEL POST PER FRAMING PLAN w/ SIMPSON CCOQ5 OR ECCOQ5 COLUMN CAP WELDED TO TOP OF STEEL COLUMN WITH 5/16" FILLET WELD ALL-AROUND
2- 10"x10"x1/2" THICK STEEL BASE PLATE
3- 3"x3"x1/4" THICK TRIANGULAR STIFFENERS, EACH CORNER, WELD TO STEEL PLATE AND STEEL COLUMN w/5/16" FILLET WELD ALL-AROUND
4- (4)3/4"Ø HEADED HEX ANCHORS EMBEDDED IN CONCRETE GRADE BEAM, TYP
5- (2) #5 CONT. TOP & BOTTOM BARS IN CONCRETE GRADE BEAM, TYP.



11 STEEL POST TO GRADE BEAM/FOOTING DETAIL
Scale: NTS

1- COMPOSITION ROOFING OVER ROOF FELT OVER 5/8" MIN. OSB OR PLYWOOD SHEATHING, FASTEN SHEATHING AT 6" O.C. @ PANEL EDGES & 12" O.C. @ INTERMEDIATE SUPPORTS
2- 2x BLOCKING, FASTEN ROOF SHEATHING TO BLOCKING w/8d @ 6" O.C., FASTEN BLOCKING TO BEAM w/10d TOENAILS @ 6" O.C., TYP.
3- ROOF RAFTERS PER PLAN
4- BEAM PER ROOF FRAMING PLAN
5- STEEL POST PER ROOF FRAMING PLAN
6- SIMPSON CCOQ5 OR ECCOQ5 COLUMN CAP WELDED TO TOP OF STEEL COLUMN WITH 5/16" FILLET WELD ALL-AROUND
7- 10"x10"x1/2" THICK STEEL BASE PLATE
8- 2.5"x2.5"x1/4" THICK TRIANGULAR STIFFENERS, EACH CORNER, WELD TO STEEL PLATE AND STEEL COLUMN w/5/16" FILLET WELD ALL-AROUND
9- (4)3/4"Ø HEADED HEX ANCHORS EMBEDDED IN CONCRETE GRADE BEAM, TYP
10- (2) #5 CONT. TOP & BOTTOM BARS WITH 6" HOOK IN CONCRETE GRADE BEAM, TYP.



12 TYPICAL COVERED BIKE BUILDING SECTION
Scale: NTS

REVISIONS			
NO.	BY	DESCRIPTION	DATE

MockridgeEngineering
PO Box 1395 Merlin, OR 97532
Phone: 541-892-3289;

Stamp:

REGISTERED PROFESSIONAL ENGINEER
82248PE
OREGON
JANUARY 13, 2006
BRIAN MOCKRIDGE
EXPIRES: 12/2026

GRAND TERRACE
APARTMENT BLDG. #5
HWY 99, Ashland OR
Map & Tax Lot 38-1E-32, 1700 & 1702

Client: Kendrick Enterprises	
Phone: 541-944-0131	
Drawn By:	BM
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Issue Date:	09/27/24
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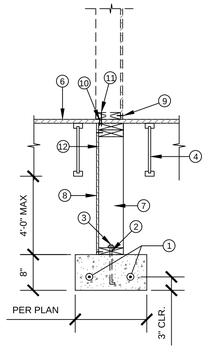
Title:	DETAILS
SHEET	S1.1

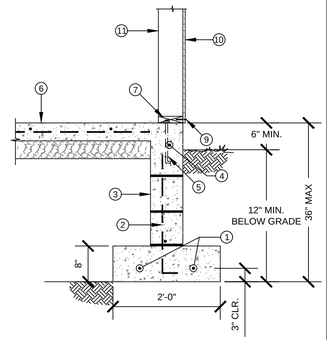
1- (1) #4 CONT. BOTTOM BAR FOR 12" FOOTINGS, (2) #4 CONT. BOTTOM BARS FOR 16" FOOTINGS
2- 2x PT SILL PLATE
3- ⅝"Ø AB @ 60" O.C. MAX, 7" MIN. EMBEDMENT
4- FLOOR JOISTS PER PLAN
5- NOT USED
6- FLOOR SHEATHING PER PLAN
7- 2x6 CRIPPLE WALL STUDS, MATCH SPACING TO WALL FRAMING ABOVE

**NOTES 8-12 APPLICABLE @ SHEARWALL AND/OR BRACED WALL PANEL ABOVE LOCATIONS ONLY
8- ½" WALL SHEATHING, BENEATH BRACED/SHEARWALL LOCATIONS ABOVE, TYP.
9- WALL EN PER BRACED/SHEAR WALL SCHEDULE
10- BN-8d @ 4" O.C., FLOOR SHEATHING TO CRIPPLE WALL TOP PLATES
11- SN-16d @ 6" O.C.



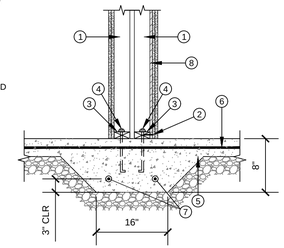
1 CRIPPLE WALL FOUNDATION PARALELL TO JOIST DETAIL
Scale: NTS

1- (2) #4 CONT. BOTTOM BARS
2- #4 VERTICAL W/ STD. HOOK @ 48" O.C., MAX
3- 8" CONCRETE OR FULLY GROUTED MASONRY STEMWALL
4- #4 HORIZONTAL BARS @ 24" O.C. & AT TOP OF WALL
5- AB SIZE AND SPACING PER SW SCHED. AND WITHIN 12" OF SILL PLATE ENDS, 7" MIN. EMBEDMENT.
6- SLAB, BASE COARSE, AND REINFORCMENT PER PLAN
7- 2x PT SILL PLATE
8- NOT USED
9- EN, SIZE AND SPACING PER SW SCHED. MIN. 8d @ 6" O.C., TYP.
10- WALL SHEATHING PER SW SCHED., MIN.⅜" PLYWOOD OR OSB, TYP.
11- 2x6 @ 16" O.C. WALL STUDS, TYP. UON ON PLANS.



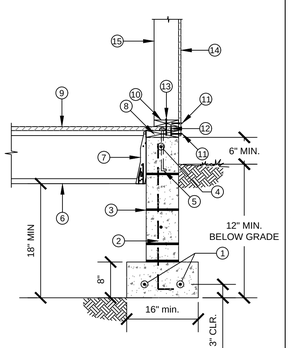
2 DAYLIGHT BASEMENT FOUNDATION DETAIL
Scale: NTS

1- WALL STUDS PER PLAN
2- EN-8d @ 6" O.C., TYP. UON PER LATERAL PLAN
3- PT SILL PLATE
4- J-BOLTS OR SIMPSON "TITEN HD" AB's SPACED AS INDICATED BY SW SCHEDULE, PROVIDE 3x3x¼" PLATE WASHERS AT SHEARWALLS/ BRACED WALLS, TYP.
5- SLAB AND BASE COURSE PER PLAN
6- SLAB REINFORCEMENT PER PLAN
7- (2) #4 CONTINUOUS BOTTOM BAR
8- WALL SHEATHING AS SPECIFIED PER SW SCHEDULE.
9- FOOTING SHALL BE POURED AGAINST UNDISTURBED NATIVE SOIL OR APPROVED STRUCTURAL FILL.



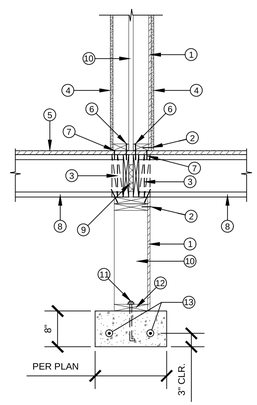
3 THICKENED SLAB AT INTERIOR BEARING
Scale: NTS

1- (2)#4 BOTTOM BARS
2- #4 VERTICAL W/ STD. HOOK @ 48" O.C., MAX
3- CONCRETE OR 8" FULLY GROUTED MASONRY STEMWALL.
4- #4 HORIZONTAL BARS @ 24" O.C. & AT TOP OF WALL
5- AB SIZE AND SPACING PER SW SCHED. AND WITHIN 12" OF SILL PLATE ENDS, 7" MIN. EMBEDMENT.
6- FLOOR JOISTS PER PLAN
7- ITS JOIST HANGER
8- 2x PT SILL PLATE
9- FLOOR SHEATHING PER PLAN
10- 2x BOTTOM PLATE, UON PER PLAN
11- EN, SIZE AND SPACING PER SW SCHED. MIN. 8d @ 6" O.C., TYP.
12- BN-8d @ 6" O.C. FLOOR SHEATHING TO SILL, TYP.
13- SN, SIZE AND SPACING PER SW SCHED., MIN 16d @ 6" O.C., TYP.
14- WALL SHEATHING PER SW SCHED., MIN.⅞" PLYWOOD OR OSB, TYP.
15- 2x6 @ 16" O.C. WALL STUDS, TYP. UON ON PLANS.



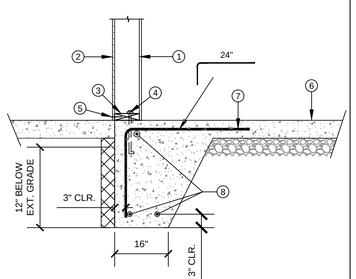
9 FOUNDATION DETAIL
Scale: NTS

1- WALL SHEATHING AS REQUIRED PER LATERAL PLAN, INSTALL BEFORE SHEETROCK, TYP.
2- EN-8d @ 6" O.C., TYP. UON ON SW SCHED.
3- CONTINUOUS RIM JOIST w/ DOUBLE 2x BLOCKING EA BAY, FASTEN TO WALL TOP PLATES w/10d TOENAILS @ 6" O.C., TYP.
4- (1) LAYER⅝" TYPE "X" GYP. BRD.
5- FLOOR SHEATHING PER PLAN, CONTINUOUS THRU DIVIDING WALL
6- SN-16d @ 6" O.C., TYP.
7- BN-8d @ 6" O.C., TYP.
8- FLOOR JOISTS PER PLAN
9- FIREBLOCK AT CEILING
10- 2x8 CRIPPLE WALL STUDS @ 16" O.C.
11- ⅝"Ø AB @ 48" O.C. MAX, TYP., UON PER SW SCHEDULE, 6" MIN. EMBEDMENT
12- 2x PT SILL PLATE
13- (2) #4 CONT. BOTTOM BARS



6 CRIPPLE WALL FOUNDATION DETAIL
Scale: NTS

1- 2x6 WALL STUDS @ 24" O.C. MAX
2- WALL SHEATHING PER SW SCHED.
3- PT SILL PLATE
4- J-BOLTS OR SIMPSON "TITEN HD" AB's SPACED AS SPECIFIED BY SW SCHED.
5- EN-8d @ 6" O.C., TYP. UON ON SW SCHED.
6- SLAB AND BASE COURSE PER PLAN
7- #4 DOWELS @ 24" O.C., TYP
8- (2) #4 CONTINUOUS BOTTOM BARS AND (1)#4 TOP BAR
9- EXTERIOR FINISHED GRADE, SLOPE AWAY FROM BUILDING, TYP.
10- FOOTING SHALL BE POURED AGAINST UNDISTURBED NATIVE SOIL OR APPROVED STRUCTURAL FILL.



10 EXTERIOR FOOTING DETAIL
Scale: NTS

RETAINING WALL NOTES:

1. PROVIDE 2FTx2FT CORNER BARS FOR ALL HORIZONTAL WALL REINFORCING AT ALL CORNERS AND INTERSECTIONS UNLESS SHOWN OR NOTED OTHERWISE. BARS TO BE THE SAME SIZE AND SPACING AS HORIZONTAL REINFORCING.
2. ALL BENT REBAR (90 DEGREES) TO HAVE A RADIUS OF 4 BAR DIAMETERS AND A HOOK LENGTH OF 12 BAR DIAMETERS.
3. REFER TO FOUNDATION DETAILS FOR CONNECTION DETAILS OF WALL AND JOIST FRAMING AS APPLICABLE, TYP.

SPECIAL NOTE:

GROUNDWATER ELEVATION IS ASSUMED TO BE BELOW FOOTING LEVEL.

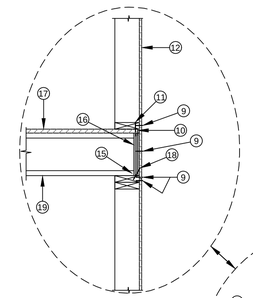
ALL DAMPPROOFING, WATERPROOFING, DRAINAGE COLLECTION, & DRAINAGE DISCHARGE IS THE RESPONSIBILITY OF THE CONTRACTOR / OWNER.

G.C. TO BACKFILL RETAINING WALL PRIOR TO CONSTRUCTING WOOD FRAMED STRUCTURAL COMPONENTS.

1- 8" NOMINAL CONCRETE BLOCK or POURED CONCRETE STEMWALL
2- 2x6 @ 16" O.C. WALL STUDS, TYP. UON ON PLANS.
3- #5 @ 32" O.C. L-SHAPED BAR CONTINUE INTO FTG. TOE.
4- WALL SHEATHING PER SW SCHED., MIN.⅜" PLYWOOD OR OSB, TYP.
5- (3)#5 CONTINUOUS
6- 2x PT SILL PLATE
7- CONCRETE SLAB PER PLAN, REINFORCE W/ MIN. OF #3 @ 18" O.C. E.W.
8- #4 @ 24" O.C. DOWELS INTO SLAB
9- #4 @ 32" O.C. CONT. HORIZ. REIN.
10- #4 CONTINUOUS W/ CORNER BARS @ WALL TOP.
11- 4" DRAIN PIPE WITH FABRIC, SLOPE TO DRAIN.
12- 12" MIN. OF DRAIN ROCK W/ NO FINES. OR EQUIVALENT MATERIAL.
13- FABRIC
14- FOOTING SHALL BE POURED AGAINST UNDISTURBED NATIVE SOIL
15- AB SIZE AND SPACING PER SW SCHED. AND WITHIN 12" OF SILL PLATE ENDS
16- IMPERVIOUS CLAY TYPE MATERIAL
17- WATERPROOFING MEMBRANE, TYP.
18- FINISHED GRADE BY OTHERS, SLOPE AWAY FOR MIN. OF 4'
19- SN, SIZE AND SPACING PER SW SCHED., MIN 16d @ 6" O.C., TYP.
20- EN, SIZE AND SPACING PER SW SCHED. MIN. 8d @ 6" O.C., TYP.
21- 8d TOENAILS @ MATCH SPACING TO SW EN, TYP., 6" O.C. MIN.
22- BN-8d @ 6" O.C. FLOOR SHEATHING TO RIM, TYP.
23- RIM JOIST
24- A35, IF REQ'D PER SW SCHED.
25- FLOOR SHEATHING PER PLAN
26- FLOOR JOISTS PER PLAN
27- JOISTS BLOCKING FIRST JOIST BAY EACH SIDE OF WALL, FASTEN FLOOR SHEATHING TO BLOCKING w(8) 8d AND BLOCKING TO WALL TOP PLATES w/(2)A35 CLIP ANGLES
28- DOUBLE TOP PLATES w/(15) 16d EACH SIDE OF EACH SPLICE, TYP.

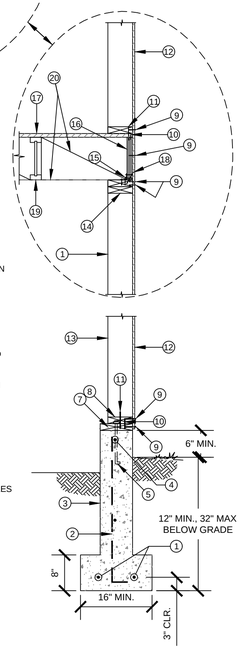
11 4' BASEMENT RETAINING WALL SECTION
Scale: N.T.S.

NOTE: MASONRY RETAINING WALLS REQUIRE SPECIAL INSPECTION. CONTRACTOR SHALL BE BILLED FOR THE ENGINEERS INSPECTION.



B JOIST PERPENDICULAR

1- (2)#4 BOTTOM BARS
2- #4 VERTICAL W/ STD. HOOK @ 48" O.C., MAX
3- 8" CONCRETE STEMWALL
4- #4 HORIZONTAL BARS @ 24" O.C. & AT TOP OF WALL
5- AB SIZE AND SPACING PER SW SCHED. AND WITHIN 12" OF SILL PLATE ENDS, 7" MIN. EMBEDMENT.
6- SLAB, BASE COARSE, AND REINFORCMENT PER PLAN
7- 2x PT SILL PLATE
8- 2x BOTTOM PLATE, UON PER PLAN
9- EN, SIZE AND SPACING PER SW SCHED. MIN. 8d @ 6" O.C., TYP.
10- BN-8d @ 6" O.C. FLOOR SHEATHING TO RIM, TYP.
11- SN, SIZE AND SPACING PER SW SCHED., MIN 16d @ 6" O.C., TYP.
12- WALL SHEATHING PER SW SCHED., MIN.⅜" PLYWOOD OR OSB, TYP.
13- 2x6 @ 16" O.C. WALL STUDS, TYP. UON ON PLANS.
14- DOUBLE TOP PLATES w/(15) 16d EACH SIDE OF EACH SPLICE, TYP.
15- A35, IF REQ'D PER SW SCHED.
16- RIM JOIST
17- FLOOR SHEATHING PER PLAN
18- 8d TOENAILS @ MATCH SPACING TO SW EN, TYP., 6" O.C. MIN.
19- FLOOR JOISTS PER PLAN
20- JOISTS BLOCKING FIRST TWO JOIST BAYS, FASTEN FLOOR SHEATHING TO BLOCKING w(8) 8d AND BLOCKING TO WALL TOP PLATES w/(2)A35 CLIP ANGLES



12 CRIPPLE WALL FOUNDATION DETAIL

REVISIONS			
NO.	BY	DESCRIPTION	DATE

Mockridge Engineering
PO Box 1395 Merlin, OR 97532
Phone: 541-892-3289;

Stamp:

REGISTERED PROFESSIONAL ENGINEER
82248PE
OREGON
JANUARY 13, 2009
BRIAN MOCKRIDGE
EXPIRES: 12/2026

GRAND TERRACE
APARTMENT BLDG. #5
HWY 99, Ashland OR
Map & Tax Lot 38-1E-32, 1700 & 1702

Client: Kendrick Enterprises	
Phone: 541-944-0131	
Drawn By:	BM
Checked By:	BM
Issue Date:	09/27/24
ME Job #:	23-062e
Scale:	AS NOTED
Title:	DETAILS

SHEET
S1.2

LEGEND:

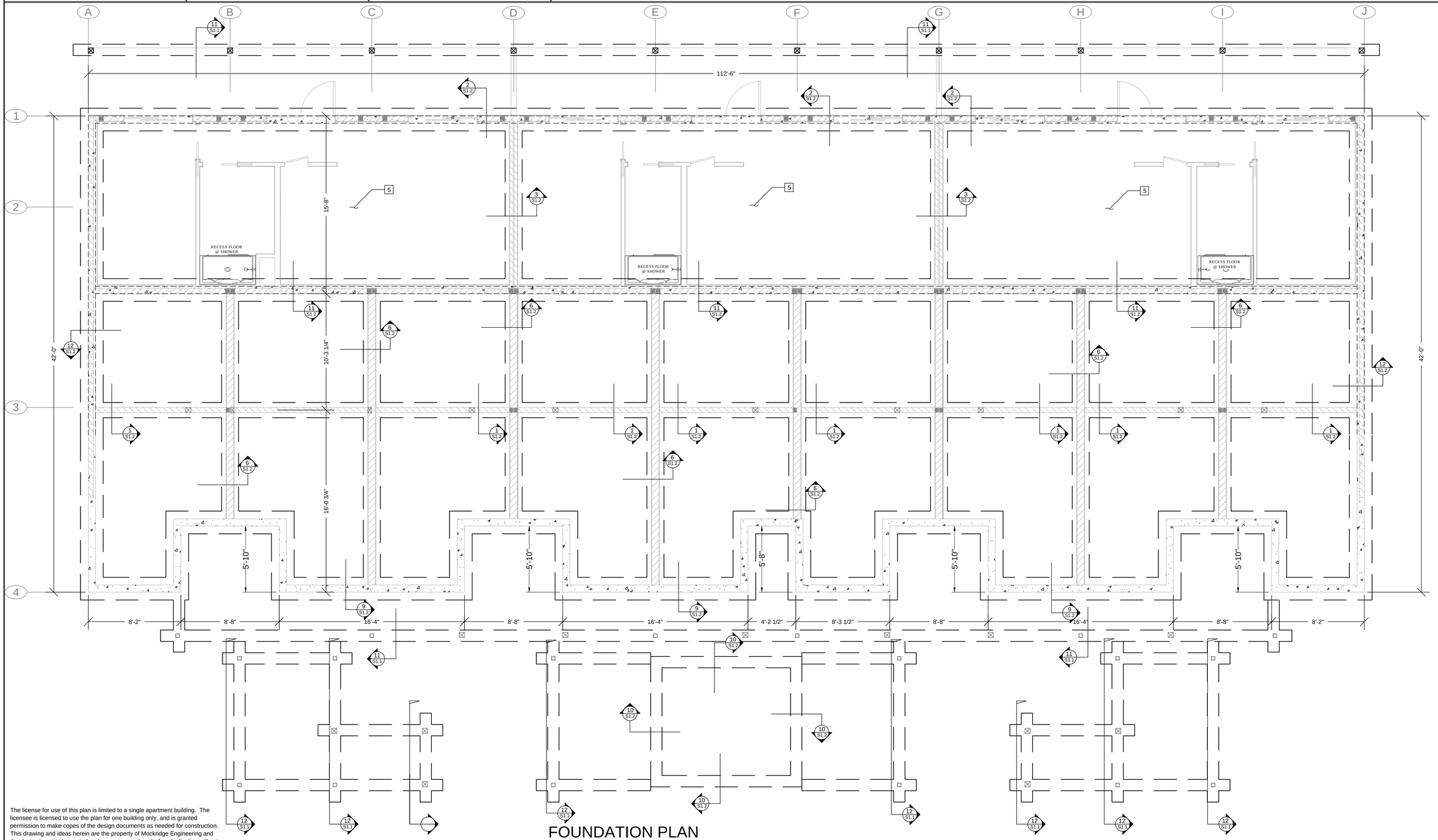
- Load bearing wall above this floor
- Load bearing wall below this floor
- Load bearing wall above and below this floor

GENERAL SHEET NOTES:

1. Provide multiple studs beneath beams/trusses to match width of supported member, typ. Continue multiple studs in lower floors/crawlspace to foundation.
2. Provide solid blocking beneath posts/multiple studs to transfer loads to posts/multiple studs below.
3. Lay floor and roof structural panel sheathing perpendicular to the joist/rafter direction and continuous over two or more spans.
4. All exterior walls shall be type 6 per SW sched. unless otherwise noted on plans.
5. All posts that are not in a wall shall have post cap AND base capable of resisting 1000(lb) lateral load and 1500(lb) uplift, ref: Simpson CCQ
6. Floor sheathing shall be 7/8" or more thick with 48"/24" span rating. Use 8d @ 4" o.c. (BN) at exterior walls and interior shearwalls. 8d @ 6" o.c. at all panel edges and 8d @ 10" o.c. along intermediate supports. Provide 1 1/2" min. penetration into framing.
7. 11 7/8" BCI 6000's @ 16" o.c., typ., refer to floor assembly on sheet A1.2 for floor topping, sound mat, resilient channel, etc.
8. 4" thick concrete slab-on-grade over 4" of 3/4" compacted crushed rock. It is recomended that the slab be reinforced with #3 @ 18" o.c. EW or #4 @ 24" o.c. EW at mid-thickness of slab.
9. Center footing under post/walls uon on plans or details.

MARK	DIMENSIONS			BOTTOM REINFORCMENT (3" CLEAR)	
(FX)	LENGTH	WIDTH	DEPTH	LONGITUDINAL	TRANSVERSE
F18	1'-6"	1'-6"	0'-8"	(3) #4	(3) #4
F24	2'-0"	2'-0"	0'-8"	(3) #4	(3) #4
F30	2'-6"	2'-6"	1'-0"	(4) #4	(4) #4
F36	3'-0"	3'-0"	1'-0"	(5) #4	(5) #4
F42	3'-6"	3'-6"	1'-0"	(5) #5	(5) #5
F48	4'-0"	4'-0"	1'-0"	(6) #5	(6) #5
F54	4'-6"	2'-6"	1'-0"	(4) #5	(6) #5

COLUMN FOOTING SCHEDULE



FOUNDATION PLAN

SCALE: 1/4"=1'-0"

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REVISIONS

NO.	BY	DESCRIPTION	DATE
01	BM	Porch Size	5/05/25

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Phone: 541-892-3289;

Stamp:

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OREGON
JANUARY 13, 2009
BRIAN MOCKRIDGE
EXPIRES: 12/2026

GRAND TERRACE
APARTMENT BLDG. #5
HWY 99, Ashland OR
Map & Tax Lot 38-1E-32, 1700 & 1702

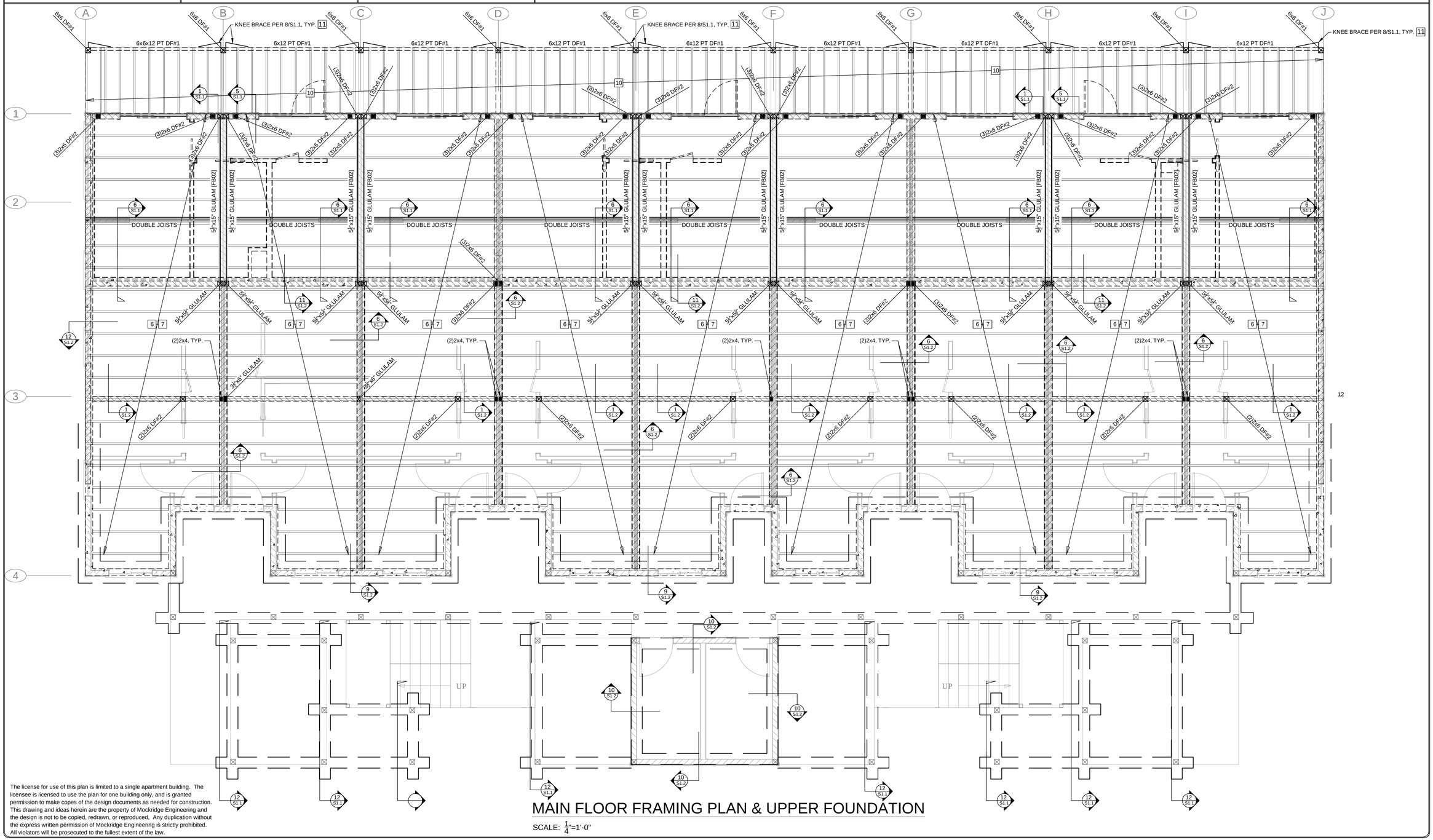
Client: Kendrick Enterprises
Phone: 541-944-0131
Drawn By: BM
Checked By: BM
Issue Date: 09/27/24
ME Job #: 23-062e
Scale: AS NOTED
Title: FOUNDATION PLAN
SHEET
S2.0

LEGEND:

- Load bearing wall above this floor
- Load bearing wall below this floor
- Load bearing wall above and below this floor

GENERAL SHEET NOTES:

1. Provide multiple studs beneath beams/trusses to match width of supported member, typ. Continue multiple studs in lower floors/crawlspace to foundation.
2. Provide solid blocking beneath posts/multiple studs to transfer loads to posts/multiple studs below.
3. Lay floor and roof structural panel sheathing perpendicular to the joist/rafter direction and continuous over two or more spans.
4. All exterior walls shall be type 6 per SW sched. unless otherwise noted on plans.
5. All posts that are not in a wall shall have post cap AND base capable of resisting 1000(lb) lateral load and 1500(lb) uplift, ref: Simpson CCQ
6. Floor sheathing shall be 7/8" or more thick with 48"/24" span rating. Use 8d @ 4" o.c. (BN) at exterior walls and interior shearwalls. 8d @ 6" o.c. at all panel edges and 8d @ 10" o.c. along intermediate supports. Provide 1½" min. penetration into framing.
7. 11½" BCI 6000's @ 16" o.c., typ., refer to floor assembly on sheet A1.2 for floor topping, sound mat, resilient channel, etc.
8. 4" thick concrete slab-on-grade over 4" of ¾" compacted crushed rock. It is recomended that the slab be reinforced with #3 @ 18" o.c. EW or #4 @ 24" o.c. EW at mid-thickness of slab.
9. Center footing under post/walls uon on plans or details.
10. 4" max Lightweight concrete over ¾" min. marine grade plywood over 2x8 treated DF#2 @ 16" o.c., typ.
11. Knee braces may be eliminated by use 6x6x¼" thick steel post continuous from foundation to second floor deck beams



MAIN FLOOR FRAMING PLAN & UPPER FOUNDATION

SCALE: ¼"=1'-0"

The license for use of this plan is limited to a single apartment building. The licensee is licensed to use the plan for one building only, and is granted permission to make copes of the design documents as needed for construction. This drawing and ideas herein are the property of Mockridge Engineering and the design is not to be copied, redrawn, or reproduced, Any duplication without the express written permission of Mockridge Engineering is strictly prohibited. All violators will be prosecuted to the fullest extent of the law.

REVISIONS

NO.	BY	DESCRIPTION	DATE

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PO Box 1395 Merlin, OR 97532
Phone: 541-892-3289;

Stamp:

REGISTERED PROFESSIONAL ENGINEER
82248PE
OREGON
JANUARY 13, 2009
BRIAN MOCKRIDGE
EXPIRES: 12/2026

GRAND TERRACE
APARTMENT BLDG. #5
HWY 99, Ashland OR
Map & Tax Lot 38-1E-32, 1700 & 1702

Client: Kendrick Enterprises	
Phone: 541-944-0131	
Drawn By:	BM
Checked By:	BM
Issue Date:	09/27/24
ME Job #:	23-062e
Scale:	AS NOTED
Title:	Main Floor Framing

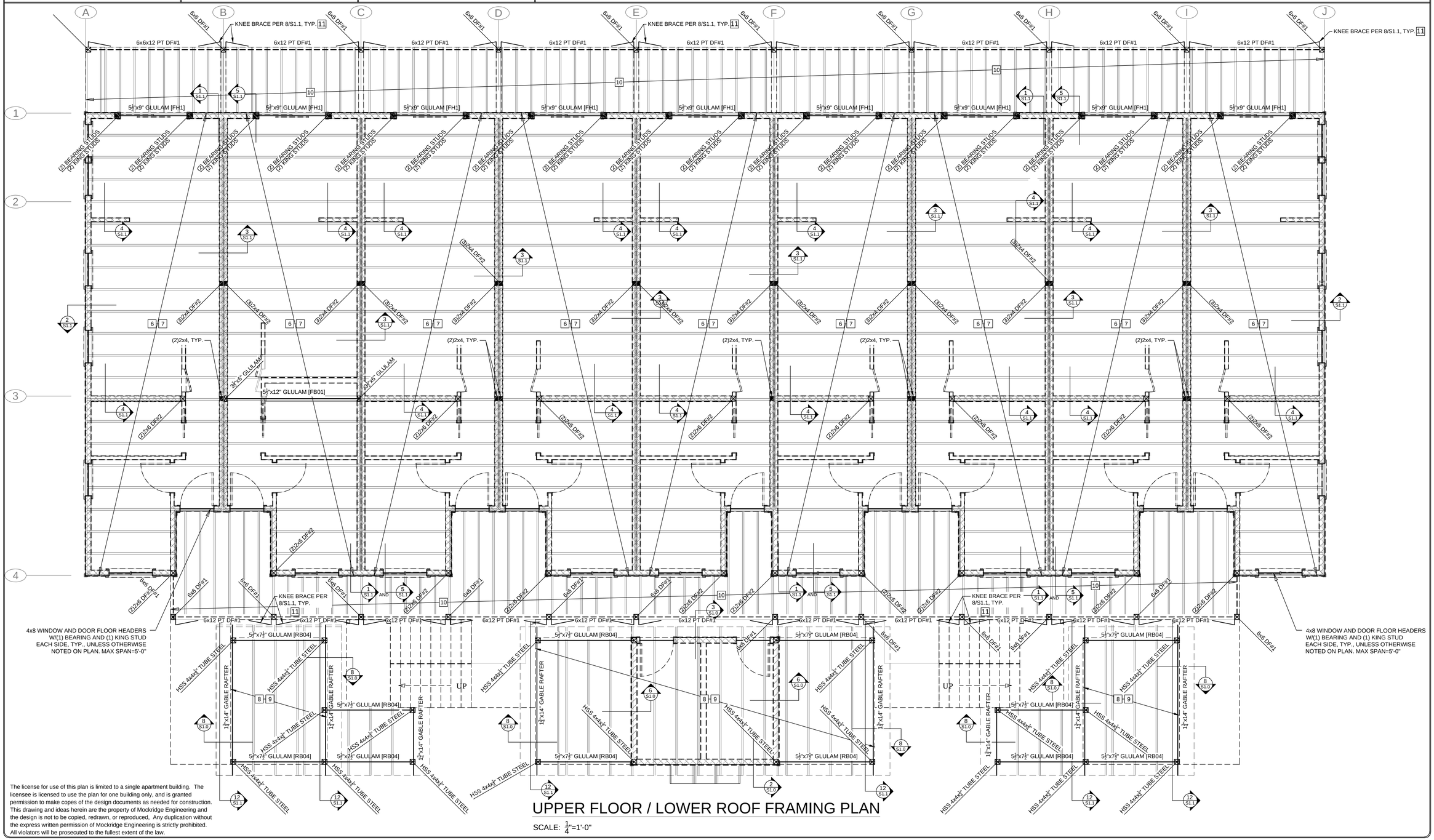
SHEET
S3.0

LEGEND:

- Load bearing wall above this floor
- Load bearing wall below this floor
- Load bearing wall above and below this floor

GENERAL SHEET NOTES:

1. Provide multiple studs beneath beams/trusses to match width of supported member, typ. UON on plans Continue multiple studs in lower floors/crawlspace to foundation.
2. Provide solid blocking beneath posts/multiple studs to transfer loads to posts/multiple studs below.
3. Lay floor and roof structural panel sheathing perpendicular to the joist/rafter direction and continuous over two or more spans.
4. All load-bearing wall studs shall be 2x6 DF#2 spaced no more than 24" o.c., studs spaced more than 16" o.c. shall be framed in-line with joists and/or trusses above, typ.
5. All posts that are not in a wall shall have post cap AND base capable of resisting 1000(lb) lateral load and 1500(lb) uplift, ref: Simpson CCQ
6. Floor sheathing shall be 7/8" or more thick with 48"/24" span rating. Use 8d @ 4" o.c. (BN) at exterior walls and interior shearwalls. 8d @ 6" o.c. at all panel edges and 8d @ 10" o.c. along intermediate supports. Provide 1½" min. penetration into framing.
7. 11⅞" BCI 6000's @ 16" o.c., typ., refer to floor assembly on sheet A1.2 for floor topping, sound mat, resilient channel, etc.
8. Roof sheathing shall be 1/2" MIN., 5/8" recommended, APA rated plywood or OSB with 24/16 span rating. Fasten with 8d ring shank nails @ 6" o.c.(panel edges), 12" o.c.(field nailing), uon on plans.
9. 14" BCI 6000's Roof Rafters @ 24" o.c., typ.
10. 4" max Lightweight concrete over ¾" min. marine grade plywood over 2x8 treated DF#2 @ 16" o.c., typ.
11. Knee braces may be eliminated by use 6x6x½" thick steel post continuous from foundation to second floor deck beams



UPPER FLOOR / LOWER ROOF FRAMING PLAN

SCALE: ¼"=1'-0"

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REVISIONS

NO.	BY	DESCRIPTION	DATE

Mockridge Engineering
PO Box 1395 Merlin, OR 97532
Phone: 541-892-3289;

Stamp:

REGISTERED PROFESSIONAL ENGINEER
82248PE
OREGON
JANUARY 13, 2009
BRIAN MOCKRIDGE
EXPIRES: 12/2026

GRAND TERRACE APARTMENT BLDG. #5
HWY 99, Ashland OR
Map & Tax Lot 38-1E-32, 1700 & 1702

Client: Kendrick Enterprises	
Phone: 541-944-0131	
Drawn By:	BM
Checked By:	BM
Issue Date:	09/27/24
ME Job #:	23-062e
Scale:	AS NOTED
Title:	Upper Floor Framing

SHEET
S3.1

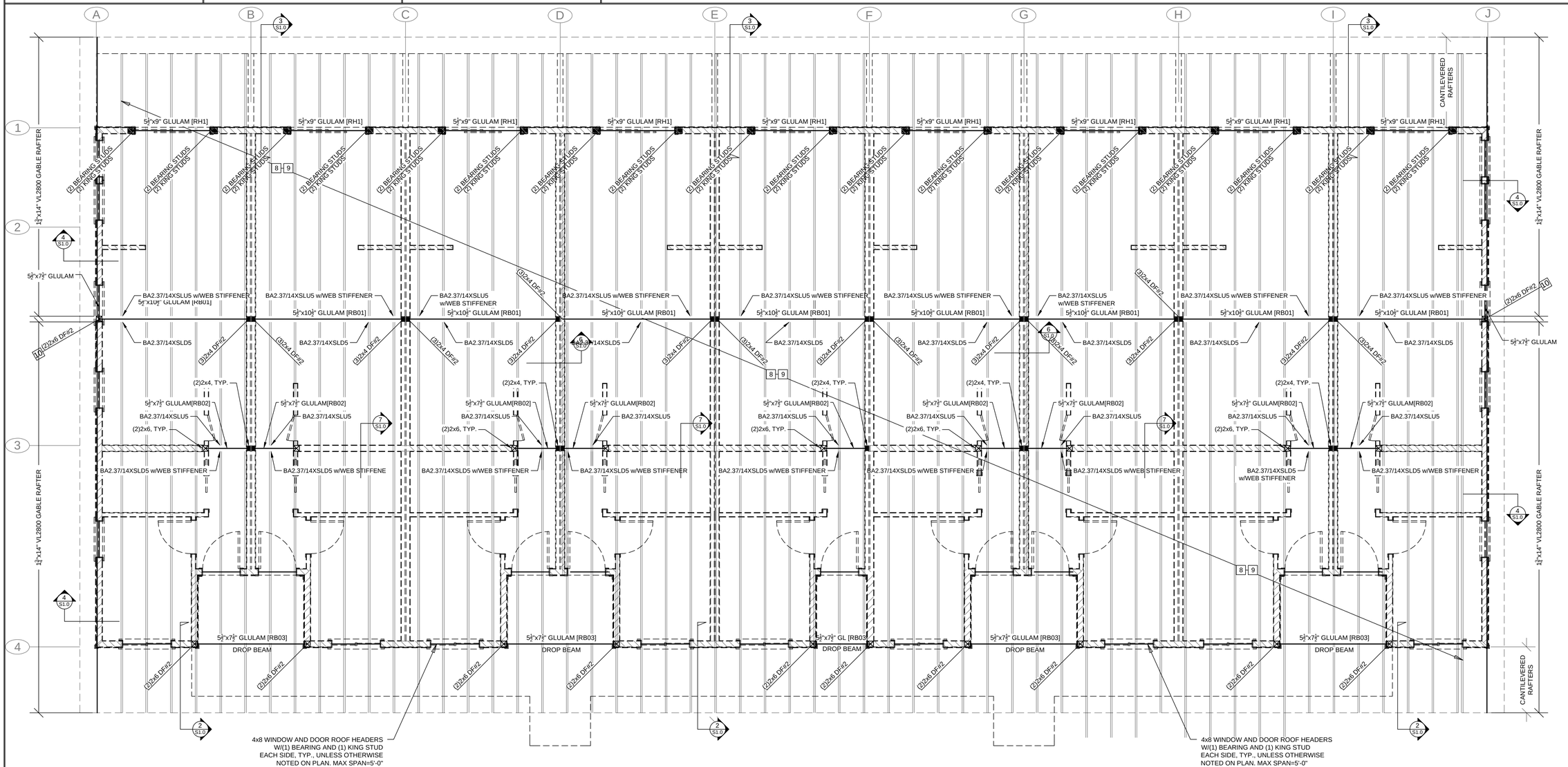
Total Page Number: 614

LEGEND:

- Load bearing wall above this floor
- Load bearing wall below this floor
- Load bearing wall above and below this floor

GENERAL SHEET NOTES:

1. Provide multiple studs beneath beams/trusses to match width of supported member, typ. UON on plans Continue multiple studs in lower floors/crawlspace to foundation.
2. Provide solid blocking beneath posts/multiple studs to transfer loads to posts/multiple studs below.
3. Lay floor and roof structural panel sheathing perpendicular to the joist/rafter direction and continuous over two or more spans.
4. All load-bearing wall studs shall be 2x6 DF#2 spaced no more than 24" o.c., studs spaced more than 16" o.c. shall be framed in-line with joists and/or trusses above, typ.
5. All posts that are not in a wall shall have post cap AND base capable of resisting 1000(lb) lateral load and 1500(lb) uplift, ref: Simpson CCQ
6. Not Used
7. Not Used
8. Roof sheathing shall be 1/2" MIN., 5/8" recommended, APA rated plywood or OSB with 24/16 span rating. Fasten with 8d ring shank nails @ 6" o.c.(panel edges), 12" o.c.(field nailing), uon on plans.
9. 14" BCI 6000's Roof Rafters @ 24" o.c., typ.
10. Stub post to roof header below



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ROOF FRAMING PLAN

SCALE: $\frac{1}{4}$"=1'-0"

REVISIONS

NO.	BY	DESCRIPTION	DATE

Mockridge Engineering
PO Box 1395 Merlin, OR 97532
Phone: 541-892-3289;

Stamp:

REGISTERED PROFESSIONAL ENGINEER
82248PE
OREGON
JANUARY 13, 2009
BRIAN MOCKRIDGE
EXPIRES: 12/2026

GRAND TERRACE
APARTMENT BLDG. #5
HWY 99, Ashland OR
Map & Tax Lot 38-1E-32, 1700 & 1702

Client: Kendrick Enterprises
Phone: 541-944-0131
Drawn By: BM
Checked By: BM
Issue Date: 09/27/24
ME Job #: 23-062e
Scale: AS NOTED
Title: Roof Framing
SHEET
S3.2

LEGEND:

- Shear wall / braced wall
- Portal frame per details
- XXXX — Indicates holddown anchor
- XX — Shearwall type and length, nailing per sw schedule

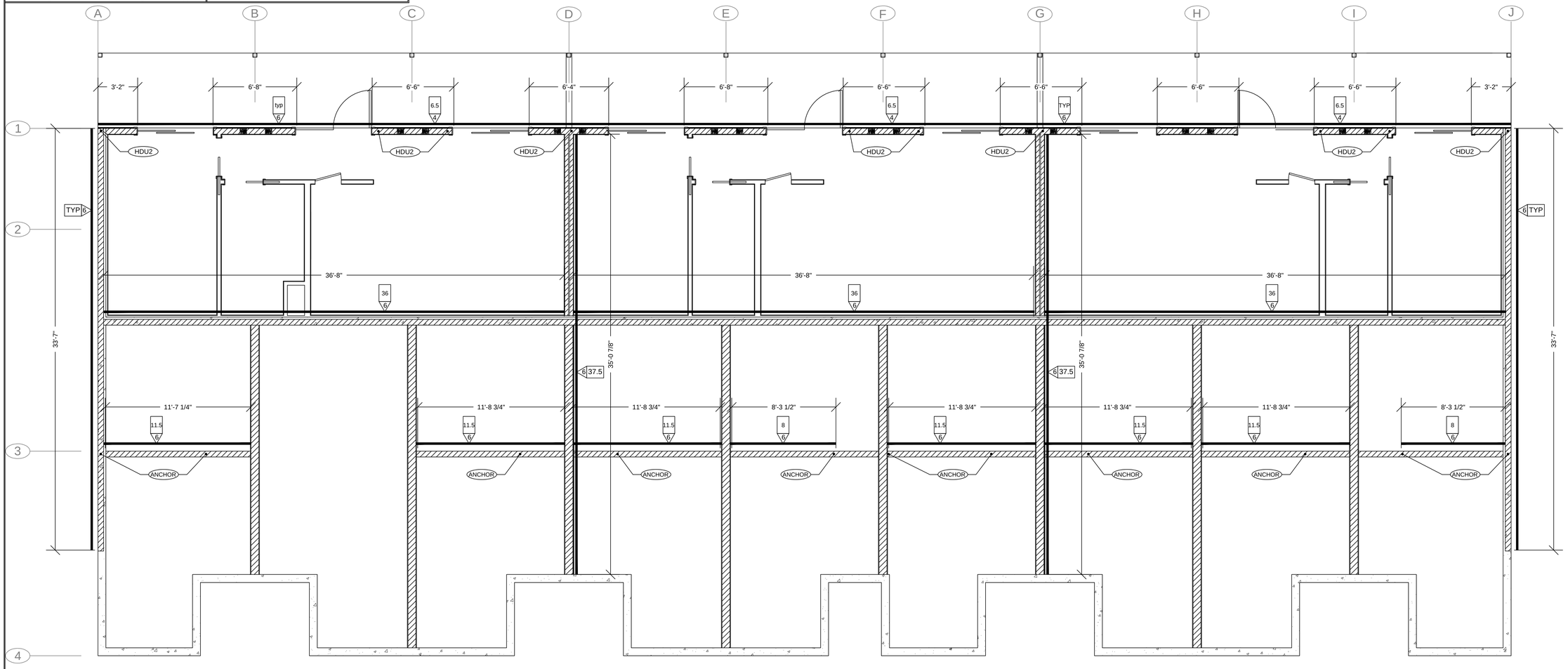
GENERAL SHEET NOTES:

1. All exterior walls shall have structural sheathing applied and fastened to wall studs @ 6" o.c. max at all panel edges and 12" o.c. max at intermediate supports. Block all panel edges, typ.
2. Not used
3. Not used
4. Anchor schedule for HDU holdowns
   HDU2 . . . . . USE SSTB16
   HDU4 . . . . . USE SSTB24
   HDU5 . . . . . USE SSTB24
   All anchors shall be installed following all manufacturers specifications and recommendations. For alternative anchorage methods submit shop drawing to EOR for approval.

MARK	SHEATHING	SHEATHING EDGE NAILING (EN)	BOT. PLATE SHEAR NAILING (SN)	BOT. PLATE ANCHOR BOLTS (AB)	BLOCKING/RIM CONNECTION AT WALL TOP
A	7/16" APA RATED PLYWOOD/OSB	8d @ 3" O.C.	16d @ 3" O.C.	5/8"Ø @ 24" OR 1/2"Ø @ 16" O.C.	A35 OR RBC @ 24" O.C.
B	7/16" APA RATED PLYWOOD/OSB	8d @ 4" O.C.	16d @ 4" O.C.	5/8"Ø @ 32" OR 1/2"Ø @ 24" O.C.	8d TOENAIL @ 4" OC.
C	7/16" APA RATED PLYWOOD/OSB	8d @ 6" O.C.	16d @ 6" O.C.	5/8"Ø @ 60" OR 1/2"Ø @ 48" O.C.	8d TOENAIL @ 6" O.C.
D	5/8" APA RATED PLYWOOD/OSB	10d @ 4" O.C.	16d @ 4" O.C.	5/8"Ø @ 24" OR 1/2"Ø @ 16" O.C.	10d TOENAIL @ 4" OC.
PF1	APA SINGLE PORTAL FRAME PER PORTAL FRAME DETAILS				

NOTES
1) XX — MIN. LENGTH OF SHEAR WALL REQ'D (FT) / SHEAR WALL MARK
2) NAILING AT INTERMEDIATE SUPPORTS (FIELD NAILING) SHALL BE SAME PENNY AS EN SPACED @ 12" O.C.
3) STUD SPACING SHALL BE 16" O.C. MAX
4) WALLS NOTED ON THIS PLAN REFER TO THE WALLS SUPPORTING THE FRAMING ABOVE

SHEAR WALL SCHEDULE



BASEMENT/CRAWLSAPCE WIND/SEISMIC PLAN

SCALE: 1/4"=1'-0"

REVISIONS

NO.	BY	DESCRIPTION	DATE

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PO Box 1395 Merlin, OR 97532
Phone: 541-892-3289;

Stamp:

REGISTERED PROFESSIONAL ENGINEER
82248PE
OREGON
JANUARY 13, 2009
BRIAN MOCKRIDGE
EXPIRES: 12/2026

GRAND TERRACE
APARTMENT BLDG. #5
HWY 99, Ashland OR
Map & Tax Lot 38-1E-32, 1700 & 1702

Client: Kendrick Enterprises
Phone: 541-944-0131
Drawn By: BM
Checked By: BM
Issue Date: 09/27/24
ME Job #: 23-062e
Scale: AS NOTED
Title: Basement Lateral Plan

SHEET
S4.0

LEGEND:

- Shear wall / braced wall
- Portal frame per details
- XXXX — Indicates holddown anchor
- XX — Shearwall type and length, nailing per sw schedule

GENERAL SHEET NOTES:

1. All exterior walls shall have structural sheathing applied and fastened to wall studs @ 6" o.c. max at all panel edges and 12" o.c. max at intermediate supports. Block all panel edges, typ.
2. Not used
3. Not used
4. Anchor schedule for HDU holdowns
   - HDU2 . . . . . USE SSTB16
   - HDU4 . . . . . USE SSTB24
   - HDU5 . . . . . USE SSTB24

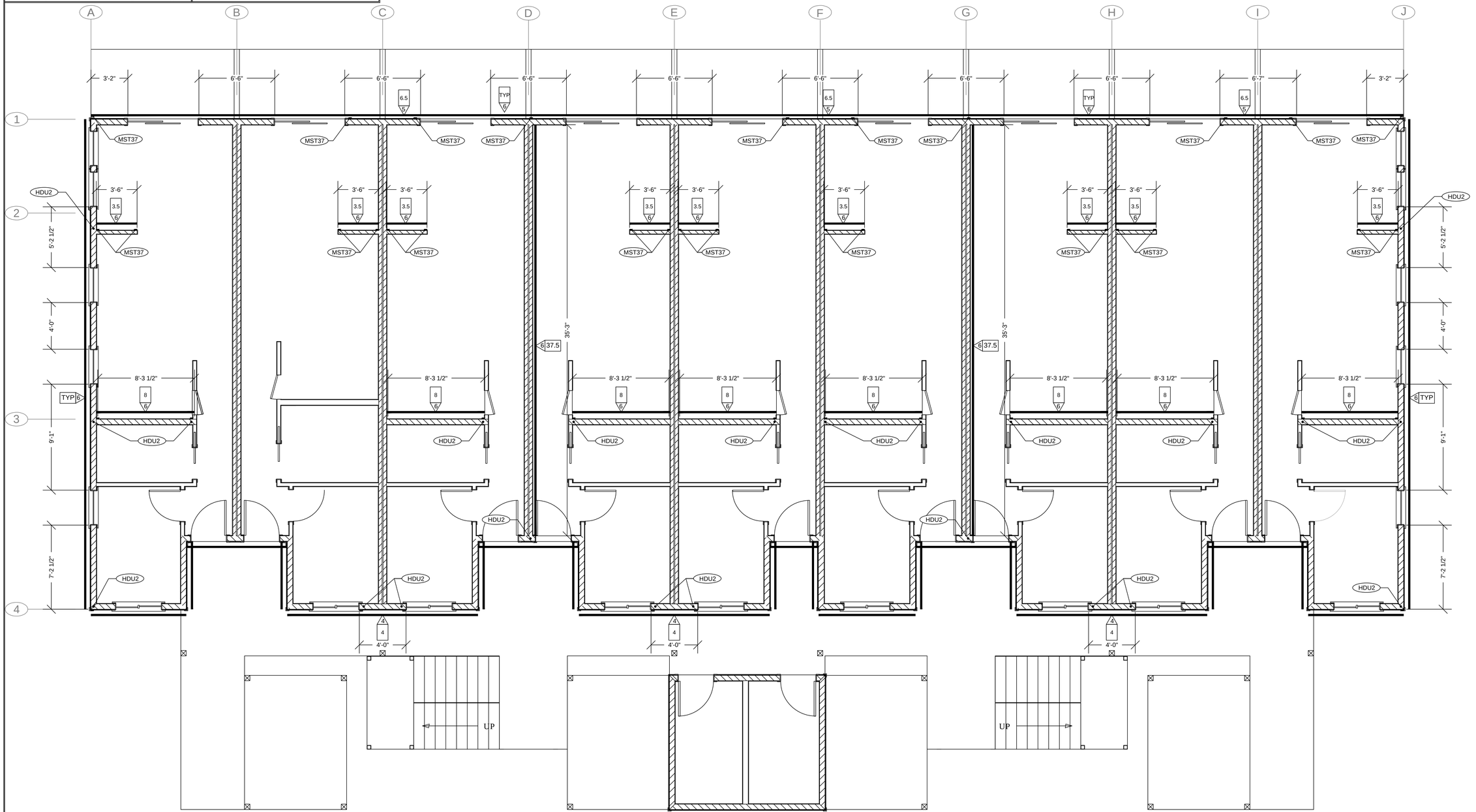
   All anchors shall be installed following all manufacturers specifications and recommendations. For alternative anchorage methods submit shop drawing to EOR for approval.

MARK	SHEATHING	SHEATHING EDGE NAILING (EN)	BOT. PLATE SHEAR NAILING (SN)	BOT. PLATE ANCHOR BOLTS (AB)	BLOCKING/RIM CONNECTION AT WALL TOP
A	7/16" APA RATED PLYWOOD/OSB	8d @ 3" O.C.	16d @ 3" O.C.	5/8"Ø @ 24" OR 1/2"Ø@ 16" O.C.	A35 OR RBC @ 24" O.C.
B	7/16" APA RATED PLYWOOD/OSB	8d @ 4" O.C.	16d @ 4" O.C.	5/8"Ø @ 32" OR 1/2"Ø@ 24" O.C.	8d TOENAIL @ 4" OC.
C	7/16" APA RATED PLYWOOD/OSB	8d @ 6" O.C.	16d @ 6" O.C.	5/8"Ø @ 60" OR 1/2"Ø@ 48" O.C.	8d TOENAIL @ 6" O.C.
D	1/2" APA RATED PLYWOOD/OSB	10d @ 4" O.C.	16d @ 4" O.C.	5/8"Ø @ 24" OR 1/2"Ø@ 16" O.C.	10d TOENAIL @ 4" OC.
PF1	APA SINGLE PORTAL FRAME PER PORTAL FRAME DETAILS				

NOTES

1) XX — MIN. LENGTH OF SHEAR WALL REQ'D (FT); SHEAR WALL MARK
2) NAILING AT INTERMEDIATE SUPPORTS (FIELD NAILING) SHALL BE SAME PENNY AS EN SPACED @ 12" O.C.
3) STUD SPACING SHALL BE 16" O.C. MAX
4) WALLS NOTED ON THIS PLAN REFER TO THE WALLS SUPPORTING THE FRAMING ABOVE

SHEAR WALL SCHEDULE



MAIN FLOOR WIND/SEISMC PLAN

SCALE: $\frac{1}{4}$"=1'-0"

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REVISIONS

NO.	BY	DESCRIPTION	DATE

Mockridge Engineering
PO Box 1395 Merlin, OR 97532
Phone: 541-892-3289;

Stamp:

REGISTERED PROFESSIONAL ENGINEER
82248PE
OREGON
JANUARY 13, 2009
BRIAN MOCKRIDGE
EXPIRES: 12/2026

GRAND TERRACE
APARTMENT BLDG. #5
HWY 99, Ashland OR
Map & Tax Lot 38-1E-32, 1700 & 1702

Client: Kendrick Enterprises
Phone: 541-944-0131
Drawn By: BM
Checked By: BM
Issue Date: 09/27/24
ME Job #: 23-062e
Scale: AS NOTED
Title: Main Floor Lateral Plan
SHEET
S4.1

LEGEND:

- Shear wall / braced wall
- Portal frame per details
- XXXX — Indicates holddown anchor
- XX — Shearwall type and length, nailing per sw schedule

GENERAL SHEET NOTES:

1. All exterior walls shall have structural sheathing applied and fastened to wall studs @ 6" o.c. max at all panel edges and 12" o.c. max at intermediate supports. Block all panel edges, typ.
2. Not used
3. Not used
4. Anchor schedule for HDU holdowns
   - HDU2 . . . . . USE SSTB16
   - HDU4 . . . . . USE SSTB24
   - HDU5 . . . . . USE SSTB24

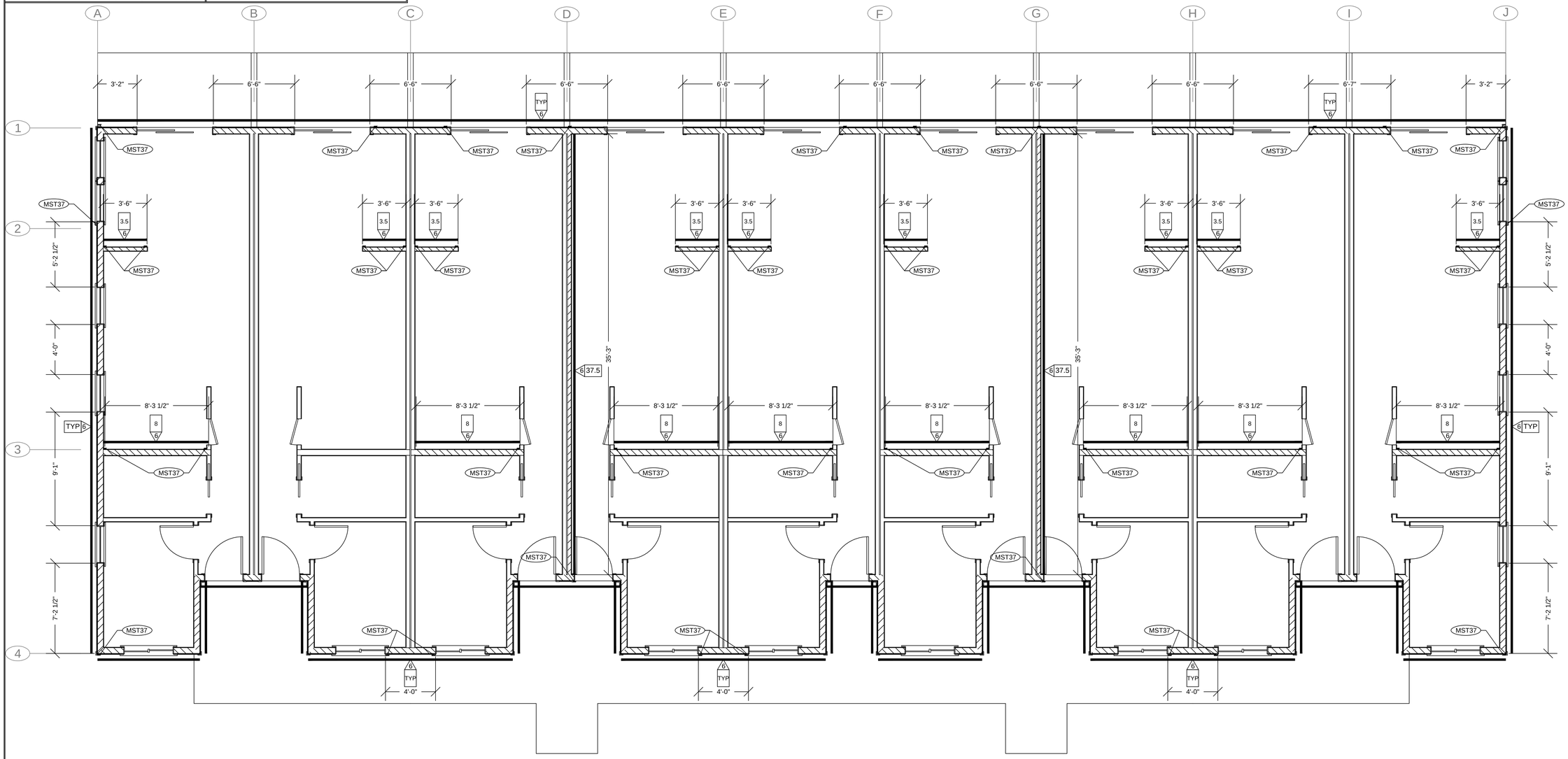
   All anchors shall be installed following all manufacturers specifications and recommendations. For alternative anchorage methods submit shop drawing to EOR for approval.

MARK	SHEATHING	SHEATHING EDGE NAILING (EN)	BOT. PLATE SHEAR NAILING (SN)	BOT. PLATE ANCHOR BOLTS (AB)	BLOCKING/RIM CONNECTION AT WALL TOP
A	7/16" APA RATED PLYWOOD/OSB	8d @ 3" O.C.	16d @ 3" O.C.	5/8"Ø @ 24" OR 1/2"Ø@ 16" O.C.	A35 OR RBC @ 24" O.C.
B	7/16" APA RATED PLYWOOD/OSB	8d @ 4" O.C.	16d @ 4" O.C.	5/8"Ø @ 32" OR 1/2"Ø@ 24" O.C.	8d TOENAIL @ 4" OC.
C	7/16" APA RATED PLYWOOD/OSB	8d @ 6" O.C.	16d @ 6" O.C.	5/8"Ø @ 60" OR 1/2"Ø@ 48" O.C.	8d TOENAIL @ 6" O.C.
D	3/8" APA RATED PLYWOOD/OSB	10d @ 4" O.C.	16d @ 4" O.C.	5/8"Ø @ 24" OR 1/2"Ø@ 16" O.C.	10d TOENAIL @ 4" OC.
PF1	APA SINGLE PORTAL FRAME PER PORTAL FRAME DETAILS				

NOTES

1) XX — MIN. LENGTH OF SHEAR WALL REQ'D (FT) / SHEAR WALL MARK
2) NAILING AT INTERMEDIATE SUPPORTS (FIELD NAILING) SHALL BE SAME PENNY AS EN SPACED @ 12" O.C.
3) STUD SPACING SHALL BE 16" O.C. MAX
4) WALLS NOTED ON THIS PLAN REFER TO THE WALLS SUPPORTING THE FRAMING ABOVE

SHEAR WALL SCHEDULE



UPPER FLOOR WIND/SEISMC PLAN

SCALE: $\frac{1}{4}$"=1'-0"

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REVISIONS

NO.	BY	DESCRIPTION	DATE

Mockridge Engineering
PO Box 1395 Merlin, OR 97532
Phone: 541-892-3289;

Stamp:

REGISTERED PROFESSIONAL ENGINEER
82248PE
OREGON
JANUARY 13, 2009
BRIAN MOCKRIDGE
EXPIRES: 12/2026

GRAND TERRACE
APARTMENT BLDG. #5
HWY 99, Ashland OR
Map & Tax Lot 38-1E-32, 1700 & 1702

Client: Kendrick Enterprises
Phone: 541-944-0131
Drawn By: BM
Checked By: BM
Issue Date: 09/27/24
ME Job #: 23-062e
Scale: AS NOTED
Title: Upper Floor Lateral Plan
SHEET
S4.2

From: **Robert Kendrick** bobk213@icloud.com
Subject: Bus Pass Fwd: OR99 Northbound stop Schofield/N. Main for Grand Terrace
Date: May 1, 2025 at 6:42 PM
To: Robert J Kendrick bobk213@icloud.com



Sent from my iPad

Begin forwarded message:

> **From:** Paige West <pwest@rvtd.org>
> **Date:** May 2, 2024 at 11:56:12 AM PDT
> **To:** Robert Kendrick <bobk213@icloud.com>, Todd Powell <todd@powellengineeringconsulting.com>
> **Subject: FW: OR99 Northbound stop Schofield/N. Main for Grand Terrace**
>
> Robert,
>
> That is interesting you ask and I have attached the plans ODOT worked with RVTD on for the NB stop in fall of 2023, including the RFB. I assumed you knew about this and apologies on my part as I was strictly dealing with ODOT on the design. We will also be installing a shelter at this location but it will be much smaller due to the size of the concrete pad. See attached.
>
> I greatly appreciate and support the plans to encourage residents to be car free. Have you considered a bus pass program that would reduce the cost of bus passes for residents? Here is a link that describes the two programs we offer, one that would allow them access to a pass for $0 and one that would allow them access for only $10 per month (compared to $56). RVTD also provides free travel training, assistance with pedestrian and bicycle safety and encouraging multi-modal lifestyles through several events each year. We would be delighted to add the Grand Terrace to our residential programs like we have with Housing Authority of Jackson County.

GRAND TERRACE
Owner: Casita Developments LLC
Developer: KENDRICK ENTERPRISE LLC
716 N Laurel St, Ashland Oregon 97520
Revision No 1 Portch Size

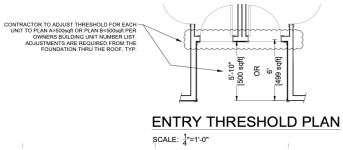
Project Location
Highway 99, Ashland Or
Map & Tax Lot# 381E 1702

TABULATION SITE PLAN COVERAGE SUMMARY		
Sheet 1	Sheet 2	Sheet 3
Lot	BONUS CALCULATIONS	IMPERVIOUS AREAS
ZONING	OPEN SPACE	LANDSCAPE AREAS
SUBDIVISION	CONSERVATION BONUS	PRIVATE AREAS
COMMON AREA HOA	AFFORDABLE HOUSING BONUS	Parking Spaces 18.4.3.040
Subdivision Tract Area	DENSITY CALCULATION WITH BONUS AWARD	Driveways & Parking Material
Proposed Unit Mix Density	DENSITY STANDARDS	Bike Parking Covered 18.4.3.040
Bonus Density Proposed		Van Pool Parking Areas
AFFORDABLE UNITS REQUIRED		ADA Parking
		Electric Vehicle Charging Stations

TABULATION SITE PLAN COVERAGE SUMMARY

LOT				**SHEET 1**				
Lot							**Area Acres**	**Sq Feet**
Map & Tax Lot# 381E 1702							**8.53**	**371566.80**
ZONING						Units Per Acre	Land Area Size	**Base Density**
R-2 Low Density MFR						13.5	8.53	115.155
SUBDIVISION			Size	Lots	Sq Ft	Acres	Lots	Lots
Lot No's			Lot	Total	Area	Of Area	Permitted	Proposed
1 ,2 ,3 ,4 ,6 ,7 ,8 , 9			8057.00	8	64456.00	1.48		
5			16414.00	1	16414.00	0.38		
Totals				9	80870.00	1.86	9	9
COMMON AREA HOA							Sq Ft	Acres
							Area	Of Area
AREA							290545.20	6.67
Subdivision Tract Area						Lots	Sq Ft	Acres
						Total	Area	Of Area
Lot Areas						9	80870.00	1.86
Common Area							290545.20	6.67
Subdivision Tract Area							371415.20	8.53
Proposed				Proposed	Equivalency	Proposed	Base	Density Units
Unit Mix Density				Unit Mix	Factor	Density	Density	Needed
Plan A Units >500 sq ft				50	1	50		
Plan B Units <500 sq ft				160	0.75	120		
Totals				210		170	115	55
Bonus Density				Base	Open Space	Affordable	Conservation	Base Density
				Density	Bonus	Unit Bonus	Bonus	Change
Proposed				115	12	40	17	184
If the bonus points are denied the applicant will have to reduce the number of units.								
If only Affordable Bonus point are given the applicant would build 198 units with 24 Affordable >500 sq ft units and 174 <500 sq ft units.								
EXAMPLE	Equivalency	Unit Mix	Equivalency	Base and		Revised	Equivalency	Base +
	Factor	Revised		Affordable Bonus		Total Units		Affordable
Plan A Units >500 sq ft	1	24	24			198	154.5	155
Plan B Units <500 sq ft	0.75	174	130.5					
Unit Density		198	154.5	155				
AFFORDABLE UNITS REQUIRED								
Unit Formula	% Required	Base	Base	80% AMI	29/1.25	Rounded	Total Units	Total
25% x Base Density	X Base Density	Density	Density	100%/80%=1.25		Up	Required	Provided
	25%	115.155	29	23.031	24	24	24	24

BONUS CALCULATIONS			SHEET 2					
Revision No 1 Portch Size								
18.3.9.050 B.2.a. Open space may be natural areas, wetlands, playgrounds, active or passive rec areas in common owenership, significant amenity, residents use & enjoy.								
OPEN SPACE	Open Space 18.2.5.030.					SIZE OF	Required %	Provided
AREAS						AREA	Site Min	% of Site
Wetland B Lot 1702 On Site						4606		
Land Scaped Common						59417	**8%**	16%
Other Open Area (seating, conversation, meditation, sports, tennis & bb courts)						129006		
Kid Play Area Only						2100		
Mutual Bike & Pedestrian Path						19148		
Total Open Space of Site Area						**214277**		58%
OPEN SPACE BONUS								
18.3.9.050 B.2.a. Open space may be natural areas, wetlands, playgrounds, active or passive rec areas in common owenership, significant amenity, residents use & enjoy.								
		1% per pt	Open	Base	Pt's over	Maximum	BASE	NO
		over 8%	Space		base of 8%	Allowed	DENSITY	EARNED
			58%	0.08	50	10%	115.16	12
CONSERVATION BONUS								
18.3.9.050 B.1. **Conservation Housing**. A maximum 15% bonus for 100% of units shall meet minimum Earth Advantage program.								
						BONUS	BASE	NO
							DENSITY	EARNED
Conservation ErthAdvantage						15%	115.16	17
AFFORDABLE HOUSING BONUS								
18.3.9.050 B.3 Affordable Housing A maximum bonus of 35% is allowed. Development shall receive a density bonus of two unit for each affordable unit provided.								
			No Affordable	Bonus	Max Bonus	Base	% Bonus	NO
			Units	2 per unit	x Base Density	Density	Amount	EARNED
			24	48	35%	115.16	40	40
DENSITY CALCULATION WITH BONUS AWARD			Base	Open Space	Conservation	Affordable	Revised Base	Proposed
			Density	Bonus	Bonus	Housing Bonus	Density	Density
			115	12	17	40	184	170
DENSITY STANDARDS						Density	BASE	DENSITY
Allowed						Allowed	DENSITY	ALLOWED
Minimum						90%	115.16	104
Maximum						160%	115.16	184
Proposed Density								170
The applicant can change the size of a unit from 500 sq ft to 499 sq ft by adjusting the Threshold Entry of the unit. The plans note how to adjust the unit size. Architectual Plans Sheet A.2.1 "Entry Threshold Plan" directs how to adjust units size. The applicant Builidng Unit Number List is adjustable and changes unit size.								



ENTRY THRESHOLD PLAN

SCALE: $\frac{1}{4}$"=1'-0"

***Rev 1 Portch Changed from 5'10" to 5'8" for units 5 & 14**

UNIT SIZE
See Entry Threshold Plan Note#
BUILDING #1
Key See Architectural P A2.1 A2.2
***Plan A >500 One Bd Rm**
****Plan B <500 One Bd Rm**
***Units #'s 1, 2, 3, 5, 14**
**** Units #'s 4, 6, 7, 8, 9, 10, 12, 13, 15, 16, 17, 18, 19, 20, 21**

OWNER BUILDING UNIT NUMBER LIST

IMPERVIOUS AREAS		**SHEET 3**						
		Coverage	% Minimum	Minimum	Coverage	Total Parking	Minimum	Provided
		Area	Required	Required Amt	Provided	& Driveways	Light Color Req	Light Color
Bldgs 10 x 6251 sq ft		62510						
Parking Lot Asphalt		37,569						
Parking Light Concrete		38112				75,681	50.00%	50.36%
Sidewalks		37791						
Bike Ped Path		19148						
Proposed Lot Coverave		195130			52.52%			
Allowed Lot Coverage R-2			65.00%	241518				
LANDSCAPE AREAS	Size	% of Parking &	Minimum	Provided				
Other	Area	Driveways	Required					
*Parking Area Landscape	11079	14.64%	7.00%					
Parking Area Trees			27	>61				
Outdoor Open Space	59417							
Stormwater Treatment	12149							
Total Other Landscaped Area								
*Parking Area Landscape: 7% minimum required of Driveways and Parking								
PRIVATE AREAS								
		Units	Area	Gross Area	% Provided	% Required	Required Size	Provided Size
Private Space Fl 1		30	225.6	6768	1.82%	4%		
Private Space Patios Fl 1-2		180	72	12960	3.49%		48	226
Total				19728	5.31%		48	72
Parking Spaces 18.4.3.040		AMT	Max Allowed	Per Unit		Required	Provided	
Parking Stalls			2 Per Unit	Provided				
		176		176		0	176	
Driveways & Parking Material						Required	Provided	
Parking Lot Asphalt								
Parking Light Colored Concrete			75,681	37,569	49.6%			
Total				38112	50.4%	50.0%	50.40%	
				75,681				
Bike Parking Covered 18.4.3.040				Provided		Required	Per Unit	
Covered Bike Parking Racks						1 Per 1/S Unit		
				250		210	1.2	
Van Pool Parking Areas				Stalls Used		Required	Provided	
Dedicated Van Parking								
				10 spaces		0	2	
ADA Parking				Amt		Required	Provided	
ADA Assesable (ORS 447)								
				10		6	10	
Electric Vehicle Charging Stations				Amt		Required	Provided	
EVR Stations (AMC 18.4.080)								
				75		40.0%	42.6%	