

CITY OF SWEET HOME CITY COUNCIL AGENDA

May 13, 2025, 6:30 PM Sweet Home City Hall, 3225 Main Street Sweet Home, OR 97386

WIFI Passcode: guestwifi

PLEASE silence all cell phones - Anyone who wishes to speak, please sign in.

Mission Statement

The City of Sweet Home will work to build an economically strong community with an efficient and effective local government that will provide infrastructure and essential services to the citizens we serve. As efficient stewards of the valuable assets available, we will be responsive to the community while planning and preparing for the future.

Meeting Information

The City of Sweet Home is streaming the meeting via the Microsoft Teams platform and asks the public to consider this option. There will be opportunity for public input via the live stream. To view the meeting live, visit http://live.sweethomeor.gov. If you do not have access to the internet, you can call in to 541-367-5128, choose option #1, and enter the meeting ID to be logged in to the call. Meeting ID: 276 473 769 028

This video stream and call in options are allowed under Council Rules, meet the requirements for Oregon Public Meeting Law, and have been approved by the Mayor and Chairperson of the meeting.

- I. Call to Order & Pledge of Allegiance
- II. Roll Call
- III. Consent Agenda
 - a) Approval of Minutes:
 - i) 2025-04-22 City Council Executive Session Meeting Minutes
 - ii) 2025-04-22 City Council Meeting Minutes
- IV. Recognition of Visitors & Hearing of Petitions
 - a) Police Officer Swearing In Ceremony Tylier Mendenhall
 - b) Mental Health Awareness Month
- V. Old Business
 - a) Information Only First Avenue Traffic Control
- VI. New Business
 - a) Request for Council Action Resolution No. 10 for 2025 Oregon Jamboree Special Event Application & Permits
- VII. Ordinance Bills
 - h) Second Reading of Ordinance Bills
 - ix) Request for Council Action Ordinance No. 2 for 2025 Adopting Camping Regulations

The location of the meeting is accessible to the disabled. If you have a disability that requires accommodation, advanced notice is requested by notifying the City Manager's Office at 541-367-8969.

- i) Third Reading of Ordinance Bills (Roll Call Vote Required)
 - x) Request for Council Action Ordinance Bill No. 3 for 2025, Ordinance No. 1331 Transportation System Plan (TSP)
 - xi) Request for Council Action Ordinance Bill No. 4 for 2025, Ordinance No. 1332 North Sweet Home Area (NSHA) Plan

X. Reports of Committees

Administration, Finance & Property Committee – President Pro Tem Thorstad

Charter Review Committee - President Pro Tem Thorstad

Community Health Committee - Councilor Bronson

i) 2025-04-23 Community Health Committee Meeting Minutes

Library Advisory Board - Councilor Augsburger

Park & Tree Committee - Councilor Hegge

i) 2025-04-16 Park & Tree Committee Meeting Minutes

Planning Commission

Area Commission on Transportation – Councilor Sanchez, Councilor Bronson (alternate)

Chamber of Commerce - Councilor Hegge

Council of Governments – Councilor Bronson, Councilor Sanchez (alternate)

Solid Waste Advisory Council - Councilor Richards

XI. Department Reports

Library Services Director

- i) <u>Library Director Report April 2025</u>
- ii) SHPL Newsletter May 2025

Planning & Building Manager

i) Planning & Building Manager Report – April 2025

Public Works Director

i) Public Works Department Monthly Report

Finance Director

i) Finance Manager Report – April 2025

XII. Reports of City Officials

City Manager's Report

Mayor's Report

XIII. Council Business for Good of the Order

a) Proposed Meeting Cancellation – July 22, 2025

XIV. Adjournment



CITY OF SWEET HOME CITY COUNCIL EXECUTIVE SESSION MINUTES

April 22, 2025, 5:30 PM Sweet Home City Hall, 3225 Main Street Sweet Home, OR 97386

Meeting Information

Executive Sessions are closed to the public. There will be no live-stream of this meeting.

Call to Order

The meeting was called to order at 5:30 PM.

Roll Call

PRESENT

Mayor Susan Coleman
President Pro Tem Josh Thorstad
Councilor Chelsea Augsburger
Councilor Ken Bronson
Councilor Aaron Hegge
Councilor Dylan Richards
Councilor Angelita Sanchez

STAFF

Jason Ogden, City Manager / Police Chief Cecily Hope Pretty, Deputy City Manager Blair Larsen, City Attorney

Executive Session

Mayor Coleman read the Executive Session statement.

The Sweet Home City Council Executive Session is held pursuant to:

ORS 192.660(2)(e) to conduct deliberations with persons designated by the government body to negotiate real property transactions.

Official representation of the news media and designated staff shall be allowed to attend the Executive Session. All other members of the audience are asked to remain outside the room during the Executive Session. Representatives of the news media are specifically directed not to report on any of the discussions during Executive Session, except to state the general subject of the session as previously announced. No formal actions may be taken in Executive Session.

Formal actions to be taken, if any, as a result of the Executive Session will be conducted during the Council's regular session.

ATTEST:	Mayor
City Manager – Ex Officio City Recorder	

There being no further discussion, the meeting was adjourned at 5:57 PM.

Adjournment



CITY OF SWEET HOME CITY COUNCIL MINUTES

April 22, 2025, 6:30 PM Sweet Home City Hall, 3225 Main Street Sweet Home, OR 97386

Mission Statement

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Roll Call

PRESENT

Mayor Susan Coleman
President Pro Tem Josh Thorstad
Councilor Chelsea Augsburger
Councilor Ken Bronson
Councilor Aaron Hegge
Councilor Dylan Richards
Councilor Angelita Sanchez

STAFF

Jason Ogden, City Manager / Police Chief Cecily Hope Pretty, Deputy City Manager Angela Clegg, Planning & Building Manager Blair Larsen, City Attorney Adam Leisinger, Special Projects Manager Greg Springman, Public Works Director

GUESTS

Garth Appanaitis, PE, Project Manager, DKS Associates
Michael Duncan, Senior Region Planner, TGM Grant Manager, Oregon Department of Transportation
Taliesin Miller, If I Were Mayor... Local Contest Winner
Andrew Parish, Senior Planner / Project Manager, MIG
Jacob Wheeler, If I Were Mayor... Local Contest Winner

Consent Agenda

- a) Request for Council Action Committee & Commission Appointments
- b) Request for Council Action Intergovernmental Agreement with Oregon Cascade West Council of Governments for Technology Services

Approval of Minutes:

- a) 2025-03-25 City Council Work Session Minutes
- b) 2025-03-25 City Council Meeting Minutes

Councilor Augsburger requested to pull the Request for Council Action from the Consent Agenda regarding the appointments due to a potential conflict of interest.

Councilor Thorstad moved to approve the balance of the Consent Agenda. Councilor Augsburger seconded the motion. The motion carried by the following vote:

AYE: Coleman, Thorstad, Augsburger, Bronson, Hegge, Richards, Sanchez

NAY: None

Recognition of Visitors & Hearing of Petitions

a) If I Were Mayor... Local Contest Winners

Mayor Coleman recognized Taliesin Miller and Jacob Wheeler for winning the If I Were Mayor... local contest in their respective age groups. They were honored with certificates and gifts.

b) Child Abuse Awareness Month Proclamation

Mayor Coleman read the proclamation.

c) National Day of Prayer Proclamation

Mayor Coleman read the proclamation.

New Business

Mayor Coleman asked City Council to consider the Request for Council Action regarding Committee and Commission Appointments. President Pro Tem Thorstad move to approve the appointments as recommended. Councilor Richards seconded the motion. The motion carried by the following vote:

AYE: Coleman, Thorstad, Bronson, Hegge, Richards, Sanchez

NAY: None

ABSTAIN: Augsburger

a) Request for Council Action – Willow-Yucca Local Improvement District (LID) Engineering Change Order

City Manager Ogden provided an overview of the history of the LID and the discovery of a conflict in existing infrastructure adjacent to the proposed project. He noted that the engineering firm assigned to the project, Civil West, proposed a change order in the amount of \$83,664 to address the proposed additional design scope to address the infrastructure conflict. He stated that staff intended to cover any additional costs where possible so that residents within the LID would not be impacted with higher rates once the project was completed.

Councilor Sanchez expressed concern with the potential increased costs to the project and the affordability for the residents and indicated she was not supportive of the change order request.

Councilor Richards expressed support for the change order to address the infrastructure.

Mayor Coleman noted that the majority of the residents had requested the LID and the associated improvements.

Councilor Richards moved to approve the change order as proposed. Councilor Bronson seconded the motion. The motion carried by the following vote:

AYE: Coleman, Thorstad, Augsburger, Bronson, Hegge, Richards

NAY: Sanchez

b) Request for Council Action – Resolution No. 9 for 2025 – FY 2025-2026 City Council Goals

City Manager Ogden reviewed the proposed goals and noted that they fell into five strategic focus areas:

Desirable Community

- 1. Make progress on restoration of Weddle Bridge
- 2. Reduce downtown vacancies

Effective and Efficient Local Government

- 1. Increase electronic communications to citizens
- 2. Review cybersecurity of key infrastructure

Infrastructure

- 1. Renovate the east wing of City Hall
- 2. Pursue technology upgrades for the library

Essential Services

- 1. Establish paving program
- 2. Make progress on Mountain View Road multi-use path and sidewalks
- 3. Begin year one construction on the new wastewater treatment plant

Economic Strength

- 1. Formulate a plan for the former Santiam Feed Store
- 2. Formulate a plan for the former City Hall

City Manager Ogden highlighted the inclusion of a staff report regarding the proposed paving program that demonstrated financial challenges to establishing an in-house program. He noted that staff was recommending establishment of a pavement preservation program in lieu of a paving program. He stated that staff would continue to investigate options to establish a paving program.

Councilor Sanchez stated that she appreciated staff's recommendation for an alternative paving preservation program and asked that staff continue to investigate options to establish a more formal paving program.

Mayor Coleman stated that she was impressed with the volume of cities who responded to the City's request for information regarding their approaches to paving programs. She noted that many of them were able to afford street construction work with the supplemental of a local gas tax.

Councilor Bronson thanked staff for the level of detail in their report and expressed support for the staff recommendation.

Councilor Sanchez moved to amend Resolution No. 9 for 2025 to adopt a pavement preservation program in lieu of a paving program. President Pro Tem Thorstad seconded the motion. The motion carried by the following vote:

AYE: Coleman, Thorstad, Augsburger, Bronson, Hegge, Richards, Sanchez

NAY: None

Ordinance Bills

Request for Council Action and First Reading of Ordinance Bills

Second Reading of Ordinance Bills

a) Request for Council Action – Ordinance No. 2 for 2025 – Adopting Camping Regulations

City Attorney Larsen stated that he had worked with an attorney with City/County Insurance (CIS) to review the draft ordinance. He noted that the Ordinance as presented contained minor adjustments based on CIS' recommendations. He highlighted that the City needed to avoid establishing a sanctioned campsite. He stated that the City had already been compliant with State requirements in practice, but adoption of the Ordinance would formalize that process and enhance the City's legal standing.

Councilor Richards moved to conduct a first reading of Ordinance No. 2 for 2025. Councilor Bronson seconded the motion. The motion carried by the following vote:

AYE: Coleman, Thorstad, Augsburger, Bronson, Hegge

NAY: Richards, Sanchez

A first reading of Ordinance No. 2 for 2025 was conducted.

Councilor Bronson moved to conduct a second reading of Ordinance No. 2 for 2025 by title only at the following City Council meeting. President Pro Tem Thorstad seconded the motion. The motion carried by the following vote:

AYE: Coleman, Thorstad, Augsburger, Bronson, Hegge, Richards

NAY: Sanchez

b) Public Hearing for Legislative Amendment LA25-01 & Request for Council Action – Ordinance No. 3 for 2025 – Transportation System Plan (TSP)

Mayor Coleman opened the Public Hearing at 7:09 PM. She asked the Councilors to declare any personal bias, conflict of interest, or ex parte information. None were declared.

Planning & Building Manager Clegg provided a review of the development of the proposed Transportation System Plan (TSP). She noted that the TSP was proposed to be adopted as a part of the City's Comprehensive Plan.

Garth Appanaitis provided an overview of the TSP. He highlighted the inclusion of a project list to guide development and ensure future grant activities. He noted that a TSP was required by Oregon law. He stated that the key components of the plan identified transportation goals and policies, identified current and 20-year travel needs, identified projects to address needs, and established system standards.

Councilor Sanchez thanked Mr. Appanaitis for his work on the TSP.

There was no testimony to be heard.

Mayor Coleman closed the Public Hearing at 7:22 PM.

Councilor Sanchez asked if the project to upgrade the intersection at Pleasant Valley Road and Highway 20 was considered the top priority. Mr. Appanaitis replied that the level of local interest in the project led to its inclusion in the financially constrained project list but its inclusion did not mandate the City to complete the project. He noted the complexity involved with a project on a State highway.

Councilor Sanchez moved to approve Legislative Amendment LA25-01 relating to the TSP and to conduct a first reading of Ordinance No. 3 for 2025. President Pro Tem Thorstad seconded the motion. The motion carried by the following vote:

AYE: Coleman, Thorstad, Augsburger, Bronson, Hegge, Richards, Sanchez

NAY: None

A first reading of Ordinance No. 3 for 2025 was conducted.

Councilor Sanchez moved to conduct a second reading of Ordinance No. 3 by title only. President Pro Tem Thorstad seconded the motion. The motion carried by the following vote:

AYE: Coleman, Thorstad, Augsburger, Bronson, Hegge, Richards, Sanchez

NAY: None

A second reading of Ordinance No. 3 for 2025 by title only was conducted.

Councilor Bronson moved to conduct a third reading of Ordinance No. 3 for 2025 by title only at the following City Council meeting. Councilor Richards seconded the motion. The motion carried by the following vote:

AYE: Coleman, Thorstad, Augsburger, Bronson, Hegge, Richards, Sanchez NAY: None

c) Public Hearing for Legislative Amendment LA25-01 & Request for Council Action – Ordinance No. 4 for 2025 – North Sweet Home Area (NSHA) Plan

Mayor Coleman opened the Public Hearing at 7:30 PM. She asked the Councilors to declare any personal bias, conflict of interest, or ex parte information. None were declared.

Planning & Building Manager Clegg stated the NSHA Plan was a sub-element of and an amendment to the TSP. She reviewed the development of the proposed North Sweet Home Area (NSHA) Plan.

Mr. Appanaitis stated that the NSHA Plan included desired road developments. He highlighted the inclusion of various land use types in the plan that would still provide flexibility for future development. He noted that the northern river boundary and southern railroad boundary posed challenges for connectivity and noted the inclusion of railroad crossings as well as proposed east-west connections.

There was no testimony to be heard.

Mayor Coleman closed the Public Hearing at 7:41 PM.

Councilor Sanchez thanked ODOT for their participation in the development of the TSP and NSHA Plan.

Councilor Sanchez moved to approve Legislative Amendment LA25-01 relating to the NSHA Plan and to conduct a first reading of Ordinance No. 4 for 2025. Councilor Richards seconded the motion. The motion carried by the following vote:

AYE: Coleman, Thorstad, Augsburger, Bronson, Hegge, Richards, Sanchez

NAY: None

A first reading of Ordinance No. 4 for 2025 was conducted.

Councilor Richards moved to conduct a second reading of Ordinance No. 4 by title only. Councilor Bronson seconded the motion. The motion carried by the following vote:

AYE: Coleman, Thorstad, Augsburger, Bronson, Hegge, Richards, Sanchez

NAY: None

A second reading of Ordinance No. 4 for 2025 by title only was conducted.

Councilor Richards moved to conduct a third reading of Ordinance No. 4 for 2025 by title only at the following City Council meeting. Councilor Sanchez seconded the motion. The motion carried by the following vote:

AYE: Coleman, Thorstad, Augsburger, Bronson, Hegge, Richards, Sanchez

NAY: None

Reports of Committees

Administration, Finance & Property Committee – President Pro Tem Thorstad

a) 2025-03-24 Administration, Finance & Property Committee Meeting Minutes

Charter Review Committee - President Pro Tem Thorstad

a) 2025-04-01 Charter Review Committee Meeting Minutes

Community Health Committee – Councilor Bronson

a) 2025-03-19 Community Health Committee Meeting Minutes

Library Advisory Board – Councilor Augsburger

a) 2025-04-10 Library Board Meeting Minutes

Park & Tree Committee – Councilor Hegge

Planning Commission

Public & Traffic Safety Committee – President Pro Tem Thorstad & Councilor Richards

a) 2025-04-09 Public & Traffic Safety Committee Meeting Summary

Area Commission on Transportation – Councilor Sanchez, Councilor Bronson (alternate)

a) CWACT 2025 Meeting Calendar

Chamber of Commerce – Councilor Hegge

Council of Governments – Councilor Bronson, Councilor Sanchez (alternate)

Solid Waste Advisory Council - Councilor Richards

Mayor Coleman thanked the Councilors for serving in their Committee Liaison roles.

Councilor Augsburger invited the public to a Library Open House on May 7, 2025 to see what the library offers the community.

Councilor Hegge invited the public to the City's Arbor Day celebration on April 26, 2025 at Sankey Park. He stated that the Beautification Committee was seeking additional volunteers to perform the annual median planting on May 13th.

Department Reports

Library Services Director

- a) Library Director Report March 2025
- b) SHPL Newsletter April 2025
- c) Library Open House May 7th

Planning & Building Manager

a) Planning & Building Manager Report – March 2025

Public Works Director

a) Public Works Director Report – March 2025

Finance Department

a) Finance Manager Report – March 2025

Police Chief

a) Police Chief Report – March 2025

City Manager Ogden highlighted various increases and decreases across different crime types. He thanked those who attended the Child Abuse Awareness March at the Police Department on April 12th. Mayor Coleman recognized Detective Potter for his speech at the event.

Planning & Building Manager Clegg stated that the Park & Tree Committee would perform an ivy pull in Sankey Park prior to the Arbor Day and Kid to Park event. She thanked City Council for their support of the TSP and NSHA Plan.

Director Springman stated that the SCADA system upgrades at the Water Treatment Plant were complete.

Reports of City Officials

City Manager's Report

City Manager Ogden stated that he presented at a conference in Ohio to highlight Sweet Home's use of Al in law enforcement and teach other jurisdictions how to utilize Al tools. He noted that he wrote a guest column for Representative Jami Cate's newsletter describing Sweet Home's challenges during the Green Peter Drawdown.

Mayor's Report

Mayor Coleman congratulated Dale Jenkins, a local Veteran, who would be participating in an Honor Flight to Washington, D.C. She thanked the Rotary Club for hosting the annual Easter Egg Hunt and thanked Public Works for their upkeep of Sankey Park. She invited the public to the U.S. Army Corps of Engineers annual reservoir forecasts. She highlighted a ribbon-cutting for local rail bikes on April 25th. She noted that the National Oceanic and Atmospheric Administration (NOAA) was proposing a rule-making to modify definitions related to the Endangered Species Act.

Council Business for Good of the Order

Councilor Sanchez thanked Linn County Commissioner Will Tucker and regional partners to restore funding to the Sweet Home Fire District for wildfire mitigation. She stated that April 29th was the last day to register to vote for the May elections.

Councilor Bronson stated that the grand opening of the Linn County Parks RV dumpsite would take place on May 8th.

Adjournment

There being no further discussion, the meeting was adjourned at 8:02 PM.

ATTEST:	Mayor
City Manager – Ex Officio City Recorder	_





Proclaimed this 13th Day of May 2025

Mental Health Awareness Month 2025 Proclamation

WHEREAS, mental health is essential to everyone's overall health and well-being; and

WHEREAS, all Americans experience times of difficulty and stress in their lives; and

WHEREAS, promotion and prevention are effective ways to reduce the burden of mental health conditions; and

WHEREAS, there is a strong body of research that support user-friendly tools that all Americans can access to better handle challenges, and protect their health and well-being; and

WHEREAS, mental health conditions are real and prevalent in our nation; and

WHEREAS, with effective treatment, those individuals with mental health conditions can recover and lead full, productive lives; and

WHEREAS, each business, school, government agency, faith-based organization, health care provider, veteran's group, and citizen has a responsibility to promote mental wellness and support prevention efforts; and

WHEREAS, the Linn County Mental Health Advisory Board and the City of Sweet Home Community Health Committee are emphasizing that there is no health without mental health by being involved with Public Service Announcements, Health Fairs, public speakers, and various trainings regarding mental health issues;

NOW, THEREFORE, I, Susan Coleman, do hereby proclaim May 2025 as Mental Health Awareness Month in Sweet Home. As the Mayor, I also call upon the citizens, governmental agencies, public and private institutions, businesses, and schools in Sweet Home to recommit our community to increasing awareness and understanding of mental health, the steps our citizens can take to protect their mental health, and the need for appropriate and accessible services for all people with mental health conditions.

Trodamie and to Day of may, 2020.		
	Mayor	
ATTEST:		
City Manager - Ex Officio City Recorder		



481 S. Main St. Lebanon, Oregon 97355 (541) 405-4520 www.dyerpart.com

MEMORANDUM-

DATE April 7, 2025

TO City of Sweet Home

Cecily Pretty, Administrative Services Director

FROM Ryan Quigley, PE

PROJECT NAME City of Sweet Home – 1st Avenue Traffic Reduction Summary of Recommendations

PROJECT NO. 215.01

Background

The City of Sweet Home has received complaints from 1st Avenue residents for a number of years concerning the number of vehicles utilizing 1st Avenue as a connector between Highway 20 and Highway 228 to avoid the highway intersection traffic light. The City Council has requested a trial installation of temporary traffic control devices on 1st Avenue for a period of six months to evaluate the effectiveness of the reduction of vehicle trips on 1st Avenue.

1st Avenue is a fully improved two-lane local residential street with a 25 mph speed limit. The Right-of-Way (ROW) is 40 feet wide and the curb-to-curb width is 32 feet. It runs between Highway 20 (Main Street) and Highway 228 (W. Holley Road) and contains a tee intersection with Nandina Street. 1st Avenue is approximately 1,480 feet long, straight, and relatively flat. The City collected two weeks of traffic data from April 11, 2024 through April 25, 2024 and measured approximately 1,500 to 2,000 vpd (vehicles per day). Traffic consisted of a mix of passenger and commercial vehicles including large trucks.

The City has requested The Dyer Partnership provide recommendations and cost estimates for temporary devices on 1st Avenue.

Researched Solutions

Dyer researched traffic reduction and traffic calming measures as published by the Oregon Department of Transportation (ODOT), Federal Highway Administration (FHWA), Institute of Transportation Engineers (ITE), and National Association of City Transportation Officials (NATCO).

If the initial six-month trial period proves effective, then the City may proceed with design and installation of a permanent version of the selected traffic calming measure. An assessment of which permanent devices was performed. An evaluation of temporary versions of the selected devices for potential use for the trial period was also completed.

Dyer conducted a site visit on February 4, 2025 to review existing conditions. Crash data provided by the Police Department was also reviewed to inform which measures are recommended for this project. Six of the seven accidents appear to be related to this section of roadway based on the reported crashes from August 2022 through June 2024. One accident involved the Main Street intersection; three accidents involved the Holley Road intersection; and two accidents involved midblock incidents with the residents' vehicles.

Countermeasures that specifically target volume reduction typically include permanent physical features such as traffic signals, lane channelization, and one- or two-way closures. Speed reduction countermeasures, commonly known as traffic calming measures, may also produce a secondary effect of volume reduction.

Traffic calming measures which may be effective on both speed and volume reduction include:

Chicane (Lateral Shift)

- *Pros:* Reduces the length of straight stretches. Horizontal alignment shifts encourage slower traffic. Can be achieved by roadway striping (low cost) depending on site conditions.
- *Cons:* Need to reduce curbside parking to accommodate lane shifts. Risk of drivers ignoring striping and continuing to drive in a straight path. High capital cost if achieved by roadway geometry changes.

Corner Extension Bulb-Outs

- *Pros:* Narrowed lane width at bulb-out encourages slower traffic. Shortened pedestrian path to cross the street.
- Cons: Moderate construction cost. Potential impacts to gutter drainage must be considered.

Chokers (Narrowing)

- *Pros:* Can be installed mid-block. Narrowed lane width at bulb-out encourages slower traffic. Shortened pedestrian path to cross the street.
- Cons: Moderate construction cost. Potential impacts to gutter drainage must be considered.

Raised Intersection

- *Pros:* Improved driver awareness of intersections and pedestrian crossings. Vehicles slowed at the on/off ramps.
- *Cons:* High construction cost. Anticipated to be less effective at slowing traffic than other measures due to the length of the raised path.

Midblock Crosswalk

- *Pros:* Pedestrian signage and crosswalk striping may reduce vehicle speeds, especially if paired with a stop sign. Low construction cost.
- Cons: A midblock stop sign would be an atypical use of this traffic control device as per the Manual of Uniform Traffic Control Devices (MUTCD). Installing a midblock crosswalk without a stop sign may encourage pedestrians to cross where traffic does not expect them, potentially increasing the public safety hazard.

Traffic Circle

- *Pros:* Physical barrier installed at intersections and/or midblock would break up the straight line of travel and reduce speeds.
- Cons: High construction cost. May need to reduce curbside parking to accommodate lane shifts.

Median Island

- *Pros:* Narrowed lane width encourages slower traffic.
- *Cons:* High construction cost. The existing roadway geometry is already narrow when allowing for parking on both curbs. May need to remove parking on one side to accommodate emergency vehicles.

Median Delineators

- Pros: Narrowed lane width encourages slower traffic. Low construction cost.
- Cons: The existing roadway geometry is already narrow when allowing for parking on both curbs. May need to remove parking on one side to accommodate emergency vehicles. High likelihood of vehicle collisions with delineators based on observations for recently installed Main Street pedestrian crossings.

Speed Hump

- *Pros:* Vertical change in the roadway reduces traffic speeds. Design speed 15 to 20 mph at each hump is suitable for residential roads. Low construction cost.
- Cons: Cumulative effect of multiple humps slows emergency vehicle response times.

Speed Cushion

- *Pros:* Similar to a speed hump for passenger vehicles. Cushions spaced to accommodate the wheel base of emergency vehicles means response times are not affected.
- Cons: Commercial vehicles having the same wheel base as emergency vehicles will also not be affected.

Speed Table

- *Pros:* Reduced effect on emergency vehicles compared to speed humps.
- Cons: Design speed of 25 to 45 mph is above the posted speed limit and therefore not likely to be effective at reducing traffic volume at this site. Moderate construction cost.

Measures affecting lane alignments (chicanes, traffic circles, and islands) may not be received favorably by area residents based on the crash history involving at least one lane departure. Therefore, it was determined the measures which do not affect the lane alignments would be preferable for this installation.

Measures involving lane narrowing (bulb-outs, chokers, and medians) tend to have higher construction costs.

Measures Selected for Further Evaluation

Speed humps and speed cushions are the most likely traffic calming measures to be effective at reducing traffic speeds (and therefore traffic volume, which is the primary goal) for this particular project based on the above preliminary evaluation.

Dyer also researched installation guidance in the MUTCD 2009 and 2023 editions, published by FHWA; and the Oregon Supplement to the MUTCD, 2011 edition and proposed 2023 edition which are published by ODOT. The MUTCD is the governing standard for roadway signage, striping, and other control devices. The 2009 edition and the corresponding Oregon Supplement is currently in effect in Oregon. The 2023 edition has not yet been approved by the Oregon Transportation Commission, but is anticipated to be adopted with its corresponding Oregon Supplement in the next year or two.

Option 1: Speed Humps

Generally, vendors and local agencies use inconsistent terminology in regards to speed bumps, humps, and tables. This memo has followed ITE and FHWA terminology as found in the attached ITE fact sheets.

Speed humps are parabolic mounds on the pavement which are typically three to four inches in height and 12 to 14 feet in length. They are suitable for speed reduction on local streets with posted speed limits of 30 mph or less and relatively low daily traffic volumes (below 4,000 vpd).

A single speed hump reduces speeds to approximately 15 to 20 mph over the hump and also influences speeds for approximately 100 feet on either side. The NACTO guidance indicates spacing of 500 feet or less is needed to achieve an 85th percentile speed of 25 to 35 mph. Typical installation spacing is 400 to 500 feet with closer spacing of 300 feet occasionally chosen for more severe speeding problems. Observations of local installations in Oregon have found spacing as close as 250 feet.

The intended benefit of speed humps is reduced speed. Reduced traffic volume may occur as a secondary benefit. The ITE estimates speed humps reduce traffic volumes by approximately 20 percent. This percentage is expected to be influenced by factors such as spacing and the posted speed limit.

Speed humps are typically installed across nearly the entire road width, with one to three feet left clear against each curb to allow for drainage. The MUTCD Sections 2C.27 and 3B.29 cover speed hump signage and markings, respectively. Speed humps should be accompanied by the Speed Hump W17-1 Sign in advance of the hump. A series of speed humps may be served by a single sign in advance of the first hump. The ODOT standard detail DET4560 (attached) also provides typical speed hump markings.

Additionally, double installation of speed humps were considered similar to speed bumps in parking lots. Two humps would be spaced very closely to further reduce speeds. However, a reference was not found for the installation in the industry references. Therefore, there is no data on its effectiveness compared to conventional speed hump installations or any unforeseen negative effects.

Design spacing of 250 feet was selected for this project. Specific locations were selected to avoid conflicts with driveways and utilities. A total of four speed humps and four (4) Speed Hump Signs are proposed.

Generally, advertised temporary speed humps measure three feet or less in the direction of travel and thus would be more accurately called speed bumps. Those are not suitable for this application. In order to accurately evaluate the effectiveness of the trial installation, it is required to use equipment of approximately the same size and shape as would be used in a permanent installation.

Only one manufacturer was identified for temporary speed humps that are dimensionally similar to permanent asphalt humps. They produce modular rubber units that can be configured multiple ways as speed humps or cushions. Product literature is attached. These units are advertised as being durable for long-term installation, so they could be left in place if the trial is successful. However, it appears installation is very labor-intensive. Each hump assembly would contain approximately 78 tiles and 468 bolts drilled into the existing road.

The cost estimate for this option is \$43,800 for materials and freight. Labor costs have not been estimated but are expected to be significant due to the number of panels to make up the speed hump.

For comparison, the estimated material costs to install temporary asphalt humps on top of the existing road surface is \$8,400.

Option 2: Offset Speed Humps

Conventional speed humps affect all vehicles including emergency response. Use of multiple speed humps on main emergency response routes is undesirable as the cumulative effect can cause noticeable delays in emergency response times. 1st Avenue is not considered a main emergency response route, but it does provide access to adjacent subdivisions. Therefore, a consideration of offset speed humps and speed cushions is also included.

Offset humps extend across a single travel lane rather than the entire street width. Humps for each direction of travel are separated by 50 feet or more. This separation allows emergency vehicles to weave around the humps without slowing.

A risk is that the traveling public may also weave around the humps. A 2003 installation of offset speed tables in Beaverton used only centerline striping to communicate to drivers to stay in their travel lane. After construction the City received many complaints of traffic weaving around the tables. Raised centerline markers were added on each approach and in the space between offsets. Complaints were reduced after installation of the raised markers. Therefore, including raised centerline markers in the cost estimate is recommended.

The cost estimate for this option using the modular rubber humps is \$44,880 for materials and freight. The estimate for this option using asphalt humps is \$9,440. Labor costs have not been estimated.

Option 3: Speed Cushions

Speed cushions are very similar to speed humps, but instead of extending across the entire travel lane, they are spaced to accommodate the wheel base of emergency vehicles. Emergency vehicles can drive straight through the speed cushion zone without being affected by a vertical hump. Speed cushions are recommended on main response routes where multiple streets with speed humps would have a large cumulative effect. 1st Avenue is not a main response route; therefore, the implementation of speed cushions is discretionary.

This option would require a set of three speed cushions at each location to span the street width. There are concerns that commercial vehicles having a similar wheel base would likely continue using 1st Avenue as a cutoff route. Although this measure is worth considering, it is expected to be less likely to meet the project goals than speed humps.

The cost estimate for this option using the modular rubber humps is \$26,800 for materials and freight. The estimate for this option using asphalt humps is \$7,960. Labor costs have not been estimated.

Conclusion and Recommendation

The listed options and costs are summarized in the attached cost estimate.

Dyer recommends Option 1: Speed Humps for configuration. This option offers the greatest effectiveness with the least anticipated drawbacks.

Additionally, Dyer recommends constructing temporary asphalt speed humps for materials selection. This option will be much more cost-effective and reduce the construction timeline over the modular rubber humps. Surface preparation of the existing roadway should include cleaning and tack coat. The tapered edges of the humps are likely to crack off over time but should be sufficient to determine effectiveness over the six-month trial period. If more durable installation is needed, then the existing pavement should be ground down two inches to provide for a thicker asphalt layer at the hump edges.

Preliminary Project Estimate - DRAFT

	Option 1a - Modular Speed Humps (Full street width, 14' long)					
No.	No. Description Qty Unit Unit Cost					
1	14' x 30' x 3" Rubber Speed Hump ¹	4	EA	\$10,700	\$42,800	
2	Signage	4	EA	\$250	\$1,000	
	Materials Cost					

	Option 2a - Modular Offset Speed Humps (Half street width, 14' long)					
No.	No. Description Qty Unit Unit Cost T					
1	14' x 15' x 3" Rubber Speed Hump ¹	8	EA	\$5,350	\$42,800	
2	Signage	4	EA	\$250	\$1,000	
3	Pavement Markers	360	EA	\$3	\$1,080	
	Materials Cost					

Option 3a - Modular Speed Cushions (7.5' width, 14' long)							
No.	No. Description Qty Unit Unit Cost T						
1	14' x 6' x 3" Rubber Speed Cushion ¹	12	EA	\$2,150	\$25,800		
2	Signage	4	EA	\$250	\$1,000		
	Materials Cost						

Notes:

- 1. Estimated freight is included in material unit cost.
- 2. Does not include design engineering.
- 3. Does not include installation costs.

City of Sweet Home 3/21/2025

1st Avenue Traffic Calming

The Dyer Partnership Engineers & Planners, Inc.

Preliminary Project Estimate - DRAFT

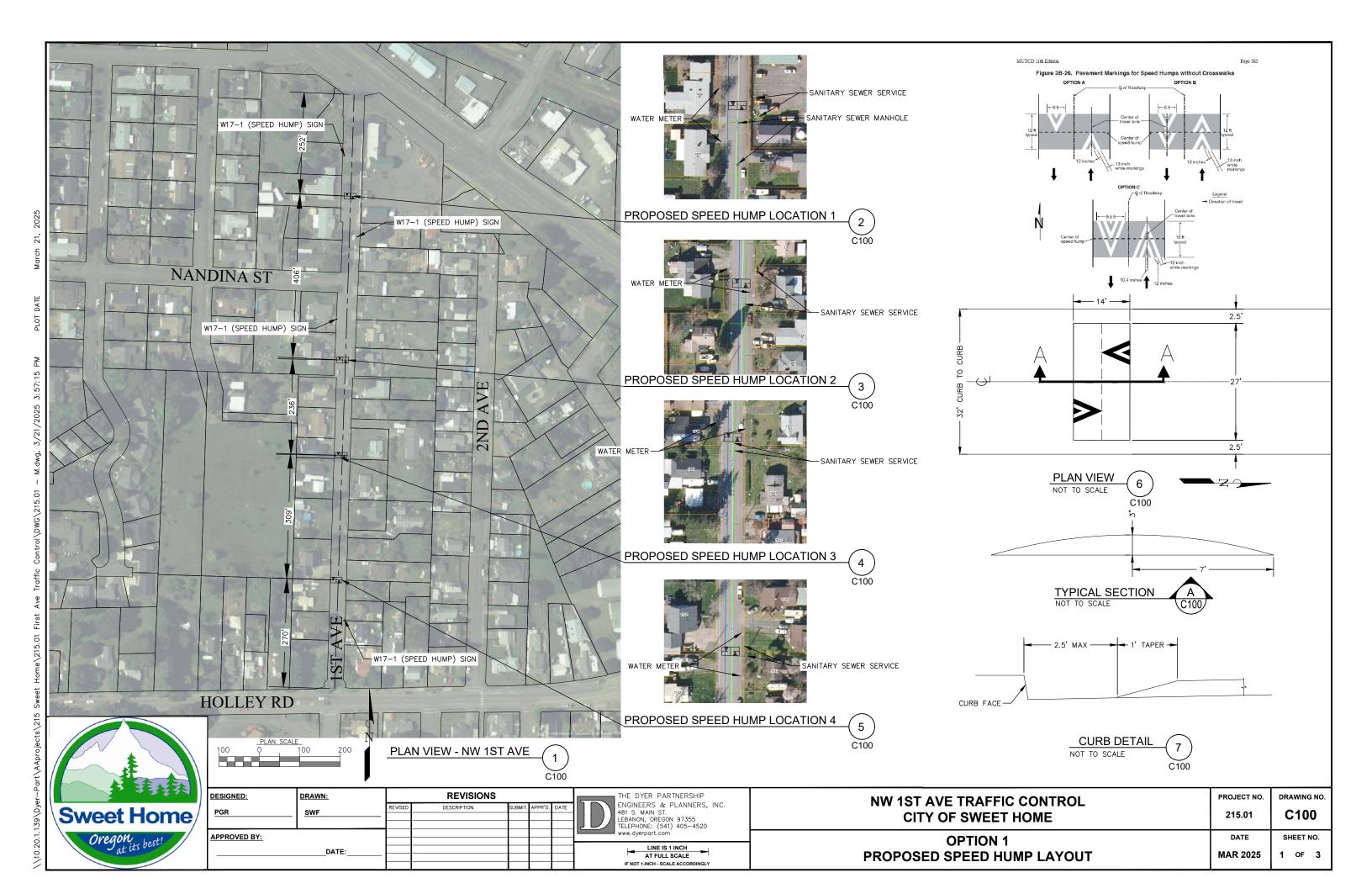
	Option 1b - Asphalt Speed Humps (Full street width, 14' long)					
No.	No. Description Qty Unit Unit Cost 1					
1	14' x 30' x 3" Asphalt Speed Hump ¹	4	EA	\$1,550	\$6,200	
2	Painted Hump Markings	8	EA	\$150	\$1,200	
3	Signage	4	EA	\$250	\$1,000	
	Materials Cost					

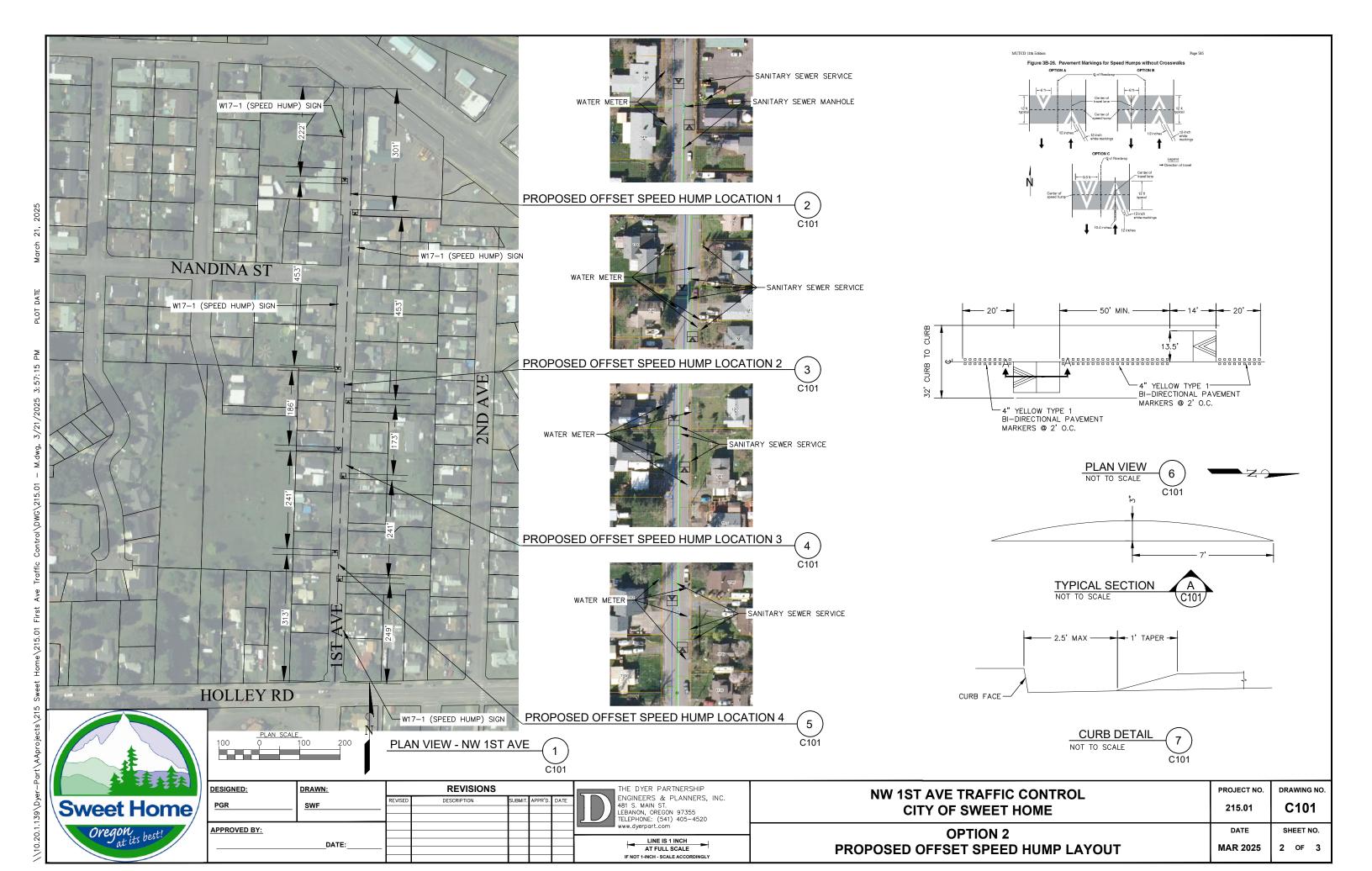
	Option 2b - Asphalt Offset Speed Humps (Half street width, 14' long)					
No.	Description	Qty	Unit	Unit Cost	Total Cost	
1	14' x 15' x 3" Asphalt Speed Hump ²	8	EA	\$770	\$6,160	
2	Painted Hump Markings	8	EA	\$150	\$1,200	
3	Signage	4	EA	\$250	\$1,000	
4	4 Pavement Markers 360 EA \$3					
_	Materials Cost					

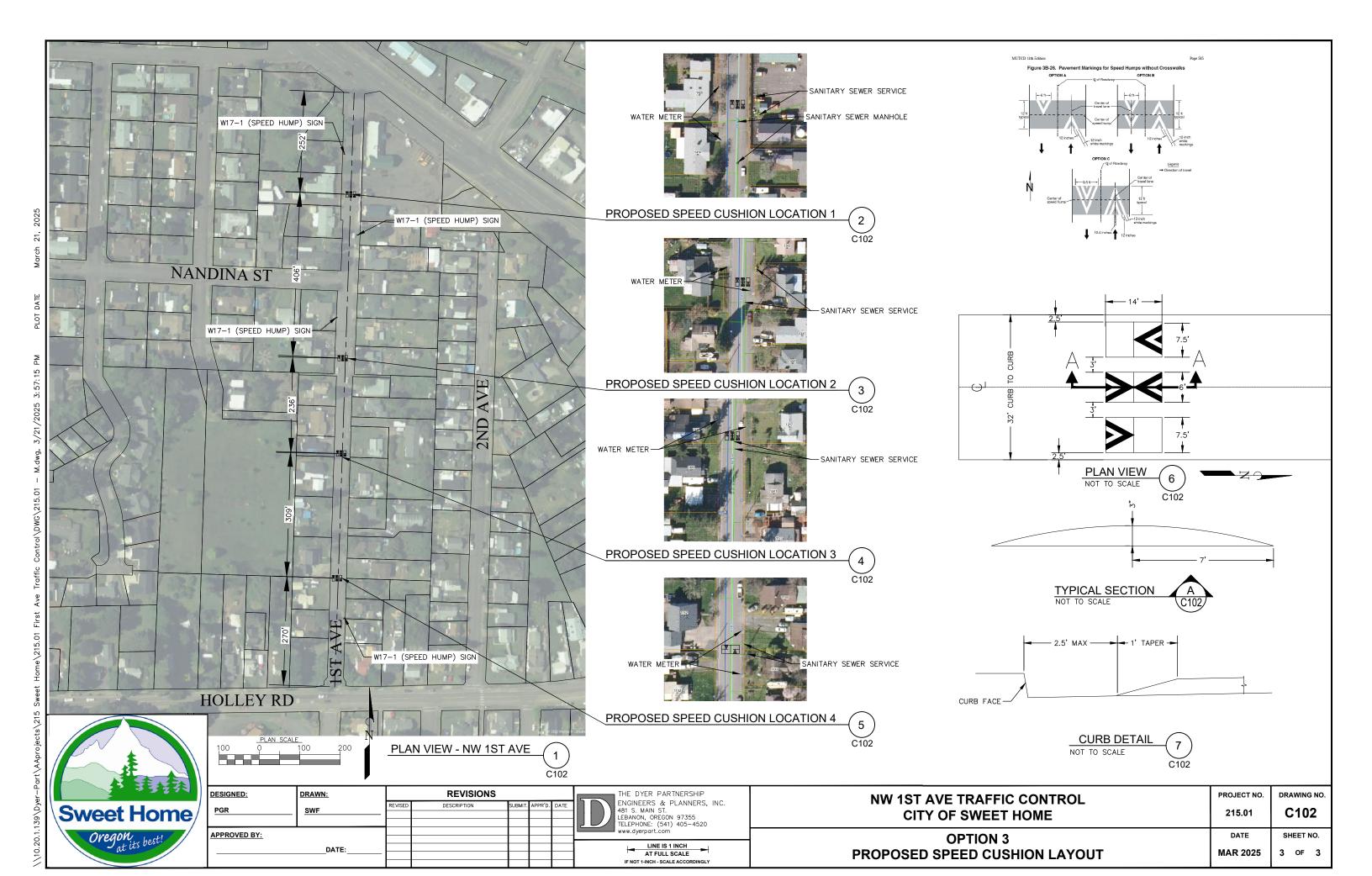
	Option 3b - Asphalt Speed Cushions (7.5' width, 14' long)					
No.	No. Description Qty Unit Unit Cost To					
1	14' x 7.5' x 3" Asphalt Speed Cushion ³	12	EA	\$380	\$4,560	
2	Painted Hump Markings	16	EA	\$150	\$2,400	
3	Signage	4	EA	\$250	\$1,000	
	Materials Cost				\$7,960	

Notes:

- 1. Based on estimated 5.1 tons per hump and \$300/ton small quantity asphalt cost.
- 2. Based on estimated 2.6 tons per half-street hump and \$300/ton small quantity asphalt cost.
- 3. Based on estimated 1.3 tons per cushion and \$300/ton small quantity asphalt cost.
- 4. Does not include design engineering.
- 5. Does not include installation costs.







Traffic Calming Fact Sheets

May 2018 Update



Speed Hump

Description:

- Rounded (vertically along travel path) raised areas of pavement typically 12 to 14 feet in length
- Often placed in a series (typically spaced 260 to 500 feet apart)
- Sometimes called road humps or undulations

Applications:

- Appropriate for residential local streets and residential/neighborhood collectors
- Not typically used on major roads, bus routes, or primary emergency response routes
- Not appropriate for roads with 85th-percentile speeds of 45 mph or more
- Appropriate for mid-block placement, not at intersections
- Not recommended on grades greater than 8 percent
- Work well in combination with curb extensions
- Can be used on a one-lane one-way or two-lane two-way street





(Source: City of Boulder, Colorado)

(Source: PennDOT Local Technical Assistance Program)

ITE/FHWA Traffic Calming EPrimer: https://safety.fhwa.dot.gov/speedmgt/traffic calm.cfm

Design/Installation Issues:

- ITE recommended practice "Guidelines for the Design and Application of Speed Humps"
- Typically 12 to 14 feet in length; other lengths (10, 22, and 30 feet) reported in practice in U.S.
- Speed hump shapes include parabolic, circular, and sinusoidal
- Typically spaced no more than 500 feet apart to achieve an 85th percentile speed between 25 and 35 mph
- Hump heights range between 3 and 4 inches, with trend toward 3 3 ½ inches maximum
- Often have associated signing (advance warning sign before first hump in series at each hump)
- Typically have pavement markings (zigzag, shark's tooth, chevron, zebra)
- Taper edge near curb to allow gap for drainage
- Some have speed advisories
- Need to design for drainage, without encouraging means for motorists to go around a hump

Potential Impacts:

- No impact on non-emergency access
- Average speeds between humps reduced between 20 and 25 percent
- Speeds typically increase approximately 0.5 to 1 mph midway between humps for each 100 feet Beyond the 200-foot approach and exit of consecutive humps
- Traffic volumes diversion estimated around 20 percent; average crash rates reduced by 13 percent

Emergency Response Issues:

- Impacts to ease of emergency-vehicle throughput
- Approximate delay between 3 and 5 seconds per hump for fire trucks and up to 10 seconds for ambulances with patients

Typical Cost (2017 dollars):

Cost ranges between \$2,000 and \$4,000

Traffic Calming Fact Sheets

May 2018 Update



Speed Cushion

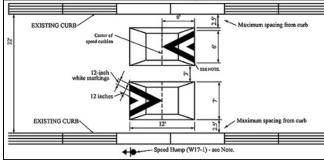
Description:

- Two or more raised areas placed laterally across a roadway with gaps between raised areas
- Height and length similar to a speed hump; spacing of gaps allow emergency vehicles to pass through at higher speeds
- Often placed in a series (typically spaced 260 to 500 feet apart)
- Sometimes called speed lump, speed slot, and speed pillow

Applications:

- Appropriate on local and collector streets
- Appropriate at mid-block locations only
- Not appropriate on grades greater than 8 percent





(Source: James Barrera, Horrocks, New Mexico)

(Source: Delaware Department of Transportation)

ITE/FHWA Traffic Calming EPrimer: https://safety.fhwa.dot.gov/speedmgt/traffic calm.cfm

Design/Installation Issues:

- Two or more cushions at each location
- Typically 12 to 14 feet in length and 7 feet in width
- Cushion heights range between 3 and 4 inches, with trend toward 3 3 ½ inches maximum
- Speed cushion shapes include parabolic, circular, and sinusoidal
- · Material can be asphalt or rubber
- Often have associated signing (advance-warning sign before first cushion at each cushion)
- Typically have pavement markings (zigzag, shark's tooth, chevron, zebra)
- Some have speed advisories

Potential Impacts:

- Limited-to-no impact on non-emergency access
- Speeds determined by height and spacing; speed reductions between cushions have been observed averaging 20 and 25 percent
- Speeds typically increase by 0.5 mph midway between cushions for each 100 feet of separation
- Studies indicate that average traffic volumes have reduced by 20 percent depending on alternative routes available
- Average collision rates have been reduced by 13 percent on treated streets

Emergency Response Issues:

 Speed cushions have minimal impact on emergency response times, with less than a 1 second delay experienced by most emergency vehicles

Typical Cost (2017 dollars):

• Cost ranges between \$3,000 and \$4,000 for a set of rubber cushions

Traffic Calming Fact Sheets

May 2018 Update



Speed Table/Raised Crosswalks

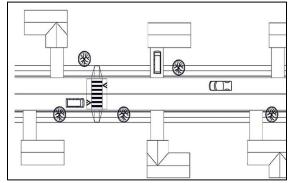
Description:

- Long, raised speed humps with a flat section in the middle and ramps on the ends; sometimes constructed with brick or other textured materials on the flat section
- If placed at a pedestrian crossing, it is referred to as a raised crosswalk
- If placed only in one direction on a road, it is called an offset speed table

Applications:

- Appropriate for local and collector streets; mid-block or at intersections, with/without crosswalks
- Can be used on a one-lane one-way or two-lane two-way street
- Not appropriate for roads with 85th percentile speeds of 45 mph or more
- Typically long enough for the entire wheelbase of a passenger car to rest on top or within limits of ramps
- Work well in combination with textured crosswalks, curb extensions, and curb radius reductions
- Can be applied both with and without sidewalks or dedicated bicycle facilities
- Typically installed along closed-section roads (i.e. curb and gutter) but feasible on open section





(Source: Google Maps, Boulder, Colorado)

(Source: Delaware Department of Transportation)

ITE/FHWA Traffic Calming EPrimer: https://safety.fhwa.dot.gov/speedmgt/traffic_calm.cfm

Design/Installation Issues:

- ITE recommended practice "Guidelines for the Design and Application of Speed Humps"
- Most common height is between 3 and 4 inches (reported as high as 6 inches)
- Ramps are typically 6 feet long (reported up to 10 feet long) and are either parabolic or linear
- Careful design is needed for drainage
- Posted speed typically 30 mph or less

Potential Impacts:

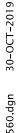
- No impact on non-emergency access
- Speeds reductions typically less than for speed humps (typical traversing speeds between 25 and 27 miles per hour)
- Speeds typically decline approximately 0.5 to 1 mph midway between tables for each 100 feet beyond the 200-foot approach and exit points of consecutive speed tables
- Average traffic volumes diversions of 20 percent when a series of speed tables are implemented
- Average crash rate reduction of 45 percent on treated streets
- Increase pedestrian visibility and likelihood of driver yield compliance
- Generally not appropriate for BRT bus routes

Emergency Response Issues:

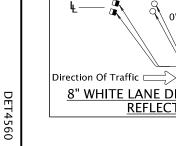
• Typically preferred by fire departments over speed humps, but not appropriate for primary emergency vehicle routes; typically less than 3 seconds of delay per table for fire trucks

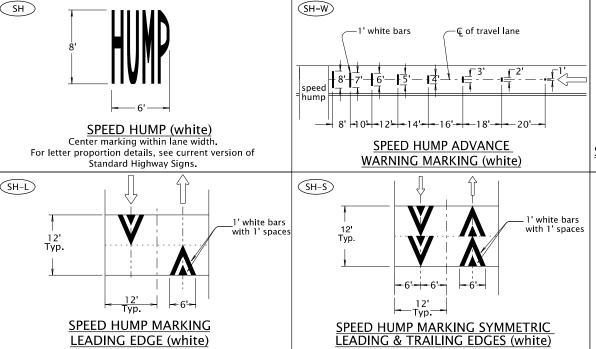
Typical Cost (2017 dollars):

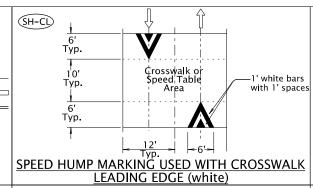
 Cost ranges between \$2,500 and \$8,000 for asphalt tables; higher for brickwork, stamped asphalt, concrete ramps, and other enhancements sometimes used at pedestrian crossings

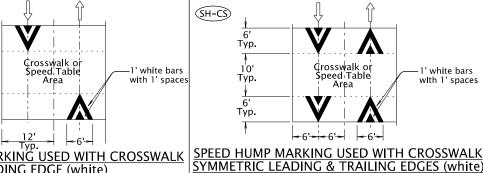




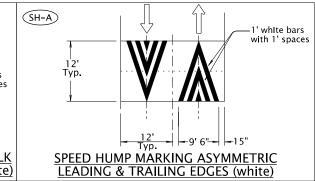


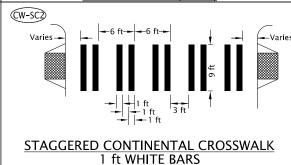




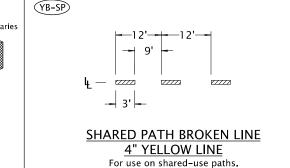


YB RB-R



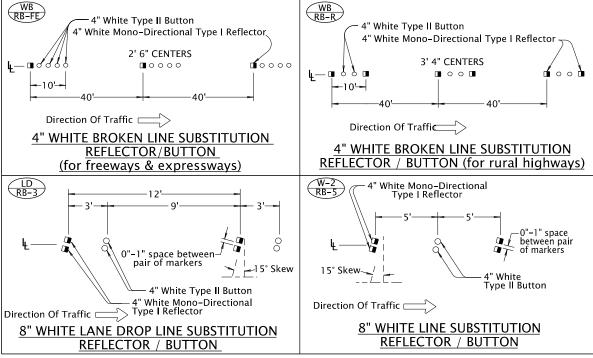


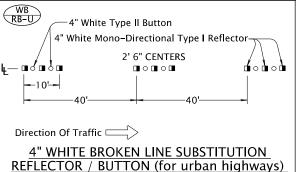
Install per Standard Drawing TM530.

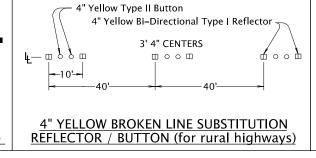


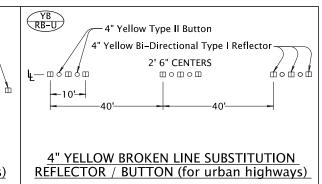
NOTE TO DESIGNERS:

- Raised Pavement Marker Substitution details should no longer be used on state highways. Consider durable profiled lines instead.
- 2.) Speed hump markings generally not used on state highway right-of-way.
- 3.) When continental style crosswalks are to be installed on a project (this may require Region Traffic Engineer approval depending on the situation. See Traffic Line Manual for further information), do not use CW–SC2 in Regions 1 thru 4. Only use CW–SC2 in Region 5 if the region striping manager approves, otherwise use the standard CW–SC shown in Standard Drawing TM503.
- 4) Shared Lane Marking should not be used on roadways with a speed limit above 35 mph.





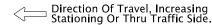




General note:

1.) Surface mount Raised Pavement Markers (RPMs) unless otherwise specified.

LEGEND



- Lane line dimensions are shown on the striping plans.
- Mono-directional crystal white marker reflects white to the left in this symbol
- Bi-directional yellow marker reflects yellow both left and right in this symbol

The selection and use of this detail, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without consulting a Registered Professional Engineer.



OREGON DEPARTMENT OF TRANSPORTATION TECHNICAL SERVICES DETAILS

PAVEMENT MARKING **DETAIL BLOCKS**

DETAIL NO. DET4560



Modular Rubber Traffic Calming Solutions

SLOWER SPEDS SAVE LIVES

BUY WITH NATIONAL COOPERATIVE CONTRACT PRICING trafficlogix.com/purchase-options



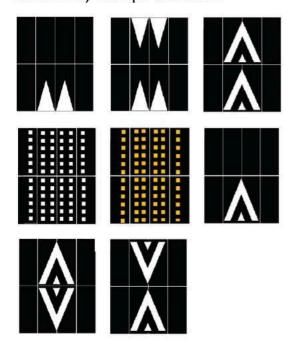
www.trafficlogix.com



Highly reflective highway tape is embedded into the rubber during the manufacturing process. Available in a choice of yellow/white squares or white arrows, marking designs can be fully customized to your specifications.

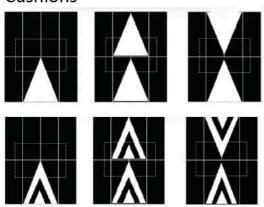
Standard Series:

Cushions, humps & tables

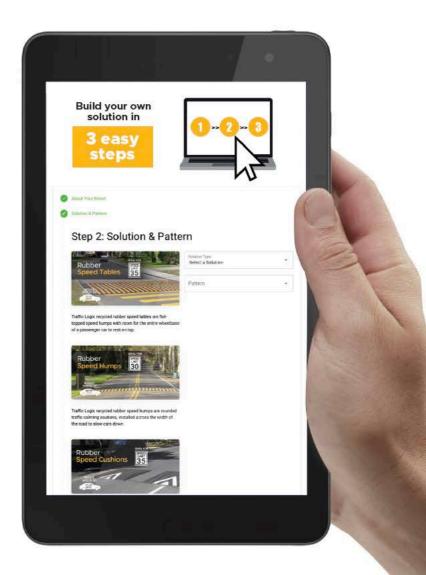


V3 Series:

Cushions









- Series of small humps with spaces between them
- Slow cars without affecting emergency response time
- Slows drivers while allowing emergency vehicles to straddle and pass
- Installed across road width in choice of lengths

7' Cushion Profile



- Raised traffic calming devices with sloped design
- Less abrupt than speed humps due to longer length
- Recommended for roads with low speed limits
- Slow cars to a range of speeds based on chosen length

14' Hump Profile



- Flat-topped speed humps for more gradual speed reduction
- Allows entire vehicle to rest on top for less abrupt slowing
- Encourages continued traffic flow at reduced speeds
- Ideal for residential roads



- Surface marked walkways for safe pedestrian passage
- Provides visual marked pathway to assist in safe crossing
- Effective speed deterrent slows speeding vehicles
- Dual safety advantage for superior pedestrian protection



- Highly flexible rubber allows shaping to any configuration
- Used for traffic circles, roundabouts, chicanes, safety islands, and lane narrowing

- Versatile solution for multiple usages
- Available in brick red or black with choice of tape color



- Creates dedicated bike lanes to protect cyclists
- Sloped delineators keep vehicle and bike traffic in their respective lanes
- Visual separation defines traffic spaces
- Guides cyclists back into lane while preventing vehicle traffic from entering bike lane



Why Traffic Logiz

Our recycled rubber traffic calming solutions offer a smarter, long-lasting alternative to asphalt devices.



Reduced Speeds

Rubber solutions are proven effective in reducing 85th percentile speed by close to 20% and childhood injury or death by close to 60%.



Recycled Rubber

Made of 100% post consumer tires, Traffic Logix recycles more than 450,000 tires from landfills every year.



Customizable

Traffic Logix rubber solutions are made of individual units so you can use them to meet your specs, speed limits, and safety challenges.



Rubber



Asphalt



Will not fade or crack

Quality

Fades and cracks over time



Maintains consistent profile

Durability

Compresses with repetitive impact, uneven profile

No heavy equipment needed to install

Installation

Heavy equipment required

Single lane closure

Disruption

Complete street closure during installation

for installation



Drivable immediately after installation

Usage

Only drivable after 2-3 days of cure time

Markings need repainting

after a few years



Highly visible reflective markings

Markings



Can be removed, stored and relocated

Must be destroyed for street Versatility



Constructed of recycled rubber tires rescued from landfills

Impact

Petroleum based, depletes resources and pollutes water

repairs









Patterns - Speed Humps, Cushions and Tables

A Division of Logix ITS

Cushion Examples Shown. Humps & Tables also available in similar patterns

Standard Series is available in various widths and lengths in creating (SC) Cushions, (SH) Humps and/or (ST) Tables

SC-070603-2A SC-070603-4A SC-070603-2A-2W SC-070603-2A-2Y

From left to right



From left to right SC-070603-M

SC-070603-2M-TW SC-070603-2M-OW

SC-070603-DIA From left to right SC-070603-M-2Y

SC-070603-M-2W SC-070603-2M-2Y-TW SC-070603-2M-2W-TW

From left to right SC-070603-M-Y

SC-070603-Y SC-070603-W SC-070603-2M-2Y-SLI

From left to right

* SC-070603-2A-2W

* SC-070603-2A-2Y * SC-070603-2A-SLO

* SC-070603-2A-2Y

From left to right

* SC-070603-DIA-2W

* SC-070603-2M-2W-OW

* SC-070603-2M-2Y-SLO

* SC-070603-W-2Y-SLO







42" Approach and Exit Ramp

Cushions - 3' W, up to 9' W Lengths 7', 10.5', 14', 17.5', 21'

Height 3"

Humps - Various Widths

Lengths 7', 10.5'

Tables - Various Widths

Lengths 14', 17.5', 21', 24.5'

Heights 3", (4" -14' Length only)

Heights 3", (4" -14' Length only

Flat Top any length Parabolic at 4" H (14' Length only)



• All modules have patented dual interlocking tongue and grooves.

- Creates a bond among modules.
- ♦ Increases installed cushion vehicle impact resistance.
- Enhances long-term stability and product performance.









* XXXX Non-Stock Item

7' L x 6' W x 3" H Standard Series Cushion Profile Shown

V3 SERIES Cushions - 7'L x 6' W x 3"H

V3 SERIES Humps 7'L x Various Widths Only

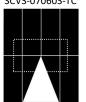


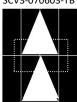


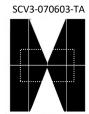


7' L x 6' W x 3" H V3 Series Cushion Profile Shown

SCV3-070603-TB SCV3-070603-TC







Steeper Approach Angle Flat Top Design

Designed Speed 5 - 8 mph







SCV3-070603-MTA



Spring Valley, NY 10977 866.915.6449 www.trafficlogix.com

SCV3-070603-MTC

SCV3-070603-MTB



RUBBER CONDITIONAL USE WARRANTY





Conditional Use Terms Rubber Traffic Calming Devices

- Traffic Logix traffic calming devices (the "Traffic Calming Products") are designed to be installed on local residential streets with posted speeds of 35 mph or less. Prior to installation, the Customer should determine if any federal, state, or local regulations govern the installation or use of Traffic Calming Products.
- 2. The installation location of any Traffic Calming Product should be reviewed by a Traffic Engineer.
- 3. Traffic Calming Products should only be used on roads with less than 5,000 vehicles per day.
- 4. Traffic Calming Products should be installed only on roads that are used primarily by passenger vehicles and/or emergency response vehicles with the roads themselves in respectable condition.
- 5. Traffic Calming Products should be installed in such a way that they are visible from at least 200 feet. For safe usage, Traffic Logix products must be installed in conjunction with appropriate signage in accordance with ITE's State of the Practice on Traffic Calming, as well as ITE's Manual on Uniformed Traffic Control Devices.
- 6. Traffic Calming Products should not be installed on roadways that have more than an 8% grade.
- 7. Traffic Calming Products should be installed with a minimum othree inches of asphalt or concrete underneath the device.
- 8. All bolts and anchors provided with product must be installed as instructed, and with Traffic Logix anchor adhesive that is also included with each product.
- Quarterly inspection of each Traffic Calming Product is required. If the Traffic Calming Product has been damaged in any way, it should be replaced.
- 10. Traffic Logix Products should be removed prior to the first snowfall and should only be reinstalled in non-winter months.





REQUEST FOR COUNCIL ACTION

Title: 2025 Oregon Jamboree Packet

Preferred Agenda: May 13, 2025

Submitted By: Angela Clegg, Planning & Building Manager

Reviewed By: Jason Ogden, City Manager

Cecily Pretty, Deputy City Manager

Type of Action: Resolution X Motion Roll Call Other

Relevant Code/Policy: SHMC 3.24, 5.12.010, 5.25, 9.20.020, 9.20.030, 12.12.100; ORS

811.615

Towards Council Goal: Goal #2: Effective and Efficient Government

Goal #4: Economic Strength

Attachments: Oregon Jamboree Packet

Attachment A: 2024 Utility Expense Summary

Resolution No. 10 for 2025

Purpose of this RCA:

The Oregon Jamboree has presented a list of requests to the City to conduct the 2025 Oregon Jamboree. The requests are:

- 1. Approve the street closure plan.
- 2. Approval of OLCC Temporary Sales License Applications.
- Granting of Public Address System Permits. The Jamboree submitted a single application covering all three stages. The application does not specify the stage locations. In previous Jamborees, stages were set up on School District property, at Sankey Park, and along 18th Street.
- 4. Assistance from the City of Sweet Home Police Department for concert security and safety based on our projection of between 10,000-12,000 patrons per day.
- 5. Assistance from the Public Works Department:
 - a. Deliver 25 "No Parking Signs" to the Boys & Girls Club.
 - b. Mow/Rake Sankey Park, to prepare for Site Layout
 - c. Mow/Rake Strawberry Park, to prepare for Site Layout
 - d. Unlock the Rodeo Grounds
 - e. Unlock cable at Upper Sankey Park Gate

Information not included in the 2025 packet, but requested in the past:

1. Waiver of SHMC 5.12.010 Transient Merchant License requirements for all Oregon Jamboree vendors.

- 2. Waiver of water service, equipment and some employee service fees.
- 3. Permission to use City property, including a portion of Sankey Park, for beer gardens and recommended approval of Liquor License.
- 4. Permission to use Upper Sankey Park, City Hall, Strawberry Park and Quarry Park for camping.
- 5. Waiver of Event Fee as established under SHMC 5.04.010 which is \$50 per day.
- 6. General assistance from the City of Sweet Home.

Background/Context:

This is the 33rd Oregon Jamboree. The Jamboree is anticipating approximately 12,000 patrons per day and approximately 36,000 patrons total.

Sankey Park will once again be used for the event, featuring a beer garden, a second stage, a children's play area, and various vendor booths. While this detail is not included on the task list or timeline sheet in their application, historically, the Jamboree has requested to assume control of and close Sankey Park to the public four (4) days prior to the event.

Additional Park/Public Property Closure requests starting at 12:00 PM July 31, 2025 and ending at 10:00 AM August 4, 2025:

- Grassy area and parking lot at City Hall.
- Strawberry Park
- Upper Sankey Park

Road Closures with permitted access starting at 7:00 AM on July 31, 2025 (no end date or time were listed in the Jamboree application):

- Kalmia Street just past 14th Avenue unmanned closure
- 18th Avenue: barricade at 18th Avenue and Long Street local traffic only.
- Ames Creek Road between Boys & Girls Club and Grape Street (no details listed).
- Ames Creek t Mountain View Road open to local traffic.

Hard Barrier Road Closures (no traffic) starting at 7:00 AM on July 31, 2025 and ending 9:00 PM August 3, 2025:

• 18th Avenue, north of the Main Gate and bus garage.

The Jamboree requests that the Police Department maintain staffing throughout the event. Officers will patrol both on foot and in vehicles, covering the Jamboree grounds as well as the surrounding campgrounds. To supplement law enforcement presence, the Jamboree will continue to employ DPSST-certified private security personnel to manage any unruly patrons. Additionally, all campgrounds will have volunteer camp hosts on-site 24/7.

The Oregon Jamboree also has 27 camp areas of varying sizes throughout the City and surrounding area. There are roughly 2,100 camp sites that are rented throughout the weekend.

The Challenge/Problem:

How does the City of Sweet Home help facilitate an event of this size while minimizing its impact on the entire community?

Stakeholders:

- <u>City of Sweet Home Citizens</u> The community members are directly affected by the Oregon Jamboree event. The effects range from a significant increase in the size of our community for at least 4 days to potential economic benefits for local business.
- <u>City of Sweet Home Staff</u> An event of this size and scale stretches our staffing resources to their limits.

 <u>City of Sweet Home City Council</u> – The City Council must balance the economic benefits of the Oregon Jamboree with the increased stress on the community. City Ordinances and past practice dictate that the Council approve specific requests for the event to be safely held.

Issues and Financial Impacts:

City of Sweet Home: Impact and Cost Analysis of the Oregon Jamboree Event

The Oregon Jamboree has a significant impact on multiple City departments and resources. While it is highly unlikely, expenditures associated with this event could potentially affect the City's ability to deliver general services later in the fiscal year, particularly in the event of an unforeseen emergency.

That said, the event provides substantial benefits to the community at large, and the City's continued support is both justified and valuable.

Cost and Revenue Summary

The following table outlines the costs incurred by the City as a result of supporting the Oregon Jamboree. It also includes revenue generated from the event, specifically:

- Reimbursements from the Oregon Jamboree for additional police staffing inside the event venue
- Transient Occupancy Tax (TOT) revenues attributed to the event

Public Safety Impacts

The Sweet Home Police Department increases patrol staffing during the event, requiring all officers and dispatchers to work additional shifts. This results in significant overtime expenditures. The Oregon Jamboree reimburses the City for personnel assigned within the event perimeter, but not for external patrols or dispatch support.

Public Works Impacts

Public Works staff contribute additional hours before, during, and after the event to support city infrastructure and services. Tracked tasks for the 2024 Jamboree include:

- Reseeding damaged turf at Sankey Park (approx. \$270)
- Set-up and clean-up, including moving picnic tables (approx. \$800 in labor, \$100 in equipment costs)
- Replacement of sprinkler heads and irrigation line repairs (approx. \$80)

Utility Costs

Utility usage exceeded normal consumption levels during the 2024 event, resulting in the following additional costs (see Attachment A for itemized details):

- Electricity: \$1,398.87 (includes electrical contract bill for \$130 due to damage caused by a camper attempting to charge equipment on the exterior of City Hall)
- Water: \$3,332.08

Policy Changes Effective 2025

In light of increasing operational costs and constraints on the general fund, the City of Sweet Home will no longer waive utility charges or infrastructure repair costs associated with the Oregon Jamboree beginning in 2025.

Additionally, 2025 will be the final year that camping is permitted at City Hall. The City has leased the previously vacant east side of City Hall, and the new tenants will utilize a significant portion of the parking area and office space.

City Property Fee Waiver		Amount		Days		Total	
Upper & Lower Sankey Park	\$	100.00		8	\$	800.00	
Northside Park				4			
Outdoor Event Center Rodeo Grounds)	\$	100.00		4	\$	400.00	
City Hall				4			
Strawberry Park				4			
Transient Mechant (as of 4.9.25)							
\$25/vendor	\$	25.00		42	\$	1,050.00	
Event Fee	\$	50.00		4	\$	200.00	
					I		
Utility Fee Waiver		2024		2023		2022	
Pacific Power	\$	1,398.87					
Water Consumption	\$	3,332.08	\$	1,661.02	\$	1,424.50	
					I		
Transient Merchant Fee	2024		2023		2022		
\$25 per vendor per day		No Fee		No Fee		No Fee	
					I		
Police		2024		2023		2022	
Total Police Overtime Costs (Thurs-Sun)	\$	17,910.24	\$	15,649.00	\$	12,742.00	
Interior Overtime Costs Reimbursed	\$	14,340.36	\$	12,833.00	\$	9,569.00	
Unreimbursed Overtime Costs	\$	3,569.88	\$	2,816.00	\$	3,173.00	
Public Works		2024	•	2023	_	2022	
Personnel Costs	\$	800.24	\$	50.00	\$	100.00	
"Local Traffic" sign waiver fee	\$		\$	-	\$	90.00	
"Street Closed" sign waiver fee "No Through Traffic" sign waiver fee	\$ \$	<u> </u>	\$ \$		\$ \$	90.00	
"No Parking" sign waiver fee	5 \$	60.00	. э \$	60.00	\$	162.00	
Lighted Barricade waiver fee	\$ \$	- 00.00	\$		\$	198.00	
Street Barricade waiver fee	\$	_	\$	-	\$	220.00	
Add'l Maintenance	\$	1,580.00	\$	-	\$	-	
	*	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	•				
Estimated City Costs and Waivers		2024		2023		2022	
-	\$	13,191.07	\$	4,645.02	\$	5,547.50	
Transient Occupancy Tax		2024		2023		2022	
Revenue Received	\$	17,175.18	\$	15,712.98	\$	13,891.08	

Elements of a Stable Solution:

A sustainable path forward is for the City of Sweet Home to continue its support of the Oregon Jamboree, while implementing necessary cost-recovery measures. The event continues to deliver significant cultural and economic value to the community, and the benefits have historically outweighed the logistical and financial impacts. However, due to rising utility, staffing, and infrastructure repair costs—such as over \$4,700 in additional water and power usage, overtime expenses for Police and Public Works personnel, and facility damages, the City will begin recovering these costs starting in 2025. This balanced approach allows the City to support the Jamboree while ensuring fiscal responsibility and protecting core public services.

Options:

- 1. <u>Approve Application as submitted and adopt Resolution No. 10 for 2025</u>. The Oregon Jamboree has been holding the event at its current location for 33 years. Most requests are a result of past experiences to improve the overall safety and function of the event.
- 2. Approve a portion of the application or alter the submitted application.
- 3. <u>Direct staff to re-engage the Oregon Jamboree to modify their application.</u>

Recommendation:

Staff recommend option 1: Move to approve the Application adopt Resolution No. 10 for 2025.



City of Sweet Home
Community and Economic Development Department
3225 Main Street, Sweet Home, OR 97386 541-367-8113

0/05/0005

SPECIAL EVENT AND PARK RENTAL - PUBLIC ADDRESS SYSTEM APPLICATION

Date of Application: 3/0	15/2025								
Name: Shamek		Robert							
(last)		(firs		0.4	(middle initial)				
DOB: 08/13/1974	Prim	ary Phone: _ ⁵²	11-7300-01	94 					
Home Address: 1040	1st Ave	e, Sweet Hom	ne, OR 973	86 					
Organization's Name:	Sweet	Home Econo	omic Develo	opment G	roup, Inc.				
Organization's Address	. 401	Main St, Ste	D, Sweet H	lome, OR	97386				
Organization's Phone #	E11	367-8800							
Local Address of Event: 1641 Long St, Sweet Home, OR 97386									
Nature of Business/Eve	nt: 202	5 Oregon Jan	nboree Musi	c Festival					
Date(s) and Time(s) of E		7/31/2025 4:0	0p-11p and	8/1/2025	2:00p-11p				
(-,	=	(date)	•	e from)	(time to)				
		8/2/2025		00 pm	11:30 pm				
		(date)	•	e from)	(time to)				
	_	8/3/2025		00 pm	11:30 pm				
Vehicle to be Used:	nazber	ry Red, 2021	•	ie from) iator. SB	(time to) 31597 OR				
Vernicle to be oseu.	olor)	(vear)	(make)	(license plat	e) (state)				
Type of Sound Amplific	ation E	quipment to be	used: Caso	cade Soul	nd will be providing				
amplified sound equipmen	II.								
Additional Information:	Music	on 3 different	states.						
Will PA broadcast sound (if yes, application must be prod	cessed an	d submitted to City	feet? Yes[Council for appro						
Special Event and Park F	Rental Ap	plication Attached	· -						
Application Review	S	Signature	Date	(Approv	Decision e, Approve with Conditions, Deny				
CEDD									
City Manager									
Police Chief									
City Council (if applicable)									

Sweet Home Oregon at list butt

Community and Economic Development Department

SPECIAL EVENT AND PARK RENTAL POLICIES AND PROCEDURES

- 1. Special Event and Park rental Permit applications must be submitted in full at least 45 days prior to the event. 60 days is better in case the City requires additional information, staff vacations, etc.
- 2. All streets shall be accessible to emergency equipment at all times. Only readily removable barricades shall be used to close the streets.
- 3. You will **report any problems or damage** to the Community Development Department immediately. During regular business hours (8am-5pm), call **541-367-8113**. At other times call the police non-emergency number, **541-367-5181**.
- 4. You will set up and remove all equipment, structures, and materials for the reserved park activity within the block of time specified in the park permit.
- 5. You will not drive a motorized vehicle on a bicycle path or pedestrian path in a city park.
- 6. You will park only in designated parking areas that have paved or gravel surfaces. Parking is not permitted on grass, in landscaped areas, or under tree canopies.
- 7. All debris and trash is the responsibility of the event organizer. It must be removed from the event site during the event. In addition, the event site must be cleaned within twelve (12) hours after the end of the event, or no later than 11 a.m. on the next day. The City's Public Works Department must provide garbage removal service. Contact the City at 541-367-6359.
- 8. You will not deposit charcoal briquettes on the ground or in garbage cans. If a charcoal disposal bin is not available, take the charcoal briquettes with you when you leave.
- 9. You will properly dispose of garbage that exceeds the capacity of the garbage receptacles at the park facility. You can rent a dumpster through a private vendor or haul off your bagged garbage and recyclables yourself. Excess garbage left at the rental facility will be removed at your expense. A fee for service will be deducted from your security deposit.
- 10. You will remove all signs or markings associated with the reserved park activity. **Paint is not permitted for marking** pavement or structures. Chalk is acceptable but must be removed immediately after the event.
- 11. You will return all keys to City Hall (3225 Main Street) on the next business day after the reserved park activity.
 - Keys will be distributed by authorized City employees only.
 - o Keys will not be copied by anyone other than authorized City employees.
- 12. You will obtain an underground utility locate and permission from the Community Development Department if sign posts, stakes, or spikes will be driven into the ground.
- 13. You will accept the park facilities, including the premises and equipment, in their present condition.
- 14. You will reimburse the City for all damages to the premises or property resulting from their use, other than ordinary wear and depreciation, as determined by the City.
- 15. You will conform to all rules and regulations of the City.
- 16. You agree to provide adequate supervision and be responsible for any improper conduct of the attendees, both individually and collectively, while on the City premises or utilizing facilities.
- 17. You agree that the use of the facilities and this permit is revocable by the City at any time at the City's option.
- 18. You agree to hold the city harmless and indemnify the city from any and all liability for injury to persons or property occurring as a result of the activity sponsored by the permittee.
- 19. You agree that the permittee and any other person who allows or causes damage to park facilities, park areas, and any other property owned by the city shall be liable to the city for the damage caused.

 I agree to abide by all Federal, State, and municipal equal opportunity laws and regulations prohibiting discrimination.



SPECIAL EVENT AND PARK RENTAL PERMIT APPLICATION

	1.	Name of Event: 2025 Oregon Jamboree	Date(s) of Event $\frac{7/31-8/3, 2025}{}$								
	2.	Setup Start Time/Date: 11:00am, 7/28	Event Start Time: 4:00 pm 7/31								
	3.	Event End Time: 10:00 pm, 8/3	Clean Up End Time/Date: 10 pm 8/4								
	4.	Sponsoring Organization: Sweet Home Ec									
	5. Event Coordinator/Primary Contact: Robert Shamek										
		401 Mai St. Ste D. Sweet Home, OR 97386									
	541-367-8800 541-730-0194										
	7. Day Time Phone: 541-307-0000 Cell Phone: 541-367-8400 8. Email: robert@oregonjamboree.cc										
	8.		Phone: 541-409-8180								
	9.	Secondary Contact: Peggy Curtis	Phone: OT 1-TOS-O 100								
	10.	Is Alcohol Being Served?	If YES include a copy of the State Liquor Permit.								
	11.	Do you wish to utilize any City property, such as a park If YES, which one(s)? Sankey, Upper Sankey, City Hall, Strawberry	? Ø Yes No								
	If YES, all vendors must apply for a Temporary Restaurant License with the Linn County Health Department 541.967.3821, (ORS 624.025). The Vendors must apply three weeks before the start of the event. A list of vendors is required to be submitted with this application. 13. Anticipated Number of Attendees? 12,000 per day, 36000 total. THE PRIMARY CONTACT MUST LIST A DAY OF EVENT PHONE NUMBER IF NOT LISTED ABOVE.										
OR	OFF	ICE USE ONLY:									
lan	ning		olice Chief								
ED	D Di	rector	ublic Works Director								
	Chie										
ΤAI	FF –	INITIAL AND DATE UPON APPROVAL OR ATTACH MEMO	RANDUM WITH CONDITIONS								
	PA	YMENT AMOUNT:	CASH CC CHECK#								
	REC	CEIVED BY:	DATE:								
	PE	RMIT APPROVED: Yes No	Entered on Events Calendar								
	Au	thorized City Signature:	Date:								
-	-										

Sweet Home Oregon

Community and Economic Development Department

HOLD HARMLESS AGREEMENT

IN CONSIDERATION OF BEING PERMITTED TO PRODUCE THIS SPECIAL EVENT OR ACTIVITY OR USE OF ANY CITY PROPERTY OR FACILITIES IN CONNECTION WITH THIS ACTIVITY, THE UNDERSIGNED APPLICANT ("INDEMNITOR") AGREES TO THE FOLLOWING:

- 1. THE INDEMNITOR HEREBY AGREES TO RELEASE, INDEMNIFY AND HOLD HARMLESS the City of Sweet Home from any and all liability, claims, demands, causes of action, charges, expenses, and attorney fees (including attorney fees to establish the City's right to indemnity or incurred on appeal) resulting from involvement in this event whether caused by any negligent act or omission of the City or otherwise. This agreement shall not apply to any liability resulting from the sole negligence of the City.
- 2. The INDEMNITOR agrees to reimburse the City for any loss, theft of, or damage to City property, equipment and/or facilities.
- 3. The INDEMNITOR agrees to comply with all applicable laws, statutes, ordinances, rules and requirements including, but not limited to, not admitting more attendees than designated by Fire Department as safe for the particular event or facility.
- 4. The INDEMNITOR expressly agrees that this release and hold harmless agreement is intended to be as broad and inclusive as permitted by Oregon law and that if any portion thereof is held invalid, notwithstanding, the balance shall continue in full legal force and effect.
- 5. Falsification and/or misrepresentation in completing this application may result in rate adjustment or event cancellation. I UNDERSTAND THAT CHANGES TO THE ABOVE DETAILED PROGRAM REQUIRE IMMEDIATE NOTIFICATION TO THE CITY.

I, the undersigned representative, have read the Special Events and Park Rental Application and the Policies and Procedures contained herein, and I am duly authorized by the event organization/business to submit this application on its behalf. The information herein is complete and accurate.

APPLICANT:

Robert Shamek

SHEDG, The Oregon Jamboree

PRINT NAME

AUTHORIZED AGENT FOR

SIGNATURE OF APPLICANTS

SIGN NAME

DATE

APPROVAL, DENIAL OR INCLUSION OF RESTRICTIONS OR SPECIAL CONDITIONS OF USE PERMIT IS AT THE SOLE DISCRETION OF THE CITY PUSUANT TO Sweet Home Code of Ordinances 17.80 Conditional Uses. All applications must be reviewed and approved before a permit can be issued.



Event and Equipment Rental Fees

Description	Fees <u>: Non-</u> <u>Refundable</u>	Fees: Refundable	Total Hours	Total Owed	Total Paid	Date Paid
Bandstand	\$15.00/hour or	\$100.00				
	\$100 maximum					
Outdoor Event Center	\$15.00/hour or	\$100.00				
	\$100 maximum					
Gazebo	\$15.00/hour or	\$100.00				
	\$100 maximum					
Sankey Hut	\$15.00/hour or	\$100.00				
,	\$100 maximum					
Weddle Bridge	\$15.00/hour or	\$100.00				
-	\$100 maximum					

Total Equipment Items not to exceed a \$400.00 replacement costs. Items described below are subject to availability. A 24-hour notice is required before pick-up. Two-day <u>maximum</u> rental.

	Fees: Non-	Fees:	Replacement	Total	Total Paid	Date Paid
Description	Refundable	Refundable	Costs	Owed		
Tables	\$5.00/table	\$100.00	\$60.00			
Chairs	\$1.00/chair					
2' Fold Up Barricade	\$3.00/ Barricade		\$25.00			
2' Fold Up Plastic Barricades	\$3.00/Barricade		\$40.00			
8' Barricade	\$3.00/Barricade		\$45.00			
Small Barricade – "No Park"	\$3.00/Barricade		\$24.00			
Photo Cell Battery Light	\$3.00/Light		\$20.00			
18" Traffic Cones	\$3.00/Cone		\$10.00			
28" Traffic Cones with Reflective Strip	\$3.00/Cone		\$19.00			
Construction Signs with Sign Holders	\$10.00/Sign		\$50.00			
Slow/Stop Paddle	\$3.00/Each		\$18.00			
Slow/Stop Paddle with 30" Handle	\$5.00/Each		\$20.00			
Slow/Stop Paddle with 60" Handle	\$5.00/Each		\$21.00			
Hydrant Wrench	\$5.00/Each		\$35.00			
Safety Vests			\$12.00/Each			



SANKEY HUT RENTAL

Pass Code	<u> </u>	_ (given by st	taff upon payment	t of fees)	
Please read I agree to read Please read Plagree to read Plagree to read Plagree to perfect the block of I agree to perfect the perfect to read the perfect to read the perfect than ordinary I agree to read than ordinary I agree to perfect than	ad and initial each share my pass of scodes will be discipled in the property dispose of a can rent a dumps yourself. Excessivil be deducted from the analysis of pavement or structure and depression of the factorial and depression of the factorial and collective the use of the factorial and collective the use of the factorial and collective the permittee and any other property	ch line below code with anyon tributed by author or damage to (7am-4pm), can 5181. all equipment, so the park permit. It is dispose of all garbage that expressed the expression of the activity so any other personned by the code of the activity so any other personned by the code in the activity so any other personned by the code in the activity so any other personned by the code in the activity so any other personned by the code in the activity so any other personned by the code in the activity so any other personned by the code in the activity so any other personned by the code in the activity so any other personned by the code in the activity so any other personned by the code in the activity so any other personned in the activity so any other personned by the code in the activity so any other personned in the activity so any other personned by the code in the activity so any other personned in the a	ne else. norized City employed the Community Deverall 541-367-8113. At structures, and mater trash, litter, and food exceeds the capacity of private vendor or haul the rental facility will ty deposit. ciated with the reserve acceptable but must be and permission from will be driven into the get the premises and eque to the premises or pre- termined by the City. The city premises or util to be responsible for an e City premises or util to be the city from any acceptable by the city from any acceptable by the city from any acceptable by the city shall be liable to	es only. elopment Departmer other times call the rials for the reserved of the garbage receptors of your bagged gaste removed at your wed hut activity. Paint the Community Deground. In the Community Deground. In their preserved in their preserved in their preserved in the city at any times and all liability for injunittee. Uses damage to hut the city for the the city fo	hut activity within hut activity. ptacles at the hut bridge and expense. A fee ont is not permitted diately after the evelopment sent condition. In their use, other at the City's ury to persons or facilities, park age caused.
areas, and	any other property bide by all Federa	owned by the	son who allows or cau city shall be liable to unicipal equal opportu	the city for the dama	age caused.
Staff Use Only	:				a
Clean up verifie	ed by Staff Date		signature of staff		
Deposit Return	ed Date		signature of staff		

Sweet Home Oregon

Community and Economic Development Department

FACT SHEET

The Oregon Jamboree will take full responsibility to repair/replace any damages incurred to the City of Sweet Home properties while under the permitted use by the Oregon Jamboree; with exception of uncontrollable events produced by natural forces (Force Majeure Event).

Occupancy Tax:

• Historically, the Oregon Jamboree pays an occupancy tax on all patron campsites (excluding comp sites) to the City of Sweet Home and Linn County based on camping sites sold, within the City and County limits. The Jamboree supports the long standing tradition of giving these funds to the Sweet Home Chamber of Commerce.

Alcohol Sales:

• Oregon Beverage Services personnel will ensure that alcohol sales are in strict compliance with all city and state laws; including proper liquor permits, security and insurance.

Residential Passes:

• All residents of 18th Avenue and Kalmia Street will receive (4) passes via USPS with tracking, allowing them to proceed to and from their homes. Resident vehicles must be parked on their property and not on the street.

Requested Assistance from the Sweet Home Police Department

• We are requesting adequate manpower from the Sweet Home Police Department to assist with concert security and safety based on our projection of between 10,000-12,000 patrons per day.

Please see Additional Information for:

Conflict resolution, Event chain of command, admission policy, 2025 street closure plan with map, traffic control plan, campground map



SPECIAL EVENT PARK RENTAL TASK LIST / TIME LINE

DATE	TIME	EVENT TASK	RESPONSIBLE PARTY
e.g.	e.g.	e.g.	e.g.
06/20/18	9:00 am	All Scheduled Streets Closed	City of Sweet Home
7/24/2025	9:00 am	Deliver 25 - "No Parking Signs" to the Boys&Girls Club	Public Works Department/Jamboree: Ryan Warden
			Ryan: 503-932-8612
July 2025	no later than 7/24	Mow/Rake Sankey Park, to prepare for Site Layout (7/27)	Public Works Department
July 2025	no later than 7/24	Mow/Rake Strawberry Park, to prepare for Site Layout (7/27)	Public Works Department
July 2020	Tio tator than 1721		
7/22/2025	9:00 am	Turn on the water at the Rodeo Grounds	City of Sweet Home Water Department -Cindy
8/5/2025	9:00 am	Turn off the water at the Rodeo Grounds	City of Sweet Home Water Department -Cindy
	0.00	Unlock the Rodeo Grounds	Public Works Department
7/22/2025	9:00 am		Public Works Department
7/28/2025	12:00 pm	Unlock cable at Upper Sankey Park Gate	Tubilo Trollio Dopartion
		ROAD CLOSURES PERMIT ACCESS	
		<starting <="" at="" td=""><td></td></starting>	
		<ending <="" at="" td=""><td></td></ending>	
7/31/2025	7:00 am	Kalmia Street just past 14th - Unmanned Closure	
		18th AVE-barricade at 18th & Long-local traffic only	
		Ames Creek Road between BGC & Grape St	
		Ames Creek to Mountain View Road-open to local traffic	
		HARD BARRIER CLOSURENO TRAFFIC	
7/04/0005	7:00 am	<starting <="" at="" td=""><td></td></starting>	
7/31/2025		<ending <="" at="" td=""><td></td></ending>	
8/3/2025	9:00 pm	18th AVE North of Main Gate & Bus GarageNO TRAFFIC	
		PARKS CLOSURE	*to provide maximum security and
7/31/2025	12:00 pm	<starting <="" at="" td=""><td>eliminate potential hazards</td></starting>	eliminate potential hazards
8/4/2025	10:00 am	<ending <="" at="" td=""><td></td></ending>	
		Grassy area and Parking Lot at City Hall	
		Strawberry Park	
		Upper Sankey Park	



LIST OF VENDORS

NAME OF VENDOR	APP?	CONTACT	EMAIL	PHONE NUMBER
see google spreadsheet				
shared with A. Clegg				
	-			
	l			
P				
	-			
	ļ			
	 			



Insert Event Overview Map



Insert Vendor Site Map



SPECIAL EVENT AND PARK RENTAL APPLICATION CHECKLIST

0	Review the Instructions for completing the Special Event Permit.
\circ	Complete the Special Event Permit Application.
0	Scheduled and Attended a meeting with the Community and Economic Development Department to review the application and supporting documentation.
0	Obtained and submitted a Certificate of Insurance.
\circ	Review and signed the Hold Harmless Agreement.
\circ	Completed the Rental Fees form.
\circ	Completed Sankey Hut Rental form (if applicable)
0	Completed the Fact Sheet
0	Completed the Special Event Task List / Time Line. (if applicable)
0	Completed the List of Vendors. (if applicable)
0	Submitted an Event Overview Map. (if applicable)
\circ	Submitted a Vendor Map. (if applicable)
0	Turned in or mailed all the above items to the City of Sweet Home

Community and Economic Development
Department Special Event and Park Rental Permit
3225 Main Street
Sweet Home, OR 97386





ゴ- Festival Venue A - Baseball Field 1 - Upper Sankey Park 2 - Pool

3 - Parking Lot

4 - Football Field

6 - Hawthorne

7 - Oak Heights 8 - Junior High 9 - Rodeo Grounds W

10 - Rodeo Grounds E

12 - Long Street

14 - Ames Creek

15 - Chapel Camp

16 - Group Camp 18 - City Hall

V - Vendor/Volunteer 25 - Strawberry Park



Statement of Intent to provide OLCC License & Proof Of Insurance

March 10, 2025

Oregon Jamboree 401 Main St, Ste D Sweet Home, OR 97386

Angela Clegg Community and Economic Development Dept. City of Sweet Home 3225 Main Street Sweet Home, OR 97386

Angela,

As in 2024, our 2025 OLCC License will be the submitted by our vendor, Oregon Beverage Services, managed by Carroll Unruh. He will submit the request for the permit to the State of Oregon approximately 6 weeks prior to the event, to allow for processing. The permit is sent to the Chief of Police who will then forward the approval to the City of Sweet Home.

Additionally, a letter to provide insurance, provided by Blake Keesecker, is attached to the City Application.

Sincerely,

Peggy Curtis



1195 Main Street PO Box 9 Sweet Home, OR 97386 (541) 367-2141 (541) 367-3904 fax www.keeseckerinsurance.com

March 10, 2025

To whom it may concern:

Sweet Home Economic Development Group Inc. (SHEDG Inc.) has intent to purchase Commercial General Liability insurance for the 2025 Oregon Jamboree. I, Blake Keesecker, licensed insurance agent, have submitted applications on behalf of SHEDG Inc. for Commercial General Liability Insurance and are in the process of reviewing pricing and coverages.

SHEDG Inc. will be obtaining insurance with a \$3,000,000 per occurrence and \$5,000,000 aggregate limit of liability.

Those who require additional insured status from SHEDG Inc.'s insurance policy will be furnished a certificate of insurance showing additional insured status.

Attached is a sample certificate of insurance of what coverages SHEDG Inc. will obtain.

Regards,

Blake Keesecker

Keesecker Insurance Inc.

BIL Kesselen

PO BOX 9

Sweet Home, OR 97386

541-367-2141

blake@kee-ins.com



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 03/10/2025

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

th	is certificate does not confer rights to	the c	ertifi	cate holder in lieu of such	endor	sement(s).				\dashv
PRO	DUCER				CONTAC NAME:	Sabrina S		LEAV	14) 007 0004	_
Kee	secker Insurance, Inc.				PHONE (A/C, No	, Ext): (541) 36	67-2141 	(A/C, No): (5-	41) 367-3904	_
119	5 Main Street				E-MAIL ADDRES	ss: sabrina@l	kee-ins.com			
РО	Box 9					INS	SURER(S) AFFOR	DING COVERAGE	NAIC#	
Swe	et Home			OR 97386	INSURE	RA: TBA				
INSU	RED				INSURE		RESSIVE			
	Sweet Home Economic Develop	ment	Group	p, Inc.	INSURE					
	DBA: Oregon Jamboree		'		INSURE					
	401 Main St Ste D									
	Sweet Home			OR 97386	INSURE					\neg
		TIELO	ATE !		INSURE	RF:		REVISION NUMBER:		
CO				NUMBER:	ISSHED	TO THE INSUE				\neg
IN Ci	THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.									
INSR LTR	TYPE OF INSURANCE	ADDL	SUBR	POLICY NUMBER		POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS		
<u> </u>	COMMERCIAL GENERAL LIABILITY								3,000,000	
	CLAIMS-MADE X OCCUR						1	DAMAGE TO RENTED PREMISES (Ea occurrence) \$	300,000	
	CLAIIVIS-IVIADE 2 CCCOR						ľ		10,000	
A							3		3,000,000	
(``									5,000,000	
	GEN'L AGGREGATE LIMIT APPLIES PER:								5,000,000	
	POLICY LOC							\$		
	OTHER:							COMBINED SINGLE LIMIT S	2,000,000	
	AUTOMOBILE LIABILITY							(Ea accident) BODILY INJURY (Per person) \$	_,	
	ANY AUTO OWNED SCHEDULED							BODILY INJURY (Per accident) \$		-
В	AUTOS ONLY AUTOS									-
	HIRED AUTOS ONLY NON-OWNED AUTOS ONLY							(Per accident)		-
								\$		-
	UMBRELLA LIAB OCCUR							EACH OCCURRENCE \$		
	EXCESS LIAB CLAIMS-MADE							AGGREGATE \$		_
	DED RETENTION \$							\$		
	WORKERS COMPENSATION							PER OTH- STATUTE ER		
_	AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE			740772				E.L. LACITACCIDENT	1,000,000	
С	OFFICER/MEMBER EXCLUDED? (Mandatory in NH)	N/A		749772					1,000,000	
1	If yes, describe under DESCRIPTION OF OPERATIONS below							E.L. DISEASE - POLICY LIMIT \$	1,000,000	
-	DESCRIPTION OF OPERATIONS BELOW									
l										
							l i			
DEC.	CRIPTION OF OPERATIONS / LOCATIONS / VEHICLE	ES (AC	OPD 1	101 Additional Pemarks Schedule	may he a	ttached if more si	nace is required)			
DESC	CRIPTION OF OPERATIONS / LOCATIONS / VEHICLE	=5 (AC	י עאטי	UI, Additional Remarks Schedule,	illay be a	ttached il lilore s	pace is required,			
l										
CEF	RTIFICATE HOLDER				CANC	ELLATION				
					SHC THE	OULD ANY OF T	DATE THEREO	SCRIBED POLICIES BE CANCE F, NOTICE WILL BE DELIVERED Y PROVISIONS.		
					AUTHO	RIZED REPRESE	NTATIVE			
							2.	1/2		
I					I		G.I	- Keesede		

2024 Oregon Jamboree Water Usage at City Properties

7	Beginning Read	Closing Read	Total Usage
3225 Main Street	47587	49857	23
4001 Long Street	1646	2023	37.7
809 14th Avenue	2693	2693	0
Sankey Park - Weddle Bridge	308277	308744	46.7
Sankey Park Hut	1178	1235	57
1712 11th Avenue	0	0	0
1780 11th Avenue	0	0	0
Storage Depot	0	0	0
Strawberry Park	1205	1395	190
			354

Current Rate (Per unit) 9.41 Value of Usage	\$3,332.08
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BILLING DATE: Aug 21, 2024 ACCOUNT NUMBER: 18000641-017 9 DUE DATE: Sep 9, 2024 AMOUNT DUE: \$39,213.29

ITEM 50 - ELECTRIC SERVICE

870 18TH Ave Sweet Home OR Community Center Schedule 28 Service ID: 395319100-002

METER NUMBER	SERVICE PERIOD From	To	ELAPSED DAYS	METER READ	INGS Current	METER MULTIPLIER	AMOUNT USED THIS MONTH
70185321	Jul 3, 2024	Aug 5, 2024	33	15324	15596	80.0	21,760 kwh
70185321	Demand	Aug 5, 2024			0.959	80.0	77 kw
70185321	Reactive	Aug 5, 2024			0.334	80.0	27 kvar

Next scheduled read date: 09-04. Date may vary due to scheduling or weather.

NEW CHARGES - 08/24	UNITS	COST PER UNIT	CHARGE
Basic Charge - 3P Sec Delivery	82 kw		34.00
Load Size Charge - 3P Sec Del	82 kw	0.9000000	73.80
Demand Charge Sec - Min 15 Kw	77 kw	6.0000000	462.00
Delivery Charge Secondary	21,760 kwh	0.0159800	347.72
Supply Energy Secondary	21,760 kwh	0.0716400	1,558.89
System Benefits Charge	21,760 kwh	0.0076600	166.68
Public Purpose		0.0150000	39.65
Low Income Discount Recovery	21,760 kwh	0.0027800	60.49
Low Income Assistance	21,760 kwh	0.0006900	15.01
Sweet Home Franchise Tax		0.0150000	40.55
Total New Charges			2,798.79

ITEM 52 - ELECTRIC SERVICE

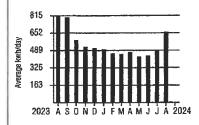
4001 Long St Sweet Home OR Rodeo Grounds Schedule 28 Service ID: 975356013-001

METER NUMBER	SERVICE PERIOD From	Ta	ELAPSED DAYS	METER READI Previous	INGS Current	METER MULTIPLIER	AMOUNT USED THIS MONTH
77596266	Jul 12, 2024	Aug 13, 2024	32	14048	15731	1.0	1,683 kwh
77596266	Demand	Aug 13, 2024			32.072	1.0	32 kw

Next scheduled read date: 09-12. Date may vary due to scheduling or weather.

NEW CHARGES - 08/24	UNITS	COST PER UNIT	CHARGE
Basic Charge - 1P Sec Delivery	18 kw		18.00
Load Size Charge - 1P Sec Del	18 kw	1.1500000	20.70
Demand Charge Sec - Min 15 Kw	32 kw	6.0000000	192.00
Delivery Charge Secondary	1.683 kwh	0.0159800	26.89
Supply Energy Secondary	1,683 kwh	0.0716400	120.57
System Benefits Charge	1,683 kwh	0.0076600	12.89
Public Purpose	.,	0.0150000	5.87
Low Income Discount Recovery	1,683 kwh	0.0027800	4.68
Low Income Assistance	1.683 kwh	0.0006900	1.16
Sweet Home Franchise Tax	,,000 11111	0.0150000	5.94
Total New Charges		0.010000	408.70

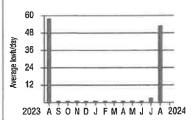
Historical Data - ITEM 50



Your Average Daily kwh Usage by Month

PERIOD ENDING	AUG 2024	AUG 2023
Avg. Daily Temp.	75	70
Total kwh	21760	24320
Avg. kwh per Day	659	811
Cost per Day	\$84.81	\$86.12

Historical Data - ITEM 52



Your Average Daily kwh Usage by Month

PERIOD ENDING	AUG 2024	AUG 2023
Avg. Daily Temp.	73	72
Total kwh	1683	1854
Avg. kwh per Day	53	58
Cost per Day	\$12.77	\$10.93

2024 Pacific Power

	Jul-24	Aug-24	
3225 Main Street	897.56	878.6	
870 18th Avenue	1970	2798.8	
4001 Long Street	34.26	408.7	
877 14th Avenue	119.5	176.05	
877 14 Avenue	141.13	247.91	
877 14th Avenue	36.08	68.38	

NORM'S ELECTRIC INC.

PO Box 28 Brownsville, OR 97327 541-466-5328 normselectric@outlook.com

INVOICE

DATE	8/16/2024
INVOICE#	24-739

BILL TO:

CITY OF SWEET HOME 3225 MAIN ST SWEET HOME, OR 97386

TERMS	Net 15
DUE DATE	8/31/2024

JOB: CITY HALL

PO#

DESCRIPTION	en de les est	AMOUNT
LABOR	1.16 1.9 4.27	130.00
~ TROUBLESHOOTING OF WATER HEATER & OUTLET'S IN * TRIPPED CIRCUIT'S	I SW OFFICE B7:	
		N
•	7207	
Please pay from this invoice. Thank you!	Total:	\$130.00
	Payments/Credits:	\$0.00
NOTE: All credit & debit card payments will be charged an additional 3% processing fee.	Balance Due:	\$130.00

RESOLUTION NO. 10 FOR 2025

A RESOLUTION CONCERNING THE OREGON JAMBOREE, PARK CLOSURES, STREET CLOSURES AND RESTRICTIONS.

WHEREAS, on July 31st, August 1st, August 2nd, and August 3rd, 2025, the Oregon Jamboree will hold a concert requiring street and park closures; and

WHEREAS, traffic patterns and parking issues need to be addressed to accommodate the events; and

WHEREAS, Sweet Home Municipal Code 10.04.030 provides that the City Council may, by resolution, establish or alter traffic and parking control;

WHEREAS, Sweet Home Municipal Code 12.12.010 and Sweet Home Charter Section 2 provide that the City Manager can limit park use.

NOW, THEREFORE, the City of Sweet Home does resolve as follows:

Traffic and park regulations shall be kept in effect as follows:

- A. From 7:00 AM Thursday, July 31, 2025, to 9:00 PM, Sunday, August 3, 2025, barricade is located on Kalmia Street just past 14th Avenue. Unmanned closure; open to local traffic only.
- B. From 7:00 AM Thursday, July 31, 2025, to 9:00 PM, Sunday, August 3, 2025, barricade located on 18th Avenue and Long Street. Pass Required: local traffic only.
- C. From 7:00 AM Thursday, July 31, 2025, to 9:00 PM, Sunday, August 3, 2025, barricade located on Ames Creek Road between the Boys and Girls Club and Grape Street. Pass Required.
- D. From 7:00 AM Thursday, July 31, 2025, to 9:00 PM, Sunday, August 3, 2025, barricade located at Ames Creek Road and Mountain View Road. Open to local traffic only.
- E. From 7:00 AM Thursday, July 31, 2025, to 9:00 PM, Sunday, August 3, 2025, barricades located on 18th Avenue, north of the main gates and bus garage Road Closed.
- F. From 12:00 PM on Thursday, July 31, 2025, through 10:00 AM on Monday, August 4, 2025, the grass area and rear parking lot at City Hall and Strawberry Park shall be available and utilized for RV and tent camp sites; and Upper Sankey Park shall be available and utilized for RV camp sites for the Oregon Jamboree event.
- G. From 6:00 AM Monday, July 28, 2025, to 10:00 PM Monday, August 4, 2025 Sankey Park and Weddle Bridge will be closed to the public to provide security and eliminate potential safety hazards.

- H. From 4:00 PM on Thursday, July 31, 2025 through 10:00 PM on Sunday, August 3, 2025, SHMC 12.12.100 shall be waived for Sankey Park only. SHMC 12.12.100 limits the sale, consumption, or possession of alcoholic beverages in parks.
- I. Appropriate and authorized fencing, signs, barricades or other markings which shall be installed by the Oregon Jamboree, at their own cost, to carry out the provisions of this resolution, and they shall become effective upon their installation pursuant to this resolution.

PASSED by the Council and approved by the	Mayor this 13 th day of May, 2025.	
ATTEST:	Mayor	_
City Manager - Ex Officio City Recorder		



REQUEST FOR COUNCIL ACTION

Title: Request for Council Action – Ordinance No. 2 for 2025 – Adopting

Camping Regulations

Preferred Agenda: April 22, 2025

Submitted By: Blair Larsen, City Attorney

Reviewed By: Cecily Hope Pretty, Deputy City Manager

Type of Action: Resolution \square Motion \boxtimes Roll Call \square Other \square

Relevant Code/Policy: ORS §195.500

Towards Council Goal: Desirable Community

Attachments: Ordinance Bill No. 2 for 2025 – Camping Regulations

Purpose of this RCA:

The purpose of this RCA is to request approval and first reading of a proposed ordinance regulating camping within the City.

Background/Context:

ORS §195.500 requires municipalities to "develop a policy that recognizes the social nature of the problem of homeless individuals camping on public property." Ever since the opening of the Family Assistance and Resource Center Group (FAC) facility on 24th Avenue, the City has maintained an area next to the Police Station where those who have been excluded from or refuse to utilize the FAC site may camp at night. The Police Department strictly enforces specific permitted hours of camping and conduct at this site. Anyone camping on public property anywhere else in the City who has nowhere else to go is directed to this site.

However, this policy, while it satisfies the spirit of ORS §195.500, does not satisfy the letter of the law, and properly adopted ordinance is necessary.

The attached draft ordinance is intended to bring the City into compliance with State law, while continuing the same operating procedures that are currently in place at the Police Station.

This ordinance was first introduced at the March 11, 2025 meeting, but was tabled pending additional review by the City's insurer, City/County Insurance Services (CIS). The City Attorney met with Mr. Aaron Hisel, the attorney retained by CIS to work on such issues. Mr. Hisel reviewed the proposed ordinance and recommended some small modifications. Those changes are reflected in the revised draft ordinance.

A first reading of the ordinance was conducted at the April 22, 2025 meeting and was moved to a second reading.

The Challenge/Problem:

How does the City address the realities of homelessness while complying with State law?

Issues and Financial Impacts:

This ordinance involves no financial impact to the City.

Elements of a Stable Solution:

A stable solution includes an ordinance that complies with ORS §195.500.

Options:

- 1. <u>Do Nothing</u> If the Council chooses to do nothing, then camping will continue as at the Police Station, but the City will not be in compliance with State law.
- 2. <u>Move to conduct a second reading of the proposed ordinance as presented and move to a third reading.</u>
- 3. <u>Move to conduct a second reading of the proposed ordinance with changes and move to a third reading</u> The Council may make changes to the proposed ordinance.
- 4. Direct staff to research other ways to accomplish the same goals.

Recommendation:

Staff recommends option 2: <u>Move to conduct a second reading of the proposed ordinance as presented and move to a third reading.</u>

ORDINANCE BILL NO. 2 FOR 2025

ORDINANCE NO.

SWEET HOME ORDINANCE AMENDING SWEET HOME MUNICIPAL CODE (SHMC) TITLE 9 BY ADDING A NEW CHAPTER 9.50 TITLED CAMPING REGULATIONS.

WHEREAS, the City of Sweet Home is adding SHMC Chapter 9.50, Camping Regulations, to adhere to Oregon State House Bill 3115; and

WHEREAS, without such provision within our code, the City of Sweet Home would not be able to continue to address public concerns and complaints regarding camping on public property; and

WHEREAS, providing a designated space will provide a localized area for community partners to offer their services to those in need;

NOW, THEREFORE, THE CITY OF SWEET HOME DOES ORDAIN AS FOLLOWS:

<u>Section 1. Amending SHMC Title 9, Public Peace, Morals, and Welfare.</u> SHMC Title 9 is hereby amended to add Chapter 9.50 titled Camping Regulations:

Article I. Administration

9.50.005 9.50.010 9.50.015 9.50.020 9.50.025 9.50.030	Title. Scope. Interpretation. Interchangeability. Terms not defined. Definitions.	
		Article II. Camping
9.50.035 9.50.040 9.50.045 9.50.050	Prohibited camping. Permitted camping. Fire safety. Utilities.	
		Article III. Compliance
9.50.055 9.50.060 9.50.065 9.50.070 9.50.075	Storage of personal pro Cleanup and posting. Nonexclusive remedy. Special permit. Violation – Penalty.	perty.

Article I. Administration

9.50.005 Title.

These provisions shall be known as the Sweet Home camping regulations and shall be cited as such and will be referred to herein as "this regulation."

9.50.010 Scope.

- A. The provisions of this regulation apply to all public property and public rights-of-way located within the city of Sweet Home as defined herein.
- B. Motor Vehicle Camping is not within the scope of this section. Motor Vehicle Camping within public rights-of-way and in public parking lots is governed by Sweet Home Municipal Code §10.08.035.
- C. Recreational Vehicle Camping is not within the scope of this section. Recreational Vehicle Parking within public rights-of-way is governed by Sweet Home Municipal Code §10.28.020(A).

9.50.015 Interpretation.

This regulation is to be interpreted consistent with applicable state statutes and providing the protection required by state statutes.

9.50.020 Interchangeability.

Words used in the present tense include the future, words in the masculine gender include the feminine and neutral, the singular number includes the plural, and the plural, the singular.

9.50.025 Terms not defined.

Where terms are not defined through the methods authorized by this article, such terms shall have ordinarily accepted meanings such as the context implies. Words of common usage are given their plain, natural, and ordinary meanings. Words that have well-defined legal meanings are given those meanings.

9.50.030 Definitions.

- A. "Camp" or "camping" means to pitch, erect, create, use, or occupy camp facilities for the purpose of habitation, as evidenced by the use of camp paraphernalia.
- B. "Camp facilities" includes, but is not limited to, tents, huts, or temporary shelters. "Camp facilities" does not include motor vehicles or recreational vehicles.
- C. "Camp paraphernalia" includes, but is not limited to, tarpaulins, cots, beds, sleeping bags, blankets, mattresses, hammocks, outdoor cooking devices or utensils, food or food storage items, and/or similar items that are or appear to be used as living and/or sleeping accommodations, or to assist with living and/or sleeping activities.
- D. "Established camping site:" For purposes of ORS 195.500 through 195.530, an "established camping site" means any place where one or more persons have established temporary sleeping accommodations by use of temporary structures and materials, camp facilities, and/or camp paraphernalia for more than 72 consecutive hours.
- E. "Motor vehicle" means a vehicle that is self-propelled or designed for self-propulsion.
- F. "Public Emergency" means any community-wide human-made or natural event or circumstance causing or threatening loss of life, injury to person or property, human

suffering or financial loss, and includes, but is not limited to, fire, explosion, flood, severe weather, drought, earthquake, volcanic activity, spills or releases of oil or hazardous material, as defined in O.R.S. 466.605, contamination, utility or transportation emergencies, disease, blight, infestation, crisis influx of migrants unmanageable by the county, civil disturbance, riot, sabotage, terrorist actions (including employment of weapons of mass destruction), and war.

- G. "Public property" means any real property or structures owned, leased, or managed by the city, including public rights-of-way.
- H. "Public rights-of-way" means all property dedicated to the public for transportation purposes and administered by the city, including streets, roads, alleys, lanes, sidewalks, trails, paths, bridges, viaducts, and all other public ways and areas managed by the city.
- I. Includes public utility easements to the extent that the easement allows use by the permittee planning to use or using the public utility easement. "Right-of-way" includes the subsurface under and airspace over these areas.
- J. "Right-of-way" does not include the airwaves for purposes of commercial mobile radio services, broadcast television, direct broadcast satellite and other wireless providers, or easements or other property interests owned by a single utility or entity.
- K. "Reasonable" shall be determined based on the totality of the circumstances.
- L. "Recreational vehicle" or "RV" means a vehicle with or without motive power that is designed for use as temporary living quarters and as further defined by the Oregon Department of Transportation in OAR Chapter 735, Division 022.
- M. "Store" or "storage" means to put aside or accumulate for use when needed, to put for safekeeping, or to place or leave in a location.
- N. "Vehicle" means a motor vehicle or recreational vehicle.

Article II. Camping

9.50.035 Prohibited camping.

It is unlawful for any person to camp in or upon any public property or public right-of-way if the person has access to reasonable alternate shelter, has means to acquire reasonable alternate shelter, or has otherwise been offered, rejected, and/or been disqualified from reasonable alternate shelter.

9.50.040 Permitted camping.

Camping in or upon any public property or public right-of-way within the city of Sweet Home shall be permitted as follows:

- A. In accordance with a duly executed emergency declaration by the Sweet Home City Manager, or
- B. On publicly owned property, designated by the Sweet Home City Manager, when there is no alternate shelter available.
 - 1. Camping in designated areas is permitted only between the hours of six p.m. and seven a.m.
 - 2. Enforcement of time restrictions may be suspended by the city manager, police chief, or designee for severe weather events or public emergencies, however in

- no circumstances shall such suspension allow for camping for a duration longer than 72 hours without express approval of the City Council.
- Enforcement of time restrictions may also be suspended by the city manager, police chief, or designee at the request of an individual when necessary or appropriate to respond to an individual's medical condition, disability or unique circumstances.
 - a. If denied, such requests may be appealed through the City's Americans with Disabilities Act (ADA) complaint process.
- 4. Permitted camping in designated areas shall not include occupying a recreational vehicle.
- 5. Each occupant shall follow all posted rules in addition to the rules set herein.
- 6. Each occupant shall store all items and materials within their camping facility.
- 7. Each camp may occupy a space no greater than 8 feet by 8 feet.
- 8. Any individual may only occupy and/or control a single camp at any time.
- 9. Each camp shall be maintained so as not to violate SHMC §8.04.020.
- C. Notwithstanding subsections A and B of this section, camping permitted under this section shall not have a duration longer than 72 hours and is not considered an established camping site for the purposes of ORS 195.500 through 195.530.

9.50.045 Fire safety.

At no time shall there be any of the following at campsites without prior approval by the Sweet Home fire chief or their designee:

- A. Open flame;
- B. Propane:
- C. Flammable/combustible liquid;
- D. Heat producing appliance; or
- E. Smoking.

9.50.050 Utilities.

No utilities shall be connected or supplied to any camping facility.

Article III. Compliance

9.50.055 Storage of personal property.

Except as expressly authorized by SHMC, it shall be unlawful for any person to store personal property on public property or within the public right-of-way.

9.50.060 Cleanup and posting.

- A. The cleanup of permitted campsites may be scheduled by the City Manager or their designee.
 - 1. Occasional cleanup of permitted public property campsites may be necessary to ensure the health and safety of the community.
 - a. Prior to such cleanups, the property shall be posted consistent with ORS 195.505.
 - 2. This subsection (1) does not release individuals of the requirement to maintain a clean, sanitary, and safe area around their camp nor negate the conditions of any other SHMC titles and/or chapters.

B. No posting is required prior to removing debris, garbage, or items that are clearly discarded on public property or within the right-of-way. The City Manager or their designee is expected to use objectively reasonable discretion in determining whether advanced notice should be provided when it cannot be clearly determined that items were discarded and are not personal property.

9.50.065 Nonexclusive remedy.

The remedies described in this chapter shall not be the exclusive remedies of the City for violations of this chapter.

9.50.070 Special permit.

Upon finding it to be in the public interest and consistent with City goals and policies, the City Manager or their designee, in the instance of park events, may exempt a special event from the prohibitions of this chapter through permit or other decree and shall specify the period and location covered by the exemption.

9.50.075 Violation – Penalty.

Violations of SHMC 9.50.035, 9.50.040, and/or 9.50.045 are punishable as follows:

- A. By a fine of not more than \$100 upon first offense.
- B. By a fine of not more than \$100 and/or community service upon second offense.
- C. The Sweet Home Municipal Court Judge is encouraged to use diversion with individuals willing to engage with housing, mental health, alcohol, drug, and other service providers as appropriate. Fines may be reduced for violators who are actively working with local service providers to address the causes of their lack of permanent housing.

PASSED by the Council and approved by the Mayor the	his day of, 2	025.
ATTEST:	Mayor	

City Manager – Ex Officio City Recorder



REQUEST FOR COUNCIL ACTION

Title: Request for Council Action – Ordinance Bill No. 3 for 2025,

Ordinance No. 1331 – Transportation System Plan (TSP)

Preferred Agenda: May 13, 2025

Submitted By: Angela Clegg, Planning & Building Manager

Reviewed By: Blair Larsen, City Attorney

Cecily Pretty, Deputy City Manager

Type of Action: Resolution \square Motion \boxtimes Roll Call \square Other \square

Relevant Code/Policy: Sweet Home Comprehensive Plan, Chapter 6

Towards Council Goal: Efficient government

Attachments: Ordinance Bill No. 3 for 2025, Ordinance No. 1331

Draft Planning Commission Minutes - April 3, 2025

2025 TSP, Exhibits & Appendices

Purpose of this RCA:

The purpose of this RCA is to conduct the third reading of Ordinance Bill No. 3 for 2025, Ordinance No. 1331, to adopt the 2025 Transportation System Plan (TSP) and text amendments to the Sweet Home Comprehensive Plan, Chapter 6: Transportation Systems, and.

Background/Context:

This legislative amendment, LA 25-01, consists of the 2025 Transportation System Plan and text amendments to Sweet Home Comprehensive Plan, Chapter 6. The proposed text amendments were identified by the consultants, based on data provided by the technical advisory committee (TAC), the public advisory committee (PAC), staff, and feedback from the Planning Commission.

The following is a timeline of meetings and notices associated with this project:

- June 18, 2024: TAC/PAC workshop with consultants and staff.
- October 15, 2024: Staff submitted LA25-01 to DLCD.
- October 30, 2024: TAC/PAC workshop with consultants and staff.
- November 12, 2024: Joint City Council and Planning Commission Work Session with consultants and staff.
- January 9, 2025: TAC/PAC workshop with consultants and staff.
- January 28, 2025: Joint City Council and Planning Commission Work Session with consultants and staff.
- March 18, 2025: Notice sent to the New Era and Democrat Herald for publishing.
- April 3, 2025: The Planning Commission held a public hearing on the proposed text amendments. The Planning Commission moved to recommend approval of the amended Development Code to City Council.

• April 22, 2025, the City Council held a public hearing regarding this legislative amendment and conducted the first and second reading of the legislative amendment.

On May 13, 2025, the City Council will conduct the third reading of the legislative amendment.

The Challenge/Problem:

Should the City adopt the Transportation System Plan and amend Chapter 6 of the Comprehensive Plan in the manner recommended by the Planning Commission?

Issues and Financial Impacts:

This change will have no financial impact on the City.

Elements of a Stable Solution:

A stable solution involves adopting the Transportation System Plan and changes to the City's Comprehensive Plan that improve the quality of development for current and future residents and businesses, without overly burdening property owners and developers in a way that is clear, consistent, and does not require significant staff interpretation. In addition, a stable solution would be consistent with the City's policies and goals.

Options:

- 1. Move to approve Ordinance Bill No. 3 for 2025, Ordinance No. 1331, as proposed.
- 2. Move to amend Ordinance Bill No. 3 for 2025 for approval.
- 3. <u>Move to deny Ordinance Bill No.3 or take no action, leaving the Comprehensive Plan as is.</u>

Recommendation:

Staff recommends option 1: Move to approve Ordinance Bill No. 3 for 2025, Ordinance No. 1331.

ORDINANCE BILL NO. 3 FOR 2025

ORDINANCE NO. 1331

SWEET HOME ORDINANCE ADOPTING THE 2025 TRANSPORTATION SYSTEM PLAN AS AN AMENDMENT TO AND SUB-ELEMENT OF THE CITY OF SWEET HOME COMPREHENSIVE PLAN AND REPLACING ALL PRIOR TRANSPORTATION SYSTEM PLANS

WHEREAS, the City of Sweet Home Transportation System Plan was last updated in 2005; and

WHEREAS, ORS 197.175 requires the City to prepare, adopt, and implement Comprehensive Plans consistent with statewide planning goals adopted by the Land Conservation and Development Commission; and

WHEREAS, an updated Transportation System Plan is needed to provide direction for current and long-range planning; and

WHEREAS, the primary purpose of the Transportation System Plan is a long-term planning document that guides future development and investment in a transportation system; and

WHEREAS, the Transportation System Plan outlines the current transportation conditions in Sweet Home, identifies gaps and areas for improvement, and establishes clear goals for the City to consider for future planning; and

WHEREAS, following the timely mailing and publication of required notice, the Planning Commission conducted a public hearing on April 3, 2025, wherein the Commission received public testimony, staff reports, and exhibits, and thereafter deliberated and voted to recommend to the City Council the approval and adoption of the proposed Transportation System Plan for the City of Sweet Home an amendment to and a sub-element of the Sweet Home Comprehensive Plan; and

WHEREAS, a copy of the record of the aforementioned Planning Commission action and recommendation, including the City Staff Legislative Findings, is marked Exhibit A, attached hereto and incorporated by reference herein; and

WHEREAS, the City Council, following the timely mailing and publication of required notice, held a public hearing on April 22, 2025 to review the proposed Transportation System Plan, and to gather additional testimony and evidence regarding the proposed Transportation System Plan; and

WHEREAS, the City Council has afforded all interested parties an opportunity to be heard on this subject and has entered all available evidence and testimony into the public record of its proceeding; and

WHEREAS, the City Council has duly considered the subject, including the Planning Commission recommendations and all the exhibits and testimony introduced and offered by all interested parties.

NOW THEREFORE,

The City of Sweet Home does ordain as follows:

- Section 1. The above-recited findings are adopted and incorporated by reference herein as findings and conclusions, which include the staff report. The City Council further finds and concludes that the adoption of the proposed 2025 Transportation System Plan is necessary to serves as a roadmap for the City to identify and prioritize projects, policies, and programs that could receive funding over the next 20 years. These projects, policies, and programs are framed by recommended goals and policies aimed at preserving and enhancing the quality of life in Sweet Home.
- Section 2. The 2025 Transportation System Plan, attached hereto and marked as Exhibit B, is hereby adopted. Based on such findings, the City Council hereby adopts the 2025 Transportation System Plan, attached hereto and marked as Exhibit B, as an amendment to and sub-element of the City of Sweet Home Comprehensive Plan and incorporated by reference as if fully set forth herein, which shall replace and supersede all prior Transportation System Plans adopted by ordinance, resolution, or motion.
- Section 3. To reflect adoption of the Transportation System Plan, City staff are directed to make any conforming changes to the Comprehensive Plan necessary to incorporate the amendments adopted herein.

PASSED by the Council and approved by the Mayor this 13th day of May, 2025.

	Mayor
ATTEST:	
City Manager – Ex Officio City Recorder	



CITY OF SWEET HOME PLANNING COMMISSION MINUTES

April 03, 2025, 6:30 PM Sweet Home City Hall, 3225 Main Street Sweet Home, OR 97386

WIFI Passcode: guestwifi

PLEASE silence all cell phones - Anyone who wishes to speak, please sign in.

Meeting Information

The City of Sweet Home is streaming the meeting via the Microsoft Teams platform and asks the public to consider this option. There will be opportunity for public input via the live stream. To view the meeting live, online visit http://live.sweethomeor.gov. If you don't have access to the internet you can call in to 541-367-5128, choose option #1 and enter the meeting ID to be logged in to the call. Meeting ID: 212 001 640 706

Call to Order and Pledge of Allegiance

The meeting was called to order at 6:30 PM

Roll Call of Commissioners

PRESENT Henry Wolthuis Laura Wood Nancy White Joe Graybill

ABSENT Eva Jurney Jamie Melcher

STAFF

Angela Clegg, Planning and Building Manager Amber Steinborn, Planning & Building Technician Adam Leisinger, Special Projects Manager

GUESTS
Garth Appanaitis, DKS Associates
Andrew Parish, MIG

Public Comment. None

Public Hearings

LA25-01 Transportation System Plan and North Sweet Home Area Plan

a) LA25-01 Transportation System Plan and North Sweet Home Area Plan

The Public Hearing was opened at 6:31 PM

Commissioner Wood read the hearing disclosure statement and asked the Commission if there were any ex parte, conflicts of interest, or personal bias, there were none.

The location of the meeting is accessible to the disabled. If you have a disability that requires accommodation, advanced notice is requested by notifying the City Manager's Office at 541-367-8969.

Planning & Building Manager Clegg presented the staff report and asked the Commissioners if there were any questions. There were none.

Project consultants, Andrew Parish and Garth Appanaitis, presented a slide show to the Commissioners. The consultants asked if there were questions from the commissioners. Commissioner Wolthuis asked about the trestle and the sidewalk. Commissioner Graybill asked for document clarifications.

Testimony in Favor: None Testimony in Opposition: None Neutral Testimony: None

The Public Hearing was closed at 7:18 PM

A motion to recommend Application LA25-01 to City Council was made by Commissioner Wolthuis, seconded by Commissioner White.

Voting Yea: Commission Graybill, Commissioner White, Commissioner Wood,

Commissioner Wolthuis

Voting Nay: 0

Absent: Commissioner Melcher, Commissioner Jurney

Staff Updates:

Manager Clegg informed the Commission that the TSP goes to City Council on April 22nd. The Commissioners can testify in support of the plan. Clegg told the Commissioners to expect more code amendments later this year.

Manager Clegg gave a project update. The developer is starting to bid the infrastructure work on Coulter Subdivision. The planning department has 4 partition applications in review.

Planning Commission Business (Commission comments about topics not listed on the agenda)

None

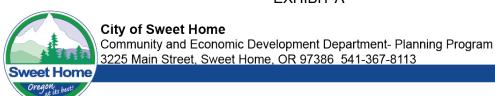
Adjournment

The meeting was adjourned at 7:30 PM

Laura Wood, Chairperson
Sweet Home Planning Commission

Respectfully submitted by Angela Clegg, Planning & Building Manager

EXHIBIT A



City of Sweet Home 2025 Transportation System Plan Adoption Legislative Findings

INTRODUCTION

The 2025 Sweet Home Transportation System Plan (TSP) provides direction for current and long-range planning of the transportation system. The Plan was prepared in collaboration with City staff, stakeholders, and community residents and documents the research, analysis, and community involvement process used to identify system assets and needs. The intent with this plan is to add it as an amendment to and sub-element of the current Comprehensive Plan.

The 2010 Sweet Home Comprehensive Plan includes goals for transportation systems in Sweet Home, incorporating Statewide Planning Goals 12 (Transportation). The Plan also adds community goals to balance the development needs of future land development with a system that serves all users. This Transportation System Plan is compatible with these goals and further details recommendations and improvement projects to align with the intent of the Comprehensive Plan.

The Draft 2025 TSP is proposed for adoption as an amendment to the Comprehensive Plan and a contextual document within the plan that replaces the 2005 Transportation System Plan. This document includes criteria of approval and findings of compliance that support a Type IV Legislative Procedure for plan adoption.

CRITERIA OF APPROVAL

Sweet Home Municipal Code Chapter 17.116 sets out the decision-making criteria for amendments to the Comprehensive Plan and Development Code. The decision criteria are listed in bold text with findings in plain text.

17.116.030 DECISION CRITERIA

Amendments to the Comprehensive Plan or Development Code test shall be approved if the evidence can substantiate the following:

A. The proposed amendment will not adversely impact the following:

1. Traffic generation and circulation patterns;

The Draft 2025 TSP outlines the current transportation conditions in Sweet Home, identifies gaps and areas for improvement, and establishes clear goals for the City to consider for future planning. The Plan was developed with community input and is based on the needs, opportunities, and anticipated funding for the transportation system. The Plan is a long-term planning document. There will be no new traffic generated or changes to circulation patterns. Therefore, this criterion is satisfied.

1

2. Demand for public facilities and services;

The proposed plan does not include any improvements that will increase demand for public services—all proposed improvements are intended to satisfy existing demand, and future demand resulting from population growth. Therefore, this criterion is satisfied.

3. Level of park and recreation facilities;

The Draft 2025 TSP does not include any changes in the level of park and recreation facilities. Therefore, this criterion is satisfied.

B. A demonstrated need exists for the proposed amendment.

The current Comprehensive Plan includes the goal for "a well-planned, comprehensive transportation system that balances the need for future land development with a system that serves all users." The last transportation system plan that was mentioned in the Comprehensive Plan was completed in 2005. The City of Sweet Home has grown substantially since that time. TSPs are mandated by Oregon's land use laws to promote thoughtful growth and assist local agencies in developing transportation systems that meet the needs of residents. Therefore, this criterion is satisfied.

C. The proposed amendment complies with all applicable Statewide Planning Goals and administrative rule requirements. In addition, amendments to the Development Code shall conform with applicable City Comprehensive Plan policies.

Goal 1 Citizen Involvement:

To develop a citizen involvement program that insures the opportunity for citizens to be involved in all phases of the planning process: To provide for widespread citizen involvement; To assure effective two-way communication with citizens; To provide the opportunity for citizens to be involved in all phases of the planning process; To assure that technical information is available in an understandable form; To assure that citizens will receive a response from policy-makers; and To insure funding for the citizen involvement program.

The TSP is a long-term planning document that guides future development and investment in a transportation system. The development of the Plans included technical analysis, guidance from a combined Public Advisory Committee (PAC) and Technical Advisory Committee (TAC), and public engagement events. The project team created an introductory video and used flyers and a combination of social media and physical posters to generate public interest. Stakeholders represented small businesses, Sweet Fire District, Linn Shuttle, ODOT representatives, local landowners, Albany & Eastern Railroad, City committees, and City officials.

The process for approval of the Sweet Home Transportation System Plan is detailed in 17.128.020. The adoption process requires public hearings and notifications as outlined in 17.128.020(D) and (F): two hearings are required, one Planning Commission hearing and one City Council hearing, for application approval. The Planning Commission public hearing date is set for April 3, 2025. The City Council public hearing is scheduled for April 22, 2025. The City provided notice in accordance with 17.128.020(D) and (F), which details the required public hearing notification process. In compliance with these sections, the City met the required notice timelines and published the notices in the local newspaper. Additionally, the Department of Land Conservation and Development was notified in writing by the City.

Based on the above findings, the process for adoption of the amendment complies with Goal 1 and meets the requirements of the State's Citizen Involvement provisions.

Goal 2 Land Use Planning:

To establish a land use planning process and policy framework as a basis for all decision and actions related to use of land and to assure an adequate factual base for such decisions and actions. City, county, state and federal agency and special district plans and actions related to land use shall be consistent with the comprehensive plans of cities and counties and regional plans adopted under ORS Chapter 268.

The City has an established land use planning process and a policy framework that serves as a basis for the decision on this request. The policy framework is found in the City's acknowledged Comprehensive Plan, which includes policies and goals relevant to the decision. An analysis of how the Draft 2025 TSP is consistent with this policy framework is presented below, as required for the requested Comprehensive Plan amendments.

- Amendments to the City's Comprehensive Plan have become part of the policy framework that serves as the basis for decisions and actions related to the use of land. The proposal is to replace the currently adopted 2005 TSP with the Draft 2025 TSP, to be adopted and incorporated by reference as an element of the Comprehensive Plan.
- Existing state, regional, and local plans, policies, and regulations relevant to the Draft 2025 TSP were reviewed and summarized in order to guide the development of the TSP. (See Appendix A, TM #1).
- Coordination between state, regional, and local agencies was accomplished through both the PMT, which included key City staff members, the TAC and PAC. Members of the TAC and PAC that provided guidance on the development of the TSP included representatives from multiple agencies and organizations, including those listed below.
 - City of Sweet Home
 - o Sweet Home Planning Commission
 - Sweet Home City Council
 - Sweet Home Fire District
 - o DLCD
 - o ODOT
 - Albany & Eastern Railroad
 - US Forest Service
 - Sweet Home School District
 - Sweet Home Chamber of Commerce
 - Linn Shuttle/Senior Center
- The project management team for the TSP was comprised of City staff and consultants from DKS Associates, MIG and ODOT. In addition, the project team met in workshops with the PAC and TAC members on June 18, 2024, October 30, 2024, and January 9, 2025. The project team had joint work sessions with the Planning Commission and City Council on November 12, 2024 and January 28, 2025.

Based on the above findings, the process for adoption of the amendment complies with Goal 2 and meets the requirements of the State's Land Use Planning provisions.

Goal 3 – Agricultural Lands:

Agricultural lands shall be preserved and maintained for farm use, consistent with existing and future needs for agricultural products, forest and open space and with the state's agricultural land use policy expressed in ORS 215.243 and 215.700.

Goal 3 is not applicable to the Draft 2025 TSP.

Goal 4 Forest Land:

To conserve forest lands by maintaining the forest land base and to protect the state's forest economy by making possible economically efficient forest practices that assure the continuous

growing and harvesting of forest tree species as the leading use on forest land consistent with sound management of soil, air, water, and fish and wildlife resources and to provide for recreational opportunities and agriculture.

Goal 4 is not applicable to the Draft 2025 TSP.

Goal 5 - Natural Resources, Scenic and Historic Areas, and Open Spaces:

To protect natural resources and conserve scenic and historic areas and open spaces. Local governments shall adopt programs that will protect natural resources and conserve scenic, historic, and open space resources for present and future generations. These resources promote a healthy environment and natural landscape that contributes to Oregon's livability.

OAR 660-015-0000(5) requires local governments to protect significant riparian corridors, upland wildlife habitat, and wetlands to conserve these resources and the biological systems they contain and support. The City of Sweet Home details protection and conservation efforts in the Comprehensive Plan and Development Code (Title 17 of the Sweet Home Municipal Code).

The Draft 2025 TSP goals and objectives (see Exhibit B, TSP) support natural and cultural resource protection, including objectives below specifically address protection objectives and projects that generally support protection by promoting walking, biking, and taking transit.

- Goal 1, Objective 1: Develop an integrated transportation system that accommodates a wide range of transportation options.
- Goal 2, Objective 1: Identify and improve safe crossings for bicycles and pedestrians.
- Goal 2, Objective 4: Identify and implement bicycle corridors to navigate the city.
- Goal 2, Objective 8: Improve lighting along pedestrian and bicycle corridors.
- Goal 3, Objective 3: Minimize the impacts of transportation system improvements on existing land uses.
- Goal 3, Objective 7: Connect the city through pedestrian and bicycle paths.
- Technical Memorandum #2, Policy 5 (see Appendix B): the standards for pedestrian and bicycle system improvements listed in the Transportation System Plan, shall be implemented when reviewing new development.
- Technical Memorandum #6 (see Appendix E), Project A36 designates a neighborhood greenway allowing for safe pedestrian access to the Hobart Natural Area.

The cumulative effect of the planned projects in the Transportation System Plan projects will protect and conserve existing natural resources and improve open spaces in Sweet Home. The amendment does not change or functionally alter any previously established protection or conservation measures.

Based on the above findings, the process for adoption of the amendment complies with Goal 5 and meets the requirements of the State's Natural Resources, Scenic and Historic Areas and Open Spaces provisions.

Goal 6 - Air, Water and Land Resources Quality:

To maintain and improve the quality of the air, water and land resources of the state. All waste and process discharges from future development, when combined with such discharges from existing developments shall not threaten to violate, or violate applicable state or federal environmental quality statutes, rules and standards.

Recommendations and development projects in the Transportation System Plan were designed to protect air, water, and land resources from pollution and contaminants. The recommendations support the enhancement of air, water, and land quality, ensuring the amendment aligns with Statewide Planning Goal 6.

Goal 7 - Areas Subject to Natural Disasters and Hazards:

To protect people and property from natural hazards. Local governments shall adopt comprehensive plans (inventories, policies and implementing measures) to reduce risk to people and property from natural hazards.

This amendment does not directly address potential natural disasters and hazards. These hazards are addressed in other planning processes. Therefore, this amendment is consistent with Statewide Planning Goal 7.

Goal 8 - Recreational Needs:

To satisfy the recreational needs of the citizens of the state and visitors and, where appropriate, to provide for the siting of necessary recreational facilities including destination resorts.

Goal 8 is not applicable to the Draft 2025 TSP.

Goal 9 - Economic Development:

This goal requires that local comprehensive plans and policies contribute to a stable and healthy economy in all regions of the state.

Goal 4 of the TSP vision (see Exhibit B, TSP) promotes economic development and tourism. The objectives of the TSP Goal 4 are as follows:

- Provide facilities to connect the public to downtown, parks, and other event locations and recreation opportunities
- Manage arterials to support freight in the efficient movement of goods and services
- Improve wayfinding and signage around the City to improve the ability to confidently navigate the transportation network by residents and visitors
- Coordinate with state and regional partners to implement transportation strategies that support increased tourism
- Improve walkability in the Downtown area to promote economic activity.

This amendment does not directly impact or inhibit economic activities or propose any zoning designation changes. Based on the above findings, the process for adoption of the amendment complies with Goal 9 and meets the requirements of the State's Economic Development provisions.

Goal 10 - Housing:

This goal requires the City plans provide for the appropriate type, location and phasing of public facilities and services sufficient to support housing development in areas presently developed or undergoing development or redevelopment.

Several Draft 2025 TSP policies and projects promote a transportation system that can adequately support housing development and future travel demand. The Draft 2025 TSP promotes existing Comprehensive Plan Transportation policies addressing appropriate service for residential areas, population growth and travel demand needs include:

- Policy 1: As a general guideline, all streets shall carry volumes and speeds at the appropriate range for all street classifications as described the Functional Classifications Guidelines.
- Policy 3: The roadway design standards in the Transportation System Plan shall be implemented in the land development and land division ordinances for the development of future roadway facilities.
- Policy 4: Private streets must be built to City standards as approved as part of the development plan.
- Policy 5: The Standards for Pedestrian and Bicycle System improvements listed in the Transportation System Plan, shall be implemented when reviewing new development.
- Policy 6: The City shall encourage access management actions that:

- Minimize the number of potential conflicts among all users of the street system.
- Minimize local cost for transportation improvements needed to provide additional capacity and/or access improvements along unimproved roadways.
- Policy 7: The City seeks to encourage transportation projects that enhance overall system continuity. Wherever possible, the City shall consider, the street connectivity when reviewing new street development.

Travel demand analysis conducted through the TSP process estimates total traffic will increase by over 20% (approximately 1,785 new households) by 2045 (see Appendix D, TM #5). Many of the identified Draft 2025 TSP projects are intended to increase travel capacity among various modes to accommodate future demand. Transportation improvements that accommodate traffic increases over the next 20 years will also help the City meet future housing needs. Many other projects are intended to complete the transportation network and options within existing residential areas. Examples of goals and projects that support increased housing capacity and other transportation improvements that serve existing residential areas include:

- Goal 1: Mobility, Accessibility, and Connectivity.
 - o Address intersection capacity needs for present and future traffic volumes.
 - Upgrade key intersection locations to meet Americans with Disabilities Act (ADA) requirements.
 - o Encourage active transportation through policy and engineering.
 - Ensure the transportation system provides equitable access for all people.
 - Provide connectivity within the city and identify and prioritize needed transportation connections.
- Goal 2: Safety
 - o Identify and improve safe crossings for bicycles and pedestrians.
 - Prioritize safe routes to school.
 - Expand the sidewalk network throughout the city.
 - o Identify and implement bicycle corridors to navigate the city.
 - Improve traffic safety through a comprehensive program of engineering, education, and enforcement.
 - Design streets to serve their anticipated function and intended use.
 - Improve lighting along pedestrian and bicycle corridors.
- Goal 3: Quality of Life
 - o Preserve community identity through transportation design choices.
 - Minimize the impacts of transportation system improvements on existing land uses.
 - Connect the city through pedestrian and bicycle paths.
- Goal 4: Economic Development
 - Provide facilities to connect the public to downtown, parks, and other event locations and recreational opportunities.
 - Improve wayfinding and signage around the city to improve the ability to confidently navigate the transportation network by residents and visitors.
 - Improve walkability in the Downtown area to promote economic activity.
- Goal 5: System Management and Maintenance
 - Maintain a roadway functional classification system that prioritizes the purpose and design of each existing and future roadway. Classify streets according to function to achieve consistency in construction, operation, and maintenance.
 - Streets should operate with the intended purpose and provide a combination of mobility and access consistent with the functional classification. Traffic volumes should align with the functional classification with higher classification facilities generally carrying higher traffic volumes.
 - Street policies and design standards should be based on functional classification and other contextual considerations. Streets should be constructed to these standards unless exceptions are granted as approved by Public Works.

- Where existing streets do not meet standards or proposed streets are unable to meet standards, other management practices (such as parking prohibition) may be utilized to maintain safe operation.
- Balance local access to US 20 with the need to serve regional and statewide traffic, while supporting adjacent land uses
- Plan for a transportation system that supports projected population and employment growth and maximize travel options by providing efficient routes for all modes of transportation.
- Aspirational Vehicle Capacity Projects (Draft 2025 TSP, Table 3, Projects C2, C3, and C4)
- Aspirational Pedestrian Focused Projects (Draft 2025 TSP, Table 4, Projects A1, A3, and A5)
- Aspirational Bicycle Focused Projects (Draft 2025 TSP, Table 5, Projects A6-A9, and A11-A14)
- Aspirational Multi-Modal Projects (Draft 2025 TSP, Table 6, Project A39-A41)
- Safe Routes to School Projects (Draft 2025 TSP, Table 7, Projects A16-A20, A22-A33, and A35-A38)

The provisions of this amendment do not address the planning or development of housing. Based on the above findings, the process for adoption of the amendment complies with Goal 10 and meets the requirements of the State's Housing provisions.

Goal 11 - Public Facilities and Services:

Goal 11 requires cities and counties to plan and develop a timely, orderly and efficient arrangement of public facilities and services to serve as a framework for urban and rural development. The goal requires that urban and rural development be "guided and supported by types and levels of urban and rural public facilities and services appropriate for, but limited to, the needs and requirements of the urban, urbanizable and rural areas to be served."

Transportation facilities, including roadways, bikeways, sidewalks, and multi-use paths are a primary type of public facility and, in Sweet Home, are managed by public agencies including the City, Linn County, and ODOT. The Draft 2025 TSP documents existing conditions and future needs for Sweet Home's transportation system based on the existing and planned land uses (see Appendix C, TM #3 and Appendix D, TM #5). The Draft 2025 TSP projects (see Exhibit B, Tables 3-8) and the Financially Constrained Projects (see Exhibit B, Table 2) are tailored to meet identified existing and future needs and address project goals and objectives.

Based on the above findings, the process for adoption of the amendment complies with Goal 11 and meets the requirements of the State's Public Facilities and Services provisions.

Goal 12- Transportation:

Goal 12 requires cities, counties, metropolitan planning organizations, and ODOT to provide and encourage a "safe, convenient and economic transportation system." This is accomplished through development of Transportation System Plans based on inventories of local, regional and state transportation needs. Goal 12 is implemented through OAR 660, Division 12, also known as the Transportation Planning Rule ("TPR"). The TPR contains numerous requirements governing transportation planning and project development. (See the "OAR 660, Division 12" section of this document for findings of compliance with the TPR.)

Project goals and priorities that address mobility and connectivity, capital investments/funding, community needs, system management, environment, transit, safety, equity, and health guided the development of the Draft 2025 TSP. Existing conditions and future transportation needs were analyzed with respect to these goals and objectives. Elements of the Draft 2025 TSP – including existing conditions and future needs, as well transportation system standards, implementation strategies, and recommended transportation system improvements – are consistent with TPR Section -0020 requirements.

The inventory and analysis of existing and future conditions identified opportunities, by mode, to improve the transportation system (see Appendix C, TM #3). These needs were identified in the existing conditions and needs analysis; by project team members, advisory committee members, and other community members; and through analysis using projected future traffic volumes and patterns, consistent with TPR Section -0030 requirements.

Evaluation criteria, developed in accordance with TPR Section -0035 and based on the TSP goals and objectives, were used to evaluate improvement alternatives that would address identified needs. Evaluation criteria is detailed in the Goals objectives and Evaluation Criteria (see Appendix B, TM #2). The criteria were presented to and refined during discussions with the TAC/PAC during their scheduled meetings and community members at public meetings.

The regulatory basis for proposed transportation policies and development code amendments – in particular, TPR requirements – is outlined in the Plans and Policy Framework (see Appendix A, TM #1. This coordination of land use and transportation planning is consistent with both the general purpose and specific requirements in the TPR, including Section -0045 (Implementation of the Transportation System Plan).

The Draft 2025 TSP will be adopted as the Transportation Element of the City's Comprehensive Plan. TSP adoption will be accomplished through a legislative amendment process consistent with City procedures and requirements.

Based on the above findings, the process for adoption of the amendment complies with Goal 12 and meets the requirements of the State's Transportation provisions.

Goal 13 - Energy Conservation:

To conserve energy. Land and uses developed on the land shall be managed and controlled so as to maximize the conservation of all forms of energy, based upon sound economic principles.

A robust set of bicycle and pedestrian projects are recommended in the Draft 2025 TSP. The transportation sector is the biggest Green House Gas (GHG) polluter, and the transportation system is increasingly vulnerable to climate change and extreme weather events. Reducing GHG emissions through mitigation actions is necessary to help achieve Oregon's climate goals and decarbonize the transportation system. As the climate changes and there are more wildfires, floods, and landslides, efforts are needed to adapt the transportation system to be able to better withstand or recover quickly from these events (Oregon Transportation Plan, Chapter 2 - Key Drivers of Change, 2.2 Climate Change).

Active transportation relies on safe and connected bicycle and pedestrian infrastructure tailored to Oregon's diverse communities (Oregon Transportation Plan 3.2 – Bicycle and Pedestrian Infrastructure)

The Draft 2025 TSP includes policies and projects that are intended to promote pedestrian and bicycle mobility, which supports energy conservation for the City's transportation system. The following Draft 2025 TSP policies and projects support the City's pedestrian and bicycle mobility goals:

- Goal 2: Safety
 - o Expand the sidewalk network throughout the city.
 - o Identify and implement bicycle corridors to navigate the city.
- Goal 3: Quality of Life
 - o Identify and seek funding for programs that encourage healthy transportation habits.
 - o Connect the city through pedestrian and bicycle paths.
- Goal 4: Economic Development

- Improve walkability in the Downtown area to promote economic activity.
- Technical Memorandum #6 (Appendix E)
 - o Table 3: Preliminary Pedestrian-Focused Projects
 - o Table 4: Preliminary Bicycle Projects
 - Table 5: preliminary Safe Routes to School Projects
 - o Table 8: Preliminary Smart Mobility Projects
- Technical Memorandum #9 (Appendix F)
 - o Table 4: Aspirational Pedestrian Focused Projects
 - o Table 5: Aspirational Bicycle Focused Projects
 - o Table 6: Aspirational Multi-Modal Projects
 - Table 7: Safe Routes to School Projects
- Comprehensive Plan Policy 5: The Standards for Pedestrian and Bicycle System improvements listed in the Transportation System Plan, shall be implemented when reviewing new development.

Based on the above findings, the process for adoption of the amendment complies with Goal 13 and meets the requirements of the State's Energy Conservation provisions.

Goal 14 - Urbanization:

To provide for an orderly and efficient transition from rural to urban land use, to accommodate urban population and urban employment inside urban growth boundaries, to ensure efficient use of land, and to provide for livable communities.

The Draft 2025 TSP includes a number of policies and projects that are intended to accommodate future housing and employment growth forecasted out to 2045, as described in findings for Statewide Planning Goals 9 (Economic Development) and 10 (Housing).

Draft 2025 TSP Goal 1 – Mobility, accessibility and Connectivity:

Address intersection capacity needs for present and future traffic volumes.

Draft 2025 TSP Goal 5 – System Management and Maintenance:

• Plan for a transportation system that supports projected population and employment growth and maximize travel options by providing efficient routes for all modes of transportation.

See findings to Goal 9 and 10 for more details on how specific Draft 2025 TSP policies and projects are intended to respond to a growing community.

Based on the above findings, the process for adoption of the amendment complies with Goal 14 and meets the requirements of the State's Urbanization provisions.

Goal 15 – Willamette River Greenway:

To protect, conserve, enhance and maintain the natural, scenic, historical, agricultural, economic and recreational qualities of lands along the Willamette River as the Willamette River Greenway.

Goal 15 is not applicable to the Draft 2025 TSP.

Goal 16 – Estuarine Resources:

To recognize and protect the unique environmental, economic, and social values of each estuary and associated wetlands; and to protect, maintain, where appropriate develop, and where appropriate restore the long-term environmental, economic, and social values, diversity and benefits of Oregon's estuaries.

Goal 16 is not applicable.

Goal 17 - Coastal Shorelands:

To conserve, protect, where appropriate, develop and where appropriate restore the resources and benefits of all coastal shorelands, recognizing their value for protection and maintenance of water quality, fish and wildlife habitat, water-dependent uses, economic resources and recreation and aesthetics. The management of these shoreland areas shall be compatible with the characteristics of the adjacent coastal waters; and to reduce the hazard to human life and property, and the adverse effects upon water quality and fish and wildlife habitat, resulting from the use and enjoyment of Oregon's coastal shorelands.

Goal 17 is not applicable to the Draft 2025 TSP.

Goal 18 – Beaches and Dunes:

To conserve, protect, where appropriate develop, and where appropriate restore the resources and benefits of coastal beach and dune areas; and to reduce the hazard to human life and property from natural or man-induced actions associated with these areas.

Goal 18 is not applicable to the Draft 2025 TSP.

Goal 19 – Ocean Resources:

To conserve marine resources and ecological functions for the purpose of providing long-term ecological, economic, and social value and benefits to future generations.

Goal 19 is not applicable to the Draft 2025 TSP.

Conforming with Applicable City Comprehensive Plan Policies

The 2000 Sweet Home Comprehensive Plan (updated in 2010) includes Transportation Systems goals outlined in Chapter 6. The goals are:

• The City of Sweet Home wants a well-planned, comprehensive transportation system that balances the needs of future land development with a system that serves all users.

Development of the Draft 2025 TSP included a community outreach and involvement process that involved the collection of feedback from a variety of community members that informed recommendations used to develop the goals and objectives of the TSP update and identify community needs and priorities. The project team evaluated the existing conditions and future needs of the transportation system in Sweet Home to develop several technical memorandums and a list of recommended projects for the City to consider over the next 20 years.

As stated previously, the Draft 2025 TSP is designed to be consistent with the Comprehensive Plan goals and further implements the goals through recommendations and projects in the Plan. The proposed amendment does not affect any other goals in the Comprehensive Plan nor create any inconsistency within the Comprehensive Plan. Therefore, this criterion is satisfied.

D. The amendment is appropriate as measured by at least one of the following criteria:

1. It corrects identified error(s) in the provisions of the plan.

Staff has not identified any errors in the previous 2005 TSP, therefore this criterion is not applicable.

2. It represents a logical implementation of the plan.

Because the Comprehensive Plan includes the goal that the City "wants a well-planned, comprehensive transportation system that balances the needs of future land development with a system that serves all

users," this Plan represents a logical implementation of the current Sweet Home Comprehensive Plan. Therefore, this criterion is satisfied.

3. It is mandated by changes in federal, state, or local law.

TSPs are mandated by Oregon's land use laws to promote thoughtful growth and assist local agencies in developing transportation systems that meet the needs of residents. Therefore, this criterion is satisfied.

4. It is otherwise deemed by the City Council to be desirable, appropriate, and proper.

The Draft 2025 TSP will be brought before the Planning Commission for recommendation and the City Council for adoption, which will further show that the amendment is deemed by the Council to be desirable, appropriate, and proper. Therefore, this criterion is satisfied.

Exhibit B: Draft Transportation System Plan

Appendix A: Technical Memorandum #1
Appendix B: Technical Memorandum #2
Appendix C: Technical Memorandum #3
Appendix D: Technical Memorandum #5
Appendix E: Technical Memorandum #6
Appendix F: Technical Memorandum #9
Appendix G: Implementing Ordinances



Department of Transportation

Transportation and Growth Management Program 350 W . Marine Drive Astoria, Oregon, 97103 Phone: (971) 239-3670

Date: April 16th, 2025

TO: City of Sweet Home City Council

FROM: Michael Duncan

Senior Region Planner,

Transportation Growth Management Program Grant Manager

ODOT Region 2

SUBJECT: City of Sweet Home Transportation System Plan Update and North Sweet Home Area Plan, 2025

Congratulations on nearing completion of your Transportation System Plan (TSP) and Area Plan. ODOT is pleased to have participated in developing this plan, which identifies needed improvements, programs, and policy context on both the local street system and the state system.

ODOT supports the technical analysis used to identify problems and solutions, and the policies you established for making transportation-related investment decisions. We endorse your adoption of the plan.

We appreciate the difficult choices involved in deciding which projects and programs to include in the TSP's financially-constrained project list— the projects that are likely to be constructed or implemented within the 20-year planning horizon, given the limited amount of funding the TSP anticipates will be available.

As noted in the TSP, a good portion of the forecasted funding that was identified in the TSP's financial analysis section as reasonably likely to be available for the financially constrained projects and programs identified on the state highway system and included in the TSP are not secured at this time. Consequently, actual project and program implementation will be dependent on those funding forecasts being fully realized. This is an important consideration for both Sweet Home and ODOT.

ODOT looks forward to working with you to implement your TSP as resources allow.

Regards,

Michael Duncan TGM Grant Manager, Sr. Region Planner 350 W. Marine Drive Astoria, Oregon 97103

CC: Naomi Zwerdling, ODOT Region 2 Planning and Development Review Manager











CITY OF SWEET HOME

TRANSPORTATION SYSTEM PLAN

DRAFT - FEBRUARY 2025

ACKNOWLEDGEMENTS

Advisory Committee

Committee

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Jacob Snodgrass, Albany & Eastern Railroad
Brock Byers, FAC
Jamie Melcher, Planning Commission
Laura Wood, Planning Commission
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This Project is partially funded by a grant from the Transportation and Growth Management ("TGM") Program, a joint program of the Oregon Department of Transportation and the Oregon Department of Land Conservation and Development. This TGM grant is financed, in part, by the federal Fixing America's Surface Transportation Act ("FAST Act"), local government, and State of Oregon funds.

The contents of this document do not necessarily reflect the views or policies of the State of Oregon.



TSP VOLUME 1

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TSP VOLUME 2: APPENDICES (SEPARATE DOCUMENT)

Note: Volume 2 of the TSP includes background memoranda and technical data that were the basis for the Sweet Home TSP Update. In some cases these memoranda include additional information and details than what was included in Volume 1.

The contents of Volume 2 represent an iterative process in the development of the TSP. Refinements to various plan elements occurred throughout the process as new information was obtained. In all cases, the contents of Volume 1 supersede those in Volume 2.

Technical Memorandum 1: Plan and Policy Framework

Technical Memorandum 2: Goals, Objectives and Evaluation Criteria



Technical Memorandum 3: Existing Conditions Inventory and Analysis

Technical Memorandum 4: NSHA Economic Analysis

Technical Memorandum 5: Future Systems Conditions

Technical Memorandum 6: Alternative Analysis and Funding Program

Technical Memorandum 7: NSHA Economic Redevelopment Case Study

Technical Memorandum 8: NSHA Land use Options and Street Network Configuration Alternatives

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CHAPTER 1 CONTEXT

SWEET HOME TRANSPORTATION SYSTEM PLAN

1 CONTEXT

Sweet Home, Oregon is a small city located in Linn County, in western Oregon with a population of approximately 10,000 people (2020 Census). The community is situated in the foothills of the Cascade Mountains and is known for outdoor recreation opportunities, including hiking, fishing, and camping. The area around Sweet Home is primarily rural and is served by an agricultural (timberbased) and tourism economy.

Sweet Home is located approximately 19 miles east of Interstate-5 (I-5). The primary corridor through Sweet Home is US 20 (Main Street/South Santiam Highway), which links I-5 and Central Oregon. US 20 is part of the National Highway System and handles moderate truck volumes between Sweet Home and surrounding areas, facilitating the movement of people and commerce daily.

WHAT IS A TRANSPORTATION SYSTEM PLAN?

A Transportation System Plan (TSP) is a long-term planning document that guides future development and investment in a transportation system. This document serves as a roadmap for the City to identify and prioritize projects, policies, and programs that could receive funding over the next 20 years. These projects, policies, and programs are framed by recommended goals and policies aimed at preserving and enhancing the quality of life in Sweet Home.

The TSP outlines the current transportation conditions in Sweet Home, identifies gaps and areas for improvement, and establishes clear goals for the City to consider for future planning. This Plan was developed with





community input and is based on the needs, opportunities, and anticipated funding for the transportation system.

TSPs are mandated by Oregon's land use laws to promote thoughtful growth and assist local agencies in developing transportation systems that meet the needs of residents.

HOW WAS THE PLAN DEVELOPED?

In compliance with State and Regional requirements, the City of Sweet Home updated its TSP, originally adopted in 2005. The TSP was updated in conjunction with a parallel process for preparing the North Sweet Home Area (NSHA) Plan for efficiency and consistency. This process included technical analysis, guidance from a combined Public Advisory Committee (PAC) and Technical

Advisory Committee (TAC), and public engagement events. The project team generated interest and fostered public participation through the distribution of an introductory video, flyers, and posters in addition to social media engagement.

Feedback received from the public was used to develop the goals and objectives of the TSP update and identify community needs and priorities. The project team evaluated the existing conditions and future needs of the transportation system in Sweet Home to develop several technical memoranda (included in TSP Volume 2) and a list of recommended projects for the City to consider over the next 20 years.



WHAT IS THE TSP?

Every few years, the City updates Sweet Home's Transportation System Plan (TSP). Sweet Home's TSP guides both operations and development of the City's transportation network. It has an outlook of about 20 years into the future.

It helps determine:

- How to update the development code and zoning designations.
- Which future projects, policies and programs we should fund first.
- Among future constructions projects, which ones we should build first.

Many parts of our current transportation network started as projects on the list in previous versions of the TSP. Examples include sidewalk and road improvements and construction of multi-use paths

WHY THE TSP NEEDS UPDATES

We adopted the current TSP in 2005, and a lot has changed in 18 years. We know we need to better connect neighborhoods, commercial services, employment and recreation sites so people can easily reach them both with and without cars. Also, updating the TSP will help support the recent development code update and analysis of our housing needs.

WHAT THE TSP INCLUDES

Sweet Home's TSP covers transportation facilities, safety improvements and services to support planned land uses. These are multi-modal, which means they're about all the ways people could get around (such as sidewalks, roads, trails, bike lanes and rail crossings).

The TSP also includes research, analysis and public input, so we can show our work about how we make decisions.





GET INVOLVED

We need you to comment! Sign up for email updates to learn more about these engagement opportunities

We want to hear from you:

- Are there major gaps in our transportation system?
- What transportation updates would you like to see?
- How would these improve your experience in getting around town?

THE NORTH SWEET HOME AREA

Along with updating the TSP, we'll also draft a refinement plan for the North Sweet Home Area (NSHA).

This will identify projects to:

- · Better connect the NSHA with the rest of the city
- Help guide mixed development in the area.
- Support improved transportation access and safety.

As residents, you have lots of experience in getting around Sweet Home.

We're especially interested in your comments about determining rail crossings for access to the North Sweet Home Area, developing active transit to connect to more places, and support our Safe Routes to school program by promoting walking and biking toffrom school.

ANTICIPATED PROJECT SCHEDULE

Visit our website at sweethomeor.gov to learn more about the project, get the latest project news, and sign up for email updates. You can also invite our staff to present at your organization's next meeting.



QUESTIONS OR COMMENTS?

Blair Larsen Community Economic Development Director 541-818-8036 | blarsen@sweethomeor.gov





CHAPTER 2 VISION

SWEET HOME TRANSPORTATION SYSTEM PLAN

2 VISION

A set of transportation focused goals were developed to guide the TSP process. The existing Comprehensive Plan had a single transportation goal with nine policies that focused primarily on maintaining the transportation system and setting appropriate standards. This TSP broadens and expands the existing transportation goal into five transportation goals and related objectives to incorporate other key interests of Sweet Home. Many of the existing policies are incorporated into Goal 5. Additional information is provided in Volume 2: Technical Memorandum 2

GOAL 1 - MOBILITY, ACCESSIBILITY, AND CONNECTIVITY

Provide a system that is accessible and efficient for all travel modes and purposes.

Associated Objectives

- Develop an integrated transportation system that accommodates a wide range of transportation options.
- Provide access for all types of vehicles and equipment, including freight and emergency vehicles.
- Address intersection capacity needs for present and future traffic volumes.
- Upgrade key intersection locations to meet Americans with Disabilities Act (ADA) requirements.
- Encourage active transportation through policy and engineering.
- Ensure the transportation system provides equitable access for all people.
- Provide connectivity within the city and identify and prioritize needed transportation connections.

GOAL 2 - SAFETY

Provide safe routes, corridors, and intersections for all modes of transportation.

Associated Objectives

- Identify and improve safe crossings for bicycles and pedestrians.
- Prioritize safe routes to school.
- Expand the sidewalk network throughout the city.
- Identify and implement bicycle corridors to navigate the city.
- Improve traffic safety through a comprehensive engineering, education, and enforcement program.
- Identify and improve locations with high crash frequency.
- Design streets to serve their anticipated function and intended use.
- Improve lighting along pedestrian and bicycle corridors.

GOAL 3 - QUALITY OF LIFE

Provide a transportation network that preserves the character of the city and makes it more convenient for people to walk, bicycle, use transit, and drive less to meet their daily needs.

Associated Objectives

- Preserve community identity through transportation design choices.
- Balance the needs and desires of a small city with a highway running through it. Value the simplicity of a small city.
- Minimize the impacts of transportation system improvements on existing land uses.



- Identify and seek funding for programs that encourage healthy transportation habits.
- Support improvements that make the downtown area safe and comfortable to walk.
- Support regional tourism and strategies to encourage stops by visitors.
- Connect the city through pedestrian and bicycle paths.
- Improve the transportation system that has direct access to employment.

GOAL 4 - ECONOMIC DEVELOPMENT

Promote economic development and tourism.

Associated Objectives

- Provide facilities to connect the public to downtown, parks, and other event locations and recreational opportunities.
- Manage arterials to support freight in the efficient movement of goods and services.
- Improve wayfinding and signage around the city to improve the ability to confidently navigate the transportation network by residents and visitors.
- Coordinate with state and regional partners to implement transportation strategies that support increased tourism.
- Improve walkability in the Downtown area to promote economic activity.

GOAL 5 - SYSTEM MANAGEMENT AND MAINTENANCE

Promote traffic management to achieve the efficient use of transportation infrastructure.

Associated Objectives

- Maintain a roadway functional classification system that prioritizes the purpose and design of each existing and future roadway. Classify streets according to function to achieve consistency in construction, operation, and maintenance.
- Streets should operate with the intended purpose and provide a combination of mobility and access consistent with the functional classification. Traffic volumes should align with the functional classification with higher classification facilities generally carrying higher traffic volumes.
- Street policies and design standards should be based on functional classification and other contextual considerations. Streets should be constructed to these standards unless exceptions are granted as approved by Public Works.
- Where existing streets do not meet standards or proposed streets are unable to meet standards, other management practices (such as parking prohibition) may be utilized to maintain safe operation.
- The City shall study and implement financing options for needed street improvements.
- Balance local access to US 20 with the need to serve regional and statewide traffic, while supporting adjacent land uses.
- Plan for a transportation system that supports projected population and employment growth and maximize travel options by providing efficient routes for all modes of transportation.





PHOTO: SWEET HOME FACEBOOK

CHAPTER 3

EXISTING AND FUTURE NEEDS

SWEET HOME TRANSPORTATION SYSTEM PLAN

3 EXISTING AND FUTURE NEEDS

The existing and future transportation system needs are summarized in the following chapter. Additional information is provided in Volume 2: Technical Memorandum 3 (Existing Conditions) and Technical Memorandum 5 (Future System Conditions).

LAND USE

Land use is a key factor in transportation system planning. The amount of land to be developed, the types of land uses, and their proximity to each other directly affect demands on the transportation system. A zoning map of the city is shown in Figure 1. Most commercial land is found in the downtown area, and highway commercial along US 20. High density residential is primarily located along Long Street or adjacent to the downtown area. Medium and low-density residential zoning radiates outward from the downtown area. In Fall 2022 the City updated the Development Code and added a Mixed Use Employment Zone (MUE) designation. This update was accompanied by an update to the Comprehensive Plan map and all the

properties currently zoned Recreation Commercial (RC) had the Comprehensive Plan designation changed to MUE. While existing zoning in the area was not changed during this process, the modification enables flexibility by providing the benefits of the existing RC zoning while facilitating future transition to the MUE.

The adjacent commercial zoning to Long Street and Main Street results in them being high use attractors for trips within the community.

There is one high school, one junior high school, and three elementary schools within Sweet Home. Most schools are south of Main Street and the high school and the junior high school are across the street from each other along 18th Avenue. Key destinations in the City are shown in Figure 2.





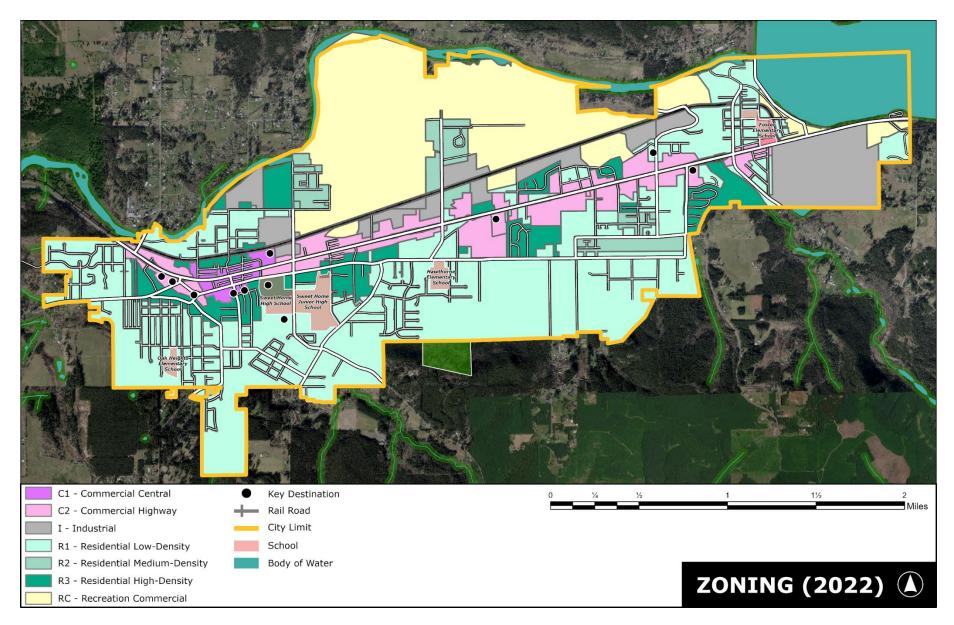


FIGURE 1. ZONING WITHIN THE SWEET HOME CITY LIMITS

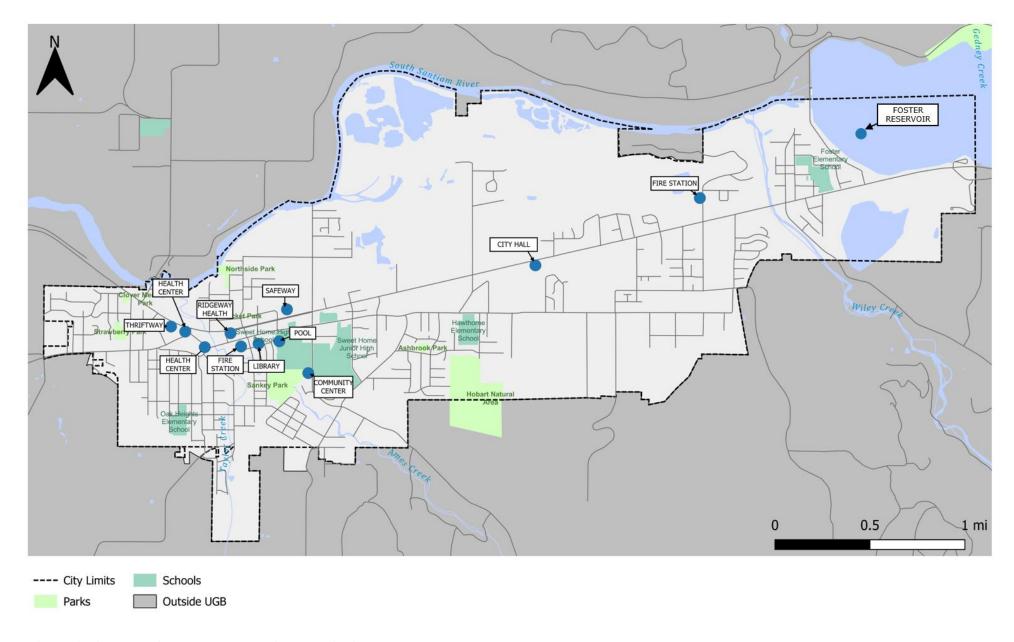


FIGURE 2: SWEET HOME AND KEY DESTINATIONS



EXISTING TRANSPORTATION SYSTEM NEEDS

Existing transportation conditions were analyzed by mode and needs were identified, as summarized in the following sections.

DRIVING

US 20 and OR 228 are the key arterials in Sweet Home. US 20 is a major east-west highway that runs through Sweet Home. It begins on the Oregon Coast in Newport and travels eastward through the Willamette National Forest before eventually reaching the Idaho border. In Sweet Home, US 20 runs through the center of town as Main Street. It is an important transportation route for local residents, as well as for travelers passing through the area. OR 228 is a shorter highway that runs north-south through Sweet Home. It begins at US 20 near the western edge of town and travels southward through the Willamette National Forest before eventually reaching the city of Halsey.

In addition to the two highways, Long Street serves as the primary east-west arterial in Sweet Home. Long Street begins at OR 228 to the west and eventually terminates at Airport Road and connects to US 20 via 47th Avenue.

Congestion levels at a selection of key intersections (Table 1 and Figure 3) in Sweet Home were evaluated to understand where motorists experience higher delays based on traffic counts collected in June 2021 and adjusted for seasonal (30HV) summer conditions.

The traffic operations analysis indicated that most study intersections are operating within analysis thresholds. The intersection of Main Street (US 20) and Pleasant Valley Road (Intersection 1) is the only intersection that currently exceeds its mobility standard. This intersection is located on the western edge of the city and connects to the only river crossing west of Foster Lake.

TABLE 1. LIST OF STUDY INTERSECTIONS

#	STUDY INTERSECTION	#	STUDY INTERSECTION
1	Main Street (US 20) and	11	Main Street (US 20) and 49 th Avenue
-	Pleasant Valley Road	11	
2	Main Street (US 20) and	12	Main Street (US 20) and 53 rd Avenue
2	Holley Road (OR 228)	12	
3	Main Street (US 20) and 12 th Avenue	13	Main Street (US 20) and 54th Avenue
4	4 Main Street (US 20) and 15 th Avenue	14	Main Street (US 20) and
4		14	60 th Avenue (Foster Dam Road)
5	Main Street (US 20) and 18 th Avenue	15	Holley Road (OR 228) and 1st Avenue
6	Main Street (US 20) and 22 nd Avenue	16	Holley Road (OR 228) and Oak Terrace
7	Main Street (US 20) and 24 th Avenue	17	Long Street and 18 th Avenue
8	Main Street (US 20) and Clark Mill Road	18	Long Street and 43 rd Avenue
9	Main Street (US 20) and 44 th Avenue	19	Elm Street and 10 th Avenue
10	Main Street (US 20) and 47 th Avenue		





FIGURE 3. STUDY INTERSECTIONS

FREIGHT AND RAIL

The existing freight truck network, railways, and rail crossing locations are shown in Figure 4. US 20 (Main Street) is part of the National System and handles moderate truck volumes between Sweet Home and I-5 to the west. The corridor connects eastward to US 97 in Bend. In addition, the route is designated as a Reduction Review Route (RRR) by the State of Oregon. This designation identifies the significance of the corridor as part of the statewide freight network and requires additional review and approval by the Mobility Advisory Committee (MAC) for proposed improvements that may reduce the system capacity. The corridor provides two travel lanes in each direction from approximately 49th Avenue westward to Lebanon, Oregon. Through Sweet Home, freight traffic ranges from about 700 to 1,200 trucks per day, and heavy vehicles make up about 10% of total traffic.

In addition to the freight route along US 20, there is one rail line that serves Sweet Home from the west terminating at the Foster Mill site on the east side of the City. The line is operated by Albany and Eastern Railroad Company and connects Sweet Home to Albany. Within City limits, the line is located roughly one block north of US 20 running roughly parallel thereto. The rail network includes a series of ungated crossings through the City. The rail system is currently not in use, but it could provide future opportunities within the North Sweet Home area.

A rail trestle located east of Wiley Creek has limited vertical clearance and has been hit by trucks in the past. The trestle would need to be replaced to improve vertical truck clearance, multimodal connectivity under the bridge, and access to the mill site. In total, there are 13 rail crossing locations within city limits. The crossings are a mix of both city and private ownership.



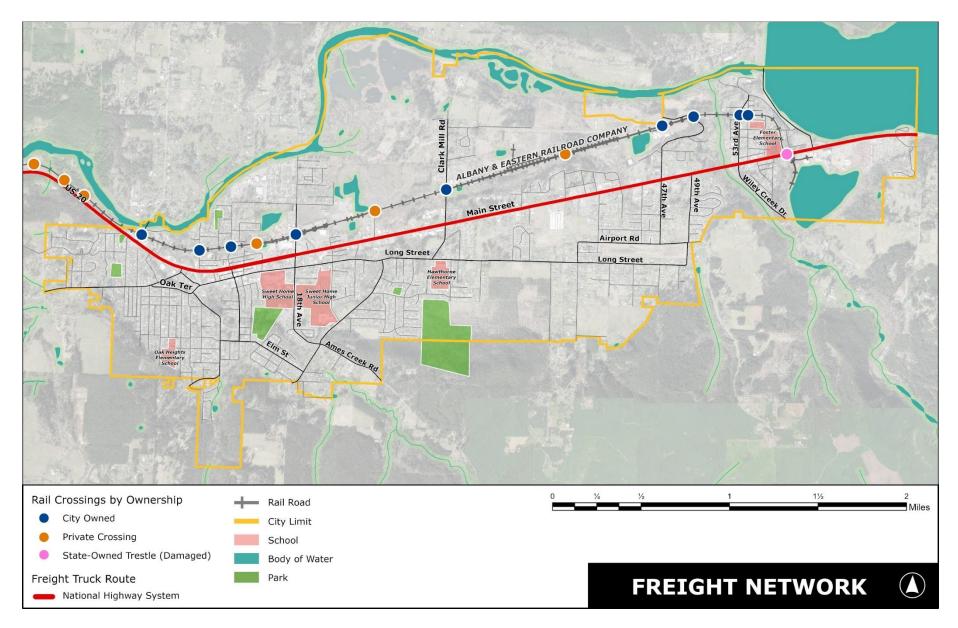


FIGURE 4. FREIGHT AND RAIL NETWORK



SAFETY

Transportation infrastructure must be safe for everyone, whether walking, biking, rolling, or driving. Assessing historical collision data helps identify any shortcomings in the system and improve safety conditions for Sweet Home residents. Crash data from 2017 through 2021 was obtained from the Oregon Department of Transportation (ODOT) and reviewed to identify any high-crash locations and trends involving people walking or biking who are typically the most vulnerable to serious injuries. All crashes within Sweet Home are mapped in Figure 6.

During these five years, there were a total of 298 crashes, 12 of which involved a pedestrian, and 9 involved a cyclist. Approximately five percent (19) of all crashes were flagged for drug or alcohol involvement. As shown in Figure 5, there were three fatalities and 69 crashes that resulted in minor or serious injuries, which represent almost a quarter of all crashes in Sweet Home.

Many crashes occurred along US 20 (Main Street), including 93 at study intersections. The three fatal crashes occurred at the intersection of 12th Avenue/Hawthorne Street (involving a pedestrian), the intersection of Ames Creek Road/Mountain View Road, and the intersection of US 20 (Main Street) and 1st Avenue.

The most common collision types, in order of frequency, include turning vehicles, rear-end crashes, crashes with fixed objects, and angle crashes (often referred to as "T-bone" crashes). Thirty-two percent of crashes involved turning movements. Over half of these turning crashes resulted in injury. Most of these crashes were caused by a failure to yield at a stop sign. There were 71 rear end collisions, 34 of which resulted in only property damage. There were 50 fixed-object crashes and 33 angle collisions. Many of these crashes occurred at stop-controlled intersections.

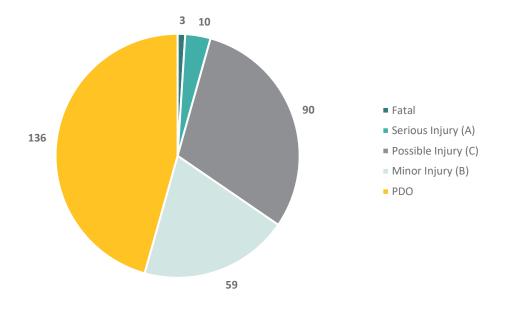


FIGURE 5. SEVERITY OF CRASHES IN SWEET HOME (2017-2021)



Of the twelve pedestrian crashes most were caused by a failure to yield, one of these resulted in a pedestrian fatality. The fatality occurred at the residential intersection of Hawthorne Street and 12th Avenue in dry conditions during the day. Of the nine bicycle involved crashes, there were no fatalities or serious injuries.

The crash analysis was supplemented by a review of ODOT's Safety Priority Index System listings for locations in the City that ranked among the state's top ten percent of hazardous locations for both state and nonstate facilities. The Safety Priority Index System (SPIS) is a method developed by ODOT for identifying hazardous locations, with the score based on three years of crash data, considering crash frequency, rate, and severity. ODOT bases its SPIS on 0.10-mile segments to account for variances in how crash locations are reported. This rating provides a general comparison of the overall safety of the highway based on crash information for all highway segments throughout the state. According to ODOT 2020 SPIS ratings (data reported between

2017 and 2019), the only location within Sweet Home in the top ten percent of segments is along US 20 (Main Street) east of 9th Avenue.

In addition to segments, the ODOT SPIS system also provides a list of intersections using similar methods. US 20 (Main Street) and 22nd Ave (Intersection 6) is an intersection identified on this list.

A crash rate analysis determines the relative safety of a location compared to similar facilities. The crash rate at an intersection can be compared to the State's 90th percentile crash rate to understand if the intersection is prone to crashes. 90th percentile crash rates are established in ODOT's Analysis Procedures Manual (APM) Exhibit 4-1. Two study intersections exceed the 90th percentile crash rate. The two intersections are Main Street (US 20)/22nd Avenue and Long Street/ 18th Avenue. More information on the crash analysis can be found in Volume 2: Technical memorandum 3.





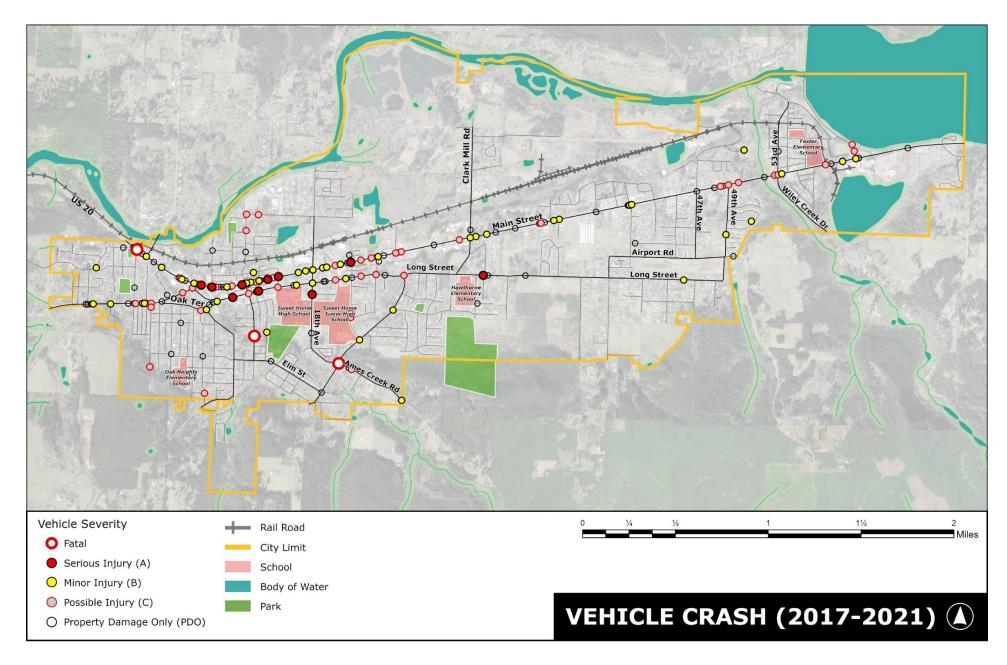


FIGURE 6. LOCATIONS OF VEHICLE CRASHES WITHIN SWEET HOME (2017-2021)

PEDESTRIAN CONDITIONS

Sweet Home is a compact city with many destinations located within a half mile to three miles from each other. The system connectivity, density, and generally flat topography offer excellent pedestrian and cycling opportunities in many areas of the city.

Sidewalks are provided throughout the downtown core and some residential areas. Sidewalks can be found within all commercial areas along Main Street and are well connected with most streets that have been improved with curbs. Areas further from the downtown core and the adjacent residential subdivisions are more rural and unimproved. The eastern portion of Sweet Home has fewer sidewalks than the western and central areas.

Sidewalks are present on one or both sides of the street on arterials and collectors, but there are deficiencies and gaps in multiple locations. Deficiencies are defined at locations with no sidewalk on either side of the street. Deficiencies exist on Long Street, Airport Road, 47th Avenue, 49th Avenue, 53rd Avenue, and Wiley Creek Drive. Full sidewalks on both sides of the street are generally provided downtown and near the schools, as well as along Santiam Highway.

In addition to sidewalks, there are also marked pedestrian crossings throughout the city, though mostly west of Clark Mill Road along either Main Street (US 20) or Long Street. Recent improvements along Main Street improved pedestrian crossings and intersection treatments, including the addition of tactile strips, high visibility striping, pedestrian refuge islands, and rectangular rapid flashing beacons (RRFBs). Marked crossings are important to signal to drivers the existence of pedestrian activity. Marked crossings near schools are also important to provide safer passage for students to walk or bike to class. A map of existing pedestrian facilities can be found in Figure 7.



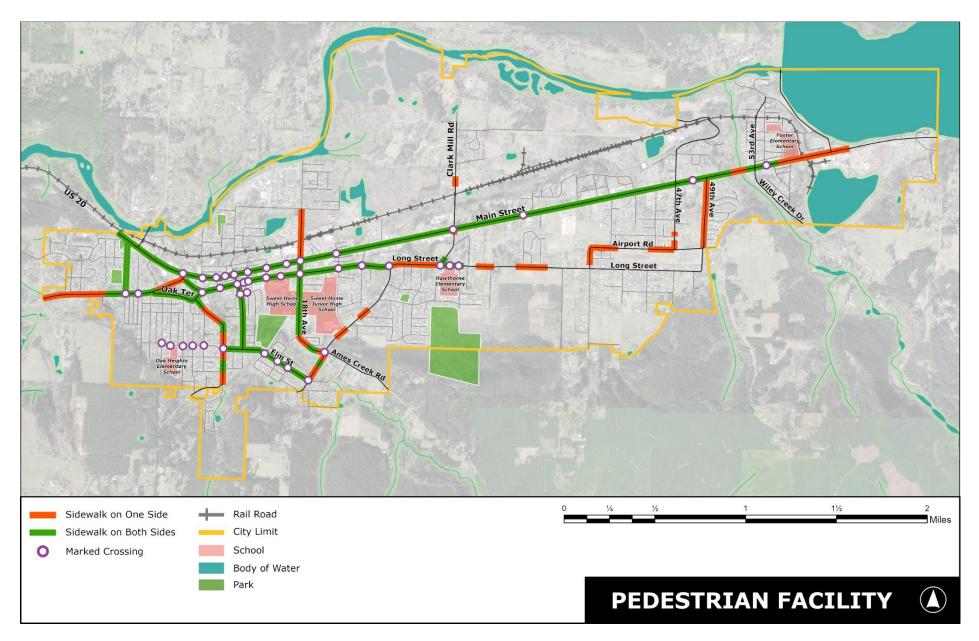


FIGURE 7. PEDESTRIAN FACILITY

BICYCLE CONDITIONS

There are several designated bike routes and lanes within Sweet Home's downtown area, including portions of Main Street and Long Street. Painted bike lanes are present along a large portion of US 20 and one segment of Long Street between 22nd Avenue and 35th Avenue.

A multiuse path exists along the north side of Main Street between 53rd Avenue and 60th Avenue. The path connects to the existing trail along the south edge of Foster Lane which connects to Shea Viewpoint. The multiuse path currently has a gap under the rail bridge east of 57th Avenue. Sweet Home's existing bicycle facilities are shown in Figure 8.

Though there exist striped bike lanes along Main Street (US 20), the facility is still a Bike Level of Stress (BLTS) of 4. BLTS is a measure of stress experienced by bicyclists when using the facility.

- A BLTS of 1 represents low stress and is used by all bicycle users.
- A BLTS of 2 represents moderate stress, which is suitable for most adults but may be uncomfortable for children or less confident bicycle users.
- A BLTS of 3 represents higher stress levels due to higher vehicle volumes or speeds that discourage casual or less experienced bicycle users.
- A BLTS of 4 is high stress and only used by the most aggressive of bicycle users.

The public has noted the difficulty of riding on 1st Avenue due to the speed and volume of traffic, as well as crossing Main Street near Pleasant Valley Road to ride north of the river.

There are no collectors or arterials within Sweet Home City Limits that have a BLTS of 1.



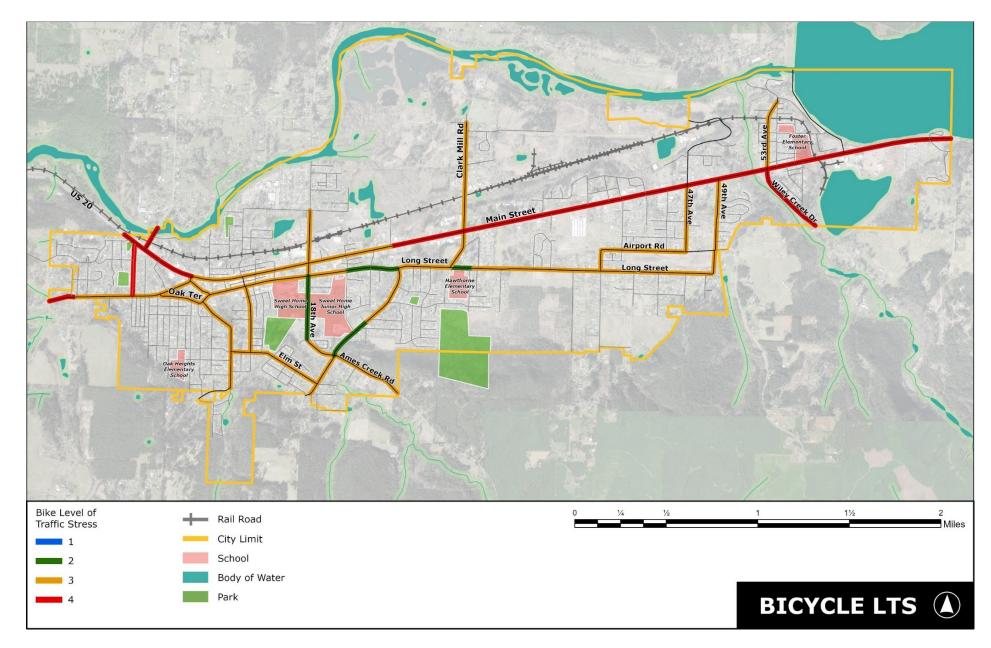


FIGURE 8. BICYCLE LEVEL OF TRAFFIC STRESS

TRANSIT CONDITIONS

Transit service is provided in Sweet Home through three main routes: the Linn Shuttle, the Sweet Home Shopper, and Dial-A-Bus Service. A description of these three services is summarized in the following sections.

The non-profit Senior Citizens of Sweet Home operates the Linn Shuttle fixed route service between Sweet Home-Lebanon-Albany. The Linn Shuttle connects with the Linn-Benton Loop (at the Linn-Benton Community College Albany Campus) to provide service to East Linn County residents who wish to travel to Albany or Corvallis. There are seven round trips a day between Sweet Home-Lebanon-Albany with an additional five round trips between Lebanon and LBCC-Albany called the "LBCC-Lebanon Express". Service is available Monday-Friday between 6:30 a.m. and 7:30 p.m.

The Shopper is available to everyone, is wheelchair accessible, and buses are equipped with bike racks. The Shopper operates Monday Through Friday from 9:00 a.m. to 4:00 p.m. There are four trips from town out to Foster and back. On Tuesdays and Thursdays, the Shopper goes to Cascadia (stopping at Cascadia Short Bridge Rest Stop) with a trip in the morning and a return in the afternoon. The Sweet Home Shopper Route is illustrated in Figure 9.

The non-profit Senior Citizens of Sweet Home operates the Sweet Home Dial-A-Bus which provides curb-to-curb service to older adults, people with disabilities, and the public within the boundaries of the Sweet Home School District. It also operates a limited "deviated fixed route" program within the boundaries of the City of Sweet Home. Dial-A-Bus Service is available Monday-Friday between 7:00 a.m. and 4:00 p.m. Rides must be scheduled in advance.





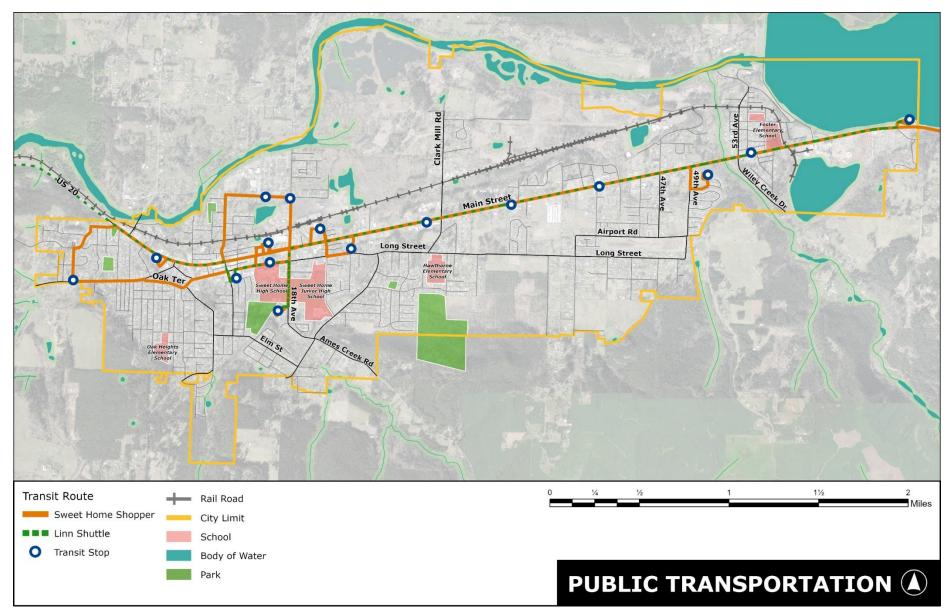


FIGURE 9. SWEET HOME TRANSIT ROUTES

FUTURE NEEDS

The future conditions and needs for the City of Sweet Home were projected for year 2045. Additional information about future growth projections and needs is summarized in Volume 2: Technical Memorandum 5.

LAND USE GROWTH

An existing 2021 land use inventory and future 2045 land use projection were performed in the Sweet Home Urban Growth Boundary (UGB) based on existing uses, zoning, and anticipated development patterns.

The future 2045 land use projection is an estimate of the amount of each land use (household and employment) that the area could reasonably accommodate given market conditions and the current build-out of vacant or underdeveloped lands assuming Comprehensive Plan zoning. The projected land use corresponds to a year 2045 population projection of approximately 11,246 residents. This corresponds to a 19 percent growth through the planning horizon.

A summary of the existing land use estimates and future projections for the entire Sweet Home UGB are listed in Table 2.

TABLE 2. SWEET HOME UGB LAND USE SUMMARY

LAND USE / GROWTH CATEGORY	EXISTING 2021 QUANTITIES	TOTAL GROWTH 2021 TO 2045	FUTURE 2045 QUANTITIES
POPULATION	9,461	1,785 (+19%)	11,246
HOUSEHOLDS	3,986	726 (+18%)	4,712
EMPLOYEES			
RETAIL	398	75 (+20%)	473
SERVICE	275	52 (+19%)	327
INDUSTRIAL	219	41 (+19%)	260
EDUCATION	357	67 (+19%)	424
OTHER	996	188 (+18%)	1184
TOTAL	2245	423 (+19%)	2668

FUTURE DRIVING CONDITIONS

The future 2045 no-build traffic volumes were evaluated for the study intersections to determine the intersection operating conditions. Under existing conditions, only one intersection (Main Street / Pleasant Valley Road) exceeds the mobility target. However, the additional growth in traffic volumes, particularly in areas parallel to and crossing the highway adjacent to the growth that is projected to occur in the area north of the railroad tracks (referred to as North Sweet Home Area or NSHA) would cause three more locations to exceed the mobility targets and operate over capacity:

- Main Street (US 20) / 22nd Avenue
- · Main Street (US 20) / Clark Mill Road
- Main Street (US 20) / 47th Avenue

This increase in delay is due to an increase in vehicle volumes within the NSHA and indicates that additional connectivity within the area as well as connecting to the rest of the city will be important in future development. Additional planning efforts for the NSHA resulted in the development of an NSHA Plan during the TSP update process.

Additional traffic mobility improvements may be needed at these intersections to support future growth based on the location and scale of growth within the NSHA.

PEDESTRIAN NETWORK

With increases in vehicle volumes due to the NSHA Plan, sidewalk deficiencies along Clark Mill Road, 47th Avenue, and Long Street will be important to fill. Currently, vehicle volumes along Clark Mill Road and 47th Avenue are low, but these will be key tie-in streets to the new roadway network developed in the area. Completing the sidewalk network along these streets will also provide better pedestrian connections to the

newly developed area for those currently living in West Sweet Home. In addition to filling in the sidewalk gaps, there is also a need to provide more safe and convenient crossing opportunities on Main Street.

BICYCLE NETWORK

The bike network within Sweet Home will be improved through the development of the NSHA plan and the addition of a new multiuse path. Improving bicycle facilities along Long Street will improve east-west connectivity and better connect West Sweet Home with future NSHA development.

Main Street currently has a high BLTS for cyclists even with the current marked bike lane. Long Street, OR 228, and other arterials or collectors with an LTS of 3 or greater are places in need of improved cycling infrastructure.





SWEET HOME TRANSPORTATION SYSTEM PLAN (DRAFT



CHAPTER 4

STANDARDS

SWEET HOME TRANSPORTATION SYSTEM PLAN

4 STANDARDS

The following chapter summarizes key standards for the transportation system. Other key transportation standards are located in the Sweet Home Development Code (17.42) including street width and access and traffic impact study requirements.

FUNCTIONAL CLASSIFICATION

Street functional classification is an important tool for managing the roadway network. The street functional classification system recognizes that individual streets do not act independently of one another but instead form a network that works together to serve travel needs on a local and regional level. By designating the management and design requirements for each roadway classification, this hierarchal system supports a network of streets that perform as desired.

The street functional classification system for roadways in Sweet Home is described below and shown in Figure 10, including new collector streets proposed as part of this plan. The following information includes general references to the typical levels of traffic that these facilities may carry, as well as general, ideal spacing for these facilities in the absence of constraints including natural features, topography, and the built environment.

ARTERIALS

Arterials provide a high degree of mobility between major centers of metropolitan areas, as well as rural areas. They often serve high volumes of traffic (>8,000 daily vehicles) over long distances, typically maintain higher posted speeds (35 mph to 55 mph) and minimize direct access to adjacent land to support the safe and efficient movement of people and goods. Inside UGBs, speeds may be reduced to reflect the roadside environment and surrounding land uses. US 20 and OR 228 are the only principal arterials

in the city, while a portion of Airport Road and 49th Avenue are designated as a minor arterial.

Arterial streets are often the fastest and most direct routes for all modes of travel, including people walking and biking. However, facilities for people walking and biking should be designed to provide a greater degree of separation from the higher volumes and speeds of auto traffic. Wider and more heavily traveled arterial streets can also present barriers for people walking and biking where they need to cross the street to reach a destination. Therefore, the need for enhanced crossing opportunities may be greater.

Suggested spacing of arterial streets varies from 2 to 3 miles in suburban fringes to not more than 1 mile in fully developed areas. Access to adjacent land is provided but is a low priority.

MAJOR AND MINOR COLLECTORS

Collectors serve a critical role in the roadway network by connecting traffic from local streets with the arterial network. Major collector routes are generally distinguished from minor collector routes by longer length, lower connecting driveway densities, higher speed limits, greater spacing intervals, higher traffic volumes, and may have more travel lanes. The general traffic volume on a major collector ranges from 2,000 to 8,000 daily vehicles and speeds are often managed between 25 mph and 40 mph. The typical traffic volume on a minor collector ranges from 1,200 to 5,000 daily vehicles and speeds are managed to no more than 25 mph.



Due to the lower auto traffic volumes and speeds compared to arterials, traveling on major and minor collectors is generally more comfortable for people walking and biking. However, separate biking facilities are required on major collectors and are still recommended on minor collectors.

The maximum interval for spacing collector streets should be approximately 1,500 feet. While access and mobility are more balanced than on arterials, new driveways serving residential units should not be permitted on collectors where traffic volume forecasts for the street exceed 5,000 vehicles per day.

LOCAL STREETS

Local streets prioritize provision of immediate access to adjacent land. These streets should be designed to enhance the livability of neighborhoods and should generally accommodate less than 2,000 vehicles per day. When traffic volumes reach 1,000 to 1,200 vehicles per day through residential areas, safety and livability can be degraded. A well-connected grid system of relatively short blocks can minimize excessive volumes of motor vehicles, limit out-of-direction travel, and encourage walking and biking. Speeds are not normally posted, with a statutory 25 mph speed limit in effect. Local streets are not intended to support long distance travel and are often designed to discourage through traffic. All City streets that are not designated as arterial streets or collector streets are local streets.

Local streets typically provide low-stress travel routes for people walking and biking.

Due to lower vehicle volumes and speeds, dedicated bicycle facilities are not required on local streets and cyclists can share the lane with vehicles. Dedicated pedestrian facilities are required, and even curb-adjacent sidewalks on local streets can still provide a high level of comfort.

CHANGES TO EXISTING FUNCTIONAL CLASSIFICATION

The following changes to street functional classifications are proposed to improve the network design and mobility within the City of Sweet Home:

- US 20 (Main Street) classify as a principal arterial to align with the federal classification system. Facility was previously classified as a major arterial.
- Long Street classify as a major collector.
 Facility was previously classified as a minor arterial.
- Oak Terrace & Terrace Lane classify the connection between Long Street and Holley Road as a major collector. Facility was previously classified as a minor arterial.

Changes to the existing functional classifications will require coordination with ODOT to follow the formal process to update the federal classification map.¹

Administration. Federal Functional Classification updates can be made at any time by contacting the local ODOT Region planner.



¹ Federal Functional Classification is used to determine design standards of roads and determines Federal Aid funding eligibility. Federal Functional Classification is assigned to all public roads using federal guidelines and is approved by the Federal Highway

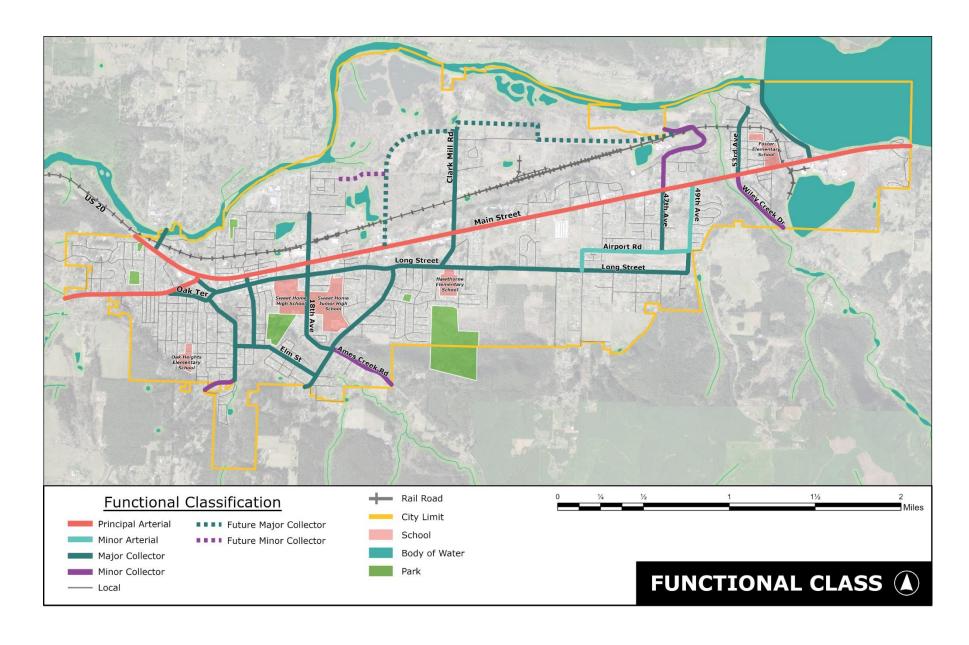


FIGURE 10. SWEET HOME FUNCTIONAL CLASSIFICATION

LOCAL STREET CONNECTIVITY

Local street connectivity is required by the state Transportation Planning Rule (OAR 660-012) and is important for Sweet Home's continued development. Providing adequate connectivity can reduce the need for wider roads, traffic signals, and turn lanes. Increased connectivity can reduce a city's overall vehicle-miles traveled (VMT), balance the traffic load on major facilities, encourage citizens to seek out other travel modes, and reduce emergency vehicle response times. While improving local street connectivity is easier to implement in newly developed areas, retrofitting existing areas to provide greater connectivity should also be attempted.

Sweet Home's existing street connectivity is constrained by rail facilities, existing development patterns, and natural features such as wetlands and challenging topography.

The Local Street Connectivity Plan shown in Figure 11 identifies approximate locations where new local street connections should be installed as areas continue to develop. This map is provided as a reference and additional connectivity should be considered, where appropriate, based on the direction of Public Works.

The design and construction of new connecting streets must evaluate whether neighborhood traffic management strategies are necessary to protect existing neighborhoods from potential traffic impacts caused by extending stub end streets. Furthermore, to establish appropriate expectations, the City will require the installation of signs indicating the potential for future connectivity when development constructs stub streets.

No new proposed roadways will involve the displacement of preexisting houses.

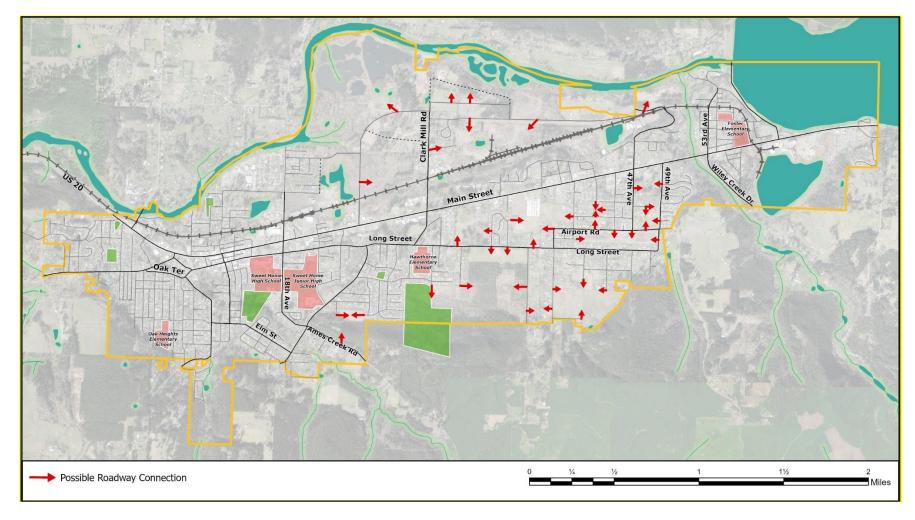


FIGURE 11. SWEET HOME LOCAL STREET CONNECTIVITY

MOBILITY STANDARDS

Mobility standards (or "targets" if referring to ODOT facilities) are the thresholds set by an agency for the maximum amount of congestion that is acceptable for a given roadway or intersection. They are often used as a metric for assessing the impacts of new development on the transportation system and for identifying where capacity improvements may be needed. Subsequently, they are frequently the basis for requiring improvements needed to sustain the transportation system as growth and development occur. Two methods used to gauge operational conditions for motor vehicles include volume-to-capacity ratios and level of service.

Volume-to-capacity (v/c) ratio: A v/c ratio is a decimal representation (between 0.00 and 1.00) of the proportion of capacity that is being used at a turn movement, approach leg, or intersection. The ratio is the peak hour traffic volume divided by the hourly capacity of a given intersection or movement. A lower ratio indicates smooth operations and minimal delays. A ratio approaching 1.00 indicates increased congestion and reduced performance.

Level of service (LOS): LOS is a "report card" rating (A through F) based on the average delay experienced by vehicles at the intersection. LOS A, B, and C indicate conditions where traffic moves without significant delays over periods of peak hour

travel demand. LOS D and E are progressively worse operating conditions. LOS F represents conditions where average vehicle delay is excessive and demand exceeds capacity, typically resulting in long queues and delays.

Sweet Home's mobility standards for streets under City jurisdiction are as follows:

- For signalized intersections, a level of service E or better must be maintained during the weekday peak hour
- For roundabouts, a volume-to-capacity ratio of less than or equal to 0.90 on each intersection approach must be maintained during the weekday peak hour
- For stop-controlled and yieldcontrolled intersections, a level of service E or better must be maintained during the weekday peak hour. For two-way stop-controlled intersections, this applies to the minor (i.e., stopcontrolled) approaches. For all-way stop-controlled intersections, this applies to the overall intersection measure

When calculating LOS or v/c ratios, the methodologies from the latest published Highway Capacity Manual by the Transportation Research Board must be applied.

For roadways within Sweet Home that are under ODOT or Linn County jurisdiction, the mobility standards/targets of those agencies will apply. ODOT mobility targets are documented in the Oregon Highway Plan (OHP).



CHAPTER 5

PROJECTS

SWEET HOME TRANSPORTATION SYSTEM PLAN

5 PROJECTS

This chapter summarizes the projects that have been identified to address the deficiencies within the Transportation System in the City of Sweet Home. Additional information is provided in Volume 2: Technical Memoranda 6 (Alternatives Analysis and Funding Program) and 9 (Preferred Alternatives). The projects are categorized accordingly:

- Motor Vehicle Capacity (C)
- Active Transportation (A)
- Railroad (R)
- Downtown Streetscape (P)
- Safety (S)
- Smart Mobility (E)

The projects on the Financially Constrained list do not limit the City, County, or ODOT from advancing other projects in the City's TSP in response to changes in development patterns and funding opportunities that are not known at the time of this plan. Future circumstances could allow or require the City to fund projects not on the Financially Constrained project list to address an unanticipated transportation need or take advantage of opportunities as they arise.

FINANCIALLY CONSTRAINED PROJECT LIST

The Oregon Transportation Planning Rule (TPR) requires that local agencies identify a financially constrained list of projects within the TSP. Based on the requirements within the Oregon Administrative Rule (OAR 660-012), the cost of the financially-constrained project list should not exceed 125 percent of the available funding, or \$3.93 million².

The financially constrained project list identifies the \$3.1 million in projected transportation funding to the highest priority projects. The financially constrained project list includes the highest priority projects for the City to pursue:

• C1 – Main Street / Pleasant Valley Road Intersection Improvement – this location currently is a two-way stop control and does not meet mobility targets, is an identified safety concern by the public due to the intersection geometrics and sight distance, and is generally recognized as the location of highest interest for an improvement in the city. A preliminary evaluation indicated a roundabout may provide additional benefits to reducing speed on Main Street and providing a gateway treatment for the city's western edge. However, additional processes would be required to select a control type for implementation, including intersection control evaluation and approval by ODOT's State Traffic Engineer (due to location on the state highway system), and coordination and approval from the Mobility Advisory Committee (due to location on a reduction review route). Due to the unknown treatment type, the intersection cost is listed as a range.

² 125% * \$3,140,000 = \$3,930,000



SWEET HOME TRANSPORTATION SYSTEM PLAN (DRAFT) APRIL 2025

• R5 – 24th Avenue Rail Crossing Improvements – this location had a rail crossing order³ that allows future improvements at the crossing to support future growth including gates and lights, cantilevers for additional flashing lights, and pedestrian gates for sidewalks with a roadway having four lanes with medians and bike lanes. However, the crossing order requires that "Construction of crossing No. 3S-029.33 shall be substantially in progress within five years from the entered date of the Final Order. Otherwise, the authority expires on that date." It is noted that the final order date is September 30, 2021, with a five-year period ending on September 30, 2026 for construction to be "substantially in progress".

The financially constrained project list is listed in Table 3. The total cost of the project list is shown as a range of \$4.6 million to \$12.1 million due to the unknown treatment and intersection cost that will result from additional review of the Main Street/Pleasant Valley Road intersection improvement. A traffic signal at this location would result in a lower cost than a roundabout treatment.

TABLE 3. FINANCIALLY CONSTRAINED PROJECT LIST (2022 DOLLARS)

PROJECT ID	PROJECT NAME	COST ESTIMATE ^A
C1	Main Street/Pleasant Valley Road Intersection Improvement ^B	\$2,500,000-\$10,000,000
R5A	24 th Avenue Rail Crossing ROW and Signing	\$204,000
R5B	24 th Ave Rail Crossing Installation \$1,900,000	
	Total	\$4.6-\$12.1 Million

A. Cost estimates are based on 2022 dollars. Costs have a potential annual escalation rate of 2.1% according to the NHCCI

B. Projects that propose changing an intersection's traffic control on ODOT's system would require additional study as part of an Intersection Control Evaluation (ICE) to be conducted before design per ODOT standards to determine the appropriate control treatment, including consideration for traffic signal warrants and spacing between existing and proposed signals. Requires approval of ODOT State Traffic Engineer.



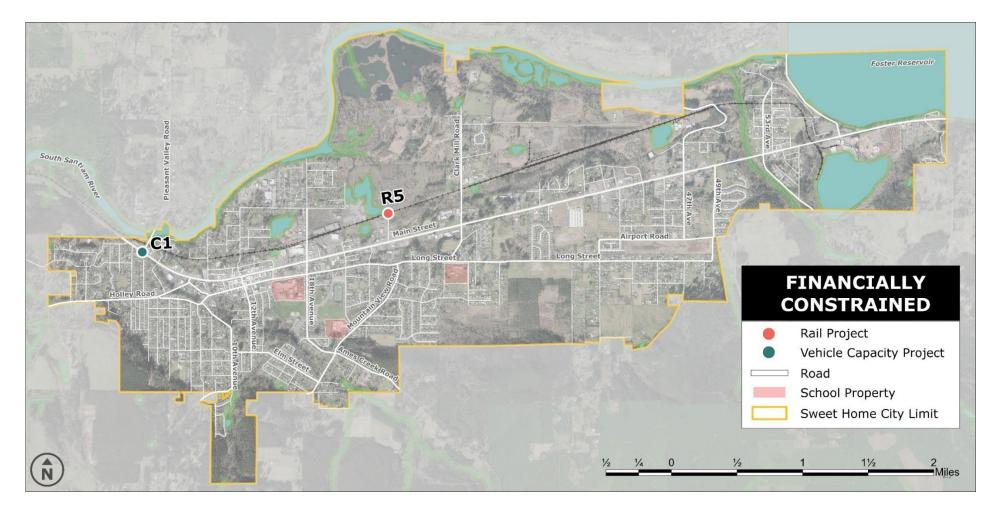


FIGURE 12. FINANCIALLY CONSTRAINED PROJECT LIST

ASPIRATIONAL PROJECTS

The following section summarizes the remaining "aspirational" preferred plan projects that are important for Sweet Home but are not included in the financially constrained list. These projects are not considered reasonably likely to be funded by 2045.

The aspirational projects are grouped by category for organization purposes. The order of the categories does not represent an order of prioritization nor does the order of the projects within the tables. Projects within the aspirational project list should be constructed as funding becomes available or priorities within the city are changed. As noted previously, several potential implementation opportunities are flagged for each project, depending on the type, location, and potential benefits.

The aspirational vehicle capacity projects are listed in Table 4 and shown in Figure 13.

Projects from the Sweet Home Safe Routes to School Plan (2020) are shown within Table 8. All projects from the original plan are included within the table except those that have already been constructed or overlap with another aspirational project.

Transportation improvements in Sweet Home are also necessary to improve the ability of people to get to key destinations. Most key destinations exist on the western portion of Sweet Home like the Library, Fires Station, and Community Center. Improvements made to connectivity along Main Street and Long Street for all modes of Transportation will increase the ease of people in getting to these key destinations.

TABLE 4. ASPIRATIONAL VEHICLE CAPACITY PROJECTS^A

PROJECT ID	PROJECT NAME	DESCRIPTION	COST ESTIMATE ^B
C2	Main Street/24 th Avenue Traffic Control	Construct a traffic control upgrade at Main Street (US 20)/24 th Avenue. Location may be a candidate for a traffic signal.	\$2,500,000- \$10,000,000
СЗ	Main Street/Clark Mill Road Traffic Control	Construct a traffic control upgrade at Main Street (US 20)/Clark Mill Road. Location may be a candidate for a traffic signal.	\$2,500,000- \$10,000,000
C4	Main Street/47 th Avenue Traffic Control	Construct a traffic control upgrade at Main Street (US 20)/47 th Avenue. Location may be a candidate for a traffic signal.	\$2,500,000- \$10,000,000
	Total		\$7.5-\$30 Million

A. Projects that propose changing an intersection's traffic control on ODOT's system would require additional study as part of an Intersection Control Evaluation (ICE) to be conducted before design per ODOT standards to determine the appropriate control treatment, including consideration for traffic signal warrants and spacing between existing and proposed signals. Requires approval of ODOT State Traffic Engineer.

B. Cost estimates are based on 2022 dollars. Costs have a potential annual escalation rate of 2.1% according to the NHCCI



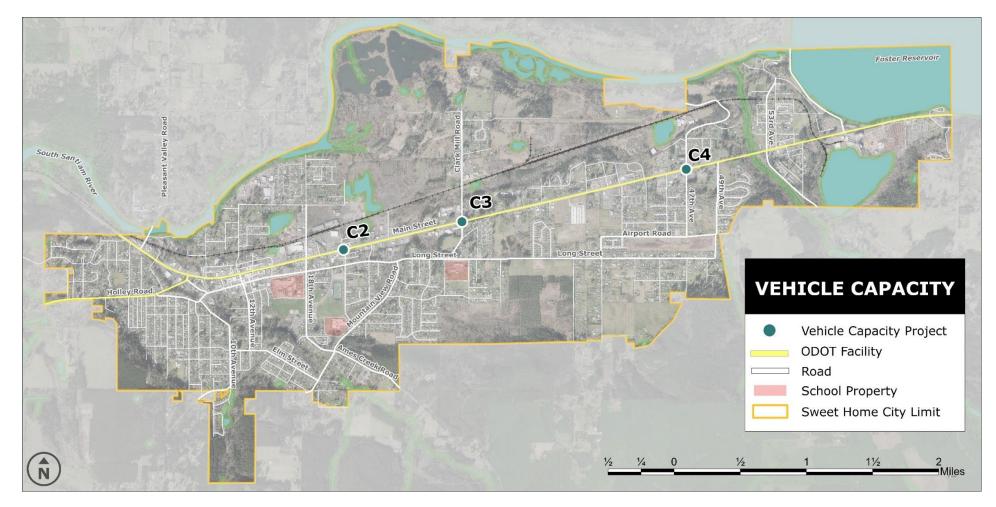


FIGURE 13. VEHICLE CAPACITY PROJECTS

The Aspirational Active Transportation Projects are listed in Table 5 through Table 8 and are shown in Figures 14 and 15. These projects help to address deficiencies for those using alternative transportation modes from vehicles to get around Sweet Home. Improving bike facilities along Main Street and Long Street will improve east west connectivity throughout Sweet Home for those opting to bike.

TABLE 5. ASPIRATIONAL PEDESTRIAN FOCUSED PROJECTS

PROJECT ID	PROJECT NAME	DESCRIPTION	COST ESTIMATE ^A
A1	Clark Mill Road Sidewalk Infill	Infill existing sidewalk gaps (8,000 ft) on Clark Mill Road. Update stormwater infrastructure to current standards where necessary.	\$9,700,000
АЗ	Mountain View Road Sidewalk Infill	Infill existing sidewalk gaps on Mountain View Road (8,000 ft). Update stormwater infrastructure to current standards where necessary.	\$9,700,000
A5	53 rd Avenue Sidewalk Infill	Infill existing sidewalk gaps on 53 rd Avenue (8,700 ft). Update stormwater infrastructure to current standards where necessary.	\$10,400,000
A43	Main Street Sidewalk Connectivity under Trestle Bridge	Connect the sidewalk under the Trestle bridge after Trestle bridge is reconstructed.	\$150,000
A44	Main Street Sidewalk Infill	Infill existing sidewalk gaps east of Wiley Creek to the eastern city limit (3,000 ft) on Main Street. Update stormwater infrastructure to current standards where necessary.	\$3,450,000
	Total		\$33,400,000

A. Cost estimates are based on 2022 dollars. Costs have a potential annual escalation rate of 2.1% according to the NHCCI

TABLE 6. ASPIRATIONAL BICYCLE FOCUSED PROJECTS^A

PROJECT ID	PROJECT NAME	DESCRIPTION	COST ESTIMATE ^B
A6	Main Street Bike Lanes	Construct bike lanes on Main Street (US 20) west of 18 th Avenue; consider buffered bike lanes on Main Street (US 20) east of 18 th Avenue. Design must conform to the Highway Design Manual.	\$5,750,000
А7	Holley Road Bike Lanes	Construct bike lanes on Holley Road from Main Street (US 20) to the western city limits within the current right of way. Improve signing along the route. Design must conform to the Highway Design Manual.	\$1,300,000
А8	Long Street Bike Lane Infill	Add bike lanes from Holley Road to 22 nd . Consider buffered bike lanes with parking removal.	\$1,400,000
А9	Airport Road Bike Lanes	Construct bike lanes on Airport Road from 43^{rd} to 49^{th} within the existing right of way.	\$1,000,000
A11	49 th Avenue Bike Lanes	Construct bike lanes on 49 th Avenue from Long Street to Main Street (US 20) within the existing right of way.	\$850,000
A12	53 rd Avenue and Wiley Creek Drive Bike Lanes	Construct bike lanes on 53 rd Avenue and Wiley Creek Drive. Widen Wiley Creek Road where necessary to maintain the bike lane.	\$6,900,000
A13	18 th Avenue/Ames Creek Road Bike Lanes	Construct bike lanes from south city limit to Tamarack Street along 18 th and Ames Creek Rd. Install greenway treatment along 18 th north of Tamarack.	\$500,000
A14	Mountain View Road Bike Lanes	Construct bike lanes on Mountain View Road from Long Street to Cedar Street. Remove parking where necessary.	\$200,000
	Total		\$17,900,000

A. Projects aim to decrease Bike Level of Traffic Stress (BLTS) to a 1 or 2. A BLTS of 1 represents a low stress and comfortable facility while a BLTS of 4 is a high stress facility that may be dangerous to cyclists and only utilized by aggressive cyclists.



B. Cost estimates are based on 2022 dollars. Costs have a potential annual escalation rate of 2.1% according to the NHCCI

TABLE 7. ASPIRATIONAL MULTI-MODAL PROJECTS

PROJECT ID	PROJECT NAME	DESCRIPTION	COST ESTIMATEA
A39	Elm Street Greenway	Designate a neighborhood greenway on Elm Street; possibly install speed humps, signage, and striping.	\$700,000
A40	Long Street Roadway Modernization	Installation of Sidewalk and 6' bike lanes east of 35th Avenue. Updating of drainage with sidewalk improvements. Consider lowering the speed limit and implementing Greenway treatment for bike facilities if bike lanes are infeasible.	\$15,800,000
A41	47 th Greenway	Designate a neighborhood greenway on 47 th Avenue; consider installing speed humps, signage, and striping. Infill missing sidewalk on both sides of the road. Lower speed limit to 30 MPH. ^B	\$6,000,000
A42	Tamarack Street Modernization	Installation of sidewalk and improved bike facilities. Updating of drainage with sidewalk improvements. Consider lowering the speed limit ^B and implementing Greenway treatment for bike facilities if bike lanes are infeasible.	\$2,550,000
	Total		\$25,050,000

A. Cost estimates are based on 2022 dollars. Costs have a potential annual escalation rate of 2.1% according to the NHCCI B. Lowering speed limits requires an ODOT speed study, which can be requested at any time

TABLE 8. SAFE ROUTES TO SCHOOL PROJECTS

PROJECT ID	PROJECT NAME	DESCRIPTION	COST ESTIMATE ^A
A16	22 nd Avenue Sidewalk	Improve sidewalks and install curb ramps along 22 nd Avenue.	\$5,600,000
A17	22 nd Avenue/Mountain View Road Crossings	Install striping upgrades and curb extensions at 22 nd Avenue/Mountain View Road intersection.	\$150,000
A18	22 nd Avenue/Ironwood Street Crossings	Install curb ramps, upgrade signage and striping, and install lighting at 22 nd Avenue/Ironwood St intersection.	\$264,000
A19	22 nd Avenue/Juniper Court and 22 nd Avenue/Kalmia Street Crossings	Install curb ramps, upgrade striping, and install lighting at 22 nd Avenue/Juniper Court and 22 nd Avenue/Kalmia Street.	\$289,000
A20	22 nd Avenue/Long Street Crossings	Install curb ramps, upgrade striping, and install lighting at 22 nd Avenue/Long Street.	\$269,000
A22	22 nd Avenue Multiuse Path	Remove parking and construct multimodal path on 22 nd Avenue between Mountain View Road and Long Street.	\$1,850,000
A23	Main Street Sidewalk Enforcement	Enforce sidewalk clearance code on Main Street.	
A25	18 th Avenue Sidewalks	Improve sidewalks and install curb ramps on 18 th Avenue between Main Street (US 20) and Ames Creek Road.	\$1,950,000
A26	High School Driveway Crossing	Install RRFB, upgrade signage and striping, and install lighting at the high school driveway on 18 th Avenue.	\$299,000
A27	18 th Avenue/Grape Court Crossing	Upgrade striping and install curb ramps at 18 th Avenue/Grape Court.	\$250,000
A28	Mountain View Road/Ames Creek Road Crossings	Upgrade striping, install curb ramps, and install lighting at Mountain View Road/Ames Creek Road.	\$269,000
A29	Mountain View Road/Elm Street Crossing	Upgrade striping and install lighting at Mountain View Road/Elm Street.	\$239,000



	Total		\$20,179,000
A38	Kalmia Street Sidewalk	Install sidewalk on the south side of Kalmia Street from Mountain View Road to 26th Court.	\$450,000
A37	Harding Street Sidewalk	Install sidewalk on the south side of Harding Street from Mountain View Road to 27th Avenue.	\$1,600,000
A36	Juniper Street Greenway	Designate a neighborhood greenway on Juniper Street from Mountain View Road to 35th Avenue; install speed humps, signage, and striping.	\$350,000
A35	Juniper Street Sidewalk	Install sidewalk on the north side of Juniper Street from Mountain View Road to Ashbrook Park.	\$950,000
A33	Ames Creek Road Sidewalk	Install sidewalk on the south side of Ames Creek Road from Mountain View Road to Surrey Lane.	\$950,000
A32	Ames Creek Road Restriping	Restripe Ames Creek Road to narrow travel lanes, shift centerline, and provide more pedestrian space between Mountain View Road and Surrey Lane; explore 25 mph speed limit.	\$100,000
A31	Mountain View Road Multiuse Path (North)	Construct a 10-foot wide shared use path and curb ramps at intersections between 22 nd Avenue and Long Street.	\$3,400,000
A30	Mountain View Road Multiuse Path (South)	Construct a 10-foot wide shared use path and northbound shared roadway bicycle markings between Ames Creek Road and school property.	\$950,000

A. Cost estimates are based on 2022 dollars. Costs have a potential annual escalation rate of 2.1% according to the NHCCI



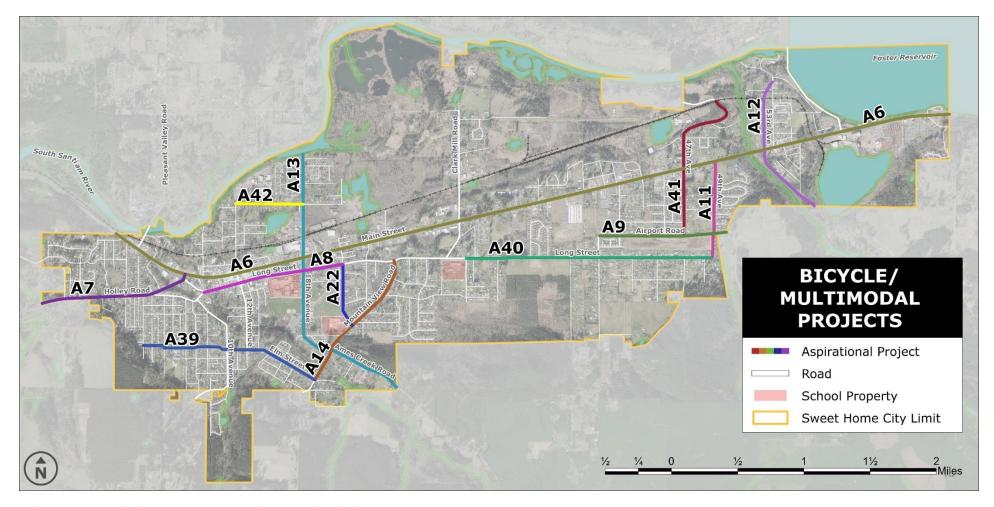


FIGURE 14. BICYCLE AND MULTIMODAL PROJECTS



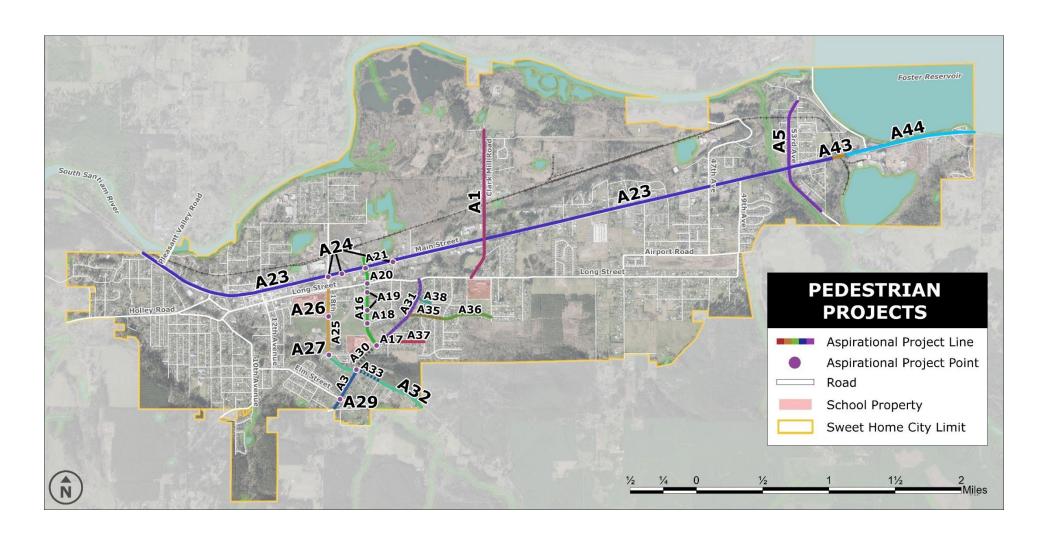


FIGURE 15. PEDESTRIAN PROJECTS (INCLUDES SS4A)



Other aspirational projects are shown in the following tables, including Downtown Streetscape (Table 9), Railroad (Table 10), Safety (Table 11), and Smart Mobility (Table 12) and are mapped in Figure 16.

TABLE 9. ASPIRATIONAL DOWNTOWN STREETSCAPE PROJECTS

PROJECT ID	PROJECT NAME	DESCRIPTION	COST ESTIMATE ^A
P1	Long Street Sidewalk Buffer	Provide landscaping along the sidewalk edge and remove on-street parking to add a landscape buffer.	\$481,000
P2	Long Street Pedestrian Island	Add a pedestrian island or curb bulb-outs to shorten crossing distance at key intersections.	\$1,500,400
Р3	Long Street Parking Restriping	Revise lane striping to add parking in areas where narrowing the travel lanes results in additional width for on-street parking.	\$81,400
P5	Parking Management Policy	Implement a policy for Downtown that limits parking to 2-hours on-street and 4-hour off street. Increase level of enforcement to ensure turn over occurs.	
P6	Long Street Modification 10 th to 18 th	Seek to maintain 11' sidewalks, 8' parking lanes and 11' travel lanes from 10 th Ave to midway between 15 th Ave and 18 th Ave. Possibly include bulb-outs at the key intersections to increase pedestrian comfort.	\$4,114,300
Р7	Main Street Modification	Add bulb-outs along the corridor to provide spaces for lighting, streetscape amenities and trees. Add a median and remove pedestrian lighting from the existing median from 9 th Ave to 18 th Ave.	\$2,477,100
	Total		\$8,654,200

A. Cost estimates are based on 2022 dollars. Costs have a potential annual escalation rate of 2.1% according to the NHCCI

TABLE 10. ASPIRATIONAL RAILROAD PROJECTS

PROJECT ID	PROJECT NAME	DESCRIPTION	COST ESTIMATE ^A
R1	Pleasant Valley Road Rail Crossing	Upgrade signing and striping, install railroad crossing gates, and install ADA-accessible improvements to align with current railroad safety guidelines.	\$600,000
R2	9 th Avenue Rail Crossing	Upgrade signing and striping, install railroad crossing gates, and install ADA-accessible improvements to align with current railroad safety guidelines.	\$600,000



R3	12 th Avenue Rail Crossing	Upgrade signing and striping, install railroad crossing gates, and install ADA-accessible improvements to align with current railroad safety guidelines.	\$600,000
R4	18 th Avenue Rail Crossing	Upgrade signing and striping, install railroad crossing gates, and install ADA-accessible improvements to align with current railroad safety guidelines.	\$600,000
R6	Clark Mill Road Rail Crossing	Upgrade signing and striping, install railroad crossing gates, and install ADA-accessible improvements to align with current railroad safety guidelines.	\$600,000
R7	47 th Avenue (West) Rail Crossing	Upgrade signing and striping, install railroad crossing gates, and install ADA-accessible improvements to align with current railroad safety guidelines.	\$600,000
R8	47 th Avenue (East) Rail Crossing	Upgrade signing and striping, install railroad crossing gates, and install ADA-accessible improvements to align with current railroad safety guidelines.	\$600,000
R9	53 rd Avenue Rail Crossing	Upgrade signing and striping, install railroad crossing gates, and install ADA-accessible improvements to align with current railroad safety guidelines.	\$600,000
R10	54 th Avenue Rail Crossing	Upgrade signing and striping, install railroad crossing gates, and install ADA-accessible improvements to align with current railroad safety guidelines.	\$600,000
R11	Main Street Railroad Bridge	Replace damaged trestle bridge.	\$20,000,000
R12	43 rd Ave Railroad Crossing	Construct a new grade separated bridge across the rail road tracks to connect 43rd Ave to the eastern portion of the North Sweet Home Area.	\$20,000,000
	Total		\$45,400,000

A. Cost estimates are based on 2022 dollars. Costs have a potential annual escalation rate of 2.1% according to the NHCCI



TABLE 11. ASPIRATIONAL SAFETY PROJECTS

PROJECT ID	PROJECT NAME	DESCRIPTION	COST ESTIMATE ^A
S1	Long/18 th intersection improvements	Monitor intersection to determine if additional improvements are needed to reduce crash frequency. Improvements may include adding signing upgrades and potential on-street parking reductions to improve visibility and alert drivers of pedestrian activity and traffic control.	\$70,000
S2	Shea Viewpoint / Riggs Hill Road	Install safety enhancements to the eastern gateway. These may include signing, striping, and/or lighting, to decrease speed of traffic entering urban area and allow safe pedestrian crossings.	\$200,000
S 3	Long St/ Holley Rd Right in Right Out	Restrict left turn movements at the intersection to reduce vehicle conflicts that occur near Main Street. Add signage as well as well as barriers to prevent left turns from Long Street to OR 228 and from OR 228 to Long Street. These improvements would also improve the traffic flow from Main Street to Holley Road making the route more attractive and decreasing traffic cutting through on 1st Avenue to avoid the intersection.	\$400,000
	Total		\$670,000

A. Cost estimates are based on 2022 dollars. Costs have a potential annual escalation rate of 2.1% according to the NHCCI

TABLE 12. ASPIRATIONAL SMART MOBILITY PROJECTS

PROJECT ID	PROJECT NAME	DESCRIPTION	COST ESTIMATE ^A
E1	EV Charging Stations	Install charging stations for electric vehicles and/or electric bikes at key destinations, such as within downtown and at parks.	\$150,000

A. Cost estimates are based on 2022 dollars. Costs have a potential annual escalation rate of 2.1% according to the NHCCI



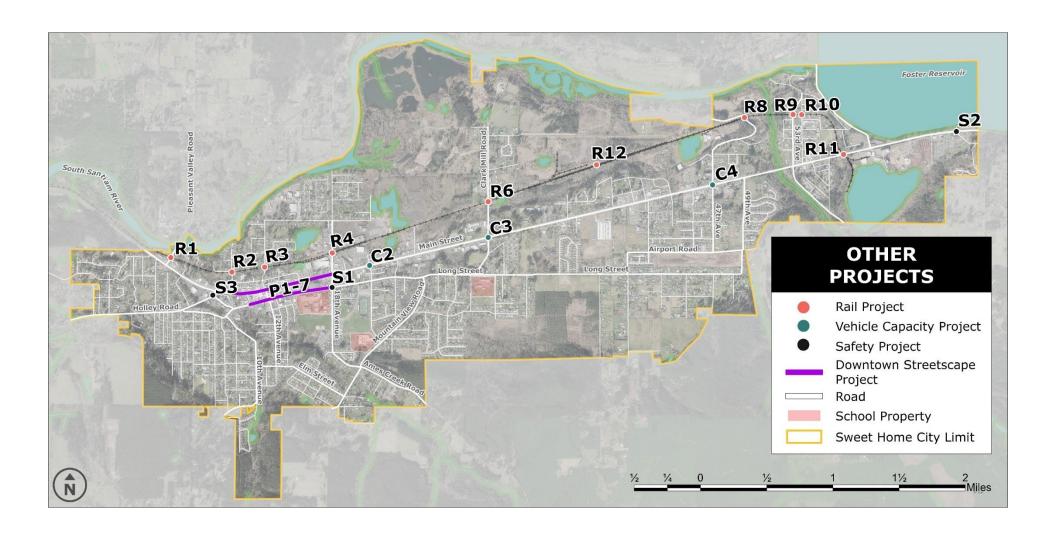


FIGURE 16. OTHER ASPIRATIONAL PROJECTS



NORTH SWEET HOME AREA PLAN PROJECTS

In conjunction with the update to the Sweet Home TSP, a refinement plan for the North Sweet Home Area (NSHA) has also been developed. The NSHA is the area north of the Albany and Eastern Railroad which includes over 500 acres of undeveloped land, including natural resource amenities. The following projects have been recommended through the development of this plan depending on final plan outcomes. These new street improvements would include pedestrian and cyclist connectivity improvement within the area. Projects are listed in Table 13 and mapped in Figure 17.

TABLE 13. NSHA ASPIRATIONAL PROJECTS

PROJECT ID	PROJECT NAME	DESCRIPTION	COST ESTIMATEA
N-C1	24 th Ave Improvements	Widen 24 th Ave as a two lane major collector (with right of way to allow for future widening to four lane) from US20 to railroad. Extend 24 th Avenue north of railroad to to Zelkova St as a two lane major collector with right of way to allow for future widening to four lane).	\$21,450,000
N-C2	Zelkova St Improvements	Extend Zelkova Street as a major collector east of 24 th Avenue to 47th Avenue.	\$43,550,000
N-C3	New Neighborhood Street 1	Construct new neighborhood street (minor collector) connecting 24 th Avenue to Clark Mill Road.	\$9,005,000
N-C4	New Neighborhood Street 2	Construct new neighborhood street connecting Zelkova Street to proposed hospitality district.	\$18,005,000
N-C5	Willow St Extension	Extend Willow Street east of 20 th Avenue to 24 th Avenue.	\$9,000,000
N-C6	22 nd Ave Extension	Extend 22 nd Avenue from Tamarack Street to Willow Street.	\$9,000,000
N-S1	US20/18 th Ave Improvements	Modify existing signal to meet capacity needs, including potential addition of protected left turns on US20.	\$150,000
N-S5	Zelkova St/Clark Mill Rd Improvements	Traffic control upgrade pending the completion of an Intersection Control Evaluation and review and approval of ODOT Traffic Engineer.	\$2,000,000
N-S6	18 th Ave Railroad Crossing Improvements	Upgrade signing and striping, install railroad crossing gates, and install ADA-accessible improvements to align with current railroad safety guidelines.	\$600,000



PROJECT ID	PROJECT NAME	DESCRIPTION	COST ESTIMATEA
N-S7	24 th Ave Railroad Crossing Improvements	Upgrade signing and striping, install railroad crossing gates, and install ADA-accessible improvements to align with current railroad safety guidelines.	\$600,000
N-S8	Clark Mill Rd Railroad Crossing Improvements	Upgrade signing and striping, install railroad crossing gates, and install ADA-accessible improvements to align with current railroad safety guidelines.	\$600,000
N-S9	47 th Ave Railroad Crossing Improvements	Upgrade signing and striping, install railroad crossing gates, and install ADA-accessible improvements to align with current railroad safety guidelines.	\$600,000
N-M1	18 th Avenue Multiuse Path	Install multiuse path along 18th Avenue and Tamarack Street.	\$360,000
N-M2	New Neighborhood Street 2 MUP	Install multiuse path along New Neighborhood Street 2.	\$260,000
N-M3	Quarry Park Trail	Install new trail route through Quarry Park.	\$1,440,000
N-M4	Tamarack Street Pedestrian Trail	Install new trail route between Tamarack Street and 24 th Avenue, including pedestrian bridge over existing body of water.	\$1,650,000
N-M5	24 th Ave/Neighborhood St 1 Crossing	Install pedestrian crossing at 24 th Ave/New Neighborhood Street 1 intersection. Type of crossing to be identified following engineering study.	\$50,000
N-M6	24 th Ave/Neighborhood St 2 Crossing	Install pedestrian crossing at 24 th Ave/New Neighborhood Street 1 intersection. Type of crossing to be identified following engineering study.	\$50,000
N-M7	24 th Ave/Willow St Crossing	Install pedestrian crossing at 24 th Ave/Willow Street intersection. Type of crossing to be identified following engineering study.	\$50,000
		Total:	\$118,420,000

A. Cost estimates are based on 2022 dollars. Costs have a potential annual escalation rate of 2.1% according to the NHCCI



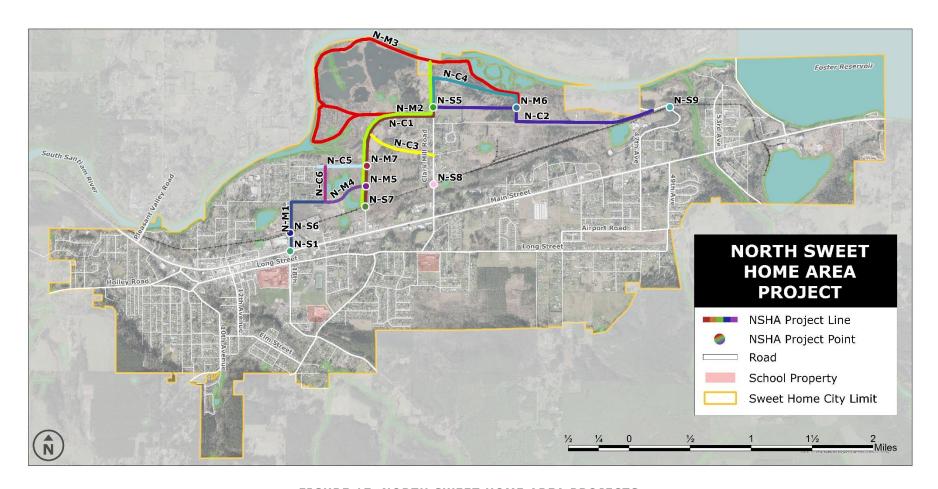


FIGURE 17. NORTH SWEET HOME AREA PROJECTS





CHAPTER 6

FUNDING

SWEET HOME TRANSPORTATION SYSTEM PLAN

6 FUNDING

Based on existing revenue sources of the state gas tax and local transportation System Development Charges (SDC), Sweet Home is estimated to have approximately \$3.1 million available for transportation improvements over the 20-year planning horizon, as summarized in Table 14.

The state gas tax provides revenue for the city's Transportation Fund (Fund 206), which

after covering the combined expenditures for Personal Services and Materials and Services leaves approximately \$37,000 per year remaining for capital improvements. The city's SDC is currently projected to generate approximately \$120,000 per year based on the city budget, but increased development levels would increase this amount.

TABLE 14. EXISTING AND PROJECTED TRANSPORTATION REVENUE SOURCES

REVENUE SOURCE	ESTIMATED ANNUAL REVENUE	TOTAL REVENUE THROUGH 2045 (20 YEARS)
STATE GAS TAX	\$37,000*	\$740,000
SYSTEM DEVELOPMENT CHARGES	\$120,000**	\$2,400,000
TOTAL	\$157,000	\$3,140,000

Note: * Revenue remaining after covering other anticipated costs in Transportation Fund including Personal Services and Materials and Services.

If Sweet Home implements other revenue sources (e.g., local gas tax or street utility fee programs) that could increase the amount of transportation revenue available for new capital projects and programs.

Other implementation opportunities exist that could support funding and construction of other aspirational projects:

- SDC Improvements Capacity projects that would be needed to support future development and, depending on level of development, could be candidate projects for SDC resources.
- Partner Funding Projects that are located on a County or State facility and may be opportunities for joint funding and/or incorporating into related projects along the facility.

- Development Frontage Projects that could be implemented through frontage improvements as adjacent properties redevelop.
- Active Transportation Grant –
 Projects that would improve the active
 transportation system and may be
 future candidates for various state or
 other active transportation grant
 programs.
- Safety Grant Projects that would improve safety of the transportation system and may be future candidates to consider for various state or other safety grant programs.

Additional information about other potential revenue sources and implantation opportunities for each project are identified in Volume 2.



^{**} SDC revenue is estimated based on the City budget, but could increase with additional development.



PHOTO: SWEET HOME FACEBOOK

CHAPTER 7 outcomes

SWEET HOME TRANSPORTATION SYSTEM PLAN

7 OUTCOMES

This chapter summarizes the expected outcomes of the transportation system plan.

EXPECTED GROWTH

Sweet Home is projected to grow approximately 19 percent over the planning horizon through 2045. The TSP identifies projects to address both existing and future transportation needs based on the projected growth. Residential growth is currently occurring within the city, primarily as larger lots subdivide.

However, the most significant growth opportunities will come from the future development of the NSHA. The NSHA was planned through a parallel planning process to the TSP update that resulted in the NSHA Plan. The area provides opportunities for significant residential, commercial and employment growth.

The conditions of the market and development interest will ultimately drive how much development occurs over the 20-year planning horizon and beyond. Depending on the specific location, type, and size of the growth, additional transportation improvements both within and connecting to the NSHA will be critical. These improvements will likely be driven and funded through development, and will likely include new roadway network within NSHA, upgrades to rail crossings, and intersection control upgrades at key Main Street intersections that provide access to the NSHA.

FUTURE SYSTEM PERFORMANCE

The existing pedestrian gaps and bicycle needs will be even more apparent in the future with increased population and traffic growth. One existing vehicle capacity need has been identified at the intersection of Main Street / Pleasant Valley Road. Additional capacity needs along Main Street will likely be triggered with growth in NSHA. Improvements to the multimodal system will be needed to address these needs by implementing the projects identified in Chapter 5.

OPPORTUNITIES FOR ADDITIONAL FUNDING

The only dedicated transportation funding is provided through the transportation SDC and state gas tax revenue. These sources are projected to provide approximately \$3.1 million of capital improvements that represent the financially constrained project list. Additional project needs have been identified as part of the aspirational project list. These projects may be implemented through a variety of means, development, partner funding, and grant opportunities. Additional funding opportunities for sustained transportation revenue were reviewed and could be implemented by the City to increase the outlay of the capital improvements identified in this plan. Two options that were explored and are most commonly implemented by other Oregon communities include a street utility fee and local gas tax.







DRAFT TECHNICAL MEMORANDUM#1

Plans and Policy Framework

Sweet Home TSP and North Sweet Home Area Plan

DATE March 6, 2023

TO Project Management Team

FROM Matt Hastie, Andrew Parish & Emma-Quin Smith, MIG|APG

CC

OVERVIEW

This **draft** document presents a review of the local, county, and state level plans that may be relevant to the Sweet Home Transportation System Plan (TSP) Update and North Sweet Home Area Plan (NSHAP). Plans and policies are arranged by jurisdiction – City of Sweet Home, Linn County, and State of Oregon.

Following the document review, an audit of the Sweet Home's comprehensive plan and development code for compliance with the Oregon Transportation Planning Rule (TPR) is also included.

SECTION 1: PLANS AND POLICIES REVIEW

Local Plans and Policies

This section addresses plans and policies enacted by the City of Sweet Home.

Sweet Home Comprehensive Plan

The Sweet Home Comprehensive Plan, adopted in 2003, was most recently amended in 2010.

Land Uses

Table 1 shows the Comprehensive Plan designations identified in the Land Use Element (Chapter 2). The Comprehensive Plan does not specifically identify North Sweet Home as an area of special concern.

Table 1. City of Sweet Home Comprehensive Plan Designations

Land Use Designation	Purpose
Low Density Residential	To provide appropriate lands for low density, single-family homes. This category has the lowest density of the residential designations s, providing larger lots for single family homes.
Medium Density Residential	To provide areas suitable and desirable for single family homes, duplexes on corner lots, condominiums, town houses, and appropriate community facilities. Densities in this category are slightly higher than those in the low density category.
High Density Residential	To provide areas suitable and desirable for higher density residential development, and particularly for apartments, manufactured home parks, other residential uses, and appropriate community facilities.
Mixed Use Residential	To provide areas suitable for medium to high density residential with limited commercial, institutional, office, and service uses distributed on a site.
Central Commercial	To provide an area suitable and desirable for retail and service firms, offices, financial institutions, and other uses appropriate in the intensively developed commercial center of the community.
Highway Commercial	To provide suitable and desirable commercial areas along the highway intended to meet the business needs of the community.
Recreation Commercial	To provide and maintain areas that possess unique characteristics for recreational commercial development that caters to tourist and recreational activities. Development should maintain or enhance the appearance of the area and its unique value to the community.
Heavy Industrial	To provide areas for intense manufacturing activities, characterized by their potential conflicts with residential and other land uses.
General Industrial	To provide for the appropriate locations for general industrial uses with minimum conflict between industrial uses and residential and commercial uses.
Light Industrial	To provide for heavier commercial use and limited manufacturing that have few nuisance characteristics.
Public	To provide areas suitable and desirable for government offices and facilities, schools and associated grounds. The Public designation includes areas suitable and desirable for recreation activities (both active and passive) and facilities. Recreation areas include, but are not limited to, open spaces (including cemeteries), scenic landscapes, waterways, parks, special use areas, and trails.

Land Use Designation	Purpose
Natural Resource Overlay	To protect areas identified as significant natural resources. The designation shall ensure reasonable economic use of property, while protecting valuable natural resources.
Planned Development Overlay	To allow diversification in the relationships between buildings and open spaces in planned building groups, while ensuring compliance with the purposes and objectives of the various zoning regulations and the intent and purpose of this ordinance.

Transportation Element

Cities in Oregon are required to adopt a TSP as part of their comprehensive plan. The 2005 Sweet Home TSP is incorporated into the 2010 amendment of the Sweet Home Comprehensive Plan. The Transportation Systems Chapter (Chapter 6) of the Sweet Home Comprehensive Plan addresses statewide planning Goal 12, provides an overview of street functional classifications, summarizes key improvement projects identified in Chapter 8 of the 2005 TSP, and identifies nine transportation policies to support the implementation of the TSP. The City's transportation policies will need to be reviewed and revised to be consistent with the goals and objectives of this TSP update and its ensuing recommendations.

What this means for the Sweet Home TSP and NSHAP

Land use designations in the North Sweet Home area will be a key item of discussion and possible amendment as part of the NSHAP. Updates could include re-designation of land in the area, creation of new land use districts, or amendment of existing districts.

The TSP update process will provide an opportunity to review and update the Comprehensive Plan transportation element and other transportation policies, to better represent current state and local practices and objectives. Potential policy changes may reflect issues that have emerged since the TSP was last updated, such as strategies to optimize transportation management and maximizing the efficiency of the existing transportation system, integrating alternative transportation options, balancing modal capacity of facilities, and the role the transportation system plays in human health. Towards the end of the planning process, when solutions have been identified to satisfy future needs, policy statements will be developed to help implement TSP recommendations. Updated policy statements may augment or replace adopted comprehensive plan transportation policies and will help guide future actions, including land use decisions, after the TSP is adopted.

Sweet Home Development Code

The Sweet Home Development Code is title adopted as Title 17 – Zoning in the City's Municipal Code.

- What zones are there? What types of uses are allowed in each zone?
- What zones are in the North Sweet Home area?

Note that a detailed TPR audit is in a following section.

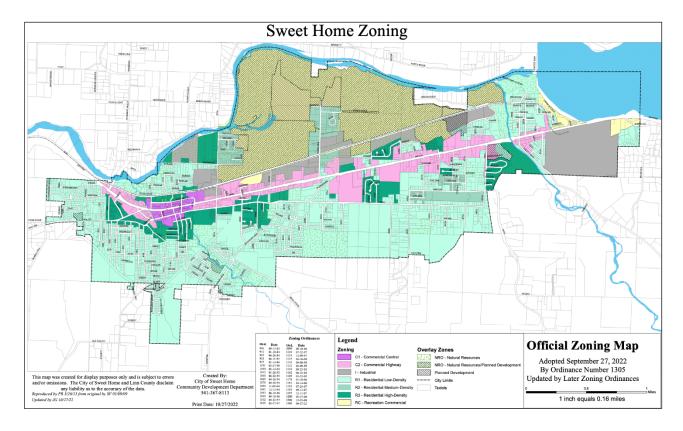
Zoning Designations

The following table includes a summary of the purpose and permitted uses of each zone in Sweet Home.

Table 2. City of Sweet Home Zoning Designations

Zoning Designation	Purpose
Residential Low- Density (R-1)	The purpose of the R-1 zone is to provide areas suitable and desirable for single-family homes, associated public service uses and duplexes on corner lots. Permitted uses include single-family homes and duplexes.
Residential Medium-Density (R-2)	The R-2 zone allows slightly higher density single-family housing than the R-1 zone, including single-family homes, duplexes, townhouses, and amenities to support those development.
Residential High- Density (R-3)	The purpose of the R-3 zone is to provide multifamily housing options and the amenities and services associated with those developments. Permitted uses include single-family attached and detached dwellings, duplexes, and multi-family dwellings.
Mixed-Use (MU)	The mixed-use zone provides a variety of businesses and services in a commercial center that can meet the needs of associated residential development. Uses permitted in the MU zone include multifamily housing, shops, offices, hotels and motels, and eating and drinking establishments. Single family attached dwellings are also allowed in this zone.
Commercial Central (C-1)	The purpose of the C-1 zone is to provide an area suitable and desirable for retail and service enterprises, offices, financial institutions and public service uses which are appropriate in the intensively developed commercial center of the community in order to meet shopping and other business needs of area residents.
Commercial Highway (C-2)	The purpose of the C-2 zone is to provide areas suitable and desirable for highway related commercial enterprises intended to meet the business needs of area residents and highway travelers.
Industrial (I)	The purpose of the Industrial zone is to provide areas suitable and desirable for all types of industrial activity; provided that, development controls are utilized to minimize possible harmful effects related to air and water pollution and to potential nuisance hazards such as fire, explosion, or noise.
Public Facility (PF)	The purpose of the Public Facility zone is to provide areas appropriate for specific public and semi-public uses and to ensure their compatibility with adjacent uses. Permitted uses include schools, fire stations, libraries, parks, and utilities.

Recreation Commercial (RC)	The purpose of the RC zone is to provide and maintain areas which possess unique characteristics for recreation-related commercial and residential development, and which are suitable and desirable for recreation businesses for tourists and recreationists in the area. Permitted uses include museums, hotels, RV parks, resorts, restaurants, and recreational retail.
Mixed-Use Employment (MUE)	The purpose of the Mixed-Use Employment zone is to provide a mix of business and professional services, research facilities, offices, retail and services firms and limited manufacturing opportunities and serve as an employment center. A mix of residential, commercial, public facilities, and light industrial uses are permitted in this zone.



Overlay Zones

The following overlay zones can apply in addition to base zoning.

• **Natural Resource Overlay (NRO):** The NRO zone is designed to protect identified significant natural resources in The City of Sweet Home. The intent of this zone is to ensure reasonable economic use of property while protecting valuable natural resources.

- **Flood Hazard Overlay (FHO):** This overlay was established in compliance with ORS 197.175. It is the purpose of the FHO is to promote public health, safety, and general welfare, and to minimize public and private losses due to flooding in flood hazard areas
- **Historical Property Overlay (HPO):** The purpose of the HPO zone is to foster civic pride, preserve the history of the community, and promote LCDC Goal 5.
- Planned Development Overlay: The purpose of Planned Development regulations is to
 encourage and allow more creative and imaginative design of land developments than is
 possible under district zoning regulations. Planned Developments are intended to allow
 substantial flexibility in planning and designing a proposal. This flexibility often is in the form
 of relief from compliance with conventional zoning ordinance site and design requirements.

NSHAP Zoning

The North Sweet Home Area Plan includes parcels zoned RC, R-2, and I. The area is within a NRO overlay zone and planned development area. Additional detail will be provided as part of a later task examining existing conditions in the area.

What this means for the Sweet Home TSP and NSHAP

The zoning designations of the North Sweet Home Area may be amended as part of the Area Plan, including re-designation of properties, text amendments to the development code, or the creation of new zones/overlays to implement the plan. Much of the area is under the "Planned Development" overlay and the Natural Resources overlay.

As part of the TSP update, amendments to the City's zoning code may be recommended in order to implement the plan's goals. These may include changes to the uses allowed, dedication requirements for rights-of-way, procedural updates, or other amendments. The TPR audit at the end of this document identifies some areas of potential changes.

Other City Plan Documents

Table 3 presents a review of existing local plans, regulations, and policies that are relevant to this process.

Table 3. City Planning Document Review

PLAN DOCUMENT (YEAR)	PLAN DESCRIPTION	RELATION TO SWEET HOME TSP / NSHAP
Streetscape Plan (2021)	The Streetscape Plan highlights opportunities to enhance the pedestrian experience, build attractive streets, and create gathering places in the Downtown Core. The plan also recommends parking improvements. The plan focuses on Main St. (Hwy 20), Long St., and intersecting streets. The plan recommends locations for pedestrian improvements, street trees and pocket parks, and identifies development opportunities sites. The plan also provides a materials and fixtures palette.	The TSP update will consider the recommendations of the downtown streetscape plan along Hwy between 12th Ave. and 15th Ave.
Natural Hazards Mitigation Plan (2022)	This plan identifies the natural hazards Sweet Home is most at risk for and recommends way to mitigate the risk from these natural hazards. The top 5 hazards Sweet Home is most at risk for are: Severe Storms (High risk) Wildland-Urban Interface Fires (Medium risk) Floods (Medium risk) Earthquakes (Medium risk) Volcanic events (Medium risk)	The TSP may consider how the transportation network in Sweet Home and contribute to the resilience of the community and reduce threats to the transportation system. Updates to the TSP could also consider how emergency response and post-disaster recovery can be improved through the transportation network.
Economic Opportunities Analysis (2017)	This document includes a buildable lands inventory, forecasted land need to support employment, and recommendations to support economic development. Key recommendations include: • Align the City's goals for economic development with planning for infrastructure development.	The TSP and NSHAP projects should align with the goals of the EOA, particularly identifying areas where infrastructure can support economic development. The use of City property in the North Sweet Home Area is also a potential economic driver.

PLAN DOCUMENT (YEAR)	PLAN DESCRIPTION	RELATION TO SWEET HOME TSP / NSHAP
Sweet Home Livability Assessment (2014)	The Livability Assessment identifies opportunities to connect the community to public lands, provide more transportation options, and foster the unique character and economy of Sweet Home. Key recommendations include: Take a regional approach Develop a strategic economic development plan Invest in existing infrastructure and downtown Become active stewards of community character and natural resources Make improving quality of life for residents a priority 	The TSP will address transportation options in Sweet Home with the goal of enhancing connectivity within the City and to the broader region.
24th Ave. Rail Crossing Order (2021)	A rail crossing was approved by ODOT for 24 th Avenue. Per the order, the crossing must be constructed within five years of the order date.	The location and design of this crossing will be addressed and included in the TSP update.
Santiam River Club / Salmon Run Master Plan (2022)	The Santiam River Development project, Salmon Run Master Plan, is a 36 lot single-dwelling subdivision accessed via 1400 Clark Mill Road.	The subdivision is located in the NSHAP area and will be taken into consideration as part of this project.
Capital Improvement Program	The City's Capital Improvement Program identifies major projects and funding sources for improvements, including transportation improvements.	A key outcome of the TSP will be a list of priority projects for inclusion in the CIP.
Oregon Downtown Development Association (ODAA) Report (1994)	This report details the findings of a two-day assessment completed in March 1994. The goals of the assessment were to educate the community, assess capacity to implement long term downtown redevelopment, identify opportunities and constraints for downtown redevelopment, and identify implementation steps or prioritize downtown projects. The assessment concluded that Sweet Home should identify one group to lead downtown redevelopment and hire an economic	The TSP and NSHAMP may continue to implement the recommendations of this report, particularly through implementing design and development standards.

PLAN DOCUMENT (YEAR)	PLAN DESCRIPTION	RELATION TO SWEET HOME TSP / NSHAP
	development staff person. Design and maintenance projects were also recommended to continue.	
ODDA Resource Team Report (2003)	The goals of the Sweet Home Resource Team were to promote a mixed-use, pedestrian friendly, attractive, and efficient downtown district. The Resource Team recommended concentrating commercial development and revitalization to the downtown core. The team proposed gateway design and downtown design standards. The report also includes connectivity and parking policy suggestions.	The TSP may revisit or implement outstanding connectivity, parking, and gateway recommendations suggested in this report.
Council Vision and Goals (2022)	Sweet Home's City Council identifies its vision and goals annually. https://www.sweethomeor.gov/citycouncil/page/council-goals Infrastructure, Economic Development, and Image Building are key elements of the current vision and goals.	The TSP and NSHAP will implement Council goals, with direct input from councilmembers.
City Strategic Plan (2014)	Sweet Home developed a community strategic plan in 2013. The plan focused on creating a vision and strategy for Hobart Park and other city parks. Vision components include protection of open space, a robust and diverse economy, education, and inclusivity.	These vision elements will be incorporated into the long-range plan for North Sweet Home and in the goals of the TSP itself.
Park System Master Plan (2014)	The Parks Master Plan inventories existing park facilities and identifies current and future needs for the parks system. The plan includes a Capital Improvement Plan with specific improvements, costs, and an implementation timeline. The plan also identifies potential funding sources to implement the CIP.	The Plan identifies a need for a multimodal path and trail system that will be reviewed and potentially updated as part of the TSP

County Planning documents

Linn County TSP (2018)

Linn County updated their TSP in 2018. Table 4 shows Financially Constrained and Aspirational Projects that would improve multimodal transportation in Sweet Home were identified in the 2018 TSP.

Table 4. Financially Constrained and Aspirational Project List

PROJECT ID	PROJECT DESCRIPTION	PROJECT ELEMENTS
BP-55	Mt. Home Dr Road Surface Improvement	Pave Mt. Home Dr. between Sodaville Mountain Home Rd. and Northern Dr. to allow bicycle travel between Sweet Home and Brownsville without using OR 228.
BP-01	Bike Route - Halsey to Brownsville (Peoria Rd.) Hwy 99E	Connect and expand existing bike routes (Brownsville to Lebanon / Sweet Home and from Corvallis/Peoria)
BP-20	US 20 through Sweet Home - Pedestrian Access Improvements	Pedestrian Access Improvements.
RM-14	OR 228 / Crawfordsville Dr. (east end of Crawfordsville Dr., near Holley) - Improve Sight Distance and Provide Two-Stage Left Turn Bay	Sight distance improvement. Provide two-stage left turn bay sized for school busses exiting Crawfordsville Dr. heading toward Sweet Home
RM-22	City of Sweet Home - Local Roads Shoulder Improvements	Widen shoulder pavement outside fog line on local road network in Sweet Home
SI-61	US 20 - Sweet Home Police Department Access Improvements	Vehicle and pedestrian access improvements
SI-85	US 20 / Pleasant Valley Rd. (Sweet Home) - Additional Hotspot Intersection Safety Improvements	Monitor impact of systemic safety improvements and consider need for additional (beyond systemic) hotspot safety improvements. Potential options include: Enhanced Signing Treatment, Roundabout, Traffic Signal pending engineering investigation and warrant.
SS-085	US 20 / 9th Ave. (Sweet Home) - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements
SS-088	US 20 / Clark Mill Rd. (Sweet Home) - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements
SS-096	US 20 / Pleasant Valley Rd. (Sweet Home) - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements

Linn County Comprehensive Land Use Plan (2015)

The Linn County Comprehensive Plan was most recently amended in 2015. The Comprehensive Plan addresses the use of land outside urban growth boundaries, and coordination on land use within urban growth boundaries, pursuant to State law.

What this means for the Sweet Home TSP and NSHAP The TSP update process will provide an opportunity to review and coordinate with Linn County planning efforts. Timelines and funding sources

for projects identified in the County TSP could potentially align with projects in the Sweet Home TSP update.

State Planning Documents

Table 5 presents a review of existing state plans, regulations, and policies that affect transportation planning in Sweet Home. The review explains the relationship between the document and the planning process and identifies key issues that will factor into the project. The plans and regulations will guide decisions regarding selection of preferred transportation improvements and identifies potential amendments to related plan documents that would occur later in the planning process.

Some documents in this review establish transportation-related standards, target, and guidelines with which the corridor study must be coordinated and consistent with; others contain transportation improvements that will need to be factored and reflected in the project.

Table 5. State Planning Documents and Relevance to Sweet Home TSP and NSHAP

PLAN DOCUMENT (YEAR)	PLAN SUMMARY & RELEVANCE
Oregon Highway Plan (1999 with 2006 amendments, recent updates through 2015 Amendments)	The Oregon Highway Plan (OHP) is a functional element of the Oregon Transportation Plan. The OHP establishes policies and investment strategies for Oregon's state highway system over a 20-year period and refines the goals and policies found in the Oregon Transportation Plan (OTP) Policies in the OHP emphasize the efficient management of the highway system to increase safety and to extend highway capacity, partnerships with other agencies and local governments, and the use of new techniques to improve road safety and capacity
	Oregon Highway 228 and US-20 lie within Sweet Home.
	US-20:
	Regional Highway
	Freight: Reduction Review Route, OHP Freight Route (west of OR 228)
	OR 228:
	District Highway
	No freight designation
Bicycle & Pedestrian Plan (2016)	The intent of the Oregon Bicycle and Pedestrian Plan (OBPP) is to create a policy foundation that supports decision-making for walking and biking investments, strategies, and programs. The OBPP contains standards and designs for bicycle and pedestrian facilities on state highways, and for a variety of roadway types and land uses. OBPP policies will apply to projects and designs that affect highways within the study area.
Oregon Freight Plan (2011)	The Oregon Freight Plan (OFP) identifies a number of challenges facing Oregon's freight system including system operation and development, safety, communications, environmental considerations, and funding.
	Implementation actions to improve the freight system include working with cities and counties to consider the freight system in transportation planning, as well as developing performance measures to help make choices about where to invest in freight improvements.

PLAN DOCUMENT (YEAR)	PLAN SUMMARY & RELEVANCE
Oregon Public Transportation Plan (2018)	Highways in Sweet Home play an important role in freight movement – the Oregon Freight Plan's policies will apply to designs and projects affecting those facilities. The Oregon Public Transportation Plan (OPTP) is the modal plan of the OTP that provides guidance for ODOT and public transportation agencies regarding the development of public transportation systems.
(2020)	The OPTP provides guidance for the development of transit, rideshare, and transportation demand management services over a 20-year period. The OPTP provides technical information on public transportation standards and needs that assist communities preparing the TSPs required under the TPR and responds to TPR requirements for per capita reductions in vehicle miles traveled in Oregon's metropolitan communities.
Oregon Transportation Options Plan (2015)	The purpose of the Oregon Transportation Options (OTO) Plan is to "establish a vision and policy guidance that integrates transportation options in local, regional, and state transportation planning, programming, and investment." The OTO Plan: • Identifies opportunities to expand transportation choices. • Looks to increase funding opportunities for transportation options programs and investments. • Provides information to better integrate transportation options into local, regional,
Transportation Planning Rule (OAR 660-012).	and state transportation planning. The purpose of the TPR is "to implement Statewide Planning Goal 12 (Transportation) and promote the development of safe, convenient, and economic transportation systems that are designed to reduce reliance on the automobile so that the air pollutions, traffic, and other livability problems faced by urban areas in other parts of the country might be avoided." The TPR also established requirements for coordination among affected levels of government for preparation, adoption, refinement, implementation, and amendment of transportation system plans. A detailed audit of the TPR is included in this memorandum.
Access Management Rule (OAR 734-051).	Oregon Administrative Rule 734-051 defines the State's role in managing access to highway facilities in order to maintain functional use and safety and to preserve public investment. The provisions in the access management rules include spacing standards for varying types of state roadways. It also lists criteria for granting right of access and approach locations onto state highway facilities.
ODOT Analysis Procedures Manual Version 2	The Analysis Procedures Manual (APM) provides current methodologies, practices, and procedures for conducting long-term analysis of ODOT plans and projects.
Highway Design Manual (2012),	The 2012 Highway Design Manual (HDM) provides uniform standards and procedure for the Oregon Department of Transportation (ODOT) Intended to provide guidance for the design of new construction, major reconstruction, resurfacing, restoration, and rehabilitation of state roadways.
Blueprint for Urban Design (2020)	The Blueprint for Urban Design (BUD) is a "bridging document" that establishes revised criteria to be used when design urban projects on the state system. The document provides guidance for urban design on Oregon state highways until such time that all ODOT manuals related to urban areas are updated. The Blueprint for Urban Design and its recommendations will be utilized in the TSP update.
American Association of State Highway Transportation Officials: Policy of Geometric Design of Highways and Streets	The American Association of State Highway Transportation Officials (AASHTO) Policy for Geometric Design of Highways and Streets provides additional design standards to supplement ODOT's HDM and BUD. AASHTO standards are organized in a system so the roadway's functional classification and other variables can be used to determine applicable roadway policies and designs. The HDM identifies the 2011 version as the basis for ODOT 4R/New Standard for New Construction and Reconstruction on all State Highways.
Draft 2021 2024 Statewide Transportation	The Statewide Transportation Improvement Program (STIP) is Oregon's 4-year transportation capital improvement program. The STIP documents funding sources and implementation schedules for transportation improvement projects and programs throughout the state.

PLAN DOCUMENT (YEAR)	PLAN SUMMARY & RELEVANCE
System Improvement Program (STIP)	 The following STIP Projects are planned in Sweet Home: 18853 US 20: 53rd Avenue east of 60th Ave – Construct sidewalks, bike lanes along US20, and add midblock crossings near 40th and 49th Avenues to improve safety 21900 North River Drive Public Access Improvements Project - Construct a combination of roadway widening improvements, road surface repair and pavement preservation to meet current and future needs. 22391 US20/OR228 Curb ramps - Construct curb ramps to meet compliance with the Americans with Disabilities Act (ADA) standards. Convert the traffic loops to radar and add a median island at 22nd Street. 22742 US 20 from US 101 to the Idaho border - Install National Electric Vehicle Infrastructure (NEVI) fast charging stations every 50 miles along US20 from US101 to the Idaho border, to provide electric vehicle drivers with reliable and fast charging.

SECTION 2: TRANSPORTATION PLANNING RULE AUDIT

Table 6 describes how City land division, zoning, and development requirements meet specific Transportation Planning Rule (TPR) requirements and identifies recommended improvements where local requirements could be strengthened or modified to be more consistent with the TPR. Suggested draft code language will be prepared at the implementation phase of the TSP update that supports the policies and recommendations of the draft TSP and ensures consistency with the TPR.

Table 6. TPR Requirements and Recommendations for the Sweet Home Development Code

TPR REQUIREMENT MUNICIPAL CODE REFERENCES AND RECOMMENDATIONS OAR 660-012-0045 – Implementation of the Transportation System Plan (1) Each local government shall amend its land use regulations to implement the TSP. The purpose of this provision is to allow for certain transportation uses, (a) The following transportation facilities, services and such as operation, maintenance, and repair of transportation facilities improvements need not be subject to land use regulations except identified in the TSP, without being subject to land use regulations. as necessary to implement the TSP and, under ordinary circumstances do not have a significant impact on land use: Currently transportation uses are not included in the list of permitted (A) Operation, maintenance, and repair of existing uses in the zoning ordinance, nor is there a general provision indicating transportation facilities identified in the TSP, such as road, that transportation uses consistent with the adopted transportation bicycle, pedestrian, port, airport and rail facilities, and system plan do not require a separate land use review. major regional pipelines and terminals; (B) Dedication of right-of-way, authorization of This TPR provision is not met. construction and the construction of facilities and improvements, where the improvements are consistent Recommendation: with clear and objective dimensional standards; The City should amend the Zoning Code (Title 17) to allow transportation (C) Uses permitted outright under ORS 215.213(1)(m) improvements in all zones, provided that the proposed improvements through (p) and 215.283(1)(k) through (n), consistent with implement the TSP and/or can be shown to be consistent with adopted the provisions of 660-012-0065; and policy. (D) Changes in the frequency of transit, rail and airport services. (b) To the extent, if any, that a transportation facility, service, or improvement concerns the application of a comprehensive plan provision or land use regulation, it may be allowed without further land use review if it is permitted outright or if it is subject to standards that do not require interpretation or the exercise of factual, policy or legal judgment. TPR Section -0050 addresses project development and implementation -(c) In the event that a transportation facility, service or how a transportation facility or improvement authorized in a TSP is improvement is determined to have a significant impact on land designed and constructed. Project development may or may not require use or requires interpretation or the exercise of factual, policy or land use decision-making. The TPR directs that during project

legal judgment, the local government shall provide a review and

facilitate implementation of the TSP, each local government shall

approval process that is consistent with 660-012-0050. To

development, projects authorized in an acknowledged TSP will not be

subject to further justification with regard to their need, mode, function,

or general location. To this end, the TPR calls for consolidated review of land use decisions and proper noticing requirements for affected

TPR REQUIREMENT	MUNICIPAL CODE REFERENCES AND RECOMMENDATIONS	
amend regulations to provide for consolidated review of land use decisions required to permit a transportation project.	transportation facilities and service providers. §17.42.130 – Traffic Impact Study requires a TIA as part of a development application, change in use, or change in access. This TPR provision is met.	
(2) Local governments shall adopt land use or subdivision ordinance regulations, consistent with applicable federal and state requirements, to protect transportation facilities corridors and sites for their identified functions. Such regulations shall include:		
(a) Access control measures, for example, driveway and public road spacing, median control and signal spacing standards, which are consistent with the functional classification of roads and consistent with limiting development on rural lands to rural uses and densities;	§17.42.040 – Streets includes system spacing, intersection spaces, and driveway spacing standards by functional classification per the Transportation System Plan. This TPR provision is met.	
(b) Standards to protect the future operations of roads, transitways and major transit corridors	§17.42.130 addresses Traffic Impact Studies. The City or other road authority with jurisdiction may require a Traffic Impact Analysis (TIA) as part of an application for development, a change in use, or a change in access as specified in OAR 660-012-0060. This study is intended to ensure that operations of transportation facilities is maintained through individual land use decisions. Recommendation: This TPR provision is met. However, the TSP update provides an ideal opportunity to revisit the thresholds that trigger a TIA, as well as the process and requirements. Any recommended changes resulting from this review may necessitate updates to §17.42.130.	
(c) Measures to protect public use airports by controlling land uses within airport noise corridors and imaginary surfaces, and by limiting physical hazards to air navigation;	There is no airport in Sweet Home, therefor the municipal code does not regulate the use. This TPR provision is met.	
(d) A process for coordinated review of future land use decisions affecting transportation facilities, corridors or sites;	See response to -0045(1)(c). This TPR provision is met.	
(e) A process to apply conditions to development proposals in order to minimize impacts and protect transportation facilities, corridors or sites;	This section is implemented by section 17.42.130 (Traffic Impact Study), 17.42.104 (Conditional Uses), and 17.42 (Street Standards). Section 17.42.130 establishes the standards for when a proposal must be reviewed for potential traffic impacts, when a TIS must be submitted with a development application, and who is qualified to prepare the analysis. This TPR provision is met. The provisions of these sections will be revisited to ensure compliance with the updated TSP.	
(f) Regulations to provide notice to public agencies providing transportation facilities and services, MPOs, and ODOT of:	Notice requirements are detailed in Section 17.122, 17.124, 17.126, and 17.128. These sections address procedures for land use applications (Type I through Type IV). Wording varies somewhat between sections,	

TPR REQUIREMENT MUNICIPAL CODE REFERENCES AND RECOMMENDATIONS though is generally consistent with the TPR. (A) Land use applications that require public hearings; (B) Subdivision and partition applications; Recommendation: (C)Other applications which affect private access to roads; This TPR provision is met, though additional review of notice language is and recommended as part of the TSP update. (D)Other applications within airport noise corridor and imaginary surfaces which affect airport operations. (g) Regulations assuring amendments to land use designations, Decision criteria for Comprehensive Plan map amendments are located densities, and design standards are consistent with the functions, in 17.112.050. Decision criteria for other uses are located in various capacities and performance standards of facilities identified in locations in the code. Language includes "The proposed development is the TSP. timely, considering the adequacy of transportation systems, public facilities and services, existing or planned for the area affected by the use" but does not specifically reference standards of the TSP Recommendation: Include specific requirements ensuring consistency with the "functions, capacities, and performance standards of facilities identified in the TSP" in 17.112.050 and elsewhere as appropriate. (3) Local governments shall adopt land use or subdivision regulations for urban areas and rural communities as set forth below. Bicycle parking is addressed in Section 17.44.060. Bicycle parking (a) Bicycle parking facilities as part of new multi-family facilities are required as part of new multifamily residential residential developments of four units or more, new retail, office developments of 4 units or more, as well as new retail, office, and and institutional developments, and all transit transfer stations institutional developments. The amount of bicycle parking required and park-and-ride lots. depends on the number of required vehicle parking spaces. Recommendation: As appropriate, consider adding transit transfer stations and park-andride lots to the facilities which require bicycle parking. On-site circulation and connections: Circulation diagrams are a (b) On-site facilities shall be provided which accommodate safe required part of a 17.102 showing the vehicular and pedestrian and convenient pedestrian and bicycle access from within new circulation patterns, parking, loading and service areas. subdivisions, multi-family developments, planned developments, However, requirements related to on-site circulation and connections to shopping centers, and commercial districts to adjacent residential nearby activity centers for non-motorized modes of transportation are areas and transit stops, and to neighborhood activity centers not addressed in the either the Zoning or the Land Division Ordinance. within one-half mile of the development. Single-family residential Parking Lots: Chapter 17.44 addresses off-street parking and loading, developments shall generally include streets and accessways. and access requirements. Pedestrian and/or bicycle circulation through Pedestrian circulation through parking lots should generally be parking lots are not addressed. provided in the form of accessways. Bikeways and sidewalks: Street standards are identified in 17.42, (A) "Neighborhood activity centers" includes, but is not including sidewalks and bikeways. limited to, existing or planned schools, parks, shopping Street and accessway layout: 17.58.040 includes standards for areas, transit stops or employment centers; subdivisions, including a maximum block length of 1,000' and a note that (B) Bikeways shall be required along arterials and major the City may require accessways for blocks greater than 600' in length. collectors. sidewalks shall be required along arterials, **Cul-de-sacs:** Cul-de-sacs may be required to include pedestrian collectors and most local streets in urban areas except that accessways. They are also limited to a length of 800 feet (17.42.030). sidewalks are not required along controlled access roadways, such as freeways;

Recommendations:

TPR REQUIREMENT

MUNICIPAL CODE REFERENCES AND RECOMMENDATIONS

- (C) Cul-de-sacs and other dead-end streets may be used as part of a development plan, consistent with the purposes set forth in this section;
- (D) Local governments shall establish their own standards or criteria for providing streets and accessways consistent with the purposes of this section. Such measures may include but are not limited to: standards for spacing of streets or accessways; and standards for excessive out-of-direction travel;
- (E) Streets and accessways need not be required where one or more of the following conditions exist:
 - (i) Physical or topographic conditions make a street or accessway connection impracticable. Such conditions include but are not limited to freeways, railroads, steep slopes, wetlands or other bodies of water where a connection could not reasonably be provided;
 - (ii) Buildings or other existing development on adjacent lands physically preclude a connection now or in the future considering the potential for redevelopment; or
 - (iii) Where streets or accessways would violate provisions of leases, easements, covenants, restrictions or other agreements existing as of May 1, 1995, which preclude a required street or accessway connection.

Amend the development code to include language related to on-site circulation and connections, and pedestrian access through parking lots. Include references to adopted street standards in the updated TSP. Street standards will need to comply with the bikeway requirements within the TPR.

Evaluate the 1,000' block length and accessway requirements as part of the TSP update.

(c) Off-site road improvements are otherwise required as a condition of development approval, they shall include facilities accommodating convenient pedestrian and bicycle and pedestrian travel, including bicycle ways on arterials and major collectors

Off-site improvement requirements area not mentioned specifically in the code.

Recommendation:

Add specific language stating that the City may require off-site improvements proportionate to the impacts of proposed development and that conditioned improvements may include facilities accommodating convenient pedestrian and bicycle travel, consistent with the TSP. Proposed code modifications would suggest what type of findings are necessary to require such off-site improvements.

- (d) For purposes of subsection (b) "safe and convenient" means bicycle and pedestrian routes, facilities and improvements which:
 - (A) Are reasonably free from hazards, particularly types or levels of automobile traffic which would interfere with or discourage pedestrian or cycle travel for short trips;
 - (B) Provide a reasonably direct route of travel between destinations such as between a transit stop and a store; and

Adopted City development requirements do not contain language requiring "safe and convenient" bicycle and pedestrian routes.

Recommendation:

Address TPR requirements related to bicycle and pedestrian access and mobility through the addition of a new Pedestrian Access and Circulation section in the Land Division Ordinance. Review the applicability of proposed new requirements for all future subdivisions.

TPR REQUIREMENT	MUNICIPAL CODE REFERENCES AND RECOMMENDATIONS	
(C) Meet travel needs of cyclists and pedestrians considering destination and length of trip; and considering that the optimum trip length of pedestrians is generally 1/4 to 1/2 mile.		
(e) Internal pedestrian circulation within new office parks and commercial developments shall be provided through clustering of buildings, construction of accessways, walkways and similar techniques.	The City currently does not have requirements related to non-motorized circulation internal to office park and commercial development. Recommendation: See recommendation above.	
(4) To support transit in urban areas containing a population greater than 25,000, where the area is already served by a public transit system or where determination has been made that a public transit system is feasible, local governments shall adopt land use and subdivisions as provided in (a)-(g) below.		
(a) Transit routes and transit facilities shall be designed to support transit use through provision of bus stops, pullouts and shelters, optimum road geometrics, on-road parking restrictions and similar facilities, as appropriate	The City of Sweet Home does not have a population greater than 25,000. However, the community is currently served by modest transit service. The updated TSP will address existing and future transit facilities and services.	
	This provision is met.	
(b) New retail, office and institutional buildings at or near major transit stops shall provide for convenient pedestrian access to transit through the measures listed in (A) and (B) below.	Access to transit is not currently addressed by the TSP. Recommendation: See response to -0045(4)(a).	
(A) Walkways shall be provided connecting building entrances and streets adjoining the site;		
(B) Pedestrian connections to adjoining properties shall be provided except where such a connection is impracticable. Pedestrian connections shall connect the on site circulation system to existing or proposed streets, walkways, and driveways about the property. Where adjacent properties are undeveloped or have potential for redevelopment, streets, accessways and walkways on site shall be laid out or stubbed to allow for extension to the adjoining property;		
(C) In addition to (A) and (B) above, on sites at major transit stops provide the following:		
(i) Either locate buildings within 20 feet of the transit stop, a transit street or an intersecting street or provide a pedestrian plaza at the transit stop or street intersection;		
(ii) A reasonably direct pedestrian connection between the transit stop and building entrances on the site		
(iii) A transit passenger landing pad accessible to disabled persons		
(iv) An easement or dedication for a passenger shelter if requested by the transit provide; and		

TPR REQUIREMENT	MUNICIPAL CODE REFERENCES AND RECOMMENDATIONS
(v) Lighting at the transit stop.	
(c) Local governments may implement 4(b)A) and (B) above through the designation of pedestrian districts and adoption of appropriate implementing measures regulating development within pedestrian districts. Pedestrian districts must comply with the requirement of (4)(b)(C) above.	The City can also meet the requirements of the TPR related to pedestrian connections to transit (TPR -0045(4)(b)(A) and (B)) by adopting appropriate implementing measures within a designated pedestrian district. The City of Sweet Home currently does not have pedestrian district designations.
	Recommendation: For the approach offered by TPR -0045(4)(c), the City would need to consider designating pedestrian districts and developing specific code language to address, among other things, "major transit stops," as defined through the TSP update.
(d) Designated employee parking areas in new developments shall provide preferential parking for carpools and vanpools	Section 17.44 addresses parking and loading, and does not address preferential parking for carpools/vanpools.
	Recommendation: The City should consider requiring that new developments with planned designated employee parking areas provide preferential parking for employee carpools and vanpools. A typical local code requirement is requiring employers with more than a specific number of employees, or developments where required parking spaces exceed a specific number, to dedicate a percentage of the required parking spaces for car/vanpools.
(6) In developing a bicycle and pedestrian circulation plan as required by 660-012-0020(2)(d), local governments shall identify improvements to facilitate bicycle and pedestrian trips to meet local travel needs in developed areas. Appropriate improvements should provide for more direct, convenient and safer bicycle or pedestrian travel within and between residential areas and neighborhood activity centers (i.e., schools, shopping, transit stops). Specific measures include, for example, constructing walkways between cul-de-sacs and adjacent roads, providing walkways between buildings, and providing direct access between adjacent uses.	The TSP update is expected to include a considerable update to the City's bicycle and pedestrian circulation plan, consistent with TPR -0020. This TPR requirement is currently implemented in City requirements as follows. Walkways between cul-de-sacs and adjacent roads – See response and recommendations related to cul-de-sacs, Section -0045(3)(b). Walkways between buildings – See response and recommendations related to accessways, Section -0045(3)(b). Access between adjacent uses – See response and recommendations related to accessways, Section -0045(3)(b). Recommendation: This requirement will be addressed by the TSP update planning process and can be implemented locally by requiring improvements in developing areas consistent with adopted code provisions.
(7) Local governments shall establish standards for local streets and accessways that minimize pavement width and total ROW consistent with the operational needs of the facility. The intent of this requirement is that local governments consider and reduce excessive standards for local streets and accessways in order to reduce the cost of construction, provide for more efficient use of urban land, provide for emergency vehicle access while discouraging inappropriate traffic volumes and speeds, and which accommodate convenient pedestrian and bicycle circulation. Notwithstanding section (1) or (3) of this rule, local street	Section 17.42.040 includes right-of-way widths for streets Recommendation: The TSP update process provides the City with the opportunity to evaluate local streets standards to determine if modifications need to be made to both meet the current and future needs of the community and implement this TPR requirement.

TPR REQUIREMENT	MUNICIPAL CODE REFERENCES AND RECOMMENDATIONS
standards adopted to meet this requirement need not be adopted as land use regulations.	
OAR 660-12-0060	
Amendments to functional plans, acknowledged comprehensive plans, and land use regulations that significantly affect an existing or planned transportation facility shall assure that allowed land uses are consistent with the identified function, capacity, and performance standards of the facility.	in Section 17.42.130 TRAFFIC IMPACT STUDY outlines the requirements of traffic impact analyses. Findings of significant affect and consistency with the TSP are not explicitly mentioned in the development code.
	Recommendation:
	Update Section 17.42.130 to explicitly address the requirements of OAR 660-12-0060.



TM#2 GOALS OBJECTIVES AND EVALUATION CRITERIA (DRAFT)

DATE: May 24, 2023

TO: Sweet Home TSP PMT

FROM: Garth Appanaitis | DKS Associates

SUBJECT: Sweet Home TSP Update and NSHA Project #20020-015

The purpose of this memorandum is to identify potential goals and objectives for the updated Sweet Home Transportation System Plan (TSP) and the North Sweet Home Area Plan (NSHA). The goal and supporting policies from the existing Sweet Home TSP will be expanded to incorporate additional areas of community interest.

The followings sections summarize the existing Sweet Home TSP goal and provide additional goal areas used by other communities for consideration. An initial draft set of goals and policies are provided that will be updated through review and coordination with the community.

EXISTING GOAL AND ADDITIONAL CONSIDERATIONS

The following section summarizes the existing Sweet Home transportation goal and policies and identifies other potential goal areas for consideration.

EXISTING TRANSPORTATION GOAL AND POLICIES

The Sweet Home Comprehensive Plan currently includes a transportation goal with nine policies. The existing policies primarily focus on maintaining the transportation system and setting appropriate standards.

Goal: The City of Sweet Home wants a well-planned, comprehensive transportation system that balances the needs of future land development with a system that serves all users.

- Policy 1 As a general guideline, all streets shall carry volumes and speeds at the appropriate range for all street classifications as described the Functional Classifications Guidelines.
- Policy 2 To achieve consistency in construction, operation, and maintenance within street classifications, Sweet Home shall classify streets according to their function.

- Policy 3 The roadway design standards in the Transportation System Plan shall be implemented in the land development and land division ordinances for the development of future roadway facilities.
- Policy 4 Private streets must be built to City standards as approved as part of the development plan.
- Policy 5 The Standards for Pedestrian and Bicycle System improvements listed in the Transportation System Plan, shall be implemented when reviewing new development.
- Policy 6 The City shall encourage access management actions that:
 - o Minimize the number of potential conflicts among all users of the street system.
 - Minimize local cost for transportation improvements needed to provide additional capacity and/or access improvements along unimproved roadways.
- Policy 7 The City seeks to encourage transportation projects that enhance overall system continuity. Where ever possible, the City shall consider street connectivity when reviewing new street development.
- Policy 8 Many existing streets in Sweet Home do not meet the standards and it may not be
 possible to improve the streets to the maximum extent feasible to meet access conditions
 and "traffic feature" standards. It may be necessary in some circumstances to prohibit
 parking on one or both sides of the street, particularly on designated arterials and
 collectors.
- Policy 9 The City shall study and implement financing options for needed street improvements.

OPTIONAL GOALS FROM OTHER COMMUNITIES

The following transportation goals have been used in other communities to differentiate different aspects of the transportation system goals:

- Safety Improve the safety of the transportation system for all users.
- **Active Transportation** Complete safe networks of facilities that make walking and biking and attractive choice by people of all ages and abilities.
- Mobility & Accessibility Promote efficient travel that provides access to goods, services, community facilities, homes, and employment to meet the daily needs of all users, as well as to local and regional activity centers.
- **Mobility & Connectivity** Provide a transportation system that prioritizes mobility and connectivity for all users.
- **Equity** Support and equitable transportation system that justly allocates the benefits and burdens of transportation projects, policies, plans, and processes.
- **Environmental** Minimize environmental impacts on natural resources and encourage carbon-neutral or efficient transportation alternatives.
- **Economic Development** Promote economic development and tourism.
- **Investments and Funding** Promote cost effective investments to the transportation system.
- **Regional coordination** Coordinate with other jurisdictions to plan and fund projects that better connect [the city] with the region and consistent with local, regional, and state plans.

- Community Needs Provide a transportation system that supports specific community needs.
- **System Management** Promote traffic management to achieve the efficient use of transportation infrastructure.
- **Transit** Provide safe, efficient, high-quality transit service that gives [city] residents, employees, employers, and visitors more freedom to meet their needs within the city, region and state. Create a transit system that offers an alternative to private automobile use, supports efficient use of roadways and reduces air pollution and energy use.
- **Health** Support options for exercise and healthy lifestyles to enhance the quality of life.
- **Quality of Life** Enhance the city's quality of life by providing adequate access to residences, employment, services, social and recreational opportunities.
- **Coordination** Collaborate and coordinate with state, county, and other agencies during long-range planning efforts, development review, design and construction of transportation projects, and any other land use or transportation programs, policies, or developments.

POTENTIAL GOALS AND OBJECTIVES

The following section provides a draft set of goals and objectives that build upon the existing transportation goal and incorporates other key interests of Sweet Home. Many of the existing policies are incorporated into Goal 5.

Note: These potential goals and objectives are provided as an initial starting point to generate discussion and will be revised based on feedback from the community.

GOAL 1 - MOBILITY, ACCESSIBILITY, AND CONNECTIVITY

Provide a system that is accessible and efficient for all travel modes and purposes.

Associated Objectives

- Develop an integrated transportation system that accommodates a wide range of transportation options.
- Provide access for all types of vehicles and equipment, including freight, emergency vehicles, and equipment.
- Address intersection capacity needs for present and future traffic volumes.
- Upgrade key intersection locations to meet Americans with Disabilities Act (ADA) requirements.
- Encourage active transportation through policy and engineering.
- Ensure the transportation system provides equitable access for all people.
- Provide connectivity within the city and identify and prioritize needed transportation connections.

GOAL 2 - SAFETY

Provide safe routes, corridors, and intersections for all modes of transportation.

Associated Objectives

- Identify and improve safe crossings for bicycles and pedestrians.
- Prioritize safe routes to school.
- Expand the sidewalk network throughout the city.
- Identify and implement bicycle corridors to navigate the city.
- Improve traffic safety though a comprehensive program of engineering, education, and enforcement.
- Identify and improve locations with high crash frequency.
- Design streets to serve their anticipated function and intended use.
- Improve lighting along pedestrian and bicycle corridors.

GOAL 3 - QUALITY OF LIFE

Provide a transportation network that preserves the character of the city and makes it more convenient for people to walk, bicycle, use transit, and drive less to meet their daily needs.

Associated Objectives

- Preserve community identity through transportation design choices.
- Balance the needs and desires of a small city with a highway running through it. Value the simplicity of a small city.
- Minimize the impacts of transportation system improvements on existing land uses.
- Identify and seek funding for programs that encourage healthy transportation habits.
- Support improvements that make the downtown area safe and comfortable to walk.
- Support regional tourism and strategies to encourage stops by visitors.
- Connect the city through pedestrian and bicycle paths.
- Improve the transportation system that has direct access to employment.

GOAL 4 - ECONOMIC DEVELOPMENT

Promote economic development and tourism.

Associated Objectives

- Provide facilities to connect the public to downtown, parks, and other event locations and recreational opportunities.
- Manage arterials to support freight in the efficient movement of goods and services.
- Improve wayfinding and signage around the city to improve the ability to confidently navigate the transportation network by residents and visitors.
- Coordinate with state and regional partners to implement transportation strategies that support increased tourism.
- Improve walkability in the Downtown area to promote economic activity.

GOAL 5 - SYSTEM MANAGEMENT AND MAINTENANCE

Promote traffic management to achieve the efficient use of transportation infrastructure.

Associated Objectives

- Maintain a roadway functional classification system that prioritizes the purpose and design
 of each existing and future roadway. Classify streets according to function to achieve
 consistency in construction, operation, and maintenance.
- Streets should operate with the intended purpose and provide a combination of mobility and access consistent with the functional classification. Traffic volumes should align with the functional classification with higher classification facilities generally carrying higher traffic volumes.
- Street policies and design standards should be based on functional classification and other contextual considerations. Streets should be constructed to these standards unless exceptions are granted as approved by Public Works.
- Where existing streets do not meet standards or proposed streets are unable to meet standards, other management practices (such as parking prohibition) may be utilized to maintain safe operation.
- The City shall study and implement financing options for needed street improvements.
- Balance local access to US 20 with the need to serve regional and statewide traffic, while supporting adjacent land uses
- Plan for a transportation system that supports projected population and employment growth and maximize travel options by providing efficient routes for all modes of transportation.

TSP AND NSHA CONSIDERATIONS

The TSP and NSHA will likely incorporate the same or similar transportation goals and policies. However, there may be deviations to apply additional focus for considerations within the NSHA or other parts of Sweet Home. Potential considerations between variation in TSP (Citywide) and NSHA goals and policies may include:

- Location and context specific considerations
 - Presence of rail crossings within NSHA
 - NSHA connections to downtown
 - Many areas of Sweet Home are built out while NSHA has more space for right of way opportunities
- Intent-based considerations
 - o Promotion of future development within NSHA

EVALUATION CRITERIA

As transportation improvement alternatives are developed, evaluation criteria based on the objectives will be used to assess the relative value of each project considered for inclusion in the TSP. This will include criteria that are both qualitative and quantitative in nature. While some goals include more objectives than others, all goals will be weighted equally unless the advisory committee decides that some are more important than others. Using the criteria, considered projects will be rated and categorized as high, medium, or low priorities according to their ability to meet a broad range of community objectives.



TM#3 EXISTING CONDITIONS INVENTORY AND ANALYSIS (DRAFT)

DATE: September 12, 2023

TO: Project Management Team

FROM: Garth Appanaitis, PE | DKS

Dock Rosenthal, PE | DKS

Alex Haag | DKS

SUBJECT: Sweet Home TSP and NSHA Refinement

TM#3 Existing Conditions

Project #20020-015

INTRODUCTION

This memorandum summarizes the transportation inventory of existing conditions for the City of Sweet Home and analyzes the existing multimodal travel conditions. A review of the existing transportation conditions for walking, biking, transit, motor vehicles, freight, and safety is included in the inventory.

The purpose of this existing conditions inventory and analysis is to assess the current conditions of the transportation system in Sweet Home, including its physical infrastructure, operational characteristics, and usage patterns. This includes an inventory of the existing transportation network, including roadways, sidewalks, bike infrastructure, and transit facilities. The analysis also includes an assessment of existing traffic conditions and a review of historical crash rates. The inventory will help identify potential gaps and deficiencies in the transportation system.

BACKGROUND

Sweet Home is a small city located in Linn County, Oregon, United States. As of the 2020 census, the population was approximately 10,000 people. The community is situated in the foothills of the Cascade Mountains and is known for its outdoor recreation opportunities, including hiking, fishing, and camping. Sweet Home is located approximately 19 miles east of Interstate-5 (I-5). Sweet Home is approximately 80 miles south of Portland, 40 miles north of Eugene/Springfield, and 45 miles west of Santiam Pass. The area surrounding Sweet Home is primarily rural and has historically been served by a mostly agricultural and timber-based economy. Located within the

South Santiam Watershed, the city is situated along the South Fork of the Santiam River at an elevation of about 537 feet.

U.S. 20 (Santiam Highway) runs east-west through the city along Main Street and forms the major transportation link through the community. ORE 228 (Holley Road) enters Sweet Home from the west and curves north to terminate at U.S. 20 near the west end of the city.

Sweet Home is served by the Sweet Home School District. The district includes Sweet Home High School, a junior high school, and four elementary schools. The district covers Sweet Home, Cascadia, Crawfordsville, Holley, Liberty, Pleasant Valley, and other surrounding communities.

The study area boundary for this plan generally coincides with the Urban Growth Boundary (UGB), which is shown in **Figure 1** together with the city limits and street system, and key destinations identified within the city.

Figure 2 illustrates a zoning map of Sweet Home that shows how different land uses are oriented around the City. Most commercial land is found in the downtown area, and highway commercial along U.S. 20. High density residential is primarily located along Long Street or adjacent to the downtown area, and medium and low density radiating outward from the downtown area. In Fall 2022 the City updated the Development Code and added a Mixed Use Employment Zone (MUE) designation. This update was accompanied by an update to the Comprehensive Plan map and all the properties currently zoned RC had the Comprehensive Plan designation changed to MUE. While existing zoning in the area was not changed during this process, the modification enables flexibility by providing the benefits of the existing RC zoning while facilitating future transition to the MUE. **Figure 3** illustrates the City's 2022 Zoning Update.

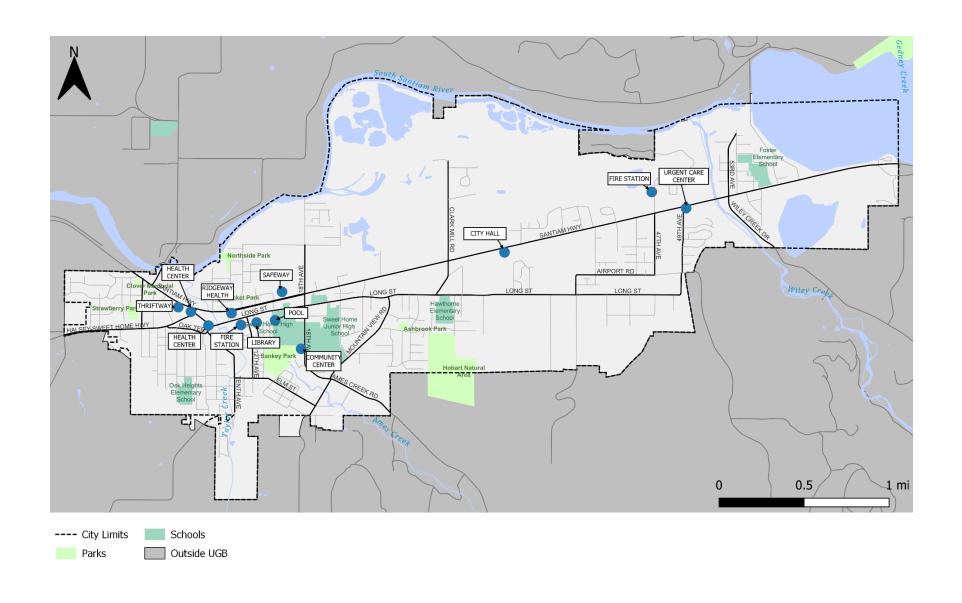


FIGURE 1: SWEET HOME AND KEY DESTINATIONS

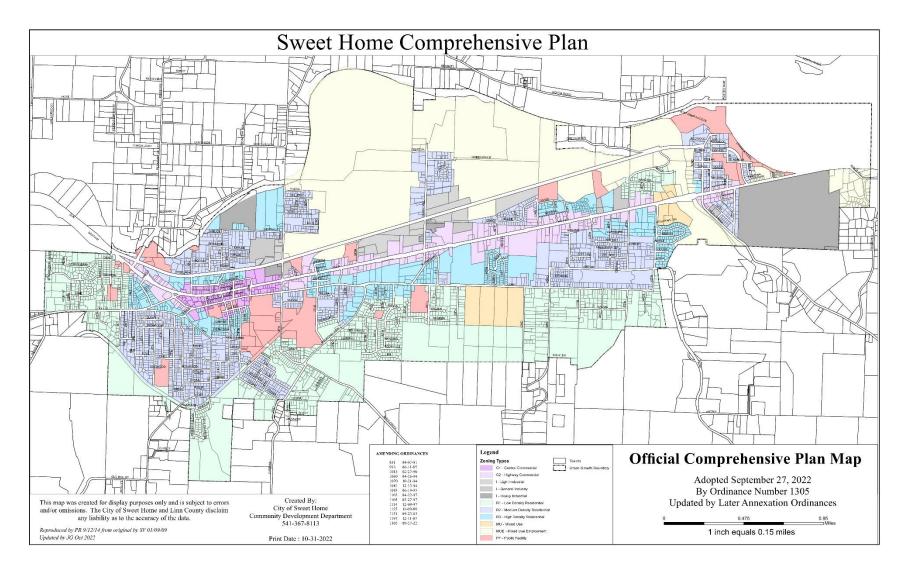


FIGURE 2: SWEET HOME COMPREHENSIVE PLAN (2022) LAND USE DESIGNATIONS

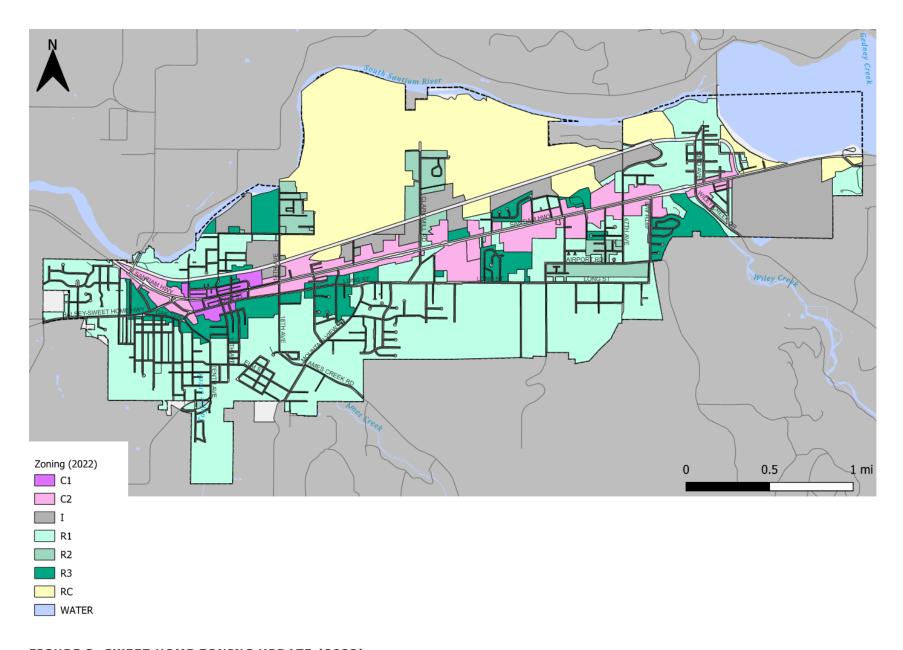


FIGURE 3: SWEET HOME ZONING UPDATE (2022)

WALKING AND BIKING CONDITIONS

Sweet Home is a compact city with many destinations located within a half-mile to three miles of each other. The system connectivity, density, and generally flat topography offer excellent pedestrian and cycling conditions in many areas of the city. Sweet Home's downtown area features a grid pattern of short blocks only interrupted by Ames Creek. Older areas in town also have a grid pattern, while newer areas transition to more suburban character with long blocks and cul-de-sacs.

The primary corridor through Sweet Home is U.S. 20 (Main Street/South Santiam Highway), which facilitates traffic flow between I-5 and Central Oregon. The high travel speeds of motor passing through the town to reach other destinations highlights the need for safe and highly visible pedestrian and bicycling facilities. Although improvements have been made, U.S. 20 still lacks adequate infrastructure for pedestrians and bicyclists along much of its length. However, the downtown stretch of the highway features a median with mid-block crosswalks, promoting enhanced visibility and safety for motorists, cyclists, and pedestrians.

While some streets in downtown provide satisfactory pedestrian amenities and can accommodate bicycles, many other streets in Sweet Home lack basic amenities such as sidewalks. Several barriers contribute to inefficient and less desirable pedestrian and bicycle travel, including the absence of walkways and challenges in crossing U.S. 20 outside of downtown, the lack of sidewalks and bike lanes or paths on collector streets, limited east-west connectivity (aside from Long Street and U.S. 20), and the absence of a connection between the newer and older parts of town via the street system, making it difficult to link the downtown core with the newer residential areas.

PEDESTRIAN NETWORK

Pedestrian facilities are a key aspect of a complete multimodal transportation system. Emphasizing pedestrian infrastructure not only promotes healthy lifestyles but also addresses social equity concerns by ensuring that individuals of all ages, including the young and elderly, as well as those without access to motorized transportation, can access essential goods, services, employment opportunities, public transit, and education.

Sidewalks are provided throughout the downtown core and some residential areas. Sidewalks are located in all of the commercial areas along Main Street and are well connected with most streets improved with curbs and sidewalks. Moving away from the downtown and nearby residential areas, the roads take on a more rural, unimproved character with the eastern part of the City having fewer sidewalks than the western and central areas.

Sidewalks are present on one or both sides of the street on arterials and collectors in streets, but there are deficiencies and gaps in multiple locations. Deficiencies are defined at locations where there is no sidewalk on either side of the street. Deficiencies exist on Long Street, Airport Road, 47th Avenue, 49th Avenue, 53rd Avenue and Wiley Creek Drive. Full sidewalks on both sides of the street are generally provided downtown and near the schools, as well as along Santiam Highway.

A map of existing pedestrian facilities can be found in **Figure 4**.

BICYCLE NETWORK

Bicycling plays a key role in the transportation system's ability to support healthy lifestyles and provide a variety of travel choices beyond the motor vehicle. Biking trips are an option for getting to and from school, shopping, commuting to work, and for travel to other activity generators in the City, as well as for recreational purposes. Currently, there are several designated bike routes and lanes within Sweet Home's downtown area, including portions of Main Street and Long Street.

Currently there are no separated cycling facilities in Sweet Home, however, painted bike lanes are present along a large portion of U.S. 20 and one segment of Long Street between 22nd Avenue and 35th Avenue. Sweet Home's existing bicycle facilities is shown in **Figure 5**.

BICYCLE LEVEL OF TRAFFIC STRESS

The Bicycle Level of Traffic Stress (LTS) is a measure used to assess the comfort and safety of bicycling conditions on different streets and routes. It quantifies the level of stress or discomfort experienced by cyclists when riding in proximity to motor vehicle traffic. The LTS methodology was developed to evaluate the suitability of streets and determine the need for bicycle infrastructure improvements.

LTS categorizes streets into four levels based on their traffic characteristics:

- LTS 1: Very Low Stress These streets typically have minimal or no traffic, low vehicle speeds, and dedicated bicycle facilities such as bike lanes or separated paths. They are considered highly comfortable for cyclists.
- LTS 2: Low Stress These streets have low traffic volumes and speeds, and they may have shared roadways or designated bicycle lanes. They are generally comfortable for most cyclists.
- LTS 3: Moderate Stress These streets have moderate traffic volumes and speeds, often lacking dedicated bicycle facilities. Cyclists may have to share the road with vehicles, and there may be some challenges at intersections or other conflict points.
- LTS 4: High Stress These streets are characterized by high traffic volumes, high vehicle speeds, and a lack of dedicated bicycle facilities. Cyclists face significant challenges sharing the road with fast-moving and heavy traffic, making these streets uncomfortable and potentially unsafe for biking.

By evaluating streets using the LTS framework, transportation planners and policymakers can identify areas where improvements are needed to create a more bicycle-friendly environment. This may include implementing bike lanes, protected bike facilities, traffic calming measures, or other infrastructure enhancements to reduce stress and enhance safety for cyclists.

Collector and Arterial streets in Sweet Home have been evaluated based on the BLTS methodology outlined in the *ODOT Analysis Procedures Manual Version 2 (2020)*. Based on this methodology, the majority of Sweet Home's arterial and connector street network is BLTS level 3 or BLTS level 4, with the score primarily driven by the high travel speeds on these corridors. BLTS on Sweet Home's transportation network is summarized in **Figure 6**.

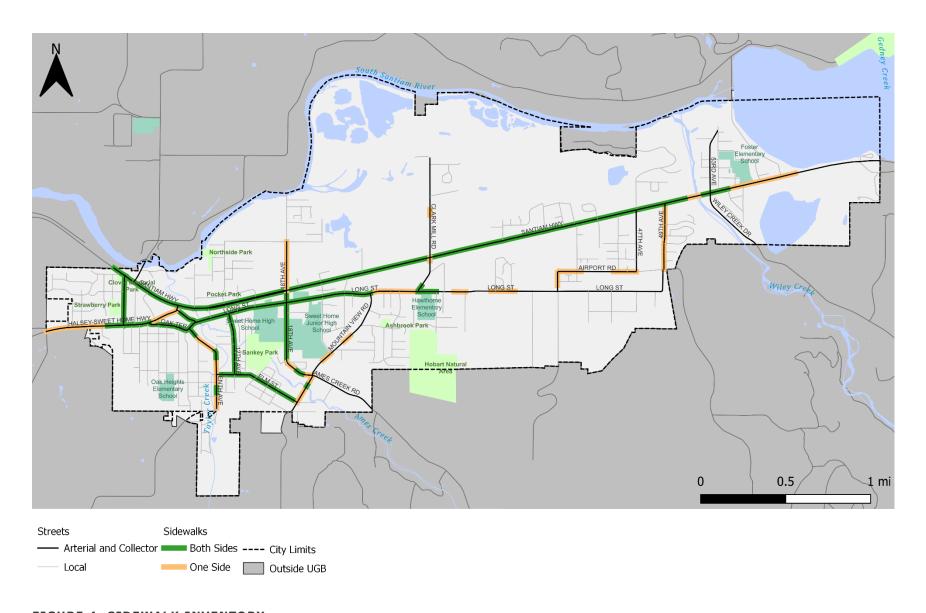


FIGURE 4: SIDEWALK INVENTORY

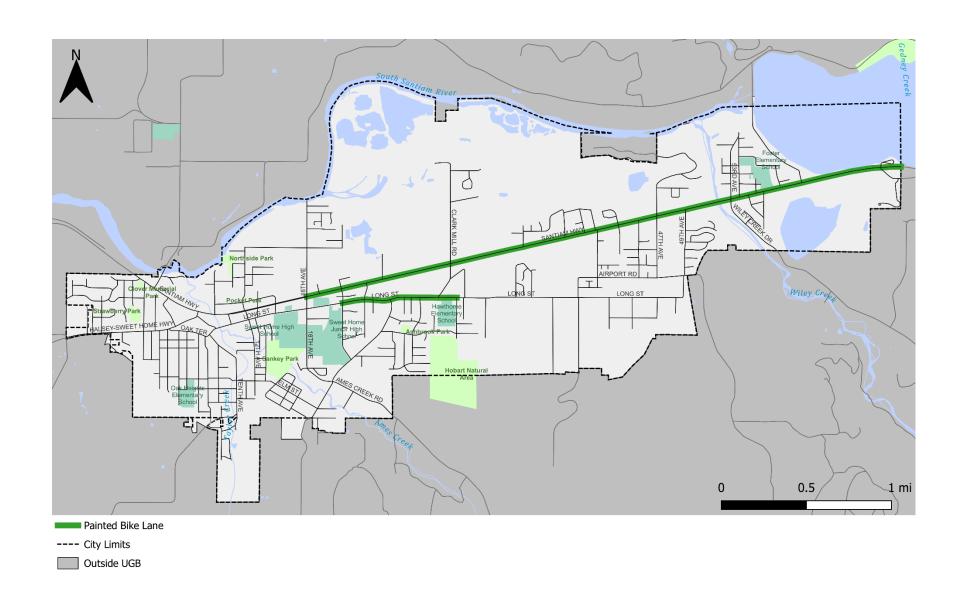


FIGURE 5: EXISTING BICYCLE FACILITIES



FIGURE 6: BLTS ON CITY COLLECTOR AND ARTERIAL STREETS

TRANSIT CONDITIONS

Transit service is provided in Sweet Home through three main routes. The Linn Shuttle, the Sweet Home Shopper, and Dial-A-Bus Service. A description of these three services is summarized in the following sections.

LINN SHUTTLE

The non-profit Senior Citizens of Sweet Home operates the Linn Shuttle fixed route service between Sweet Home-Lebanon-Albany. The Linn Shuttle connects with the Linn-Benton Loop (at the Linn- Benton Community College Albany Campus) to provide service to East Linn County residents who wish to travel to Albany or Corvallis. Seven round trips a day between Sweet Home-Lebanon-Albany with an additional 5 round trips between Lebanon and LBCC-Albany called the "LBCC-Lebanon Express". Service is available Monday-Friday between 6:30 a.m. and 7:30 p.m.

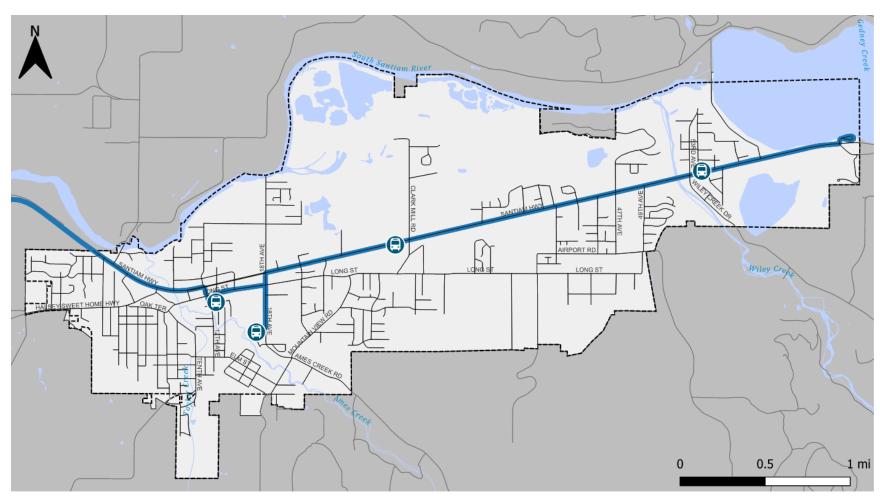
Funding for the Linn Shuttle comes from State Cigarette Tax funds allocated for elderly and handicapped transportation systems, as well as small cities and rural transportation funds from the Department of Transportation. Anyone can ride the Linn Shuttle. Linn-Benton Community College students and staff can ride for free by showing their ID cards. The shuttle operates on a scheduled route and the route is illustrated in **Figure 7**.

SWEET HOME SHOPPER

The Shopper is available to everyone, is wheelchair accessible, and buses are equipped with bike racks. The Shopper operates Monday Through Friday from 9:00 a.m. to 4:00 p.m. There are four trips from town out to Foster and back. On Tuesdays and Thursdays, the Shopper goes to Cascadia (stopping at Cascadia Short Bridge Rest Stop) with a trip in the morning and a return in the afternoon. The Sweet Home Shopper Route is illustrated in **Figure 8.**

DIAL-A-BUS

The non-profit Senior Citizens of Sweet Home operates the Sweet Home Dial-A-Bus which provides curb-to-curb service to older adults, people with disabilities and the general public within the boundaries of the Sweet Home School District. It also operates a limited "deviated fixed route" program within the boundaries of the City of Sweet Home. Dial-A-Bus Service is available Monday-Friday between 7:00 a.m. and 4:00 p.m. Rides must be scheduled in advance.

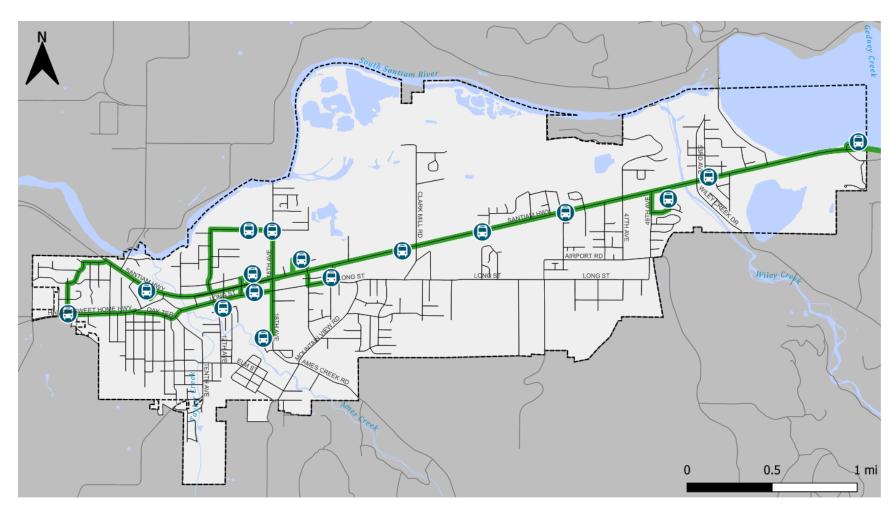


Stops

Route

Linn Shuttle

FIGURE 7: LINN SHUTTLE ROUTE



Stops

Route

Sweet Home Shopper

FIGURE 8: SWEET HOME SHOPPER ROUTE

SAFETY CONDITIONS

SAFETY ANALYSIS

Transportation infrastructure must be safe for everyone, whether walking, biking, rolling, or driving. Assessing historical collision data helps identify any shortcomings in the system and improve safety conditions for Sweet Home residents. Crash data from 2017 through 2021 (the most recent five years available) was obtained from the Oregon Department of Transportation (ODOT) and reviewed to identify any high-crash locations and trends involving people walking or biking who are typically the most vulnerable to serious injuries. All crashes within Sweet Home are mapped in **Figure 9**. Bicycle and pedestrian only crashes are mapped in **Figure 10**.

During this five-year period, there were a total of 299 crashes, 13 of which involved a pedestrian, and 9 involved a cyclist. 19 crashes were flagged for drug or alcohol involvement. As seen in Figure 13, there were three fatalities and 69 crashes that resulted in serious injuries during this period. These comprise almost of quarter of all crashes in Sweet Home.

Many crashes occurred along US 20 (Main Street), including 104 at study intersections for the Transportation System Plan. There was one Fatal crash on US 20 (Main Street) at 1st Avenue and four Injury A crashes occurred at the intersections with Holley Road, 12th Avenue, 15th Avenue and 22nd Avenue.

The two other fatal crashes occurred at the intersection of 12th Avenue/Hawthorne Street (involved pedestrian) and at the intersection of Ames Creek Road/Mountain View Road.

The most common collision types, in order of frequency, include turning vehicles, rear-end crashes, crashes with fixed objects and angle crashes (often referred to as "T-bone" crashes). Thirty-one percent of crashes involved turning movements. Over half of these turning crashes resulted in injury. Most of these crashes were caused by a failure to yield at a stop sign. There were 71 rear end collisions, 34 of which resulted in only property damage. There were 50 fixed-object crashes and 33 angle collisions. Many of these crashes occurred at stop-controlled intersections.

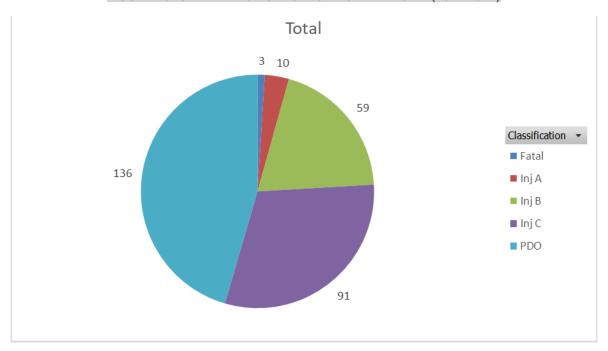


FIGURE 13: SEVERITY OF CRASHES IN SWEET HOME (2017-2021)

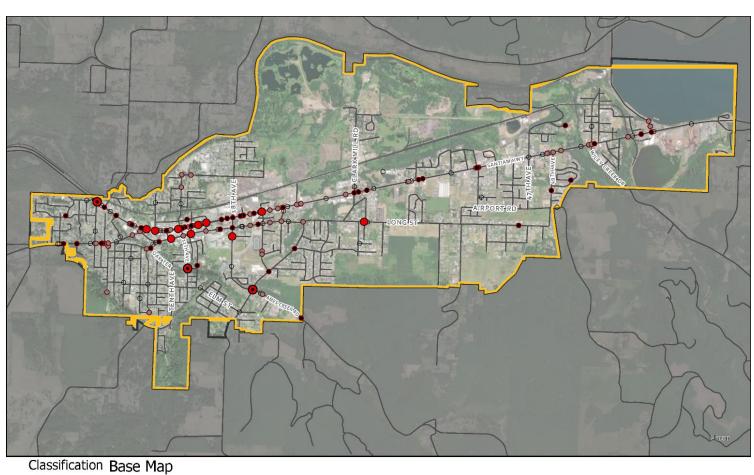
Of the nine pedestrian crashes most were caused by a failure to yield, one of these resulted in a pedestrian fatality. The fatality occurred at the intersection of Hawthorne Street and 12th Avenue in dry conditions during the day. Of the nine bicycle involved crashes there were no serious injuries.

The crash analysis was supplemented by a review of ODOT's Safety Priority Index System listings for locations in the City that ranked among the state's top ten percent of hazardous locations. The Safety Priority Index System (SPIS) is a method developed by ODOT for identifying hazardous locations on state highways, with the score based on three years of crash data, considering crash frequency, rate, and severity. ODOT bases its SPIS on 0.10-mile segments to account for variances in how crash locations are reported. This rating provides a general comparison of the overall safety of the highway based on crash information for all highway segments throughout the state. According to ODOT 2020 SPIS ratings (data reported between 2017 and 2019), the only location within Sweet Home in the top ten percent of segments is along US 20 (Main Street) just east of 9th Avenue.

TABLE: COLLISION TYPE FOR STUDY INTERSECTIONS

STUDY INTERSECTION	ANGLE	ВАСК	FIXED OBJECT	NCOL	OTHER	PEDESTRIAN	REAR END	SIDE SWIPE OPPOSITE	TURNING
1. MAIN STREET (U.S. 20) AND PLEASANT VALLEY ROAD			2					1	3
2. MAIN STREET (U.S. 20) AND HOLLEY ROAD (HWY 228)							6	1	10
3. MAIN STREET (U.S. 20) AND 12 TH AVENUE	5	1	2				1	2	3
4. MAIN STREET (U.S. 20) AND 15 TH AVENUE	3						1	1	5
5. MAIN STREET (U.S. 20) AND 18 TH AVENUE	2		2			2	3		3
6. MAIN STREET (U.S. 20) AND 22 ND AVENUE	5			1		2	4	1	7
7. MAIN STREET (U.S. 20) AND 24 TH AVENUE			1				1	1	3
8. MAIN STREET (U.S. 20) AND CLARK MILL ROAD	3		1		1		2	1	5
9. MAIN STREET (U.S. 20) AND 44 TH AVENUE			3						3
10. MAIN STREET (U.S. 20) AND 47 TH AVENUE			1						1

STUDY INTERSECTION	ANGLE	ВАСК	FIXED OBJECT	NCOL	OTHER	PEDESTRIAN	REAR END	SIDE SWIPE OPPOSITE	TURNING
11. MAIN STREET (U.S. 20) AND 49 TH AVENUE								1	3
12. MAIN STREET (U.S. 20) AND 53 RD AVENUE	1		1				1		2
14. MAIN STREET (U.S. 20) AND 60 TH AVENUE (FOSTER DAM ROAD)			3				1		1
15. HOLLEY ROAD (HWY 228) AND 1 ST AVENUE			1				3	1	
16. HOLLEY ROAD (HWY 228) AND OAK TERRACE									1
17. LONG STREET AND 18 TH AVENUE	4		1			1	1		2
TOTAL	23	1	18	1	1	5	24	10	52



Inj A UGB

● Inj B — Rail

Inj C — Streets

o PDO

FIGURE 9: 2017 TO 2021 CRASH MAP BY SEVERITY

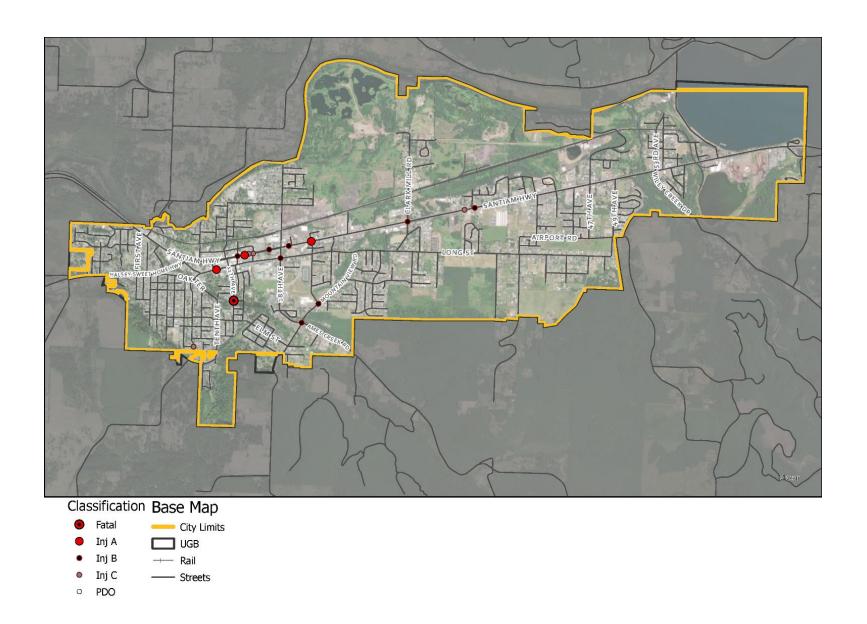


FIGURE 10: 2017 TO 2021 BICYCLE AND PEDESTRIAN CRASHES BY SEVERITY

MOTOR VEHICLE CONDITIONS

KEY CORRIDORS

U.S. 20 and Highway 228 are the key arterials in Sweet Home. U.S. 20 is a major east-west highway that runs through Sweet Home. It begins at the Oregon Coast in Newport and travels eastward through the Willamette National Forest before eventually reaching the Idaho border. In Sweet Home, U.S. 20 runs through the center of town along Main Street. It is an important transportation route for local residents, as well as for travelers passing through the area. Highway 228 is a shorter highway that runs north-south through Sweet Home. It begins at U.S. 20 near the eastern edge of town and travels southward through the Willamette National Forest before eventually reaching the city of Brownsville. In Sweet Home, Highway 228 provides access to several recreational areas and natural attractions, including Quartzville Creek and Green Peter Lake.

In addition to the two highways, Long Street serves as the primary east-west arterial in Sweet Home. Long Street begins at Highway 228 to the west, and eventually terminates at Airport Road and connects to U.S. 20 via 47th Avenue.

The arterial and collector road network in Sweet Home is illustrated in **Figure** 11**11**. The posted speeds on this study road network is illustrated in **Figure** 12**12**.

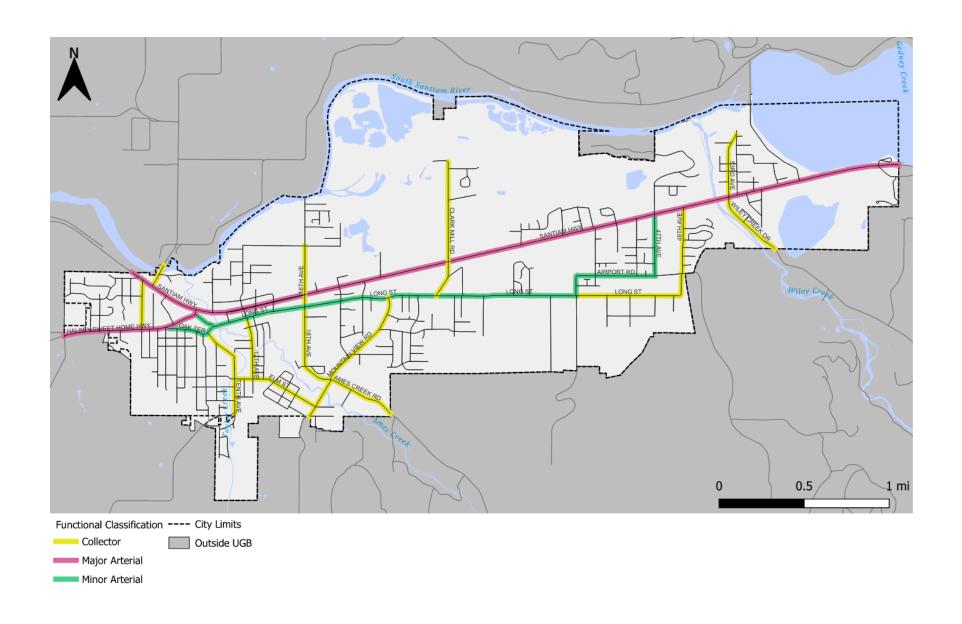


FIGURE 11: ARTERIAL AND COLLECTOR ROAD NETWORK



FIGURE 12: POSTED SPEEDS ON ARTERIAL AND COLLECTOR ROAD NETWORK

EXISTING TRAFFIC CONDITIONS AT STUDY INTERSECTIONS

Congestion levels at a selection of key intersections (**Figure 9**) in Sweet Home were evaluated to understand where motorists experience higher delays. The study intersections include five signalized intersections, 12 two-way stop-controlled (TWSC) intersections, and two all-way stop-controlled (AWSC) intersections.

Traffic counts were collected in June 2021 and existing conditions analysis has assumed a base year of 2021. Study intersection traffic operations have been analyzed using estimated 30th highest hour traffic volume (30 HV) conditions. A singular system peak hour has been used to derive intersection traffic volumes for traffic analysis. The peak hour for the study intersections was identified using the Oregon Traffic Monitoring System MS2 platform, which determined the system p.m. peak hour to be 4:15 to 5:15 p.m. A seasonal adjustment factor of 1.04 has been applied to the volumes based on the methodology described in **Task 3.1 Existing Conditions Inventory and Analysis**. Traffic volumes for the weekday p.m. peak hour are shown in **Figures 12 and 13**.

The County and City have adopted vehicle mobility standards. These standards provide a benchmark to measure intersection congestion against and ensure that the transportation system will have adequate capacity to support planned growth. These standards are either measured with level of service (LOS) or volume-to-capacity ratio (v/c ratio). The LOS is an A to F rating of the level of delay the average vehicle will experience at an intersection (similar to a report card, where LOS A has very little delay and LOS F has a lot of delay). The v/c ratio is a proportion from zero to one that measures the approximate amount of an intersection's capacity to move traffic that is being used. For example, a v/c ratio of 0.90 indicates that 90 percent of an intersection's capacity to move traffic is being used Existing Peak Hour traffic conditions have been compared to ODOT

and City mobility targets/operating standards in

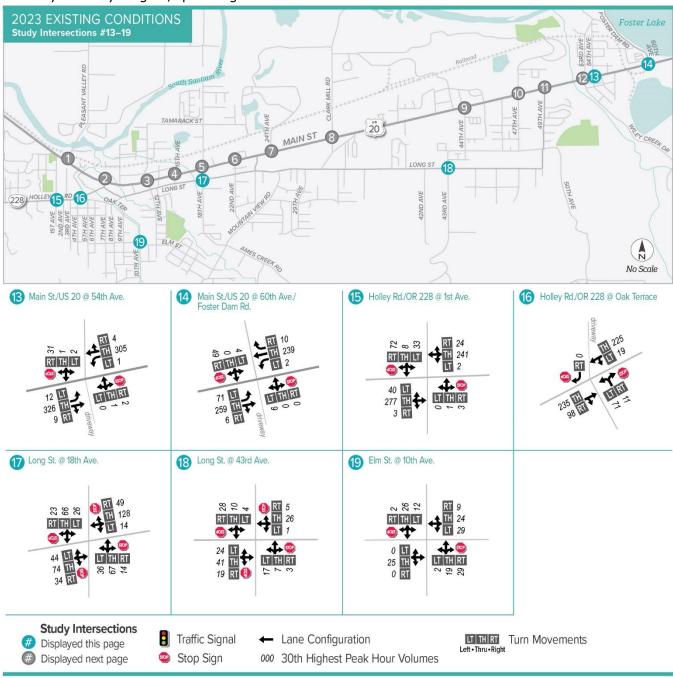


Figure 14: Study Intersetion Lane Configuration and Traffic Volume (Part 2)

Table 1.

Results of the traffic operations analysis indicate that all study intersections are operating within analysis thresholds. Results of the traffic operations analysis are summarized in

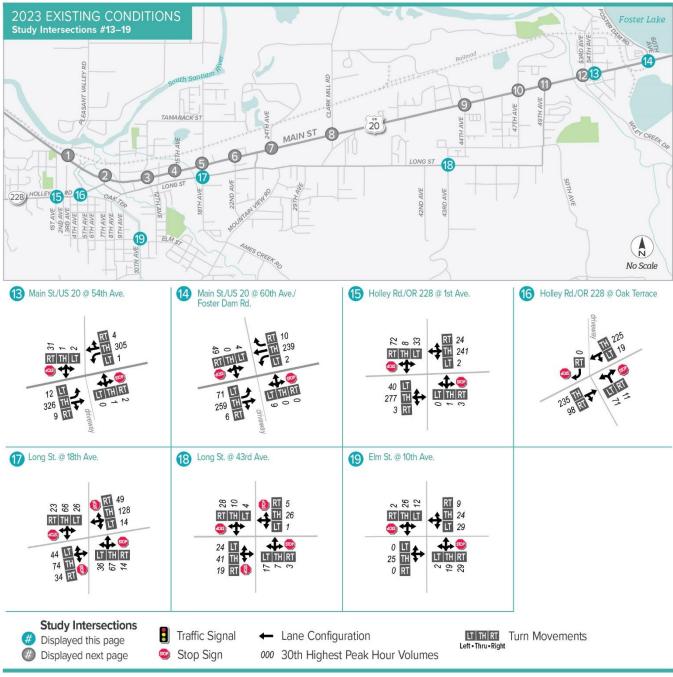


Figure 14: Study Intersetion Lane Configuration and Traffic Volume (Part 2)

Table 1.



FIGURE 9: STUDY INTERSECTIONS

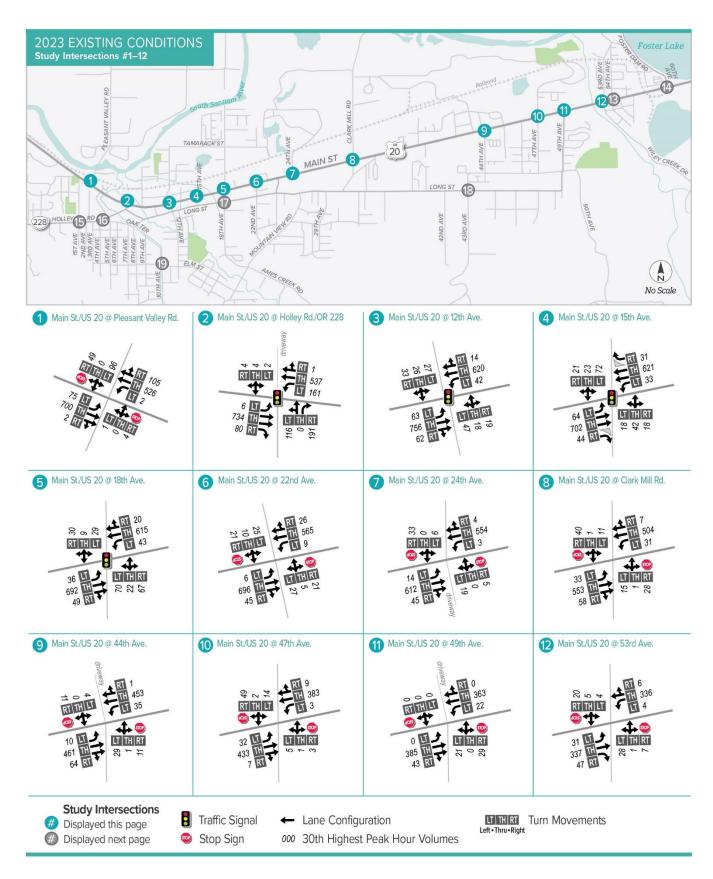


FIGURE 13: STUDY INTERSETION LANE CONFIGURATION AND TRAFFIC VOLUME (PART 1)

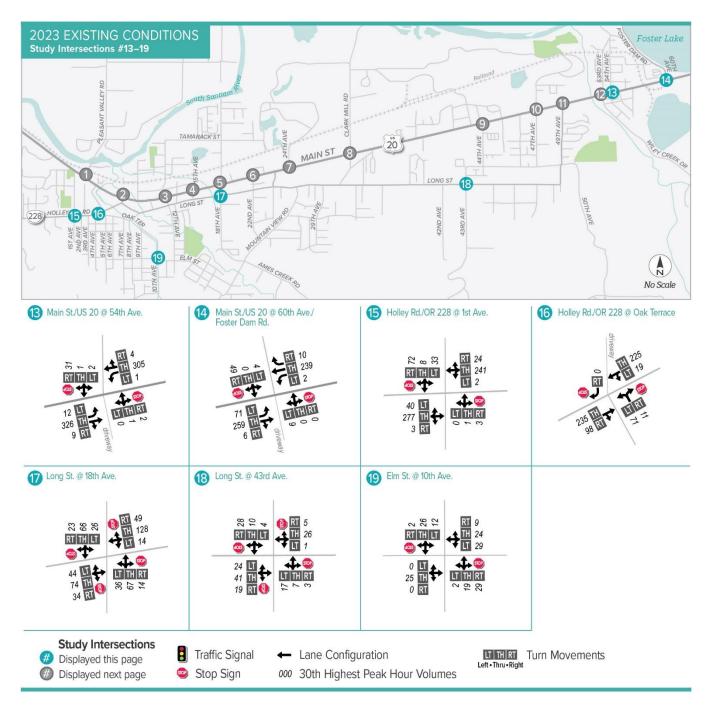


FIGURE 14: STUDY INTERSETION LANE CONFIGURATION AND TRAFFIC VOLUME (PART 2)

TABLE 1: EXISTING (2021) TRAFFIC OPERATIONS AT STUDY INTERSECTIONS - WEEKDAY PM PEAK HOUR

INTERSECTION	CONTROL TYPE	MOBILITY STANDARD	LOS	DELAY (SECONDS	V/C RATIO
1. MAIN STREET (U.S. 20) AND PLEASANT VALLEY ROAD	TWSC	v/c ≤ 0.85	A/F	1/97	0.02/0.91
2. MAIN STREET (U.S. 20) AND HOLLEY ROAD (HWY 228)	Signal	v/c ≤ 0.90	В	12	0.78
3. MAIN STREET (U.S. 20) AND 12 TH AVENUE	Signal	v/c ≤ 0.90	А	5	0.43
4. MAIN STREET (U.S. 20) AND 15 TH AVENUE	Signal	v/c ≤ 0.90	А	5	0.4
5. MAIN STREET (U.S. 20) AND 18 TH AVENUE	Signal	v/c ≤ 0.90	А	6	0.44
6. MAIN STREET (U.S. 20) AND 22 ND AVENUE	Two-Way Stop	v/c ≤ 0.90	A/E	0.2/35	0.01/35
7. MAIN STREET (U.S. 20) AND 24 TH AVENUE	Two-Way Stop	v/c ≤ 0.90	A/D	0.2/27	0.02/0.15
8. MAIN STREET (U.S. 20) AND CLARK MILL ROAD	Two-Way Stop	v/c ≤ 0.85	A/C	0.5/19	0.04/0.16
9. MAIN STREET (U.S. 20) AND 44 TH AVENUE	Two-Way Stop	v/c ≤ 0.85	A/C	0.6/22	0.04/0.18
10. MAIN STREET (U.S. 20) AND 47 TH AVENUE	Two-Way Stop	v/c ≤ 0.85	A/C	0.6/19	0.04/0.16
11. MAIN STREET (U.S. 20) AND 49 TH AVENUE	Two-Way Stop	v/c ≤ 0.85	A/B	0.5/14	0.02/0.16
12. MAIN STREET (U.S. 20) AND 53 RD AVENUE	Two-Way Stop	v/c ≤ 0.85	A/C	0.6/20	0.03/0.15
13. MAIN STREET (U.S. 20) AND 54 TH AVENUE	Two-Way Stop	v/c ≤ 0.85	A/B	0.3/13	0.01/0.07
14. MAIN STREET (U.S. 20) AND 60 TH AVENUE (FOSTER DAM ROAD)	Two-Way Stop	v/c ≤ 0.85	A/C	2/19	0.07/0.09
15. HOLLEY ROAD (HWY 228) AND 1 ST AVENUE	Two-Way Stop	v/c ≤ 0.95	A/C	1/16	0.04/0.29
16. HOLLEY ROAD (HWY 228) AND OAK TERRACE	Two-Way Stop	v/c ≤ 0.95	A/C	1/16	0.02/0.23

INTERSECTION	CONTROL TYPE	MOBILITY STANDARD	LOS	DELAY (SECONDS)	V/C RATIO
17. LONG STREET AND 18 TH AVENUE	AWSC	LOS D	Α	10	0.32
18. LONG STREET AND 43 RD AVENUE	AWSC	LOS D	Α	8	0.11
19. ELM STREET AND 10 TH AVENUE	Two-Way Stop	LOS D	A/B	3/11	0.03/0.08

^a Note: Overall intersection measures reported for signal and AWSC intersections. The worst approach for major/minor approaches is reported for TWSC intersections.

FREIGHT NETWORK

The existing freight network, railways and rail crossing locations are shown in **Figure 15**. U.S. 20 is part of the National Highway System and handles moderate truck volumes between Sweet Home and I-5 to the west, with an average daily traffic (ADT) range between 500 and 14,999.

One rail line serves Sweet Home from the west terminating at the Foster Mill site on the east side of the City. The line is operated by Albany and Eastern Railroad Company and connects Sweet Home to Albany. Within the City limits the line is located roughly one block north of U.S. 20 running roughly parallel thereto.

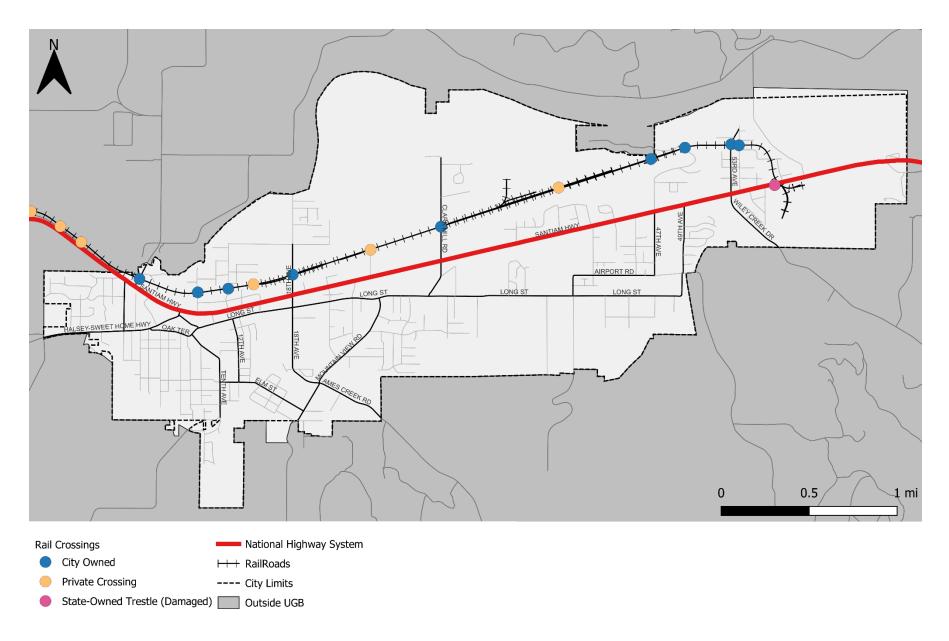


FIGURE 105: EXISTING FREIGHT NETWORK

APPENDIX A: EXISTING TRAFFIC OPERATIONS ANALYSIS RESULTS

Intersection												
Int Delay, s/veh	9.5											
• •		CDT.		WDL	MPT	MDD	ND	NET	NDD	ODI	ODT	ODD
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		∱ ⊅	_	<u> ነ</u>	↑ ⊅			4			4	
Traffic Vol, veh/h	75	700	2	2	526	105	1	0	4	96	0	49
Future Vol, veh/h	75	700	2	2	526	105	1	0	4	96	0	49
Conflicting Peds, #/hr	1	0	1	1	0	1	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	150	-	-	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, %	2	2	2	4	4	4	0	0	0	1	1	1
Mvmt Flow	83	778	2	2	584	117	1	0	4	107	0	54
Major/Minor M	lajor1		N	Major2			Minor1		N	/linor2		
Conflicting Flow All	702	0	0	781	0	0	1242	1652	391	1203	1595	352
Stage 1	702	U	U	101	-	U	946	946	J91 -	648	648	332
Stage 1 Stage 2	-	•	-	-	_	-	296	706	<u>-</u>	555	947	_
Stage 2 Critical Hdwy	4.14	-	-	4.18	-	-	7.5	6.5	6.9	7.52	6.52	6.92
Critical Hdwy Stg 1	4.14		<u>-</u>	4.10	_	-	6.5	5.5	0.9	6.52	5.52	0.92
, ,		-	-	-	-	-		5.5		6.52	5.52	
Critical Hdwy Stg 2	- 2 22	-	-	2.24	-	-	6.5		2 2			2 21
Follow-up Hdwy	2.22	-	-		-	-	3.5	4	3.3	3.51	4.01	3.31
Pot Cap-1 Maneuver	891	-	-	819	-	-	133	100	614	141	107	647
Stage 1	-	-	-	-	-	-	285	343	-	428	467	-
Stage 2	-	-	-	-	-	-	694	442	-	486	340	-
Platoon blocked, %	000	-	-	040	-	-	440	00	040	400	07	0.40
Mov Cap-1 Maneuver	890	-	-	818	-	-	113	90	613	130	97	646
Mov Cap-2 Maneuver	-	-	-	-	-	-	113	90	-	130	97	-
Stage 1	-	-	-	-	-	-	258	311	-	388	466	-
Stage 2	-	-	-	-	-	-	634	441	-	437	308	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.9			0			16.3			97.1		
HCM LOS	0.0						C			F		
13 200										'		
							==					
Minor Lane/Major Mvmt		NBLn1	EBL	EBT	EBR	WBL	WBT	WBR :				
Capacity (veh/h)		325	890	-	-	818	-	-				
HCM Lane V/C Ratio		0.017	0.094	-	-	0.003	-	-	0.905			
HCM Control Delay (s)		16.3	9.5	-	-	9.4	-	-	97.1			
HCM Lane LOS		С	Α	-	-	Α	-	-	F			
HCM 95th %tile Q(veh)		0.1	0.3	-	-	0	-	-	6.8			

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	^	7	ሻ	∱ ∱			4	7		4	
Traffic Volume (veh/h)	6	734	80	161	537	1	116	0	191	2	4	4
Future Volume (veh/h)	6	734	80	161	537	1	116	0	191	2	4	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1709	1709	1709	1709	1709	1709	1709	1709	1709	1750	1750	1750
Adj Flow Rate, veh/h	7	807	88	177	590	1	127	0	210	2	4	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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	0	0	0
Cap, veh/h	9	1497	666	232	1989	3	375	0	454	104	139	108
Arrive On Green	0.01	0.46	0.46	0.14	0.60	0.59	0.17	0.00	0.17	0.17	0.17	0.17
Sat Flow, veh/h	1628	3247	1445	1628	3326	6	1403	0	1448	132	813	630
Grp Volume(v), veh/h	7	807	88	177	288	303	127	0	210	10	0	0
Grp Sat Flow(s),veh/h/ln	1628	1624	1445	1628	1624	1708	1403	0	1448	1575	0	0
Q Serve(g_s), s	0.2	9.5	1.9	5.6	4.6	4.6	4.1	0.0	6.2	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.2	9.5	1.9	5.6	4.6	4.6	4.4	0.0	6.2	0.3	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.20		0.40
Lane Grp Cap(c), veh/h	9	1497	666	232	971	1022	375	0	454	350	0	0
V/C Ratio(X)	0.78	0.54	0.13	0.76	0.30	0.30	0.34	0.00	0.46	0.03	0.00	0.00
Avail Cap(c_a), veh/h	367	2472	1100	765	1236	1300	793	0	887	432	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	26.4	10.3	8.2	21.9	5.2	5.2	20.1	0.0	14.7	18.4	0.0	0.0
Incr Delay (d2), s/veh	39.8	0.4	0.1	3.9	0.2	0.2	0.4	0.0	0.5	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	2.9	0.5	2.2	1.2	1.3	1.4	0.0	1.9	0.1	0.0	0.0
Unsig. Movement Delay, s/veh		10.7	0.4	05.0	EE	EE	20 5	0.0	15.0	10.4	0.0	0.0
LnGrp Delay(d),s/veh	66.2 E	10.7 B	8.4 A	25.8 C	5.5	5.5	20.5 C	0.0	15.2 B	18.4 B	0.0	0.0
LnGrp LOS			A	U	A 700	A	U	A	D	D	A 40	A
Approach Vol, veh/h		902			768			337			10	
Approach LOS		10.9			10.1			17.2			18.4	
Approach LOS		В			В			В			В	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.6	28.5		13.1	4.3	35.8		13.1				
Change Period (Y+Rc), s	4.0	4.5		4.0	4.0	4.5		4.0				
Max Green Setting (Gmax), s	25.0	40.0		12.0	12.0	40.0		25.0				
Max Q Clear Time (g_c+l1), s	7.6	11.5		2.3	2.2	6.6		8.2				
Green Ext Time (p_c), s	0.6	12.5		0.0	0.0	8.3		0.9				
Intersection Summary												_
HCM 6th Ctrl Delay			11.7									
HCM 6th LOS			В									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	7	Λħ		1	∱ ∱			4			4		
Traffic Volume (veh/h)	63	756	62	42	620	14	47	18	19	27	26	33	
Future Volume (veh/h)	63	756	62	42	620	14	47	18	19	27	26	33	
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.98	0.99		0.98	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	1.00	
Work Zone On Approac		No			No			No			No		
Adj Sat Flow, veh/h/ln	1695	1695	1695	1668	1668	1668	1723	1723	1723	1736	1736	1736	
Adj Flow Rate, veh/h	70	840	69	47	689	16	52	20	21	30	29	37	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
Percent Heavy Veh, %	4	4	4	6	6	6	2	2	2	1	1	1	
Cap, veh/h	604	1952	160	506	2050	48	242	50	39	181	75	77	
Arrive On Green	0.65	0.65	0.63	0.65	0.65	0.63	0.13	0.13	0.13	0.13	0.13	0.13	
Sat Flow, veh/h	731	3013	248	594	3166	73	661	397	308	376	588	604	
Grp Volume(v), veh/h	70	449	460	47	345	360	93	0	0	96	0	0	
Grp Sat Flow(s), veh/h/li		1611	1650	594	1585	1655	1366	0	0	1568	0	0	
Q Serve(g_s), s	1.7	4.8	4.9	1.5	3.5	3.5	0.2	0.0	0.0	0.0	0.0	0.0	
Cycle Q Clear(g_c), s	5.2	4.8	4.9	6.3	3.5	3.5	2.1	0.0	0.0	1.9	0.0	0.0	
Prop In Lane	1.00	10.10	0.15	1.00	1000	0.04	0.56		0.23	0.31		0.39	
Lane Grp Cap(c), veh/h		1043	1069	506	1026	1072	332	0	0	332	0	0	
V/C Ratio(X)	0.12	0.43	0.43	0.09	0.34	0.34	0.28	0.00	0.00	0.29	0.00	0.00	
Avail Cap(c_a), veh/h	965	1838	1884	800	1809	1888	708	0	0	773	0	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	
Uniform Delay (d), s/vel		3.1	3.1	4.6	2.8	2.8	14.4	0.0	0.0	14.4	0.0	0.0	
Incr Delay (d2), s/veh	0.1	0.4	0.4	0.1	0.3	0.3	0.3	0.0	0.0	0.4	0.0	0.0	
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),vel			0.0	0.1	0.4	0.5	0.0	0.0	0.0	0.0	0.0	0.0	
Unsig. Movement Delay	4.1	3.5	3.5	4.7	3.1	3.1	14.8	0.0	0.0	14.7	0.0	0.0	
LnGrp Delay(d),s/veh LnGrp LOS	4.1 A	3.5 A	3.5 A	4.7 A	3.1 A	3.1 A	14.0 B	Α	Α	14.7 B	Α	Α	
		979			752		U	93		U	96		
Approach Vol, veh/h Approach Delay, s/veh		3.5			3.2			14.8			14.7		
Approach LOS		3.5 A			3.2 A			14.0 B			14.7 B		
Approach LOS		А			А			D			D		
Timer - Assigned Phs		2		4		6		8					
Phs Duration (G+Y+Rc)), s	27.0		8.5		27.0		8.5					
Change Period (Y+Rc),		4.5		4.0		4.5		4.0					
Max Green Setting (Gm	, ,	40.0		15.0		40.0		15.0					
Max Q Clear Time (g_c		7.2		3.9		8.3		4.1					
Green Ext Time (p_c), s	3	15.3		0.2		11.1		0.2					
Intersection Summary													
HCM 6th Ctrl Delay			4.5										
HCM 6th LOS			Α										

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	ች	^	7	*	^	7		4			4		
Traffic Volume (veh/h)	64	702	44	33	621	31	18	42	18	72	23	21	
Future Volume (veh/h)	64	702	44	33	621	31	18	42	18	72	23	21	
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.98		0.97	0.98		0.97	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	0.90	
Work Zone On Approac		No			No			No		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	No		
	1723	1723	1723	1695	1695	1695	1736	1736	1736	1736	1736	1736	
Adj Flow Rate, veh/h	74	807	0	38	714	0	21	48	21	83	26	24	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	
Percent Heavy Veh, %	2	2	2	4	4	4	1	1	1	1	1	1	
Cap, veh/h	561	1998	_	515	1966		154	158	59	279	69	42	
Arrive On Green	0.61	0.61	0.00	0.61	0.61	0.00	0.17	0.17	0.17	0.17	0.17	0.17	
Sat Flow, veh/h	734	3273	1460	663	3221	1437	196	914	338	695	399	241	
Grp Volume(v), veh/h	74	807	0	38	714	0	90	0	0	133	0	0	
Grp Sat Flow(s), veh/h/lr		1637	1460	663	1611	1437	1447	0	0	1336	0	0	
Q Serve(g_s), s	2.1	4.7	0.0	1.2	4.1	0.0	0.0	0.0	0.0	1.2	0.0	0.0	
Cycle Q Clear(g_c), s	6.2	4.7	0.0	5.9	4.1	0.0	2.0	0.0	0.0	3.2	0.0	0.0	
Prop In Lane	1.00	7.1	1.00	1.00	7.1	1.00	0.23	0.0	0.23	0.62	0.0	0.18	
Lane Grp Cap(c), veh/h		1998	1.00	515	1966	1.00	371	0	0.20	390	0	0.10	
V/C Ratio(X)	0.13	0.40		0.07	0.36		0.24	0.00	0.00	0.34	0.00	0.00	
Avail Cap(c_a), veh/h	917	3583		836	3527		695	0.00	0.00	683	0.00	0.00	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	
Uniform Delay (d), s/veh		3.7	0.0	5.2	3.6	0.0	13.5	0.0	0.0	13.9	0.0	0.0	
Incr Delay (d2), s/veh	0.1	0.2	0.0	0.1	0.2	0.0	0.2	0.0	0.0	0.4	0.0	0.0	
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh		0.8	0.0	0.1	0.7	0.0	0.6	0.0	0.0	0.9	0.0	0.0	
Unsig. Movement Delay			0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.5	0.0	0.0	
LnGrp Delay(d),s/veh	5.3	3.9	0.0	5.3	3.8	0.0	13.7	0.0	0.0	14.3	0.0	0.0	
LnGrp LOS	3.5 A	Α	0.0	3.5 A	Α.	0.0	13.7 B	Α	Α	В	Α	Α	
Approach Vol, veh/h		881	Α		752	Α		90			133		
Approach Delay, s/veh		4.0			3.8			13.7			14.3		
Approach LOS		4.0 A			3.0 A			В			14.3 B		
											D		
Timer - Assigned Phs		2		4		6		8					
Phs Duration (G+Y+Rc)		26.6		10.4		26.6		10.4					
Change Period (Y+Rc),		4.5		4.0		4.5		4.0					
Max Green Setting (Gm	ax), s	40.0		15.0		40.0		15.0					
Max Q Clear Time (g_c-	+I1), s	8.2		5.2		7.9		4.0					
Green Ext Time (p_c), s	3	13.9		0.3		11.7		0.2					
Intersection Summary													
HCM 6th Ctrl Delay			5.2										
HCM 6th LOS			A										
Notes													

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	ሻ	ħβ		ሻ	ħβ			4			4		
Traffic Volume (veh/h)	36	692	49	43	615	20	70	22	67	29	9	30	
Future Volume (veh/h)	36	692	49	43	615	20	70	22	67	29	9	30	
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approac		No			No			No			No		
Adj Sat Flow, veh/h/ln	1695	1695	1695	1668	1668	1668	1668	1668	1668	1668	1668	1668	
Adj Flow Rate, veh/h	40	778	55	48	691	22	79	25	75	33	10	34	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	
Percent Heavy Veh, %	4	4	4	6	6	6	6	6	6	6	6	6	
Cap, veh/h	527	1764	125	471	1812	58	244	67	123	226	84	135	
Arrive On Green	0.58	0.58	0.56	0.58	0.58	0.56	0.19	0.21	0.19	0.19	0.21	0.19	
Sat Flow, veh/h	725	3051	216	638	3135	100	503	328	599	425	408	659	
Grp Volume(v), veh/h	40	411	422	48	349	364	179	0	0	77	0	0	
Grp Sat Flow(s),veh/h/l		1611	1656	638	1585	1650	1431	0	0	1492	0	0	
Q Serve(g_s), s	1.2	5.3	5.4	1.7	4.4	4.4	2.6	0.0	0.0	0.0	0.0	0.0	
Cycle Q Clear(g_c), s	5.6	5.3	5.4	7.1	4.4	4.4	4.2	0.0	0.0	1.6	0.0	0.0	
Prop In Lane	1.00	004	0.13	1.00	0.40	0.06	0.44	•	0.42	0.43	•	0.44	
Lane Grp Cap(c), veh/h		931	957	471	916	954	415	0	0	425	0	0	
V/C Ratio(X)	0.08	0.44	0.44	0.10	0.38	0.38	0.43	0.00	0.00	0.18	0.00	0.00	
Avail Cap(c_a), veh/h	904	1767	1817	802	1738	1810	903	0	0	902	0	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	
Uniform Delay (d), s/ve		4.4	4.4	6.4	4.2	4.2	13.5	0.0	0.0	12.5	0.0	0.0	
Incr Delay (d2), s/veh	0.1	0.5	0.5	0.1	0.4	0.4	1.0	0.0	0.0	0.3	0.0	0.0	
Initial Q Delay(d3),s/ve		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),ve			l.l	0.2	8.0	0.9	1.3	0.0	0.0	0.5	0.0	0.0	
Unsig. Movement Dela	•	4.9	4.9	6.5	4.6	4.6	14.5	0.0	0.0	12.8	0.0	0.0	
LnGrp Delay(d),s/veh LnGrp LOS	5.8 A	4.9 A	4.9 A	0.5 A		4.0 A	14.5 B	Ο.0	0.0 A	12.0 B		0.0 A	
		873			761		Ь			ь	A 77		
Approach Vol, veh/h		4.9			761 4.7			179 14.5			77 12.8		
Approach LOS								14.5 B			12.0 B		
Approach LOS		Α			Α			D			D		
Timer - Assigned Phs		2		4		6		8					
Phs Duration (G+Y+Ro	, .	25.3		11.6		25.3		11.6					
Change Period (Y+Rc)		4.5		4.5		4.5		4.5					
Max Green Setting (Gn		40.0		20.0		40.0		20.0					
Max Q Clear Time (g_c		7.6		3.6		9.1		6.2					
Green Ext Time (p_c),	S	13.3		0.4		11.1		1.0					
Intersection Summary													
HCM 6th Ctrl Delay			6.1										
HCM 6th LOS			Α										

Intersection												
Int Delay, s/veh	2.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	LDL	413	LDIX	ኘ	†	WDIX	NDL	4	NDIN	ODL	4	ODIT
Traffic Vol, veh/h	6	696	45	9	565	26	27	5	21	25	10	21
Future Vol, veh/h	6	696	45	9	565	26	27	5	21	25	10	21
Conflicting Peds, #/hr	0	0	4	4	0	0	2	0	0	0	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	_	-	None	-	_	None
Storage Length	-	-	-	100	-	-	-	-	-	-	-	-
Veh in Median Storage,	# -	0	-	-	0	-	_	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	3	3	3	4	4	4	6	6	6	0	0	0
Mvmt Flow	7	782	51	10	635	29	30	6	24	28	11	24
Major/Minor M	lajor1		ľ	Major2		ľ	Minor1		N	Minor2		
Conflicting Flow All	664	0	0	837	0	0	1171	1510	421	1078	1521	334
Stage 1	-	-	-	-	-	-	826	826	-	670	670	-
Stage 2	-	-	-	-	-	-	345	684	-	408	851	-
Critical Hdwy	4.16	_	-	4.18	-	-	7.62	6.62	7.02	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.62	5.62	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.62	5.62	-	6.5	5.5	-
Follow-up Hdwy	2.23	-	-	2.24	-	-	3.56	4.06	3.36	3.5	4	3.3
Pot Cap-1 Maneuver	914	-	-	780	-	-	143	115	570	176	120	668
Stage 1	-	-	-	-	-	-	324	375	-	417	459	-
Stage 2	-	-	-	-	-	-	633	437	-	596	379	-
Platoon blocked, %		-	-		-	-				4		
Mov Cap-1 Maneuver	914	-	-	777	-	-	124	111	568	159	116	667
Mov Cap-2 Maneuver	-	-	-	-	-	-	124	111	-	159	116	-
Stage 1	-	-	-	-	-	-	318	368	-	411	453	-
Stage 2	-	-	-	-	-	-	587	431	-	555	372	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0.1			35.3			30.3		
HCM LOS							Е			D		
Minor Lane/Major Mvmt		NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1			
Capacity (veh/h)		177	914	-	-	777	-	-	204			
HCM Lane V/C Ratio		0.336		_	-	0.013	-	-	0.308			
HCM Control Delay (s)		35.3	9	0.1	-	9.7	-	-	30.3			
HCM Lane LOS		Е	Α	Α	-	Α	-	-	D			
HCM 95th %tile Q(veh)		1.4	0	-	-	0	-	-	1.2			

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		ħβ		ሻ	∱ }			4			4	
Traffic Vol, veh/h	14	612	45	3	554	4	19	0	5	6	0	33
Future Vol, veh/h	14	612	45	3	554	4	19	0	5	6	0	33
Conflicting Peds, #/hr	0	0	6	6	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	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	5	5	5	4	4	4	0	0	0	3	3	3
Mvmt Flow	16	703	52	3	637	5	22	0	6	7	0	38
Major/Minor M	ajor1		ľ	Major2		N	/linor1		N	/linor2		
Conflicting Flow All	642	0	0	761	0	0	1092	1415	384	1030	1439	321
Stage 1	-	-	-	-	-	-	767	767	-	646	646	-
Stage 2	-	-	-	-	-	-	325	648	-	384	793	-
Critical Hdwy	4.2	_	-	4.18	-	-	7.5	6.5	6.9	7.56	6.56	6.96
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.56	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.56	5.56	-
Follow-up Hdwy	2.25	-	-	2.24	-	-	3.5	4	3.3	3.53	4.03	3.33
Pot Cap-1 Maneuver	918	-	-	834	-	-	172	139	620	186	131	672
Stage 1	-	-	-	-	-	-	365	414	-	424	463	-
Stage 2	-	-	-	-	-	-	667	469	-	608	396	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	918	-	-	829	-	-	159	135	616	181	127	672
Mov Cap-2 Maneuver	-	-	-	-	-	-	159	135	-	181	127	-
Stage 1	-	-	-	-	-	-	357	404	-	417	461	-
Stage 2	-	-	-	-	-	-	627	467	-	592	387	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0.1			27.4			13.4		
HCM LOS							D			В		
Minor Lane/Major Mvmt	ا	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR S	SBLn1			
Capacity (veh/h)		188	918	_	-	829	_	_	474			
HCM Lane V/C Ratio		0.147		-	-	0.004	-	-	0.095			
HCM Control Delay (s)		27.4	9	-	-	9.4	-	-	13.4			
HCM Lane LOS		D	Α	-	-	Α	-	-	В			
HCM 95th %tile Q(veh)		0.5	0.1	-	-	0	-	-	0.3			

Intersection												
Int Delay, s/veh	1.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ħ	†	LUI	YVDL	↑ ↑	וטוע	NUL	4	וטו	ODL	4	ODIN
Traffic Vol, veh/h	33	553	58	31	504	7	15	1	28	11	1	40
Future Vol, veh/h	33	553	58	31	504	7	15	1	28	11	1	40
Conflicting Peds, #/hr	1	0	0	0	0	1	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	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	4	4	4	2	2	2	2	2	2	6	6	6
Mvmt Flow	36	608	64	34	554	8	16	1	31	12	1	44
Major/Minor N	lajor1			Major2			Minor1		I	Minor2		
Conflicting Flow All	563	0	0	672	0	0	1058	1343	336	1004	1371	282
Stage 1	-	-	-	-	-	-	712	712	-	627	627	-
Stage 2	-	-	-	-	-	-	346	631	-	377	744	-
Critical Hdwy	4.18	-	-	4.14	-	-	7.54	6.54	6.94	7.62	6.62	7.02
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.62	5.62	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.62	5.62	-
Follow-up Hdwy	2.24	-	-	2.22	-	-	3.52	4.02	3.32	3.56	4.06	3.36
Pot Cap-1 Maneuver	991	-	-	915	-	-	179	151	660	190	140	703
Stage 1	-	-	-	-	-	-	389	434	-	428	465	-
Stage 2	-	-	-	-	-	-	643	473	-	606	410	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	990	-	-	915	-	-	158	140	660	170	130	702
Mov Cap-2 Maneuver	-	-	-	-	-	-	158	140	-	170	130	-
Stage 1	-	-	-	-	-	-	375	418	-	412	447	-
Stage 2	-	-	-	-	-	-	579	455	-	555	395	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.4			0.5			19.1			15.4		
HCM LOS							С			С		
Minor Lane/Major Mvmt		NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1			
Capacity (veh/h)		304	990	-	-	915	-	-				
HCM Lane V/C Ratio		0.159		_	_	0.037	-	_	0.142			
HCM Control Delay (s)		19.1	8.8	-	-	9.1	_	-	15.4			
HCM Lane LOS		С	Α	-	-	Α	-	-	С			
HCM 95th %tile Q(veh)		0.6	0.1	-	-	0.1	-	-	0.5			

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	†	LDIK	ሻ	†	TIDIT	TIDE	4	אוטוז	ODL	4	ODIT
Traffic Vol, veh/h	10	461	64	35	453	1	29	1	11	4	0	11
Future Vol, veh/h	10	461	64	35	453	1	29	1	11	4	0	11
Conflicting Peds, #/hr	2	0	1	1	0	2	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
Storage Length	100	_	-	100	-	-	-	-	-	-	-	-
Veh in Median Storage,	# -	0	-	-	0	-	-	0	_	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	4	4	4	4	4	4	0	0	0	0	0	0
Mvmt Flow	11	530	74	40	521	1	33	1	13	5	0	13
Major/Minor N	linor Major1			Major2		ľ	Minor1		N	/linor2		
Conflicting Flow All	524	0	0	605	0	0	931	1194	303	892	1231	263
Stage 1	-	-	-	-	-	-	590	590	-	604	604	-
Stage 2	-	-	-	-	-	-	341	604	-	288	627	-
Critical Hdwy	4.18	-	-	4.18	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.24	-	-	2.24	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1025	-	-	955	-	-	225	188	699	240	179	742
Stage 1	-	-	-	-	-	-	466	498	-	457	491	-
Stage 2	-	-	-	-	-	-	653	491	-	701	479	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1023	-	-	954	-	-	212	178	698	225	169	741
Mov Cap-2 Maneuver	-	-	-	-	-	-	212	178	-	225	169	-
Stage 1	-	-	-	-	-	-	460	492	-	451	469	-
Stage 2	-	-	-	-	-	-	615	469	-	679	473	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0.6			22			13.1		
HCM LOS							С			В		
Minor Lane/Major Mvmt	t I	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR:	SBLn1			
Capacity (veh/h)		259	1023	-	-	954	-	-	460			
HCM Lane V/C Ratio		0.182		-	-	0.042	-	_	0.037			
HCM Control Delay (s)		22	8.6	-	-	8.9	-	-	13.1			
HCM Lane LOS		С	Α	-	-	Α	-	-	В			
HCM 95th %tile Q(veh)		0.7	0	-	-	0.1	-	-	0.1			
· · ·												

Intersection												
Int Delay, s/veh	1.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	ħβ		*	ħβ			4			4	
Traffic Vol, veh/h	32	433	7	3	383	9	5	1	3	14	2	49
Future Vol, veh/h	32	433	7	3	383	9	5	1	3	14	2	49
Conflicting Peds, #/hr	4	0	6	6	0	4	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	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	3	3	3	4	4	4	11	11	11	2	2	2
Mvmt Flow	39	522	8	4	461	11	6	1	4	17	2	59
Major/Minor N	/lajor1	Maj		Major2		Minor1				/linor2		
Conflicting Flow All	476	0	0	536	0	0	850	1094	271	819	1093	240
Stage 1	-	-	-	-	-	-	610	610	-	479	479	-
Stage 2	-	-	-	-	-	-	240	484	-	340	614	-
Critical Hdwy	4.16	-	-	4.18	-	-	7.72	6.72	7.12	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.72	5.72	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.72	5.72	-	6.54	5.54	-
Follow-up Hdwy	2.23	-	-	2.24	-	-	3.61	4.11	3.41	3.52	4.02	3.32
Pot Cap-1 Maneuver	1075	-	-	1014	-	-	239	199	700	267	213	761
Stage 1	-	-	-	-	-	-	427	461	-	537	553	-
Stage 2	-	-	-	-	-	-	717	528	-	648	481	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1071	-	-	1008	-	-	211	189	696	255	203	758
Mov Cap-2 Maneuver	-	-	-	-	-	-	211	189	-	255	203	-
Stage 1	-	-	-	-	-	-	409	442	-	516	549	-
Stage 2	-	-	-	-	-	-	656	524	-	619	461	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.6			0.1			18.9			13.5		
HCM LOS							С			В		
200												
Minor Lane/Major Mvmt	t N	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1			
Capacity (veh/h)		270	1071			1008	-	-	502			
HCM Lane V/C Ratio			0.036	_		0.004	_		0.156			
HCM Control Delay (s)		18.9	8.5	_	_	8.6	_	_				
HCM Lane LOS		C	Α	<u>-</u>	_	Α	_	_	В			
HCM 95th %tile Q(veh)		0.1	0.1	_	_	0	_	_	0.5			
		J. 1	0.1			J			0.0			

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
	CDL		LDI	WDL		אטוז	NDL		אטוז	ODL		JDK
Lane Configurations Traffic Vol, veh/h	1	↑ ↑	43	1 22	↑ ↑	0	21	4	29	0	4 >	0
Future Vol, veh/h	0	385	43	22	363	0	21	0	29	0	0	0
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	Stop -	Stop -	None	SiOP -	Stop -	None
Storage Length	100	_	-	100	_	NOHE	-	-	NOHE	-	_	NOHE
Veh in Median Storage,		0	_	-	0	-	_	0	_		0	_
Grade, %	# - -	0	_	_	0	_	_	0	_	_	0	_
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	5	5	5	6	6	6	9	9	9	0	0	0
Mymt Flow	0	438	49	25	413	0	24	0	33	0	0	0
IVIVIIILI IUW	U	700	43	25	713	U	24	U	55	U	- 0	U
	lajor1			Major2			/linor1			/linor2		
Conflicting Flow All	414	0	0	487	0	0	720	927	244	683	951	208
Stage 1	-	-	-	-	-	-	463	463	-	464	464	-
Stage 2	-	-	-	-	-	-	257	464	-	219	487	-
Critical Hdwy	4.2	-	-	4.22	-	-	7.68	6.68	7.08	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.68	5.68	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.68	5.68	-	6.5	5.5	-
Follow-up Hdwy	2.25	-	-	2.26	-	-	3.59	4.09	3.39	3.5	4	3.3
	1120	-	-	1045	-	-	303	255	736	339	262	804
Stage 1	-	-	-	-	-	-	530	545	-	553	567	-
Stage 2	-	-	-	-	-	-	706	545	-	769	554	-
Platoon blocked, %		-	-		-	-						
	1119	-	-	1045	-	-	298	249	736	318	255	803
Mov Cap-2 Maneuver	-	-	-	-	-	-	298	249	-	318	255	-
Stage 1	-	-	-	-	-	-	530	545	-	552	553	-
Stage 2	-	-	-	-	-	-	689	531	-	735	554	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.5			14			0		
HCM LOS							В			A		
										- 1		
Minor Lane/Major Mvmt		NBLn1	EBL	EBT	EBR	WBL	WBT	WBR S	SRI n1			
				LDI	LDK	1045	VVDT	WDIC	JULII I			
Capacity (veh/h) HCM Lane V/C Ratio		455	1119	-	-		-	-	_			
		0.125	-	-		0.024	-	-	-			
HCM Control Delay (s) HCM Lane LOS		14	0	-	-	8.5	-	-	0			
HCM 95th %tile Q(veh)		0.4	A 0	-	-	0.1	-	-	Α			
HOW SOUT WITH Q(Ven)		0.4	U	-	-	U. I	-	-	-			

Intersection												
Int Delay, s/veh	1.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	↑	7	ሻ	f)			4			4	
Traffic Vol, veh/h	31	337	47	4	336	6	28	1	7	4	5	20
Future Vol, veh/h	31	337	47	4	336	6	28	1	7	4	5	20
Conflicting Peds, #/hr	1	0	3	3	0	1	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	100	100	-	-	-	-	-	-	-	-
Veh in Median Storage	e, # -	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	5	5	5	7	7	7	3	3	3	7	7	7
Mvmt Flow	36	387	54	5	386	7	32	1	8	5	6	23
Major/Minor I	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	394	0	0	444	0	0	876	866	391	893	917	391
Stage 1	-	-	-	-	-	-	462	462	-	401	401	-
Stage 2	_	_	-	_	_	-	414	404	_	492	516	_
Critical Hdwy	4.15	_	_	4.17	_	_	7.13	6.53	6.23	7.17	6.57	6.27
Critical Hdwy Stg 1	_	-	-	-	_	-	6.13	5.53	-	6.17	5.57	-
Critical Hdwy Stg 2	-	_	_	-	-	-	6.13	5.53	-	6.17	5.57	-
Follow-up Hdwy	2.245	-	-	2.263	_	-	3.527	4.027	3.327	3.563	4.063	3.363
Pot Cap-1 Maneuver	1148	-	_	1090	-	-	268	290	655	257	267	647
Stage 1	-	-	-	-	-	-	578	563	-	616	592	-
Stage 2	-	-	-	-	-	-	614	597	-	549	526	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1147	-	-	1087	-	-	246	278	653	246	256	646
Mov Cap-2 Maneuver	-	-	-	-	-	-	246	278	-	246	256	-
Stage 1	-	-	-	-	-	-	558	544	-	596	588	-
Stage 2	-	-	-	-	-	-	584	593	-	524	508	-
Ŭ												
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.6			0.1			20			14		
HCM LOS							С			В		
Minor Lane/Major Mvm	nt I	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR :	SBLn1			
Capacity (veh/h)		281	1147		-	1087	-	-	434			
HCM Lane V/C Ratio		0.147		_		0.004	_		0.077			
HCM Control Delay (s)		20	8.2	_	_	8.3	_	_	14			
HCM Lane LOS		C	A	_	_	Α	_	_	В			
HCM 95th %tile Q(veh))	0.5	0.1	_	_	0	_	_	0.2			
	,	0.0							7.2			

Intersection Int Delay, s/veh
Traffic Vol, veh/h
Traffic Vol, veh/h
Traffic Vol, veh/h
Future Vol, veh/h
Conflicting Peds, #hr 9
Sign Control Free Free
RT Channelized
Veh in Median Storage, # 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - 0 - 0 - 0 - 0 - 0 - 0 0 0 0 - 0 - 0 0 0 0 0 - 0 - 0
Grade, % - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - 0 0 - 0<
Peak Hour Factor
Heavy Vehicles, %
Mymit Flow 15 408 11 1 381 5 0 1 3 3 1 39 Major/Minor Major1 Major2 Minor1 Minor2 Conflicting Flow All 395 0 0 423 0 0 868 845 418 841 848 407 Stage 1 - - - - - 448 448 - 395 395 - Stage 2 - - - - 420 397 - 446 453 - Critical Hdwy Stg 1 - - - - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1
Major/Minor Major1 Major2 Minor1 Minor2 Conflicting Flow All 395 0 423 0 868 845 418 841 848 407 Stage 1 - - - - - 448 448 - 395 395 - Stage 2 - - - - 420 397 - 446 453 - Critical Hdwy 4.14 - - 4.16 - - 7.1 6.5 6.2 7.1 6.5 6.2 7.1 6.5 6.2 7.1 6.5 6.2 7.1 6.5 6.2 7.1 6.5 6.2 7.1 6.5 6.2 7.1 6.5 6.2 7.1 6.5 6.2 7.1 6.5 6.2 7.1 6.5 6.2 7.1 6.5 6.2 7.1 6.5 6.2 7.1 6.5 6.2 7.1 6.5 6.2 7.1
Conflicting Flow All 395 0 0 423 0 0 868 845 418 841 848 407 Stage 1 448 448 - 395 395 - Stage 2 4416 7.1 6.5 6.2 7.1 6.5 6.2 Critical Hdwy Stg 1 6.1 5.5 - 6.1 5.5 - 6.2 Critical Hdwy Stg 2 6.1 5.5 - 6.1 5
Conflicting Flow All 395 0 0 423 0 0 868 845 418 841 848 407 Stage 1 - - - - - - 448 448 - 395 395 - Stage 2 - - - - - 420 397 - 446 453 - Critical Hdwy 4.14 - - 4.16 - - 7.1 6.5 6.2 7.1 6.5 6.2 Critical Hdwy Stg 1 - - - - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 <t< td=""></t<>
Stage 1 - - - 448 448 - 395 395 - Stage 2 - - - - 420 397 - 446 453 - Critical Hdwy 4.14 - - 4.16 - - 7.1 6.5 6.2 7.1 6.5 6.2 Critical Hdwy Stg 1 - - - - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.0
Stage 1 - - - - 448 448 - 395 395 - Stage 2 - - - - - 420 397 - 446 453 - Critical Hdwy 4.14 - - 4.16 - - 7.1 6.5 6.2 7.1 6.5 6.2 Critical Hdwy Stg 1 - - - - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 -
Critical Hdwy 4.14 - - 4.16 - - 7.1 6.5 6.2 7.1 6.5 6.2 Critical Hdwy Stg 1 - - - - 6.1 5.5 - 6.1 5.5 - Critical Hdwy Stg 2 - - - - 6.1 5.5 - 6.1 5.5 - Critical Hdwy Stg 2 - - - - 6.1 5.5 - 6.1 5.5 - Critical Hdwy Stg 2 - - - - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 6.8 6.2 6.2 6.2 6.8 6.2
Critical Hdwy Stg 1 6.1 5.5 - 6.1 5.5 - Critical Hdwy Stg 2 6.1 5.5 - 6.1 5.5 - Follow-up Hdwy 2.236 2.254 3.5 4 3.3 3.5 4 3.3 Sequence 1153 - 1115 - 275 302 639 287 301 648 Stage 1 594 576 - 634 608 - Stage 2 615 607 - 595 573 - Platoon blocked, % 615 607 - 595 573 - Platoon blocked, % 615 607 - 595 573 - Platoon blocked, % 250 294 637 280 293 634 Mov Cap-2 Maneuver 1143 - 1111 250 294 - 280 293 - Stage 1 584 566 - 620 602 - Stage 2 568 601 - 584 563 - Stage 2 5768 601 - 584 563 - Stage 2 5768 601 - 584 563 - Stage 2 5768 601 - 584 563 - Stage 2 577 572
Critical Hdwy Stg 2 6.1 5.5 - 6.1 5.5 - Follow-up Hdwy 2.236 2.254 3.5 4 3.3 3.5 4 3.3 Pot Cap-1 Maneuver 1153 - 1115 - 275 302 639 287 301 648 Stage 1 594 576 - 634 608 - Stage 2 615 607 - 595 573 - Platoon blocked, % 615 607 - 595 573 - Platoon blocked, % 250 294 637 280 293 634 Mov Cap-2 Maneuver 1143 - 11111 250 294 637 280 293 - Stage 1 584 566 - 620 602 - Stage 2 568 601 - 584 563 - EB WB NB SB HCM Control Delay, s 0.3 0 12.9 11.8 HCM LOS B B B
Follow-up Hdwy 2.236 2.254 3.5 4 3.3 3.5 4 3.3 Pot Cap-1 Maneuver 1153 1115 275 302 639 287 301 648 Stage 1 594 576 - 634 608 - 514 607 - 595 573 - 514 607 - 595 573 - 615 607 - 615 607
Pot Cap-1 Maneuver 1153 - - 1115 - - 275 302 639 287 301 648 Stage 1 - - - - 594 576 - 634 608 - Stage 2 - - - - 615 607 - 595 573 - Platoon blocked, % -
Stage 1 - - - - 594 576 - 634 608 - Stage 2 - - - - 615 607 - 595 573 - Platoon blocked, % -
Stage 2 - - - - 615 607 - 595 573 - Platoon blocked, % - <t< td=""></t<>
Platoon blocked, % - - - - Mov Cap-1 Maneuver 1143 - 11111 - - 250 294 637 280 293 634 Mov Cap-2 Maneuver - - - - - 250 294 - 280 293 - Stage 1 - - - - - 584 566 - 620 602 - Stage 2 - - - - - 568 601 - 584 563 - Approach EB WB NB SB B B H H H B B B B B B B B B B B B B B B A
Mov Cap-1 Maneuver 1143 - 1111 - 250 294 637 280 293 634 Mov Cap-2 Maneuver - - - - - 250 294 - 280 293 - Stage 1 - - - - - 584 566 - 620 602 - Stage 2 - - - - - 568 601 - 584 563 - Approach EB WB NB
Mov Cap-2 Maneuver - - - - 250 294 - 280 293 - Stage 1 - - - - - 584 566 - 620 602 - Stage 2 - - - - - 568 601 - 584 563 - Approach EB WB NB
Stage 1 - - - - 584 566 - 620 602 - Stage 2 - - - - - 568 601 - 584 563 - Approach EB WB NB SB HCM Control Delay, s 0.3 0 12.9 11.8 HCM LOS B B B Minor Lane/Major Mvmt NBLn1 EBL EBT EBR WBL WBT WBR SBLn1 Capacity (veh/h) 459 1143 - 1111 - - 572
Stage 2 - - - - - 568 601 - 584 563 - Approach EB WB NB SB HCM Control Delay, s 0.3 0 12.9 11.8 HCM LOS B B B Minor Lane/Major Mvmt NBLn1 EBL EBT EBR WBL WBT WBR SBLn1 Capacity (veh/h) 459 1143 - 1111 - - 572
Approach EB WB NB SB HCM Control Delay, s 0.3 0 12.9 11.8 HCM LOS B B B Minor Lane/Major Mvmt NBLn1 EBL EBT EBR WBL WBT WBR SBLn1 Capacity (veh/h) 459 1143 - - 1111 - - 572
HCM Control Delay, s 0.3 0 12.9 11.8 HCM LOS B B B
HCM Control Delay, s 0.3 0 12.9 11.8 HCM LOS B B B
HCM LOS B B Minor Lane/Major Mvmt NBLn1 EBL EBT EBR WBL WBT WBR SBLn1 Capacity (veh/h) 459 1143 - - 1111 - - 572
Minor Lane/Major Mvmt NBLn1 EBL EBT EBR WBL WBT WBR SBLn1 Capacity (veh/h) 459 1143 1111 572
Capacity (veh/h) 459 1143 1111 572
Capacity (veh/h) 459 1143 1111 572
HCM Control Delay (s) 12.9 8.2 8.2 11.8
HCM Lane LOS B A A B
HCM 95th %tile Q(veh) 0 0 0.2

Intersection												
Int Delay, s/veh	2.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ች	1		ች		7		4			44	
Traffic Vol. veh/h	71	259	6	2	239	10	9	0	0	4	0	49
Future Vol, veh/h	71	259	6	2	239	10	9	0	0	4	0	49
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	_	None	-	-	None
Storage Length	150	-	-	125	-	125	-	-	-	-	-	-
Veh in Median Storage	e, # -	0	-	-	0	_	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	5	5	5	7	7	7	0	0	0	4	4	4
Mvmt Flow	83	301	7	2	278	12	10	0	0	5	0	57
Major/Minor I	Major1			Major2		<u> </u>	Minor1			Minor2		
Conflicting Flow All	290	0	0	308	0	0	788	765	305	753	756	278
Stage 1	-	-	-	-	-	-	471	471	-	282	282	-
Stage 2	-	-	-	-	-	-	317	294	-	471	474	-
Critical Hdwy	4.15	-	-	4.17	-	-	7.1	6.5	6.2	7.14	6.54	6.24
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.14	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.14	5.54	-
Follow-up Hdwy	2.245	-	-	2.263	-	-	3.5	4	3.3	3.536	4.036	3.336
Pot Cap-1 Maneuver	1255	-	-	1225	-	-	311	336	740	324	335	756
Stage 1	-	-	-	-	-	-	577	563	-	721	674	-
Stage 2	-	-	-		-	-	698	673	-	570	554	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1255	-	-	1225	-	-	273	313	740	307	312	756
Mov Cap-2 Maneuver	-	-	-	-	-	-	273	313	-	307	312	-
Stage 1	-	-	-	-	-	-	539	526	-	673	673	-
Stage 2	-	-	-	-	-	-	644	672	-	532	517	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.7			0.1			18.7			10.8		
HCM LOS							С			В		
Minor Lane/Major Mvm	nt 1	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1			
Capacity (veh/h)		273	1255	-	-	1225	-		681			
HCM Lane V/C Ratio		0.038		-	-	0.002	-	-	0.09			
HCM Control Delay (s)		18.7	8.1	-	-	7.9	-	-	10.8			
HCM Lane LOS		С	Α	-	-	A	-	-	В			
HCM 95th %tile Q(veh))	0.1	0.2	-	-	0	-	-	0.3			

Intersection												
Int Delay, s/veh	3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Traffic Vol, veh/h	40	277	3	2	241	24	0	1	3	33	8	72
Future Vol, veh/h	40	277	3	2	241	24	0	1	3	33	8	72
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage	, # -	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	4	4	4	3	3	3	0	0	0	1	1	1
Mvmt Flow	50	346	4	3	301	30	0	1	4	41	10	90
Major/Minor I	Major1			Major2		1	Minor1		1	Minor2		
Conflicting Flow All	331	0	0	350	0	0	820	785	348	773	772	316
Stage 1	-	-	-	-	-	-	448	448	-	322	322	-
Stage 2	-	-	-	-	-	-	372	337	-	451	450	-
Critical Hdwy	4.14	-	-	4.13	_	-	7.1	6.5	6.2	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.11	5.51	-
Follow-up Hdwy	2.236	-	-	2.227	-	-	3.5	4	3.3	3.509	4.009	3.309
Pot Cap-1 Maneuver	1217	-	-	1203	-	-	296	327	700	317	331	727
Stage 1	-	-	-	-	-	-	594	576	-	692	653	-
Stage 2	-	-	-	-	-	-	653	645	-	590	573	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1217	-	-	1203	-	-	243	309	700	301	313	727
Mov Cap-2 Maneuver	-	-	-	-	-	-	243	309	-	301	313	-
Stage 1	-	-	-	-	-	-	564	547	-	657	651	-
Stage 2	-	-	-	-	-	-	562	643	-	556	544	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1			0.1			11.8			15.5		
HCM LOS							В			С		
Minor Lane/Major Mvm	nt 1	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR :	SBLn1			
Capacity (veh/h)			1217	_		1203	-	_	482			
HCM Lane V/C Ratio		0.009		-		0.002	_	_	0.293			
HCM Control Delay (s)		11.8	8.1	0	-	8	0	-	15.5			
HCM Lane LOS		В	Α	A	-	A	A	-	С			
HCM 95th %tile Q(veh))	0	0.1	-	-	0	-	-	1.2			
.,												

Intersection												
Int Delay, s/veh	2.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	LDL	₽	LDIX	VVDL	<u>₩Ы</u>	WDIX	NDL	4	NOIN	ODL	וטט	7
Traffic Vol, veh/h	0	235	98	19	225	0	71	0	11	0	0	0
Future Vol, veh/h	0	235	98	19	225	0	71	0	11	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	_	-	-	_	-	-	_	-	-	_	0
Veh in Median Storage,	# -	0	-	-	0	-	_	0	-	_	0	_
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	5	5	5	4	4	4	0	0	0	0	0	0
Mvmt Flow	0	270	113	22	259	0	82	0	13	0	0	0
Major/Minor N	1ajor1			Major2		N	/linor1		N	/linor2		
Conflicting Flow All	-	0	0	383	0	0	630	630	328	-	-	259
Stage 1	-	-	-	-	-	-	327	327	-	-	-	-
Stage 2	-	-	-	-	-	-	303	303	-	-	-	-
Critical Hdwy	-	-	-	4.14	-	-	7.1	6.5	6.2	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	-	-	-
Follow-up Hdwy	-	-	-	2.236	-	-	3.5	4	3.3	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	1165	-	0	397	401	718	0	0	785
Stage 1	0	-	-	-	-	0	690	651	-	0	0	-
Stage 2	0	-	-	-	-	0	711	667	-	0	0	-
Platoon blocked, %		-	-		-							
Mov Cap-1 Maneuver	-	-	-	1165	-	-	390	392	717	-	-	785
Mov Cap-2 Maneuver	-	-	-	-	-	-	390	392	-	-	-	-
Stage 1	-	-	-	-	-	-	690	651	-	-	-	-
Stage 2	-	-	-	-	-	-	695	652	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.6			16.2			0		
HCM LOS							С			Α		
Minor Lane/Major Mvmt	: 1	NBLn1	EBT	EBR	WBL	WBT S	SBLn1					
Capacity (veh/h)		415	-		1165	-	-					
HCM Lane V/C Ratio		0.227	_		0.019	-	-					
HCM Control Delay (s)		16.2	-	-	8.1	0	0					
HCM Lane LOS		С	-	-	Α	A	A					
HCM 95th %tile Q(veh)		0.9	-	-	0.1	-	-					

Intersection												
Int Delay, s/veh	6.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Traffic Vol, veh/h	0	25	0	29	24	9	2	19	29	12	26	2
Future Vol, veh/h	0	25	0	29	24	9	2	19	29	12	26	2
Conflicting Peds, #/hr	3	0	1	1	0	3	2	0	1	1	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage,	,# -	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	69	69	69	69	69	69	69	69	69	69	69	69
Heavy Vehicles, %	0	0	0	2	2	2	0	0	0	3	3	3
Mvmt Flow	0	36	0	42	35	13	3	28	42	17	38	3
Major/Minor N	/lajor1		ľ	Major2		ı	Minor1		ı	Minor2		
Conflicting Flow All	51	0	0	37	0	0	185	172	38	201	166	47
Stage 1	-	-	-	-	-	-	37	37	-	129	129	-
Stage 2	-	-	-	-	-	-	148	135	-	72	37	-
Critical Hdwy	4.1	-	-	4.12	-	-	7.1	6.5	6.2	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.13	5.53	-
Follow-up Hdwy	2.2	-	-	2.218	-	-	3.5	4	3.3	3.527	4.027	3.327
Pot Cap-1 Maneuver	1568	-	-	1574	-	-	780	725	1040	755	725	1019
Stage 1	-	-	-	-	-	-	984	868	-	872	787	-
Stage 2	-	-	-	-	-	-	859	789	_	935	862	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1564	-	-	1573	-	-	729	703	1038	686	703	1014
Mov Cap-2 Maneuver	-	-	-	-	-	-	729	703	-	686	703	-
Stage 1	-	-	-	-	-	-	983	867	-	869	763	-
Stage 2	-	-	-	-	-	-	791	765	-	868	861	-
_												
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			3.4			9.5			10.5		
HCM LOS							A			В		
Minor Lane/Major Mvmt	h N	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR S	SBI n1			
Capacity (veh/h)		866	1564	-	-	1573	-	-	709			
HCM Lane V/C Ratio		0.084	1504	-		0.027	-		0.082			
HCM Control Delay (s)		9.5	0	-	-	7.4	0	_	10.5			
HCM Lane LOS		9.5 A	A	<u> </u>	_	7.4 A	A	_	10.5 B			
HCM 95th %tile Q(veh)		0.3	0		_	0.1	-	_	0.3			
HOW JOHN JOHN Q(VEII)		0.0	- 0			0.1			0.0			

Intersection												
Intersection Delay, s/veh	9.8											
Intersection LOS	Α											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Traffic Vol, veh/h	44	74	34	14	128	49	36	67	14	26	66	23
Future Vol, veh/h	44	74	34	14	128	49	36	67	14	26	66	23
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Heavy Vehicles, %	3	3	3	3	3	3	2	2	2	14	14	14
Mvmt Flow	54	91	42	17	158	60	44	83	17	32	81	28

Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	1			1			1			1		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	1			1			1			1		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	1			1			1			1		
HCM Control Delay	9.7			10.1			9.6			9.8		
HCM LOS	Α			В			Α			Α		

Lane	NBLn1	EBLn1	WBLn1	SBLn1	
Vol Left, %	31%	29%	7%	23%	
Vol Thru, %	57%	49%	67%	57%	
Vol Right, %	12%	22%	26%	20%	
Sign Control	Stop	Stop	Stop	Stop	
Traffic Vol by Lane	117	152	191	115	
LT Vol	36	44	14	26	
Through Vol	67	74	128	66	
RT Vol	14	34	49	23	
Lane Flow Rate	144	188	236	142	
Geometry Grp	1	1	1	1	
Degree of Util (X)	0.206	0.256	0.314	0.208	
Departure Headway (Hd)	5.134	4.906	4.787	5.272	
Convergence, Y/N	Yes	Yes	Yes	Yes	
Cap	690	724	743	673	
Service Time	3.227	2.987	2.863	3.366	
HCM Lane V/C Ratio	0.209	0.26	0.318	0.211	
HCM Control Delay	9.6	9.7	10.1	9.8	
HCM Lane LOS	А	Α	В	Α	
HCM 95th-tile Q	8.0	1	1.3	0.8	

intersection	
Intersection Delay, s/veh	7.5
Intersection LOS	Α

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Traffic Vol, veh/h	24	41	19	1	26	5	17	7	3	4	10	28
Future Vol, veh/h	24	41	19	1	26	5	17	7	3	4	10	28
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles, %	3	3	3	6	6	6	12	12	12	3	3	3
Mvmt Flow	28	47	22	1	30	6	20	8	3	5	11	32
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	1			1			1			1		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	1			1			1			1		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	1			1			1			1		
HCM Control Delay	7.6			7.4			7.7			7.1		
HCM LOS	Α			Α			Α			Α		

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	63%	29%	3%	10%
Vol Thru, %	26%	49%	81%	24%
Vol Right, %	11%	23%	16%	67%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	27	84	32	42
LT Vol	17	24	1	4
Through Vol	7	41	26	10
RT Vol	3	19	5	28
Lane Flow Rate	31	97	37	48
Geometry Grp	1	1	1	1
Degree of Util (X)	0.038	0.108	0.042	0.051
Departure Headway (Hd)	4.433	4.039	4.127	3.825
Convergence, Y/N	Yes	Yes	Yes	Yes
Сар	800	883	861	925
Service Time	2.501	2.082	2.182	1.894
HCM Lane V/C Ratio	0.039	0.11	0.043	0.052
HCM Control Delay	7.7	7.6	7.4	7.1
HCM Lane LOS	Α	Α	Α	Α
HCM 95th-tile Q	0.1	0.4	0.1	0.2

FUTURE FORECASTING -TECHNICAL MEMORANDUM #5 (DRAFT)

DATE: June 28, 2023

TO: Project Management Team

FROM: Garth Appanaitis | DKS Associates

Eileen Chai I DKS Associates

Emilio Calderon | DKS Associates

SUBJECT: Sweet Home TSP and NSHA Refinement Plan

TM#5 Future Forecasting

Project #P20020-015

INTRODUCTION

Future traffic forecasting is an important step in the transportation planning process and provides estimates of future travel demand. This memorandum documents the traffic forecasting methodology and results associated with the small community model developed for the Sweet Home Transportation System Plan (TSP) Update. The small community modeling approach, in conjunction with post-processing, provides study intersection turn movement forecasts for the 2045 TSP horizon year. These traffic volumes will be analyzed during future steps in the TSP update to identify future traffic needs.

METHODOLOGY OVERVIEW

The forecasting methodology associated with the small community model (also referred as enhanced zonal cumulative analysis or EZCA) expands upon a cumulative analysis approach, as defined in the Oregon Department of Transportation (ODOT) Transportation Planning Analysis Unit's (TPAU's) *Analysis Procedures Manual Version 2 (APM V2)*. In the context of the traditional 4-step travel demand model approach, the typical cumulative analysis is used for trip generation and trip distribution purposes only. The result is a trip table (for growth increment only) that is used as an input into traffic assignment where analysis is completed by manually assigning the new trips to a street network and then adding them to existing traffic volumes to estimate future volumes.

The enhanced zonal cumulative analysis tool uses the same trip generation and trip distribution methodology as the typical cumulative analysis, but it applies the methodology to all land uses within the city (i.e., both existing uses as well as any future development based on a land use inventory). The enhanced tool then uses Visum modeling software and incorporates intersection node delay to complete the equilibrium trip assignment. The result is an improved traffic volume forecasting tool that dynamically assigns both new and existing trips to the transportation network using an equilibrium assignment procedure that represents routing choice more accurately than manual assignment because it is responsive to varying levels of congestion and delay as traffic

patterns change. This tool enables a more comprehensive analysis of future conditions and potential TSP alternatives.

The following sections of this memorandum detail each component of the travel forecast methodology associated with the small community model including: the roadway network, transportation analysis zones (TAZs), land use, and travel demand. The resulting 2045 future projected volumes are also provided.

FORECAST TOOL COMPONENTS

The following sections summarize the forecast tool components that are used to forecast the future traffic volumes.

ROADWAY NETWORK

The roadway network included in the Sweet Home TSP Visum forecast tool consists of the arterial and collector roadways along with most local public streets within the Sweet Home Urban Growth Boundary (UGB). The roadway network is also extended beyond the UGB to capture potential regional routing decisions that could result from future trips to/from Sweet Home and/or conditions in the local street system. These areas outside the UGB included in the model for routing potential routing purposes include:

- N River Drive (north side of model area)
- Wiley Creek Road (east side of model area)
- Shea Hill Drive (east side of model area)

An existing roadway network was created using centerline data from Open Street Map. Additional roadway attributes were added based on an existing conditions inventory that included posted speeds, traffic control, lane geometries, and number of travel lanes. The purpose of the existing conditions network was to configure the forecast tool and act as a base in the development of the future tool.

The 2045 future year baseline roadway network was then developed to represent the 2045 No-Build conditions. No committed transportation improvements were identified within the model area that are expected to influence traffic routing. Therefore, the 2045 No Build network is identical to the 2021 network. The 2045 future year network will be further refined as it is used to perform analysis of the various transportation alternatives and improvements to be analyzed for the Sweet Home TSP Update.

TRANSPORTATION ANALYSIS ZONES

For transportation forecasting purposes, the Sweet Home UGB was divided into 40 transportation analysis zones (TAZs), which represent the location of various land uses and sources of vehicle trip generation within the city. These TAZ boundaries were determined based on geographical and physical features allowing the best representation of access for an area, along with maintaining homogenous land use types as much as possible (e.g. residential, commercial, etc.). Centroid

connectors were located to best represent access to the street network and major parking facilities. Additionally, there are 4 rural zones that are located to the north of Sweet Home. These rural zones are included to capture land use and trip patterns interactions with areas inside the UGB. The internal TAZs are shown in Figure 1.

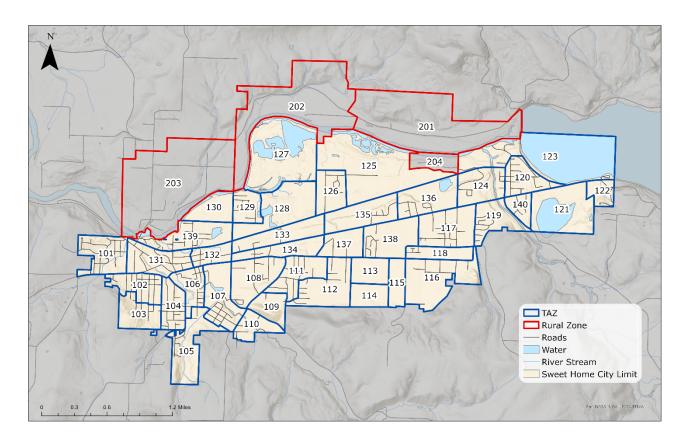


FIGURE 1: SWEET HOME TAZ MAP

LAND USE

Land use is a key factor affecting travel demands placed on Sweet Home's transportation system. The location, density, type, and mix of land uses have a direct impact on traffic levels and patterns. An existing 2021 land use inventory and future 2045 land use projection were performed for each TAZ in the Sweet Home UGB based on existing uses, zoning, and anticipated development patterns.

The housing and employment forecasts used for this TSP analysis relied heavily on three key sources of data:

• The Portland State University Population Research Center prepared the *Coordinated Population Forecast*, 2015 through 2065, for Sweet Home County Urban Growth Boundaries (UGB) and Area Outside UGBs, which provided the population forecast data.

- The 2021 American Community Survey, which provided average persons per household data.
- Oregon Employment Department inventory of Covered Employers and Employment that summarizes the job type and location of employers

The base 2021 land use inventory approximated the number of households and the amount of retail employment, service employment, educational employment, and other employment that currently exist in each TAZ. Existing employment land uses within Sweet Home were obtained from Oregon Employment Department data and a review of other data sources (tax assessor data, census data, and zoning data and compared with existing aerial photography). The existing land uses correspond to a population of 9,461 residents, which is based on Portland State University Population Research Center estimates. This corresponds to approximately 3,931 households based on an average household size of 2.46 (US Census data).

The future 2045 land use projection is an estimate of the amount of each land use (household and employment) that the TAZ could reasonably accommodate given market conditions and current build-out of vacant or underdeveloped lands assuming Comprehensive Plan zoning. The projected land uses correspond to a year 2045 population projection of approximately 11,246 residents, which corresponds to a 19 percent growth through the planning horizon.

A summary of the existing land use estimates and future projections for the entire Sweet Home UGB is listed in Table 1.

Table 1. Sweet Home UGB Land Use Summary

Land Use / Growth Category	Existing 2020 Quantities	Total Growth 2020 to 2044	Future 2045 Quantities
Population	9,461	1,785 (+19%)	11,246
Households	3,931	641 (+16%)	4,572
Employees			
Retail	х	х	х
Service	х	х	х
Education	х	х	х
Other	х	х	х
Total	х	х	х

TRAVEL DEMANDS

Travel demand on roadways and at intersections in Sweet Home was estimated using the ODOT APM V2 methodology for the EZCA method. This methodology included estimating all vehicle trips (not just growth increment), adjusting the trip distribution to reduce household-to-household trips, and using Visum modeling software to perform the trip assignment. Travel forecasting was performed for the 30th highest hour conditions for both 2021 and 2045. The purpose of the 2021 forecast tool was to calibrate the network in preparation for developing the 2045 network, which would then be used for future analysis.

The travel demand analysis includes the translation of City land use information into motor vehicle trips. This was done for each of the TAZs based on the existing and projected land uses described previously in the Land Use section of this memorandum. Trips traveling to and from the external TAZs were also estimated for both the 2021 and 2045 analysis years. This section of the memorandum describes the methodology used to determine the different trip types and how the trips were distributed and assigned to the roadway network.

TRIP TYPES

Travel forecast projections involve the determination of three distinct types of trips, which are categorized based on whether their origin and/or destination (i.e., the trip ends) are internal or external to the Sweet Home UGB. The three trip types and how they apply to Sweet Home are:

- External-External (E-E) Trips do not have an origin or destination in Sweet Home and either do not stop or only make a very minor stop while passing through the Sweet Home UGB. These trips are typically referred to as "through traffic." An example would be a person from Corvallis traveling on US 20 while heading to Bend.
- Internal-External (I-E) Trips originate in Sweet Home and are traveling to a location outside of the Sweet Home UGB (e.g., someone working in Sweet Home that returns north to Lebanon in the evening), while External-Internal (E-I) Trips originate outside of the Sweet Home UGB and are traveling to a location within Sweet Home (e.g., someone from Lebanon traveling into Sweet Home for shopping).
- **Internal-Internal (I-I) Trips** travel from one location within the Sweet Home UGB to another location within the UGB. An example would be a person traveling between their office and home within Sweet Home.

EXTERNAL TRIP ENDS

External trip ends are the origin and/or destination of E-E, I-E, or E-I trips and were estimated for both 2021 and 2045 and for 30th highest hour conditions at each of the gateways.

The number of 2021 external trip ends was based on existing traffic volumes at key gateways to the city:

North: US 20 north of Osage St

• East: Oregon 228 (Halsey-Sweet Home Highway) east of Fern Ridge Rd/Rowell Hill Rd

South: Old Holley Road east of Elkhorn St

South: 21st Avenue southwest of Cedar St

South: Ames Creek Road west of Surrey Ln

South: 43rd Avenue south of Coulter Ln

South: 50th Ave to the south of Airport Rd

· South: Wiley Creek Road east of Riggs Hill Rd

East: Shea Hill Drive east Riggs Hill Rd

East: US 20 east of Riggs Hill Rd/Shea Viewpoint

North: N River Drive east of Foster Dam Rd

North: Pleasant Valley Road north of Northside Drive

Replica¹, a web-based data model that includes travel estimation, was used to estimate the portion of through traffic compared to the portion of traffic with either an origin or destination within Sweet Home. The Replica data model is based on "big data" (mobile network) sources and reflects travel trends experienced over a duration of time. The datasets provides an estimate of travel behavior based on sampled conditions. The regional travel patterns and trip types are summarized in Table 2.

Table 2. Regional Travel Patterns Observed at External Gateways

	Percent Ente	ering Traffic	Percent Exiting Traffic		
Gateway	With a Destination in Sweet Home	With an External Destination	With an Origin in Sweet Home	With an External Origin	
North: US 20 north of Osage St	72%	28%	87%	13%	
East: Oregon 228 east of Fern Ridge Rd/Rowell Hill Rd	78%	22%	72%	28%	
South: Old Holley Road east of Elkhorn St	78%	22%	83%	17%	
South: 21st Avenue southwest of Cedar St	39%	61%	35%	65%	
South: Ames Creek Road west of Surrey Ln	51%	49%	40%	60%	
South: 43rd Avenue south of Coulter Ln	57%	43%	50%	50%	
South: 50th Ave to the south of Airport Rd	50%	50%	55%	45%	

SWEET HOME TSP • TECHNICAL MEMO #5 (DRAFT) • JUNE 30, 2023

¹ https://www.replicahq.com/

South: Wiley Creek Road east of Riggs Hill Rd	40%	60%	52%	49%
East: Shea Hill Drive east Riggs Hill Rd	50%	50%	25%	75%
East: US 20 east of Riggs Hill Rd/Shea Viewpoint	20%	80%	17%	83%
North: N River Drive east of Foster Dam Rd	45%	55%	35%	65%
North: Pleasant Valley Road north of Northside Drive	67%	33%	65%	35%
Average of All Gateways	54%	46%	51%	49%

Source: Replica Trip Count Data taken from 3:00-7:00pm

Table 2 indicates that the majority of external gateways have a trip end (origin or destination) in Sweet Home. Approximately 20 to 60 percent of external trips (varies by location) are also destined to another external location as a "through trip." The east end of US 20 includes the highest portion of external trips – approximately 80 percent of these trips travel through Sweet Home.

The external trip ends that have an internal pair are modeled to pair with the internal trip ends of corresponding land uses within the city (e.g., housing and employment). This modeling process is explained further in the "Trip Distribution" section of this memorandum.

Growth estimates were applied to each gateway to determine 2045 external trip ends for through traffic. The ODOT Future Projected Annual Average Daily Traffic Tables provided data for estimating future growth. The annual growth rates and associated growth factors for each external gateway are shown in Table 3.

Table 3. External Gateway Growth Forecasts for Sweet Home

Gateway	2021 AADT	2041 AADT	Annual Growth Rate	Growth Factor (From 2021 to 2041)
US 20, east of Osage St	10614	11000	0.18%	1.04
OR 228, east of Fern Ridge Rd	4318	4500	0.21%	1.04
US 20, east if Riggs Hill Rd	2262	2400	0.31%	1.06

Source: ODOT Future Projected Annual Average Daily Traffic Tables, Calculated annual growth forecasts

As listed in Table 3, traffic volumes at external gateways are expected to grow by four to six percent total over the 20 year period of 2021 to 2041.

INTERNAL TRIP ENDS

The number of internal trip ends in Sweet Home was determined using a land use-based trip generation methodology, which translates land use quantities (number of dwelling units or number of employees) into vehicle trip ends (number of vehicles entering or leaving a TAZ) based on empirically-derived trip generation rates. Weekday PM peak hour trip generation rates used in the forecast tool are listed in Table 4 for the applicable land uses. These rates were generally developed based on the Institute of Transportation Engineers (ITE) *Trip Generation Manual* and calibrated to observed traffic counts in Sweet Home.

Table 4. Average Weekday PM Peak Hour Trip Generation Rates by Land Use

Land Use	Trips In	Trips Out	Total Trip Ends
Single-family households (per dwelling unit)	0.50	0.30	0.80
Multi-family households (per dwelling unit)	0.40	0.20	0.60
Retail (per employee)	1.88	2.12	4.00
Service (per employee)	0.66	0.84	1.50
Education (per employee)	1.44	1.56	3.00
Other (per employee)	0.05	0.25	0.30

Source: Institute of Transportation Engineers Trip Generation Manual and local traffic counts

By applying these trip generation rates to the TAZ land uses, the number of trips entering and exiting each TAZ in Sweet Home was estimated. Internal trip estimates were obtained for both the existing 2021 land uses and the projected 2045 land uses.

TRIP DISTRIBUTION

Trip distribution was performed to estimate how many trips travel between each of the internal TAZs. Distribution for trips traveling to and from internal zones (i.e., trips having at least one internal trip end) was based on weighting the attractiveness of each zone, as measured by the number of trip ends generated by the zone.

The forecasting model is based on a trip table that describes the internal and external trip ends for each trip within the network. To develop this trip table, External-to-External (E-E) trips are

matched based on the external trip probabilities. Next, all remaining external trips (I-E and E-I) are paired with appropriate internal trip ends. These trips represent the inbound and outbound travel for Sweet Home residents and employees, respectively. Finally, the Internal-Internal (I-I) trip pairs are determined based on the land uses within Sweet Home. Note that the rural zones adjacent to Sweet Home (but outside the UGB) were also considered for I-I trip purposes.

TRIP ASSIGNMENT

Trip assignment involves the determination of the specific travel routes taken by the trips within the transportation network. This step was performed using Visum modeling software. Forecast tool inputs included the transportation network (i.e., road and intersection locations and characteristics, as determined from maps and field inventories) and a trip distribution table (described in prior sections). Iterated equilibrium assignment was then performed using estimated travel times along roadways and delays at intersection movements. The path choice for each trip was based on minimal travel times between locations. Forecast tool outputs include traffic volumes on roadway segments and at intersections.

CALIBRATION

Calibration will be performed on the 2021 base year forecast tools by comparing forecast tool turn volumes at the Sweet Home TSP study intersections with actual counted (measured) 2021 traffic volumes. A plot comparing the measured traffic volumes and the base year forecast tool volumes for all study intersection turn movements will be analyzed to evaluate the accuracy of each forecast tool.

FORECAST TOOL VOLUMES AND POST-PROCESSING

Forecast tool traffic growth plots (2045 minus 2021) for the design hour forecast tool will be included in the appendix. While the travel demand forecast tools were calibrated to local conditions and volumes, raw volumes from the tools are not used for capacity analysis. Rather, motor vehicle turn movement volume forecasts will be developed using post-processing methods consistent with the ODOT APM V2. This approach is derived from methodologies outlined in the National Cooperative Highway Research Program (NCHRP) Report 765, *Analytical Travel Forecasting Approaches for Project-Level Planning and Design*.

The post-processing methodology involves estimating trip growth at the intersection approach level (i.e., volume differences between base and future forecast tools), scaling the growth by the number of forecast years (i.e., forecast years divided by difference in forecast tool years), and adding these volumes to existing traffic counts. Engineering judgment is used as part of the post-processing methodology, with the routing decisions identified by the forecasting tool serving as a reference for making volume adjustments. The results of this process are future year forecasts derived from the Sweet Home enhanced cumulative analysis forecasting tool that are calibrated to observed data. The year 2045 traffic volume forecasts will serve as a future base volume forecast from which future conditions will be evaluated in subsequent memoranda.

Attachments:

• Figure A1 – Household Growth by TAZ

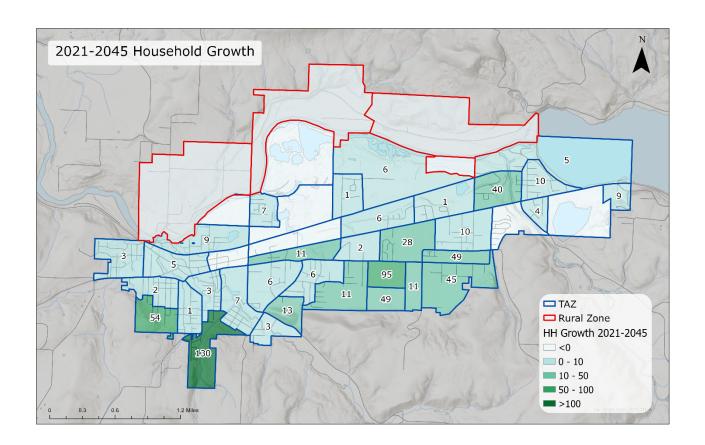


FIGURE A1: SWEET HOME 2021-2045 HOUSEHOLD GROWTH



TECHNICAL MEMORANDUM #6 (DRAFT)

DATE: December 10, 2024

TO: Project Management Team

FROM: Garth Appanaitis, PE | DKS Associates

Hallie Turk | DKS Associates

Emily D'Antonio | DKS Associates

SUBJECT: Task 4.2 Sweet Home TSP Future Alternatives and

Funding Opportunities

Project #20020-015

INTRODUCTION

The purpose of this memorandum is to identify transportation projects that address the deficiencies and needs for Sweet Home's transportation network outlined in TM #5. These projects are intended to help Sweet Home manage its transportation system by moving towards the community's goals while accommodating future growth.

The following sections describe Sweet Home's transportation needs with respect to motor vehicles, active transportation modes, freight, and safety, along with recommended alternatives to address each need. The projects are categorized accordingly:

- Motor Vehicle Capacity (C)
- Active Transportation (A)
- Railroad (R)
- Safety (S)
- Smart Mobility (E)

The memorandum also summarizes existing and potential transportation revenue sources for the City to consider.

PROJECT CONSIDERATIONS

Projects that propose changing an intersection's traffic control on ODOT's system would require additional study as part of an Intersection Control Evaluation (ICE) to be conducted prior to design in accordance with ODOT standards to determine the appropriate control treatment.

In addition, it should be noted that Main Street (US 20) is an ODOT-designated reduction review route. Any proposed projects on Main Street must be planned, designed, and constructed in coordination with the Mobility Advisory Committee (MAC).

PROJECT EVALUATION PROCESS

The following sections identify potential solutions to address the various transportation needs. Each project was evaluated using ten criteria to determine alignment with the transportation goals. These goals and criteria include:

- Goal 1: Mobility, Accessibility, Connectivity
 - Improves vehicle capacity and/or network connectivity
 - Improves active transportation network
- Goal 2: Safety
 - o Improves safety for all modes
 - Mitigate crash risk at existing high-crash locations
- Goal 3: Quality of Life
 - Connect the City through bicycle and pedestrian paths
 - Minimize impacts on existing land uses
- Goal 4: Economic Development
 - Provide facilities to connect the public to downtown and recreational opportunities
 - Manage arterials
- Goal 5: System Management and Maintenance
 - Streets should operate with their intended purpose
 - Support growth and/or maximize travel options

Each criterion was evaluated on a score of 1 to 5 based on how well each criteria was addressed. A maximum score of 50 would indicate a project that aligned well with all transportation criteria. The project scoring matrix and additional information about the criteria are included in the appendix. The project scoring does not directly infer project priority, but may be used to develop prioritization strategies with the preferred project list.

MOTOR VEHICLE ALTERNATIVES

VEHICLE CAPACITY NEEDS

FUTURE VEHICLE CAPACITY NEEDS

Future traffic operations and needs were identified for year 2045 at study intersections using HCM 6th Edition methodology. The results were then compared with the minimum acceptable operating standards, as shown in Table 1. Four intersections would not meet mobility standards in year 2045. Per Table 1, the intersections of Main Street (US 20)/Pleasant Valley Road, Main Street (US 20)/22nd Avenue, Main Street (US 20)/Clark Mill Road, and Main Street (US 20)/47th Avenue are expected to have operational deficiencies in the future baseline 2045 scenario.

TABLE 1. EXISTING (2021) AND FUTURE BASELINE (2045) OPERATIONS AT STUDY INTERSECTIONS THAT EXCEED MOBILITY STANDARD

INTERCECTION	CONTROL	MOBILITY	EXISTING DBILITY			FUTURE 2045		
INTERSECTION	TYPE ^A	STANDARD	LOS	DELAY ^B (SEC)	V/C ^c	LOS	DELAY (SEC)	V/C
1. MAIN STREET (US 20) AND PLEASANT VALLEY ROAD	TWSC	v/c ≤ 0.85	A/F	10/97	0.23 / 0.91	A/F	10/>100	0.25 / 1.05
6. MAIN STREET (US 20) AND 22 ND AVENUE	TWSC	v/c ≤ 0.90	A/E	10/35	0.20/ 0.34	B/F	12/>100	0.32/ 1.58
8. MAIN STREET (US 20) AND CLARK MILL ROAD	TWSC	v/c ≤ 0.85	A/C	9/19	0.17/ 0.16	B/F	13/>100	0.36/ 3.06
10. MAIN STREET (US 20) AND 47 TH AVENUE	TWSC	v/c ≤ 0.85	A/C	9/19	0.14/ 0.16	A/F	10/>100	0.26/ 1.67

A. AWSC: All Way Stop Control, TWSC: Two Way Stop Control

Note: Projects that propose changing an intersection's traffic control on ODOT's system would require additional study as part of an Intersection Control Evaluation (ICE) to be conducted prior to design in accordance with ODOT standards to determine the appropriate control treatment, including consideration for traffic signal warrants.

In addition, it should be noted that Main Street (US 20) is an ODOT-designated reduction review route. Any proposed projects on Main Street must be planned, designed, and constructed in coordination with the Mobility Advisory Committee (MAC).

The intersection of Main Street (US 20)/Pleasant Valley Road is currently a two-way stop-controlled intersection that does not meet mobility standards under existing conditions and is projected to further degrade with additional traffic growth. This location provides access to a river crossing on the west side of Sweet Home. This location may be a good candidate for a roundabout to serve as a gateway treatment on the west side of town, improve awareness of travelers entering the urban area, and reduce vehicle speeds entering the downtown area. A roundabout concept would likely require additional right of way to accommodate design vehicles and freight movements along the highway. A traffic signal at this location would also improve mobility, however it would not provide the other benefits that a roundabout could provide at this location.

The other three intersections on Main Street (US 20) (22nd Avenue, Clark Mill Road, and 47th Avenue) are currently two-way stop controlled intersections that are not expected to meet mobility standards under future baseline conditions in 2045. These intersections would all likely serve future

B. Overall intersection measures reported for signal and AWSC intersections. The worst approach for major/minor approaches is reported for TWSC intersections.

C. Values in **Bold/Highlighted** exceed mobility standards.

growth in the North Sweet Home Area (NSHA) and the timing of the improvements would likely coincide with development. The specific needs for when these locations would meet signal warrants would likely depend on the degree of development and connectivity within the NSHA. Constructing a traffic signal at these locations would increase the intersection's capacity to accommodate future volumes and growth in the NSHA.

VEHICLE CAPACITY PROJECTS

Vehicle capacity projects were identified based on expected vehicle capacity deficiencies in 2045. Table 2 lists vehicle capacity projects.

TABLE 2. PRELIMINARY VEHICLE CAPACITY PROJECTS

Project ID	Project Name	Description
C1	Main Street/Pleasant Valley Road Roundabout	Construct a traffic control upgrade at Main Street (US 20)/Pleasant Valley Road. Location may be candidate for a roundabout.
C2	Main Street/22nd Avenue Signal	Construct a traffic control upgrade at Main Street (US 20)/22nd Avenue. Location may be candidate for a traffic signal.
С3	Main Street/Clark Mill Road Signal	Construct a traffic control upgrade at Main Street (US 20)/Clark Mill Road. Location may be candidate for a traffic signal.
C4	Main Street/47th Avenue	Construct a traffic control upgrade at Main Street (US 20)/47th Avenue. Location may be candidate for a traffic signal.

ACCESS MANAGEMENT

State law (OAR 734-051) authorizes ODOT and local governments to regulate new access from state and local roads when new development is proposed. In some cases where safety is a concern, ODOT and local governments may require modifications to existing driveways or private roads. Access management refers to the application of these regulations as well as various strategies intended to maintain or improve safety and mobility along a corridor or other planning area.

Access management strategies include:

- Consolidating driveways to reduce the number of turning movements, which are potential points of conflict
- Relocating driveways to increase the spacing between them
- Providing turn lanes to allow vehicles to move out of the travel lane when turning

- Widening driveways to allow for a larger radius and higher-speed travel path into and out of the driveway
- Restricting turning movements to right-in-right-out to eliminate hazardous left-turn movements

Implementing access management strategies is complicated because property owners have certain legal rights. Public agencies may be required to compensate property owners if an access is closed as part of a consolidation strategy. Small, constrained properties are especially challenging because there may not be an alternate access location.

Although there are no proposed projects to address access management in Sweet Home, the project team identified locations that may be considered for access management strategies in the future due to the high density of existing access:

- Main Street (US 20) from 4th Avenue to 11th Avenue,
- Long Street from 10th Avenue to 18th Avenue, and
- Main Street (US 20) from 53rd to 57th Avenue.

ACTIVE TRANSPORTATION ALTERNATIVES

PEDESTRIAN NEEDS

Sidewalks

There are significant sidewalk gaps along many collector and arterial streets in Sweet Home (shown in Figure 1), including Clark Mill Road, Long Street, Mountain View Road, 47th Avenue, and 53rd Avenue.

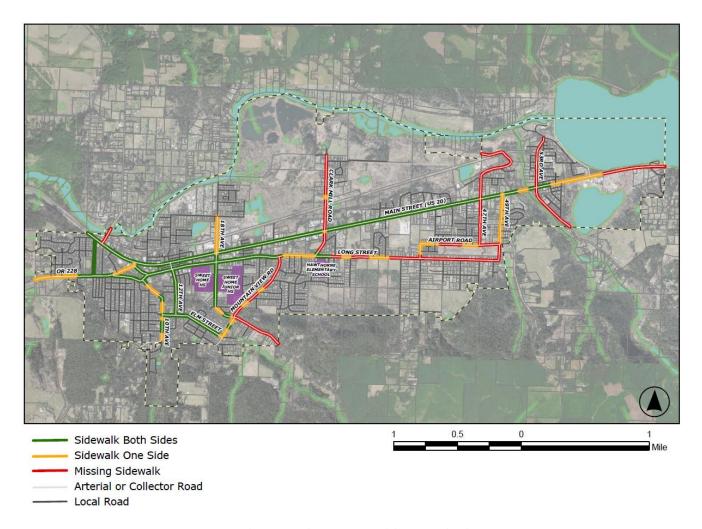


FIGURE 1. SIDEWALK CONDITIONS

PEDESTRIAN PROJECTS

Pedestrian projects were identified based on existing gaps in sidewalk facilities. Table 3 lists pedestrian-focused sidewalk infill projects.

TABLE 3. PRELIMINARY PEDESTRIAN-FOCUSED PROJECTS

Project ID	Project Name	Description
A1	Clark Mill Road Sidewalk Infill	Infill existing sidewalk gaps on Clark Mill Road
A2	Long Street Sidewalk Infill	Infill existing sidewalk gaps on Long Street
А3	Mountain View Road Sidewalk Infill	Infill existing sidewalk gaps on Mountain View Road
A4	47th Avenue Sidewalk Infill	Infill existing sidewalk gaps on 47th Avenue
A5	53rd Avenue Sidewalk Infill	Infill existing sidewalk gaps on 53rd Avenue

BICYCLE NEEDS

Bike Network Deficiencies

To identify bicycle facility needs in Sweet Home, bicycle level of traffic stress (bicycle LTS or BLTS) was evaluated for collector and arterial streets. Bicycle LTS is a measure used to assess the comfort and safety of bicycling conditions on different streets and routes, categorizing streets into four levels based on their traffic characteristics. For example, BLTS 1 represents very low stress conditions that are highly comfortable for cyclists, often having minimal traffic, low vehicle speeds, and dedicated bicycle facilities such as bike lanes or separated paths. BLTS 4 represents high stress conditions that are uncomfortable and potentially unsafe for bicyclists due to high traffic volumes, high vehicle speeds, and a lack of dedicated bicycle facilities.

As shown in Figure 2, several streets in Sweet Home maintain moderate or high-stress conditions for bicyclists, including Main Street, Long Street, Clark Mill Road, 10^{th} Avenue, Elm Street and 1^{st} Avenue.



FIGURE 2. BIKE LEVEL OF TRAFFIC STRESS

BICYCLE PROJECTS

Bicycle projects were identified depending on a location's BLTS and existing bicycle facility, emphasizing lowering BLTS to provide greater comfort for bicyclists. Table 4 lists bicycle-focused projects.

TABLE 4. PRELIMINARY BICYCLE PROJECTS

Project ID	Project Name	Description
A6	Main Street Bike Lanes	Construct bike lanes on Main Street (US 20) east of 18th Avenue; consider buffered bike lanes on Main Street (US 20) west of 18th Avenue
A7	Holley Road Bike Lanes	Construct bike lanes on Holley Road
A8	Long Street Bike Lane Infill	Infill gaps in bike lanes on Long Street
А9	Airport Road Bike Lanes	Construct bike lanes on Airport Road
A10	47th Avenue Bike Lanes	Construct bike lanes on 47th Avenue
A11	49th Avenue Bike Lanes	Construct bike lanes on 49th Avenue
A12	53rd Avenue and Wiley Creek Drive Bike Lanes	Construct bike lanes on 53rd Avenue and Wiley Creek Drive
A13	18th Avenue/Ames Creek Road Bike Lanes	Construct bike lanes on 18th Avenue and Ames Creek Road
A14	Mountain View Road Bike Lanes	Construct bike lanes on Mountain View Road
A15	Elm Street Bike Lanes	Construct bike lanes on Elm Street
	Lanes	

SAFE ROUTES TO SCHOOL

The City's adopted Safe Routes to School (SRTS) Plan¹ lists 23 recommended improvements near Sweet Home High School and Sweet Home Junior High School. The projects are focused on crossings and sidewalk improvements.

Figure 3 shows a map of projects recommended by the Sweet Home SRTS Plan. Table 5 lists the SRTS projects added to the TSP. All 23 projects are included in the TSP.

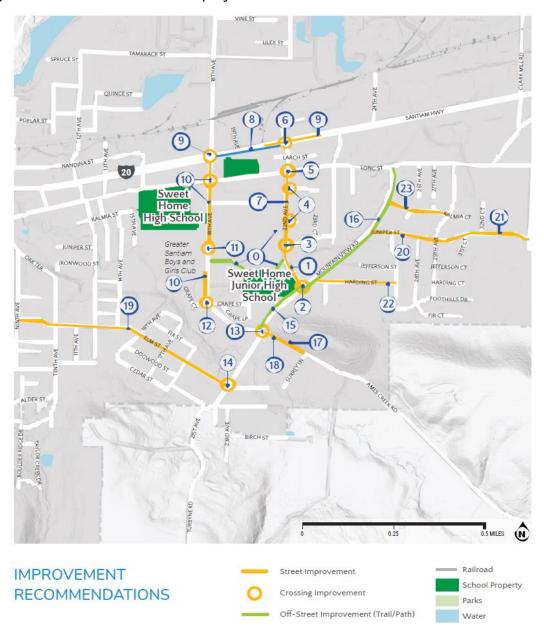


FIGURE 3. SWEET HOME SAFE ROUTES TO SCHOOL PLAN PROPOSED PROJECTS

¹ Sweet Home Safe Routes to School Plan, City of Sweet Home. June 2022.



SWEET HOME TSP • TECHNICAL MEMO #6 (DRAFT) • DECEMBER 2024

TABLE 5. PRELIMINARY SAFE ROUTES TO SCHOOL PROJECTS

Project ID	Project Name	Description	Notes
A16	22nd Avenue Sidewalk	Improve sidewalks and install curb ramps along 22nd Avenue	SRTS Plan Rec #1
A17	22nd Avenue/Mountain View Road Crossings	Install striping upgrades and curb extensions at 22nd Avenue/Mountain View Road intersection	SRTS Plan Rec #2
A18	22nd Avenue/Ironwood Street Crossings	Install curb ramps, upgrade signage and striping, and install lighting at 22nd Avenue/Ironwood St intersection	SRTS Plan Rec #3
A19	22nd Avenue/Juniper Court and 22nd Avenue/Kalmia Street Crossings	Install curb ramps, upgrade striping, and install lighting at 22nd Avenue/Juniper Court and 22nd Avenue/Kalmia Street	SRTS Plan Rec #4
A20	22nd Avenue/Long Street Crossings	Install curb ramps, upgrade striping, and install lighting at 22nd Avenue/Long Street	SRTS Plan Rec #5
A21	22nd Avenue/Main Street Crossing	Upgrade striping, install RRFB, and install lighting at 22nd Avenue across Main Street (US 20)	SRTS Plan Rec #6 (ODOT Funded)
A22	22nd Avenue Multiuse Path	Remove parking and construct multimodal path on 22nd Avenue between Mountain View Road and Long Street	SRTS Plan Rec #7
A23	Main Street Sidewalk Enforcement	Enforce sidewalk clearance code on Main Street	SRTS Plan Rec #8
A24	Main Street Crossings	Upgrade striping on Main Street from 18th Avenue to 23rd Avenue; install curb ramps and lighting at Main Street/18th Avenue	SRTS Plan Rec #9
A25	18th Avenue Sidewalks	Improve sidewalks and install curb ramps on 18th Avenue between Main Street (US 20) and Ames Creek Road	SRTS Plan Rec #10
A26	High School Driveway Crossing	Install RRFB, upgrade signage and striping, and install lighting at the high school driveway on 18th Avenue	SRTS Plan Rec #11

A27	18th Avenue/Grape Court Crossing	Upgrade striping and install curb ramps at 18th Avenue/Grape Court	SRTS Plan Rec #12
A28	Mountain View Road/Ames Creek Road Crossings	Upgrade striping, install curb ramps, and install lighting at Mountain View Road/Ames Creek Road	SRTS Plan Rec #13
A29	Mountain View Road/Elm Street Crossing	Upgrade striping and install lighting at Mountain View Road/Elm Street	SRTS Plan Rec #14
A30	Mountain View Road Multiuse Path (South)	Construct a 10-foot wide shared use path and northbound shared roadway bicycle markings between Ames Creek Road and school property	SRTS Plan Rec #15
A31	Mountain View Road Multiuse Path (North)	Construct a 10-foot wide shared use path and curb ramps at intersections between 22nd Avenue and Long Street	SRTS Plan Rec #16
A32	Ames Creek Road Restriping	Restripe Ames Creek Road to narrow travel lanes, shift centerline, and provide more pedestrian space between Mountain View Road and Surrey Lane; explore 25 mph speed limit	SRTS Plan Rec #17
A33	Ames Creek Road Sidewalk	Install 6-foot wide sidewalk on the south side of Ames Creek Road from Mountain View Road to Surrey Lane	SRTS Plan Rec #18
A34	Elm Street Greenway	Designate a neighborhood greenway on Elm Street from 5th Avenue to Mountain View Road; install speed humps, signage, and striping	SRTS Plan Rec #19
A35	Juniper Street Sidewalk	Install 6-foot wide sidewalk on the north side of Juniper Street from Mountain View Road to Ashbrook Park	SRTS Plan Rec #20
A36	Juniper Street Greenway	Designate a neighborhood greenway on Juniper Street from Mountain View Road to 35th Avenue; install speed humps, signage, and striping	SRTS Plan Rec #21
A37	Harding Street Sidewalk	Install sidewalk on the south side of Harding Street from Mountain View Road to 27th Avenue	SRTS Plan Rec #22
A38	Kalmia Street Sidewalk	Install sidewalk on the south side of Kalmia Street from Mountain View Road to 29th Avenue	SRTS Plan Rec #23

TRANSIT

As noted in Technical Memo #3, transit service is provided in Sweet Home through three main routes: the Linn Shuttle, the Sweet Home Shopper, and the Dial-A-Bus Service. In the future, there may be needs for expanded transit service and improved access to transit to support areas with high projected employment growth or housing growth, such as the North Sweet Home Area (NSHA). Although there are no transit-specific projects, providing sidewalks and bike facilities leading to transit stops and installing enhanced crossings around transit stops are key improvement strategies.

FREIGHT ALTERNATIVES

RAILROAD NEEDS

One rail line serves Sweet Home from the west terminating at the Foster Mill site on the east side of the City. The line is operated by Albany and Eastern Railroad Company and connects Sweet Home to Albany. Within City limits, the line travels roughly parallel to Main Street (US 20) approximately one block north. The nine existing rail crossings in Sweet Home listed below require significant safety and ADA-accessibility upgrades:

- Pleasant Valley Road
- 9th Avenue
- 12th Avenue
- 18th Avenue
- Clark Mill Road

- 47th Avenue (West)
- 47th Avenue (East)
- 53rd Avenue
- 54th Avenue

The planned future extension of 24th Avenue per the North Sweet Home Area (NSHA) Plan will require a new rail crossing. The proposed crossing has received a rail crossing order and must be constructed within five years of the order.

Lastly, the existing trestle bridge crossing Main Street between 57th Avenue and 60th Avenue is damaged from vehicle crashes such that it is no longer structurally sound and requires complete replacement.

RAILROAD PROJECTS

Table 6 lists the preliminary railroad projects.

TABLE 6. PRELIMINARY RAILROAD PROJECTS

Project ID	Project Name	Description
R1	Pleasant Valley Road Rail Crossing	Upgrade signing and striping, install railroad crossing gates, and install ADA-accessible improvements to align with current railroad safety guidelines

R2	9th Avenue Rail Crossing	Upgrade signing and striping, install railroad crossing gates, and install ADA-accessible improvements to align with current railroad safety guidelines
R3	12th Avenue Rail Crossing	Upgrade signing and striping, install railroad crossing gates, and install ADA-accessible improvements to align with current railroad safety guidelines
R4	18th Avenue Rail Crossing	Upgrade signing and striping, install railroad crossing gates, and install ADA-accessible improvements to align with current railroad safety guidelines
R5	24th Avenue Rail Crossing	Construct new railroad crossing across future extension of 24th Avenue
R6	Clark Mill Road Rail Crossing	Upgrade signing and striping, install railroad crossing gates, and install ADA-accessible improvements to align with current railroad safety guidelines
R7	47th Avenue (West) Rail Crossing	Upgrade signing and striping, install railroad crossing gates, and install ADA-accessible improvements to align with current railroad safety guidelines
R8	47th Avenue (East) Rail Crossing	Upgrade signing and striping, install railroad crossing gates, and install ADA-accessible improvements to align with current railroad safety guidelines
R9	53rd Avenue Rail Crossing	Upgrade signing and striping, install railroad crossing gates, and install ADA-accessible improvements to align with current railroad safety guidelines
R10	54th Avenue Rail Crossing	Upgrade signing and striping, install railroad crossing gates, and install ADA-accessible improvements to align with current railroad safety guidelines
R11	Main Street Railroad Bridge	Replace damaged trestle bridge

SAFETY ALTERNATIVES

SAFETY NEEDS

A review of recent crash data identified two locations within the City that exceed the critical crash rate. One location, Main Street (US 20) and 22nd Avenue recently was reconfigured to add an enhanced pedestrian crossing. The other location, Long /18th Street is an all way stop controlled intersection.

The intersection of Long / 18th Street is located near the high school. While all approaches are required to stop at the AWSC, the degree of activity and distractions near the intersection approaches, including parking and utility poles, may contribute to the crash frequency. Improvements to driver focus at the intersection may reduce crash frequency.

SAFETY PROJECTS

Table 7 lists projects addressing safety needs in Sweet Home.

TABLE 7. SWEET HOME TSP SAFETY PROJECTS

Project ID	Project Name	Description
S1	Long/18 th Signing Improvements	Monitor intersection to determine if additional improvements are needed to reduce crash frequency. Improvements may include adding signing upgrades and potential on-street parking reduction to improve visibility and alert drivers of pedestrian activity and traffic control.
S2	Main Street / Shea Viewpoint / Riggs Hill Road	Safety enhancements to the eastern gateway that may include signing, striping, lighting, and/or traffic control to decrease speed of traffic entering urban area and allow safe pedestrian crossings. Install a pedestrian crossing near the Foster Reservoir
S 3	Long St/ Holley Rd Right in Right Out	Restrict left turn movements at the intersection to reduce vehicle conflicts that occur in close proximity to Main Street. These improvements would also improve traffic flow from Main Street to Holley Road to make the route more attractive rather than traffic cutting through on 1 st Avenue to avoid the intersection.

EMERGING TRANSPORTATION TECHNOLOGIES

Emerging transportation technologies will shape our roads, communities, and daily lives for generations. Vehicles are becoming more connected, automated, shared, and electric. Although this future is highly uncertain, it will have significant impacts for how we plan, design, build, and use our transportation system, especially along state facilities such as US 20.

SMART MOBILITY

Below are some important definitions that provide the basis for the impacts, policies, and action items discussed in the following sections.

- Connected vehicles (CVs) will enable communications between vehicles, infrastructure, and other road users.
- Automated vehicles (AVs) will, to varying degrees, take over driving functions and allow travelers to focus their attention on other matters. Already today we have vehicles with combined automated functions like lane keeping and adaptive cruise control. However, these still require constant driver oversight. In the future, more sophisticated sensing and programming technology will allow vehicles to operate with little to no operator oversight.
- Shared vehicles (SVs) allow ride-hailing companies to offer customers access to vehicles through cell phone applications. Ride-hailing applications allow for on-demand transportation with comparable convenience to car ownership without the hassle of maintenance and parking. Ride-hailing applications can enable customers to choose whether to share a trip with another person along their route, or travel alone.
- Electric vehicles (EVs) have been on the road for decades and are becoming more
 economically feasible as the production costs of batteries decline. To accommodate a future
 where electric vehicles will come to dominate our vehicle fleet, charging stations must be
 constructed in cooperation with local and regional governments and electric utilities.

Many of these vehicles will not be exclusive of the others, and it is important to consider the implications that arise from the combination of these technologies. When discussing these vehicles as a whole, they can be referred to as connected, automated, shared, and electric (CASE) vehicles.

PREPARING FOR SMART MOBILITY IN SWEET HOME

Because Sweet Home is located along rural US 20 between central Oregon and the I-5 corridor, the presence of electric vehicles from tourist traffic is most likely to impact Sweet Home's transportation network in the near future. One strategy to accommodate this impact is adding electric vehicle charging stations at key locations near recreation areas or convenient rest stops. For example, shared electric vehicle chargers at the Foster Reservoir viewpoint or in the downtown area can encourage travelers with electric vehicles to spend time in Sweet Home rather than passing through.

SMART MOBILITY PROJECTS

Projects focusing on smart mobility were selected based on the potential for electric vehicle presence from tourist traffic. Table 8 shows the smart mobility project list.

TABLE 8. PRELIMINARY SMART MOBILITY PROJECTS

Project ID	Project Name	Description
E1	EV Charging Stations	Install electric vehicle charging stations at key locations along Main Street

LOCAL STREET CONNECTIVITY

Local street connectivity is required by the Transportation Planning Rule (OAR 660-012) and is important for Sweet Home's continued development. Providing adequate connectivity can reduce the need for wider roads, traffic signals, and turn lanes. Increased connectivity can reduce a city's overall vehicle-miles traveled, balance the traffic load on major facilities, encourage citizens to seek out other travel modes, and reduce emergency vehicle response times. While improving local street connectivity is easier to implement in newly developed areas, retrofitting existing areas to provide great connectivity should also be attempted.

The design and construction of new connecting streets must evaluate whether neighborhood traffic management strategies are necessary to protect existing neighborhoods from potential traffic impacts caused by extending stub end streets. Furthermore, to establish appropriate expectations, the City encourages signage indicating the potential for future connectivity when development constructs stub streets.

TRANSPORTATION DEMAND MANAGEMENT

Transportation Demand Management (TDM) is the general term used to describe actions that remove single-occupant vehicle trips from the roadway network during peak travel demand periods. As growth in Sweet Home continues, the number of vehicle trips and travel demand in the area will also increase. Changing people's travel behavior and providing alternative mode choices will help accommodate this growth by reducing the need to build new or expanded roadways. Potential projects such as sidewalks, bicycle routes, and transit enhancements which support TDM are detailed as part of the active transportation and transit system project sections. However, other TDM strategies described below will be pursued as well.

- Education and Outreach Sweet Home will support the creation of education programs or community groups to help promote and encourage walking, biking, and transit use.
- Trip Reduction Strategies Sweet Home will work with larger employers (e.g., 50 employees or more) to provide incentives for reducing single-occupancy vehicle trips. For example, a vanpool between employment centers in the Albany-Lebanon area and Sweet Home residents could be explored.
- Transit Improvements Advancing transit improvements could encourage less singleoccupancy vehicle use. Improvements may include increasing the frequency of existing routes, adding new routes, improving transit stop facilities, and providing first/last-mile solutions that connect transit with destinations or other accessible modes of travel.
- Supporting Travel by Walking and Biking Nearly all of Sweet Home's transportation goals
 can be partially addressed through the promotion of active transportation. Increasing the
 accessibility and comfort of travel by walking and biking in and around Sweet Home will
 provide mobility options for all users, support healthy living, minimize impacts to the
 environment, and help Sweet Home grow sustainably.
- Land Use Planning Sweet Home will encourage development that effectively mixes land uses to reduce vehicle trip generation.

FUNDING OPPORTUNITIES

Understanding the sources of transportation funding and the amount that may be available helps set reasonable expectations for what improvements can be made by 2045. It also informs the prioritization of projects and allows the project team to identify whether new or expanded funding sources will be needed to accomplish Sweet Home's transportation goals.

CURRENT FUNDING SOURCES

Sweet Home currently has two primary sources for transportation funding, the State Gas Tax and the Transportation System Development Charge (SDC).

State Gas Tax

The State Gas Tax is allocated to Sweet Home from the state based on the collection of State fuel taxes. The revenue can be used for a variety of transportation needs and is currently the primary source of revenue for the City's Transportation Fund (Fund 206). The fund is used to cover various transportation maintenance and operating expenses. Recently, the City's share of State Gas Tax has ranged between approximately \$734,000 and \$780,000 per year and is estimated in the budget to be approximately \$777,000 per year. The combined expenditures for Personal Services and Materials and Services generally is budged to be approximately \$740,000 per year, which limits remaining funds that can be used on capital projects.

System Development Charges

System Development Charges (SDCs) from new developments are intended to offset the burden of development on the transportation system. The funds collected would be kept in a dedicated SDC fund, apart from the City's general-purpose street operations, maintenance, and capital improvements fund. State law restricts the use of SDC funds to capacity-adding projects, generally for constructing or improving portions of roadways impacted by applicable development. SDCs cannot be used to fund improvements for existing deficiencies. The transportation SDC is a one-time fee.

The City of Sweet Home currently charges SDCs for water, sewer, storm water, parks, and transportation. The transportation SDC rate is \$3,906 for a single-family dwelling unit. While the amount of fees collected by the City is entirely dependent on development activity, the City's budget currently estimates approximately \$120,000 per year in transportation SDC revenue.

ADDITIONAL FUNDING SOURCE CONSIDERATIONS

New transportation funding options include local taxes, assessments and charges, and state and federal appropriations, grants, and loans. All of these resources can be constrained based on a variety of factors, including the willingness of local leadership and the electorate to entertain new fees; the availability of local funds to be dedicated or diverted to transportation issues from other competing City programs; and the availability of state and federal funds. Nonetheless, it is important for the City to consider available opportunities for enhanced funding for the

transportation improvements that will be identified in the TSP as the current sources will not be sufficient to meet the identified need.

POTENTIAL LOCAL FUNDING SOURCES

Two other local funding sources that are used by a variety of cities in Oregon include a local gas tax and street utility fee.

Local Gas Tax

A local gas tax is separate from the State gas tax and requires voter approval. Currently over 30 cities and counties in Oregon have a local fuel tax that ranges from \$0.01 to \$0.10 per gallon. The amount of revenue collected by a potential local fuel tax would depend on the amount of fuel sold locally, and the tax rate. The Cities of Canby and Hood River each have a \$0.03 per gallon rate and collect² approximately \$400,000 annually.

Street Utility Fee

A Transportation Utility Fee (sometimes known as a Street Maintenance Fee, Road User Fee, or Street Utility Fee) is a monthly fee based on use of the transportation system that is collected from residences the city limits. The fee is collected through the City's regular utility bill. It is often designated for use in the maintenance and repair of the City's transportation system, which can then free up other funds (e.g., state fuel tax) for capital improvements. The fee may be structured as a flat fee, or vary based on the trip generation profile of the land use. The fees typically range from \$5 to \$10 per month for a single-family home. A rate of \$5 per month per single-family home, could generate approximately \$240,000 per year.

OTHER POTENTIAL FUNDING SOURCES

The following section summarizes other funding sources that could be considered for specific project needs, but do not typically create a sustainable stream of annual funding for a city to consider.

Surface Transportation Block Grant Program (STBG)

The STBG provides flexible funding that may be used by States and local agencies for projects to preserve and improve the conditions and performance on any Federal-aid highway, bridge and tunnel projects on any public road, pedestrian and bicycle infrastructure, and transit capital projects, including intercity bus terminals. Formerly called Surface Transportation Program (STP).

ODOT All Road Transportation Safety (ARTS) Funding

ODOT All Roads Transportation Safety Program (ARTS) is used to address safety challenges on all public roads. Safety funding is distributed to each ODOT region, which collaborates with local governments to select projects that can reduce fatalities and serious injuries, regardless of whether they lie on a local road or a state highway. An application must be submitted by the local

² Oregon Department of Transportation: Taxable Distribution Reports: Fuels Tax: State of Oregon

jurisdiction to obtain ARTS funding for local roads. Projects are built into the four-year STIP timeframe (the current STIP is 2024-2027). The funds must make use of ODOT-approved countermeasures directed towards decreasing fatal and serious injury crashes.

Federal Competitive Grant and Loan Programs

The FAST Act authorizes a number of competitive grant and loan programs, the most prominent of which is the Rebuilding American Infrastructure with Sustainability and Equity (RAISE) grant program, formerly known as BUILD and TIGER. Competitive grant and loan programs would require the City to complete an application that makes a compelling case for a specific project, often multijurisdictional. Some of these programs focus on a particular outcome or mode of transportation.

ODOT Statewide Transportation Improvement Program (STIP) Enhance Funding

ODOT has modified the process for selecting projects that receive STIP funding to allow local agencies to receive funding for projects off the state system. Projects that enhance system connectivity and improve multi-modal travel options are the focus. The updated TSP prepares the City to apply for STIP funding.

Safe Routes to School

The Oregon Safe Routes to School (SRTS) Program has money allocated for projects that improve connectivity for children to walk, bike and roll to and from school. Potential grant funds are distributed as a reimbursement program through an open and competitive process. Funding is available through this program for pedestrian and bicycle infrastructure projects within two miles of schools. These funds should be pursued to implement key pedestrian and bicycle projects identified through the SRTS process.

Debt Financing

While not a direct funding source, debt financing can be used to mitigate the immediate impacts of significant capital improvement projects and spread costs over the useful life of a project. This has been successful recently in Oregon communities such as Bend and McMinnville, where general obligation (GO) bond measures were passed. Key to the measures' success was that the increased property taxes were earmarked toward a defined set of projects with strong public support.

Though interest costs are incurred, the use of debt financing can serve not only as a practical means of funding major improvements, but is also viewed as an equitable funding strategy, spreading the burden of repayment over existing and future customers who will benefit from the projects. The obvious caution in relying on debt service is that a funding source must still be identified to fulfill annual repayment obligations.

The Oregon Transportation Infrastructure Bank (OTIB) is a potential source for cities to borrow funds for transportation improvement projects. The OTIB is a statewide revolving loan fund. Projects eligible to receive funding include roadway improvements, bicycle and pedestrian access, and transit capital projects.

Oregon Community Paths (OCP) Program

The OCP grant program is dedicated to helping communities create and maintain connections through multiuse paths. The Oregon Department of Transportation will use monies from the state Multimodal Active Transportation fund and federal Transportation Alternatives Program fund for this program. OCP will fund grants for project development, construction, reconstruction, major resurfacing or other improvements of multiuse paths that improve access and safety for people walking and bicycling.

APPENDIX

The following items are included in the appendix:

- 1) Project Evaluation Summary
- 2) Mitigated Intersection Operations Summary for potential traffic signals
- 3) Mitigated HCM Worksheets for potential traffic signals

				Goo Mobi Access Conne	ility, iibility,		al 2 fety		al 3 of Life	Eco	oal 4 nomic lopment	System M	oal 5 Ianagement intenance	Total Points	Rank
Project ID	Category	Project Name	Description	Goal 1 #1	Goal 1 #2	Goal 2 #1	Goal 2 #2	Goal 3 #1	Goal 3 #2	Goal 4 #:	1 Goal 4 #2	Goal 5 #1	L Goal 5 #2		
C1	Vehicle Capacity	Main Street/Pleasant Valley Roa Roundabout	d Construct a roundabout at Main Street (US 20)/Pleasant Valley Road	5	3	5	0	4	1	5	5	5	5	38	17
C2	Vehicle Capacity	Main Street/22nd Avenue Signa	Construct a traffic signal at Main Street (US 20)/22nd Avenue	5	4	4	5	4	4	5	5	3	5	44	1
СЗ	Vehicle Capacity	Main Street/Clark Mill Road Signal	Construct a traffic signal at Main Street (US 20)/Clark Mill Road	5	4	4	0	4	4	5	5	5	5	41	5
C4	Vehicle Capacity	Main Street/47th Avenue	Construct a traffic signal at Main Street (US 20)/47th Avenue	5	4	4	0	4	4	5	5	5	5	41	5
A1	Ped	Clark Mill Road Sidewalk Infill	Infill existing sidewalk gaps on Clark Mill Road	5	5	5	0	5	5	5	1	4	4	39	12
A2	Ped	Long Street Sidewalk Infill	Infill existing sidewalk gaps on Long Street	5	5	5	0	5	5	3	5	5	4	42	4
АЗ	Ped	Mountain View Road Sidewalk Infill	Infill existing sidewalk gaps on Mountain View Road	5	5	5	0	5	5	5	1	4	4	39	12
A4	Ped	47th Avenue Sidewalk Infill	Infill existing sidewalk gaps on 47th Avenue	5	5	5	0	5	5	5	5	5	4	44	1
A5	Ped	53rd Avenue Sidewalk Infill	Infill existing sidewalk gaps on 53rd Avenue	5	5	5	0	5	5	5	1	4	4	39	12
A6	Bike	Main Street Bike Lanes	Construct bike lanes on Main Street (US 20) east of 18th Avenue; consider buffered bike lanes on Main Street (US 20) west of 18th Avenue	1	5	5	0	5	5	5	5	5	4	40	7
А7	Bike	Holley Road Bike Lanes	Construct bike lanes on Holley Road	1	5	5	0	5	5	5	5	5	4	40	7
A8	Bike	Long Street Bike Lane Infill	Infill gaps in bike lanes on Long Street	5	5	5	0	5	5	5	5	5	4	44	1
А9	Bike	Airport Road Bike Lanes	Construct bike lanes on Airport Road	1	5	5	0	5	5	5	5	5	4	40	7
A10	Bike	47th Avenue Bike Lanes	Construct bike lanes on 47th Avenue	1	5	5	0	5	5	5	5	5	4	40	7
A11	Bike	49th Avenue Bike Lanes	Construct bike lanes on 49th Avenue	1	5	5	0	5	5	5	1	4	4	35	23
A12	Bike	53rd Avenue and Wiley Creek Drive Bike Lanes	Construct bike lanes on 53rd Avenue and Wiley Creek Drive	1	5	5	0	5	5	5	1	4	4	35	23

				Mob Access	al 1 ility, sibility, ectivity		al 2 ety	Goa Quality		Ecor	al 4 nomic opment	System M	al 5 anagement ntenance	Total Points	Rank
Project ID	Category	Project Name	Description	Goal 1 #1	Goal 1 #2	Goal 2 #1	Goal 2 #2	Goal 3 #1	Goal 3 #2	Goal 4 #1	Goal 4 #2	Goal 5 #1	Goal 5 #2		
A13	Bike	18th Avenue/Ames Creek Road Bike Lanes	Construct bike lanes on 18th Avenue and Ames Creek Road	1	5	5	0	5	5	5	1	4	4	35	23
A14	Bike	Mountain View Road Bike Lanes	Construct bike lanes on Mountain View Road	1	5	5	0	5	5	5	1	4	4	35	23
A15	Bike	Elm Street Bike Lanes	Construct bike lanes on Elm Street	1	5	5	0	5	5	5	1	4	4	35	23
A16	Ped	22nd Avenue Sidewalk	Improve sidewalks and install curb ramps along 22nd Avenue	1	5	5	0	5	5	5	1	3	4	34	31
A17	Ped	22nd Avenue/Mountain View Road Crossings	Install striping upgrades and curb extensions at 22nd Avenue/Mountain View Road intersection	1	5	5	0	5	5	5	1	4	3	34	31
A18	Ped	22nd Avenue/Ironwood Street Crossings	Install curb ramps, upgrade signage and striping, and install lighting at 22nd Avenue/Ironwood St intersection	1	5	5	0	5	5	5	1	3	3	33	42
A19	Ped	22nd Avenue/Juniper Court and 22nd Avenue/Kalmia Street Crossings	Install curb ramps, upgrade striping, and install lighting at 22nd Avenue/Juniper Court and 22nd Avenue/Kalmia Street	1	5	5	0	5	5	5	1	3	3	33	42
A20	Ped	22nd Avenue/Long Street Crossings	Install curb ramps, upgrade striping, and install lighting at 22nd Avenue/Long Street	1	5	5	0	5	5	5	1	3	3	33	42
A21	Ped	22nd Avenue/Main Street Crossing	Upgrade striping, install RRFB, and install lighting at 22nd Avenue across Main Street (US 20)	1	5	5	0	5	5	5	5	3	3	37	18
A22	Ped/Bike	22nd Avenue Multiuse Path	Remove parking and construct multimodal path on 22nd Avenue between Mountain View Road and Long Street	1	5	5	0	5	3	5	3	3	4	34	31
A23	Ped	Main Street Sidewalk Enforcement	Enforce sidewalk clearance code on Main Street	1	5	5	0	5	5	5	5	5	4	40	7
A24	Ped	Main Street Crossings	Upgrade striping on Main Street from 18th Avenue to 23rd Avenue; install curb ramps and lighting at Main Street/18th Avenue	1	5	5	0	5	5	5	5	5	3	39	12
A25	Ped	18th Avenue Sidewalks	Improve sidewalks and install curb ramps on 18th Avenue between Main Street (US 20) and Ames Creek Road	1	5	5	0	5	5	5	3	4	3	36	20
A26	Ped	High School Driveway Crossing	Install RRFB, upgrade signage and striping, and install lighting at the high school driveway on 18th Avenue	1	5	5	0	5	5	5	1	4	3	34	31
A27	Ped	18th Avenue/Grape Court Crossing	Upgrade striping and install curb ramps at 18th Avenue/Grape Court	1	5	5	0	5	5	5	1	4	3	34	31
A28	Ped	Mountain View Road/Ames Creel Road Crossings	k Upgrade striping, install curb ramps, and install lighting at Mountain View Road/Ames Creek Road	1	5	5	0	5	5	5	1	4	3	34	31

				Mob Access	al 1 bility, sibility, ectivity		al 2 fety		al 3 of Life	Eco	oal 4 onomic lopment	System I	oal 5 Management sintenance	Total Points	Rank
Project ID	Category	Project Name	Description	Goal 1 #1	Goal 1 #2	Goal 2 #1	Goal 2 #2	Goal 3 #1	Goal 3 #2	Goal 4 #:	1 Goal 4 #2	Goal 5 #	1 Goal 5 #2		
A29	Ped	Mountain View Road/Elm Street Crossing	Upgrade striping and install lighting at Mountain View Road/Elm Street	1	5	5	0	5	5	5	1	4	3	34	31
A30	Ped	Mountain View Road Multiuse Path (South)	Construct a 10-foot wide shared use path and northbound shared roadway bicycle markings between Ames Creek Road and school property	1	5	5	0	5	4	5	1	4	5	35	23
A31	Ped	Mountain View Road Multiuse Path (North)	Construct a 10-foot wide shared use path and curb ramps at intersections between 22nd Avenue and Long Street	1	5	5	0	5	4	5	3	4	5	37	18
A32	Ped	Ames Creek Road Restriping	Restripe Ames Creek Road to narrow travel lanes, shift centerline, and provide more pedestrian space between Mountain View Road and Surrey Lane; explore 25 mph speed limit	1	5	5	0	5	4	5	1	4	4	34	31
A33	Ped	Ames Creek Road Sidewalk	Install 6-foot wide sidewalk on the south side of Ames Creek Road from Mountain View Road to Surrey Lane	1	5	5	0	5	5	5	1	4	4	35	23
A34	Ped	Elm Street Greenway	Designate a neighborhood greenway on Elm Street from 5th Avenue to Mountain View Road; install speed humps, signage, and striping	1	5	5	0	5	5	5	1	4	4	35	23
A35	Ped	Juniper Street Sidewalk	Install 6-foot wide sidewalk on the north side of Juniper Street from Mountain View Road to Ashbrook Park	1	5	5	0	5	5	5	1	3	4	34	31
A36	Ped	Juniper Street Greenway	Designate a neighborhood greenway on Juniper Street from Mountain View Road to 35th Avenue; install speed humps, signage, and striping	1	5	3	0	5	5	5	1	3	4	32	45
A37	Ped	Harding Street Sidewalk	Install sidewalk on the south side of Harding Street from Mountain View Road to 27th Avenue	1	5	5	0	5	5	5	1	3	4	34	31
A38	Ped	Kalmia Street Sidewalk	Install sidewalk on the south side of Kalmia Street from Mountain View Road to 29th Avenue	1	5	5	0	5	5	5	1	3	4	34	31
R1	Rail	Pleasant Valley Road Rail Crossing	Upgrade signing and striping, install railroad crossing gates, and install ADA-accessible improvements to align with current railroad safety guidelines	1	3	5	0	5	5	3	1	4	5	32	45
R2	Rail	9th Avenue Rail Crossing	Upgrade signing and striping, install railroad crossing gates, and install ADA-accessible improvements to align with current railroad safety guidelines	1	3	5	0	5	5	3	1	2	5	30	51
R3	Rail	12th Avenue Rail Crossing	Upgrade signing and striping, install railroad crossing gates, and install ADA-accessible improvements to align with current railroad safety guidelines	1	3	5	0	5	5	3	1	2	5	30	51
R4	Rail	18th Avenue Rail Crossing	Upgrade signing and striping, install railroad crossing gates, and install ADA-accessible improvements to align with current railroad safety guidelines	1	3	5	0	5	5	3	1	4	5	32	45
R5	Rail	24th Avenue Rail Crossing	Construct new railroad crossing across future extension of 24th Avenue	1	1	5	0	1	5	3	1	2	5	24	54
R6	Rail	Clark Mill Road Rail Crossing	Upgrade signing and striping, install railroad crossing gates, and install ADA-accessible improvements to align with current railroad safety guidelines	1	3	5	0	5	5	3	1	4	5	32	45
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				Goo Mob Access Conne	ility, iibility,	Goa Saf		Goa Quality		Ecor	al 4 nomic opment	System M	al 5 anagement ntenance	Total Points	Rank
Project ID	Category	Project Name	Description	Goal 1 #1	Goal 1 #2	Goal 2 #1	Goal 2 #2	Goal 3 #1	Goal 3 #2	Goal 4 #1	Goal 4 #2	Goal 5 #1	Goal 5 #2		
R7	Rail	47th Avenue (West) Rail Crossing	Upgrade signing and striping, install railroad crossing gates, and install ADA-accessible improvements to align with current railroad safety guidelines	1	3	5	0	5	5	3	5	4	5	36	20
R8	Rail	47th Avenue (East) Rail Crossin	Upgrade signing and striping, install railroad crossing gates, and g install ADA-accessible improvements to align with current railroad safety guidelines	1	3	5	0	5	5	3	5	4	5	36	20
R9	Rail	53rd Avenue Rail Crossing	Upgrade signing and striping, install railroad crossing gates, and install ADA-accessible improvements to align with current railroad safety guidelines	1	3	5	0	5	5	3	1	4	5	32	45
R10	Rail	54th Avenue Rail Crossing	Upgrade signing and striping, install railroad crossing gates, and install ADA-accessible improvements to align with current railroad safety guidelines	1	3	5	0	5	5	3	1	2	5	30	51
R11	Rail	Main Street Railroad Bridge	Replace damaged trestle bridge	1	0	1	0	1	5	1	5	1	5	20	55
S1	Safety	Main Street Reservoir Crossing	Install a pedestrian crossing near the Foster Reservoir	1	5	5	0	5	5	5	5	4	4	39	12
E1	Smart Mobility	EV Charging Stations	Install electric vehicle charging stations at key locations along Main Street	3	1	1	0	1	5	5	5	5	5	31	50

Sweet Home TSP Future Vehicle Capacity Projects

	Summary Table					
Software/Method	Intersection	Control Type	Mobility Target	LOS	Delay	V/C Ratio
Synchro HCM 6th Signal	Pleasant Valley Rd & Main St (US 20)	Signal	v/c ≤ 0.85	Α	6.4	0.45
Synchro HCM 6th Signal	22nd Ave & Main St (US 20)	Signal	v/c ≤ 0.90	Α	6.7	0.50
Synchro HCM 6th Signal	Clark Mill Rd & Main St (US 20)	Signal	v/c ≤ 0.85	В	12.7	0.79
Synchro HCM 6th Signal	47th Ave & Main St (US 20)	Signal	v/c ≤ 0.85	В	12.9	0.83

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	∱ }		ሻ	ተ ኈ			4			4	
Traffic Volume (veh/h)	75	755	0	0	565	110	0	0	5	100	0	50
Future Volume (veh/h)	75	755	0	0	565	110	0	0	5	100	0	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Adj Flow Rate, veh/h	83	839	0	0	628	122	0	0	6	111	0	56
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	492	1903	0	499	1017	197	0	0	223	349	0	71
Arrive On Green	0.07	0.57	0.00	0.00	0.37	0.37	0.00	0.00	0.15	0.15	0.00	0.15
Sat Flow, veh/h	1667	3413	0	1667	2777	539	0	0	1483	941	0	475
Grp Volume(v), veh/h	83	839	0	0	376	374	0	0	6	167	0	0
Grp Sat Flow(s),veh/h/ln	1667	1663	0	1667	1663	1653	0	0	1483	1416	0	0
Q Serve(g_s), s	8.0	4.2	0.0	0.0	5.3	5.4	0.0	0.0	0.1	3.2	0.0	0.0
Cycle Q Clear(g_c), s	0.8	4.2	0.0	0.0	5.3	5.4	0.0	0.0	0.1	3.3	0.0	0.0
Prop In Lane	1.00		0.00	1.00		0.33	0.00		1.00	0.66		0.34
Lane Grp Cap(c), veh/h	492	1903	0	499	609	605	0	0	223	421	0	0
V/C Ratio(X)	0.17	0.44	0.00	0.00	0.62	0.62	0.00	0.00	0.03	0.40	0.00	0.00
Avail Cap(c_a), veh/h	900	2420	0	1013	1210	1203	0	0	925	1106	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	4.8	3.5	0.0	0.0	7.5	7.5	0.0	0.0	10.5	11.9	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.1	0.0	0.0	0.8	0.8	0.0	0.0	0.0	0.5	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.2	0.0	0.0	1.1	1.1	0.0	0.0	0.0	0.7	0.0	0.0
Unsig. Movement Delay, s/veh		0.7	0.0	0.0	0.0	0.0	0.0	0.0	10.5	40.0	0.0	0.0
LnGrp Delay(d), s/veh	4.9	3.7	0.0	0.0	8.2	8.3	0.0	0.0	10.5	12.3	0.0	0.0
LnGrp LOS	<u> </u>	A			A	Α			В	В		
Approach Vol, veh/h		922			750			6			167	
Approach Delay, s/veh		3.8			8.3			10.5			12.3	
Approach LOS		Α			Α			В			В	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		8.3	0.0	20.5		8.3	5.9	14.6				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		18.0	9.0	21.0		18.0	9.0	21.0				
Max Q Clear Time (g_c+l1), s		2.1	0.0	6.2		5.3	2.8	7.4				
Green Ext Time (p_c), s		0.0	0.0	4.2		0.5	0.1	3.2				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			6.4									
HCM 6th LOS			Α									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	∱ ∱		ሻ	ተ ኈ			4			4	
Traffic Volume (veh/h)	5	1055	55	15	945	30	40	5	35	30	10	20
Future Volume (veh/h)	5	1055	55	15	945	30	40	5	35	30	10	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Adj Flow Rate, veh/h	6	1185	62	17	1062	34	45	6	39	34	11	22
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	394	1683	88	360	1758	56	237	10	63	240	25	49
Arrive On Green	0.01	0.52	0.52	0.02	0.53	0.53	0.09	0.09	0.09	0.09	0.09	0.09
Sat Flow, veh/h	1667	3214	168	1667	3288	105	777	104	674	806	270	526
Grp Volume(v), veh/h	6	613	634	17	537	559	90	0	0	67	0	0
Grp Sat Flow(s), veh/h/ln	1667	1663	1720	1667	1663	1731	1554	0	0	1602	0	0
Q Serve(g_s), s	0.1	9.1	9.1	0.2	7.3	7.3	0.5	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.1	9.1	9.1	0.2	7.3	7.3	1.7	0.0	0.0	1.2	0.0	0.0
Prop In Lane	1.00	074	0.10	1.00	200	0.06	0.50	•	0.43	0.51	•	0.33
Lane Grp Cap(c), veh/h	394	871	901	360	889	926	309	0	0	315	0	0
V/C Ratio(X)	0.02	0.70	0.70	0.05	0.60	0.60	0.29	0.00	0.00	0.21	0.00	0.00
Avail Cap(c_a), veh/h	840	1317	1362	787	1317	1371	971	0	0	982	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	4.4	5.9	5.9	4.8	5.2	5.2	14.3	0.0	0.0	14.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.8	0.8	0.0	0.5	0.5	0.4	0.0	0.0	0.2	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0 1.4	0.0	0.0 1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.4	1.4	0.0	1.0	1.1	0.0	0.0	0.0	0.4	0.0	0.0
Unsig. Movement Delay, s/veh	4.4	6.7	6.7	4.9	5.7	5.7	14.6	0.0	0.0	14.3	0.0	0.0
LnGrp Delay(d), s/veh LnGrp LOS	4.4 A	6. <i>1</i>	0. <i>1</i>	4.9 A	5. <i>1</i>	5.7 A	14.0 B	0.0	0.0	14.3 B	0.0	0.0
	A	1253	A	A		A	D	00		D	67	
Approach Vol, veh/h		6.7			1113 5.7			90 14.6			14.3	
Approach Delay, s/veh Approach LOS												
		Α			Α			В			В	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		7.1	4.6	21.2		7.1	4.2	21.5				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		18.0	9.0	26.0		18.0	9.0	26.0				
Max Q Clear Time (g_c+l1), s		3.7	2.2	11.1		3.2	2.1	9.3				
Green Ext Time (p_c), s		0.3	0.0	6.0		0.2	0.0	5.4				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			6.7									
HCM 6th LOS			Α									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		∱ ∱		ሻ	ተ ኈ			- 4			- 4	
Traffic Volume (veh/h)	230	760	115	65	850	50	15	0	30	45	5	170
Future Volume (veh/h)	230	760	115	65	850	50	15	0	30	45	5	170
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	4.00	1.00	1.00	4.00	1.00	1.00	4.00	1.00	1.00	4.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	4750	No	4750	4750	No	4750	4750	No	4750	4750	No	4750
Adj Sat Flow, veh/h/ln	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Adj Flow Rate, veh/h	253 0.91	835	126 0.91	71	934	55	16	0	33	49 0.91	5	187
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, % Cap, veh/h	452	0 1299	196	0 394	1190	0 70	181	41	0 224	146	0 28	246
Arrive On Green	0.13	0.45	0.45	0.05	0.37	0.37	0.21	0.00	0.21	0.21	0.21	0.21
Sat Flow, veh/h	1667	2897	437	1667	3191	188	315	195	1051	202	132	1157
Grp Volume(v), veh/h	253	479	482	71	487	502	49	0	0	241	0	0
Grp Sat Flow(s), veh/h/ln	1667	1663	1671	1667	1663	1716	1561	0	0	1491	0	0
Q Serve(g_s), s	3.5	9.4	9.4	1.1	10.9	10.9	0.0	0.0	0.0	3.5	0.0	0.0
Cycle Q Clear(g_c), s	3.5	9.4	9.4	1.1	10.9	10.9	1.1	0.0	0.0	6.3	0.0	0.0
Prop In Lane	1.00	0.1	0.26	1.00	10.0	0.11	0.33	0.0	0.67	0.20	0.0	0.78
Lane Grp Cap(c), veh/h	452	745	749	394	620	640	446	0	0	420	0	0
V/C Ratio(X)	0.56	0.64	0.64	0.18	0.78	0.78	0.11	0.00	0.00	0.57	0.00	0.00
Avail Cap(c_a), veh/h	594	791	795	661	791	816	776	0	0	771	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	8.2	9.0	9.0	7.7	11.7	11.7	13.5	0.0	0.0	15.5	0.0	0.0
Incr Delay (d2), s/veh	8.0	1.5	1.5	0.2	3.6	3.5	0.1	0.0	0.0	0.9	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	2.2	2.3	0.3	3.2	3.3	0.3	0.0	0.0	2.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	9.1	10.5	10.4	7.9	15.3	15.2	13.5	0.0	0.0	16.4	0.0	0.0
LnGrp LOS	A	В	В	Α	В	В	В			В		
Approach Vol, veh/h		1214			1060			49			241	
Approach Delay, s/veh		10.2			14.8			13.5			16.4	
Approach LOS		В			В			В			В	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		12.9	6.3	22.9		12.9	9.4	19.7				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		19.0	9.0	20.0		19.0	9.0	20.0				
Max Q Clear Time (g_c+l1), s		3.1	3.1	11.4		8.3	5.5	12.9				
Green Ext Time (p_c), s		0.1	0.0	3.1		0.9	0.2	2.8				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			12.7									
HCM 6th LOS			В									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		∱ ∱		7	∱ ⊅			4			- 4	
Traffic Volume (veh/h)	210	495	5	5	460	50	15	10	5	65	5	260
Future Volume (veh/h)	210	495	5	5	460	50	15	10	5	65	5	260
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Adj Flow Rate, veh/h	253	596	6	6	554	60	18	12	6	78	6	313
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	479	1325	13	391	777	84	289	174	68	166	36	378
Arrive On Green	0.14	0.39	0.39	0.01	0.26	0.26	0.32	0.32	0.32	0.32	0.32	0.32
Sat Flow, veh/h	1667	3372	34	1667	3027	327	509	542	210	204	111	1175
Grp Volume(v), veh/h	253	294	308	6	304	310	36	0	0	397	0	0
Grp Sat Flow(s),veh/h/ln	1667	1663	1744	1667	1663	1691	1260	0	0	1490	0	0
Q Serve(g_s), s	4.3	5.6	5.6	0.1	7.2	7.2	0.0	0.0	0.0	6.5	0.0	0.0
Cycle Q Clear(g_c), s	4.3	5.6	5.6	0.1	7.2	7.2	0.6	0.0	0.0	10.5	0.0	0.0
Prop In Lane	1.00		0.02	1.00	40-	0.19	0.50		0.17	0.20		0.79
Lane Grp Cap(c), veh/h	479	653	685	391	427	434	531	0	0	580	0	0
V/C Ratio(X)	0.53	0.45	0.45	0.02	0.71	0.71	0.07	0.00	0.00	0.68	0.00	0.00
Avail Cap(c_a), veh/h	628	734	770	729	695	707	717	0	0	790	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	9.2	9.6	9.6	11.7	14.5	14.6	10.1	0.0	0.0	13.4	0.0	0.0
Incr Delay (d2), s/veh	0.7	0.4	0.3	0.0	1.6	1.6	0.0	0.0	0.0	1.1	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0 1.4	0.0 1.4	0.0	0.0 2.2	0.0 2.2	0.0	0.0	0.0	0.0 3.1	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	1.4	1.4	0.0	2.2	2.2	0.2	0.0	0.0	ა. I	0.0	0.0
Unsig. Movement Delay, s/veh	9.9	10.0	10.0	11.7	16.2	16.2	10.2	0.0	0.0	14.5	0.0	0.0
LnGrp Delay(d), s/veh		10.0 A	10.0 A	11.7 B	10.2 B	10.2 B	10.2 B	0.0	0.0	14.5 B	0.0	0.0
LnGrp LOS	A		A	В		D	D	36		D	207	
Approach Vol, veh/h		855			620 16.2			10.2			397 14.5	
Approach LOS		10.0			10.2 B							
Approach LOS		Α			D			В			В	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		17.9	4.3	20.9		17.9	10.1	15.1				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		20.0	9.0	19.0		20.0	10.0	18.0				
Max Q Clear Time (g_c+l1), s		2.6	2.1	7.6		12.5	6.3	9.2				
Green Ext Time (p_c), s		0.1	0.0	2.0		1.4	0.2	1.9				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			12.9									
HCM 6th LOS			В									

TECHNICAL MEMORANDUM #9 (DRAFT)

DATE: February 11, 2025

TO: Project Management Team

FROM: Garth Appanaitis, PE & Emily D'Antonio | DKS Associates

SUBJECT: Task 5.1 Sweet Home TSP Preferred Alternatives Project #20020-15

INTRODUCTION

This memorandum summarizes the preferred transportation projects to address the deficiencies and needs of Sweet Home's transportation network. The preferred alternatives include two primary components based on anticipated implementation mechanisms:

- A financially constrained or <u>"cost-constrained" project list</u> are high-priority projects that are reasonably likely to be funded within the projected available revenue streams over the 20-year planning horizon (2045).
- An <u>aspirational project list</u> is provided for additional projects that have been identified and meet the City's needs but are not anticipated to be completed during the planning horizon due within the existing transportation revenue streams.

These projects were selected from the broader list of future needs identified in *TM #6 Future* Alternatives and Funding Opportunities.

Although the TSP identifies priorities for the investments, the City does not have to implement the projects in that order. The projects on the Financially Constrained list do not limit the City, County, or ODOT from advancing other projects in the City's TSP in response to changes in development patterns and funding opportunities that are not known at the time of this plan. Future circumstances could allow or require the City to fund projects not on the Financially Constrained project list to address an unanticipated transportation need or take advantage of opportunities as they arise.

FUTURE TRANSPORTATION FUNDING PLAN

Based on existing revenue sources of the state gas tax and local transportation System Development Charges (SDC), Sweet Home is estimated to have approximately \$3.1 million available for transportation improvements over the 20-year planning horizon, as summarized in Table 1. The state gas tax provides revenue for the city's Transportation Fund (Fund 206), which after covering the combined expenditures for Personal Services and Materials and Services leaves approximately \$37,000 per year remaining for capital improvements¹. The city's SDC is currently projected to generate approximately \$120,000 per year based on the city budget, but increased development levels would increase this amount.

TABLE 1. EXISTING AND PROJECTED TRANSPORTATION REVENUE SOURCES

REVENUE SOURCE	ESTIMATED ANNUAL REVENUE	TOTAL REVENUE THROUGH 2045 (20 YEARS)
STATE GAS TAX	\$37,000*	\$740,000
SYSTEM DEVELOPMENT CHARGES	\$120,000**	\$2,400,000
TOTAL	\$157,000	\$3,140,000

Note: * Revenue remaining after covering other anticipated costs in Transportation Fund including Personal Services and Materials and Services.

Based on the requirements within Oregon Administrative Rules (OAR) 660-012 (Transportation Planning Rule) the cost of the financially-constrained project list should not exceed 125 percent of the available funding, or \$3.93 million².

If Sweet Home implements other revenue sources (e.g., local gas tax or street utility fee programs) that could increase the amount of transportation revenue available for new capital projects and programs.

² 125% * \$3,140,000 = \$3,930,000



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^{**} SDC revenue is estimated based on the City budget, but could increase with additional development.

¹ The city budget estimates approximately \$777,000 per year from the state gas tax with approximately \$740,000 per year in costs related to Personal Services and Materials and Services, leaving \$37,000 per year to cover capital improvements.

ASPIRATIONAL PROJECT LIST IMPLEMENTATION OPPORTUNITIES

Other implementation opportunities exist that could support funding and construction of other aspirational projects. These opportunities vary, but were reviewed along with the preferred project list to identify other potential implementation opportunities:

- SDC Improvements Capacity projects that would be needed to support future development and, depending on level of development, could be candidate projects for SDC resources.
- **Partner Funding** Projects that are located on a County or State facility and may be opportunities for joint funding and/or incorporating into related projects along the facility.
- **Development Frontage** Projects that could be implemented through frontage improvements as adjacent properties redevelop.
- **Active Transportation Grant** Projects that would improve the active transportation system and may be future candidates for various state or other active transportation grant programs.
- **Safety Grant** Projects that would improve safety of the transportation system and may be future candidates to consider for various state or other safety grant programs.

FINANCIALLY CONSTRAINED PROJECT LIST

The Oregon Transportation Planning Rule (OAR 660-012) requires that local agencies identify a financially constrained list of projects within the TSP. The financially constrained project list identifies the \$3.1 million in projected transportation funding to the highest priority projects. The financially constrained project list includes the highest priority projects for the City to pursue:

- C1 Main Street / Pleasant Valley Road Intersection Improvement this location currently is a two-way stop control and does not meet mobility targets, is an identified safety concern by the public due to the intersection geometrics and sight distance, and is generally identified as the location of highest interest for an improvement in the city. Preliminary evaluation was conducted that indicated a roundabout may provide additional benefits to reducing speed on Main Street and providing a gateway treatment for the western edge of the City. However, additional processes would be required to select a control type for implementation, including intersection control evaluation and approval by ODOT's State Traffic Engineer (due to location on the state highway system), and coordination and approval from the mobility advisory committee (due to location on a reduction review route). Due to the unknown treatment type, the intersection cost is listed as a range.
- R5 24th Avenue Rail Crossing Improvements this location had a rail crossing order³ that allows future improvements at the crossing to support future growth including gates and lights, cantilevers for additional flashing lights, and pedestrian gates for sidewalks with a roadway having four lanes with medians and bike lanes. However, the crossing order requires that "Construction of crossing No. 3S-029.33 shall be substantially in progress

³ Order No 51372, ODOT Crossing No 938945S



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within five years from the entered date of the Final Order. Otherwise, the authority expires on that date." It is noted that the final order date is September 30, 2021, with a five-year period ending on September 30, 2026 for construction to be "substantially in progress".

The financially constrained project list is listed in Table 2. The total cost of the project list is shown as a range of \$1.4 million to \$6.55 million due to the unknown treatment and intersection cost that will result from additional review of the Main Street/Pleasant Valley Road intersection improvement. A traffic signal at this location would result in a lower cost than a roundabout treatment.

TABLE 2. FINANCIALLY CONSTRAINED PROJECT LIST (2022 DOLLARS)

PROJECT ID	PROJECT NAME	COST ESTIMATE
C1	Main Street/Pleasant Valley Road Intersection Improvement	\$60 0,000-\$5,750,000
R5A	24 th Avenue Rail Crossing ROW and Signing	\$204,000
R5B	24 th Ave Rail Crossing Installation	\$600,000
	Total	\$1.4-\$6.55 Million

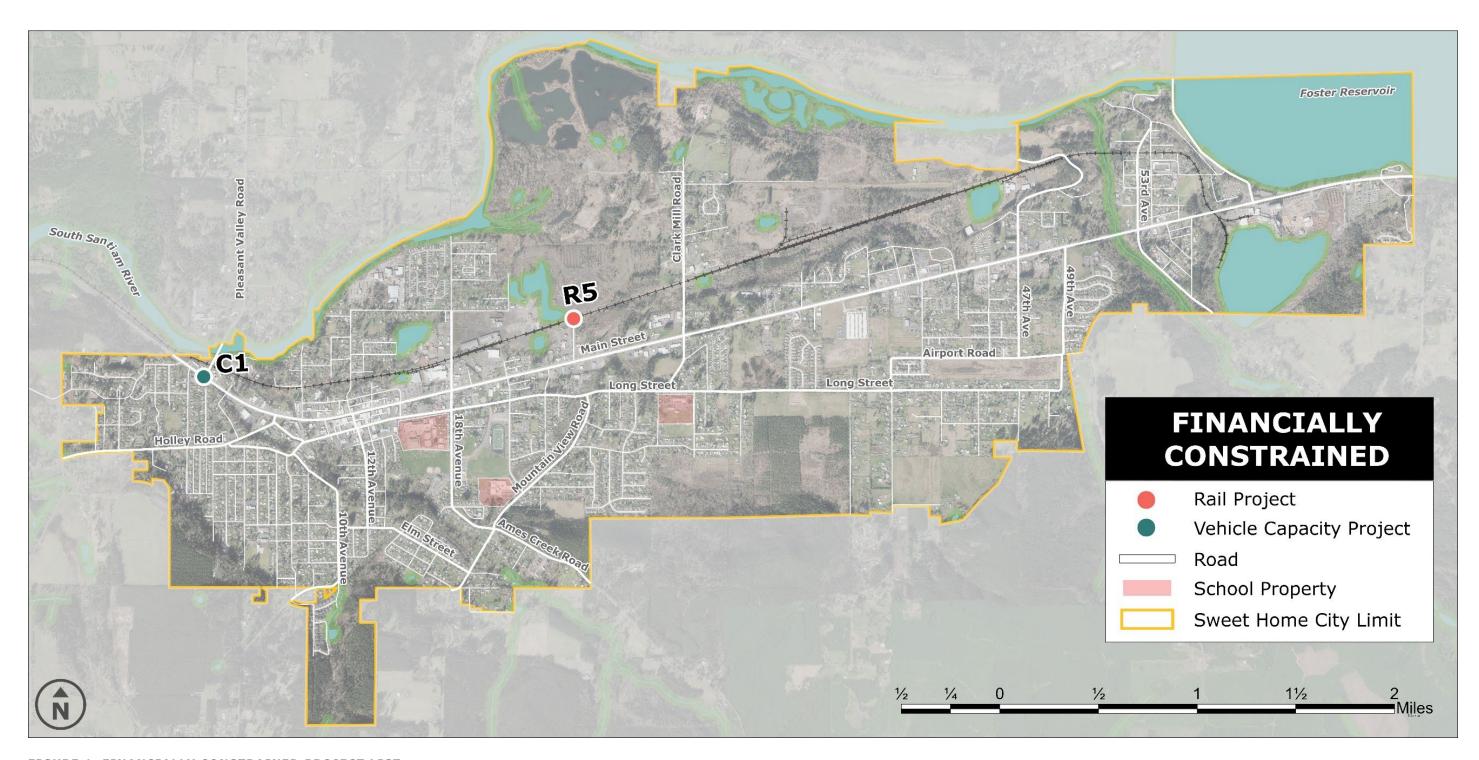


FIGURE 1. FINANCIALLY CONSTRAINED PROJECT LIST

ASPIRATIONAL PROJECTS

The following section summarizes the remaining "aspirational" preferred plan projects that are important for Sweet Home but are not included in the financially constrained list. These projects are not considered reasonably likely to be funded by 2045.

The aspirational projects are grouped by category for organization purposes. The order of the categories does not represent an order of prioritization nor does the order of the projects within the tables. Projects within the aspirational project list should be constructed as funding becomes available or priorities within the city are changed. As noted previously, several potential implementation opportunities are flagged for each project, depending on the type, location, and potential benefits.

The aspirational vehicle capacity projects are listed in Table 3 and shown in Figure 2.

TABLE 3. ASPIRATIONAL VEHICLE CAPACITY PROJECTS^A

PROJECT ID	PROJECT NAME	DESCRIPTION	COST ESTIMATE ^B	SDC	PARTNER FUNDING	DEVELOPMENT FRONTAGE	ACTIVE TRANSPORT GRANT	SAFETY GRANT
C2	Main Street/24 th Avenue Signal	Construct a traffic control upgrade at Main Street (US 20)/22nd Avenue. Location may be a candidate for a traffic signal.	560 0,000	x	x			
<u>C3</u>	Main Street/Clark Mill Road Signal	Construct a traffic control upgrade at Main Street (US 20)/Clark Mill Road. Location may be a candidate for a traffic signal.	\$ 600,000	x	x			
C4	Main Street/47th Avenue	Construct a traffic control upgrade at Main Street (US 20)/47th Avenue. Location may be a candidate for a traffic signal.	\$ 600,000	x	x			
	Total		\$1,800,000					

A. Projects that propose changing an intersection's traffic control on ODOT's system would require additional study as part of an Intersection Control Evaluation (ICE) to be conducted before design per ODOT standards to determine the appropriate control treatment, including consideration for traffic signal warrants.

B. All cost estimates are based on 2022 dollars

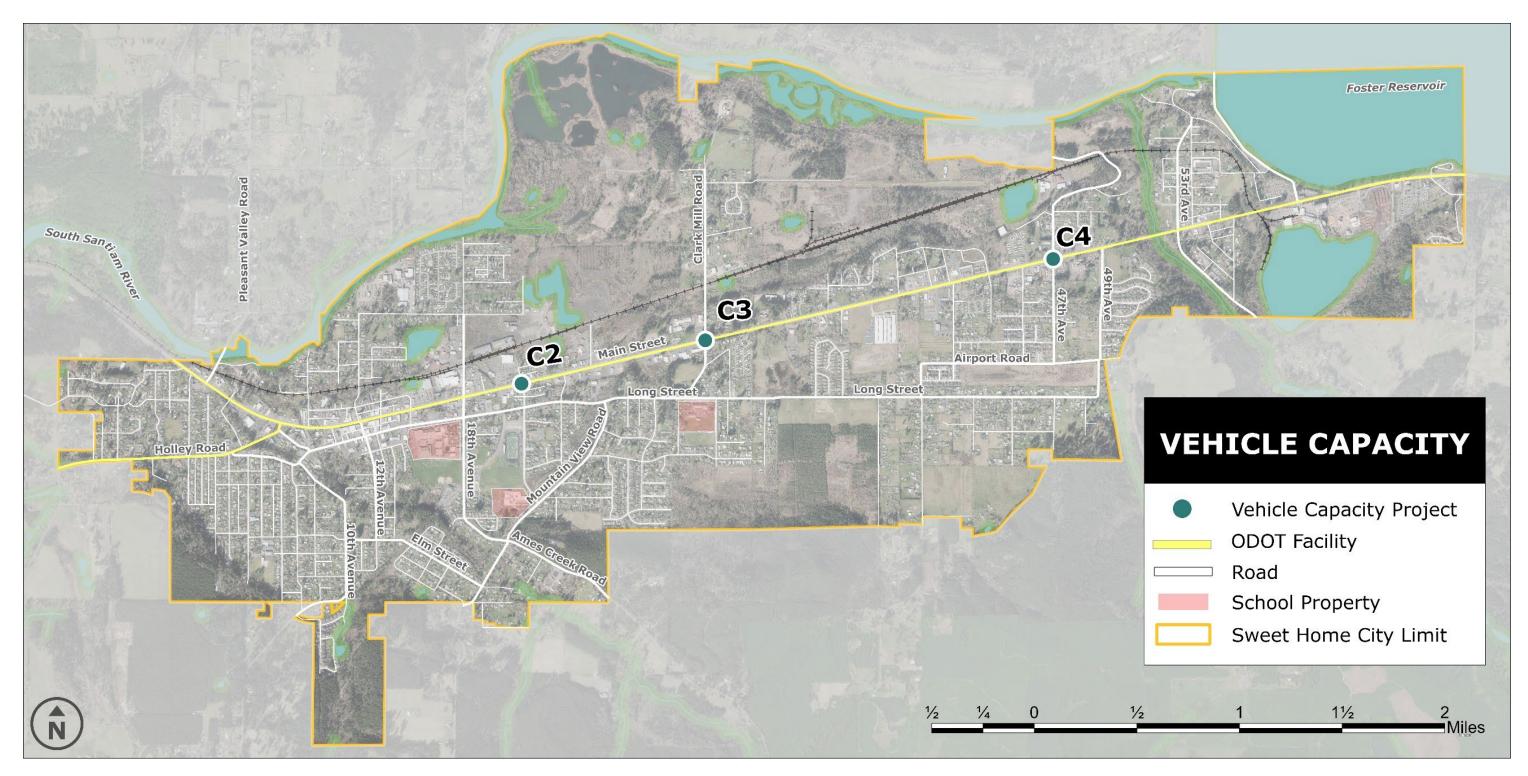


FIGURE 2. VEHICLE CAPACITY PROJECTS

The Aspirational Active Transportation Projects are listed in Table 4 through Table 7 and are shown in Figures 3 and 4.

TABLE 4. ASPIRATIONAL PEDESTRIAN FOCUSED PROJECTS

PROJECT ID	PROJECT NAME	DESCRIPTION	COST ESTIMATE ^B	SDC	PARTNER FUNDING	DEVELOPMENT FRONTAGE	ACTIVE TRANSPORT GRANT	SAFETY GRANT
A1	Clark Mill Road Sidewalk Infill	Infill existing sidewalk gaps (8,000 ft) on Clark Mill Road. Update stormwater infrastructure to current standards where necessary.	\$9,700,000	x		x	x	x
А3	Mountain View Road Sidewalk Infill	Infill existing sidewalk gaps on Mountain View Road (8,000 ft). Update stormwater infrastructure to current standards where necessary.	\$9,700,000	x		x	x	
A 5	53rd Avenue Sidewalk Infill	Infill existing sidewalk gaps on 53rd Avenue (8,700 ft). Update stormwater infrastructure to current standards where necessary.	\$10,400,000	x		x	x	
	Total		\$29,800,000					

TABLE 5. ASPIRATIONAL BICYCLE FOCUSED PROJECTS^A

PROJECT ID	PROJECT NAME	DESCRIPTION	COST ESTIMATE ^B	SDC	PARTNER FUNDING	DEVELOPMENT FRONTAGE	ACTIVE TRANSPORT GRANT	SAFETY GRANT
A6-	Main Street Bike Lanes	Construct 6' wide bike lanes on Main Street (US 20) west of 18th Avenue; consider buffered bike lanes on Main Street (US 20) east of 18th Avenue	\$54,350,000		x		x	
А7	Holley Road Bike Lanes	Construct 6' shoulder bike lanes on Holley Road from Main Street (US 20) to the western city limits within the current right of way.	\$200,000		x		x	
А8	Long Street Bike Lane Infill	Add 6' shoulder bike lanes from Holley Road to 22nd. Consider buffered bike lanes with parking removal.	\$200,000				x	x
А9	Airport Road Bike Lanes	Construct 6' shoulder bike lanes on Airport Road from 43 rd to 49 th within the existing right of way.	\$150,000			x	x	
A11	49th Avenue Bike Lanes	Construct 6' shoulder bike lanes on 49th Avenue from Long Street to Main Street (US 20) within the existing right of way.	\$100,000			x	x	

A12	53rd Avenue and Wiley Creek Drive Bike Lanes	Construct 6' shoulder bike lanes on 53rd Avenue and Wiley Creek Drive. Widen Wiley Creek Road where necessary to maintain the bike lane.	\$6,900,000	x	x	
A13	18th Avenue/Ames Creek Road Bike Lanes	Construct 6' shoulder bike lanes from south city limit to Tamarack Street along 18 th and Ames Creek Rd. Install greenway treatment along 18 th north of Tamarack.	\$500,000	x	x	
A14	Mountain View Road Bike Lanes	6' Construct shoulder bike lanes on Mountain View Road from Long Street to Cedar Street. Remove parking where necessary.	\$200,000		x	x
	Total		\$62,600,000			

A. Projects aim to decrease Bike Level of Traffic Stress (BLTS) to a 1 or 2. A BLTS of 1 represents a low stress and comfortable facility while a BLTS of 4 is a high stress facility that may be dangerous to cyclists and only utilized by aggressive cyclists.

TABLE 6. ASPIRATIONAL MULTI-MODAL PROJECTS

PROJECT ID	PROJECT NAME	DESCRIPTION	COST ESTIMATE ^B	SDC	PARTNER FUNDING	DEVELOPMENT FRONTAGE	ACTIVE TRANSPORT GRANT	SAFETY GRANT
A39	Elm Street Greenway	Designate a neighborhood greenway on Elm Street; install speed humps, signage, and striping	\$700,000	x		x	x	x
A40	Long Street Roadway Modernization	Installation of Sidewalk and 6' bike lanes east of 35th Street. Updating of drainage with sidewalk improvements. Consider lowering the speed limit and implementing Greenway treatment for bike facilities if bike lanes are infeasible	\$15,800,000	x		x	x	
A41	47th Greenway	Designate a neighborhood greenway on 47th Street; install speed humps, signage, and striping. Infill missing sidewalk on both sides of the road. Lower speed limit to 30 MPH	\$400,000	x		x	x	
	Total		\$16,900,000					

TABLE 7. SAFE ROUTES TO SCHOOL PROJECTS

PROJECT ID	PROJECT NAME	DESCRIPTION	COST ESTIMATE ^B	SDC	PARTNER FUNDING	DEVELOPMENT FRONTAGE	ACTIVE TRANSPORT GRANT	SAFETY GRANT
A16	22nd Avenue Sidewalk	Improve sidewalks and install curb ramps along 22nd Avenue	\$5,600,000				x	x
A17	22nd Avenue/Mountain View Road Crossings	Install striping upgrades and curb extensions at 22nd Avenue/Mountain View Road intersection	\$150,000				x	x
A18	22nd Avenue/Ironwood Street Crossings	Install curb ramps, upgrade signage and striping, and install lighting at 22nd Avenue/Ironwood St intersection	\$264,000				x	x
A19	22nd Avenue/Juniper Court and 22nd Avenue/Kalmia Street Crossings	Install curb ramps, upgrade striping, and install lighting at 22nd Avenue/Juniper Court and 22nd Avenue/Kalmia Street	\$289,000				x	x
A20	22nd Avenue/Long Street Crossings	Install curb ramps, upgrade striping, and install lighting at 22nd Avenue/Long Street	\$269,000				x	x

A21	22nd Avenue/Main Street Crossing	Upgrade striping, install RRFB, and install lighting at 22nd Avenue across Main Street (US 20)	\$299,000	x	x	x
A22	22nd Avenue Multiuse Path	Remove parking and construct multimodal path on 22nd Avenue between Mountain View Road and Long Street	\$1,850,000		x	x
A23	Main Street Sidewalk Enforcement	Enforce sidewalk clearance code on Main Street		x	x	x
A24	Main Street Crossings	rade striping on Main Street from 18th Avenue to 23rd Avenue; install curb ramps and lighting at Main Street/18th Avenue	\$269,000	x	x	x
A25	18th Avenue Sidewalks	Improve sidewalks and install curb ramps on 18th Avenue between Main Street (US 20) and Ames Creek Road	\$1,950,000		x	x
A26	High School Driveway Crossing	Install RRFB, upgrade signage and striping, and install lighting at the high school driveway on 18th Avenue	\$299,000		x	x
A27	18th Avenue/Grape Court Crossing	Upgrade striping and install curb ramps at 18th Avenue/Grape Court	\$ <mark>30,</mark> 000		x	x
A28	Mountain View Road/Ames Creek Road Crossings	Upgrade striping, install curb ramps, and install lighting at Mountain View Road/Ames Creek Road	\$269,000		x	x



A29	Mountain View Road/Elm Street Crossing	Upgrade striping and install lighting at Mountain View Road/Elm Street	\$239,000	x	x
A30	Mountain View Road Multiuse Path (South)	Construct a 10-foot wide shared use path and northbound shared roadway bicycle markings between Ames Creek Road and school property	\$950,000	x	x
A31	Mountain View Road Multiuse Path (North)	Construct a 10-foot wide shared use path and curb ramps at intersections between 22nd Avenue and Long Street	\$3,400,000	x	x
A32	Ames Creek Road Restriping	Restripe Ames Creek Road to narrow travel lanes, shift centerline, and provide more pedestrian space between Mountain View Road and Surrey Lane; explore 25 mph speed limit	\$100,000	x	x
A33	Ames Creek Road Sidewalk	Install sidewalk on the south side of Ames Creek Road from Mountain View Road to Surrey Lane	\$950,000	x	x
A35	Juniper Street Sidewalk	Install sidewalk on the north side of Juniper Street from Mountain View Road to Ashbrook Park	\$950,000	x	x
A36	Juniper Street Greenway	Designate a neighborhood greenway on Juniper Street from Mountain View Road to 35th Avenue; install speed humps, signage, and striping	\$350,000	x	x

A37	Harding Street Sidewalk	Install sidewalk on the south side of Harding Street from Mountain View Road to 27th Avenue	\$1,600,000	x	x
A38	Kalmia Street Sidewalk	Install sidewalk on the south side of Kalmia Street from Mountain View Road to 29th Avenue	\$1,250,000	x	x
	Total		\$21,327,000		

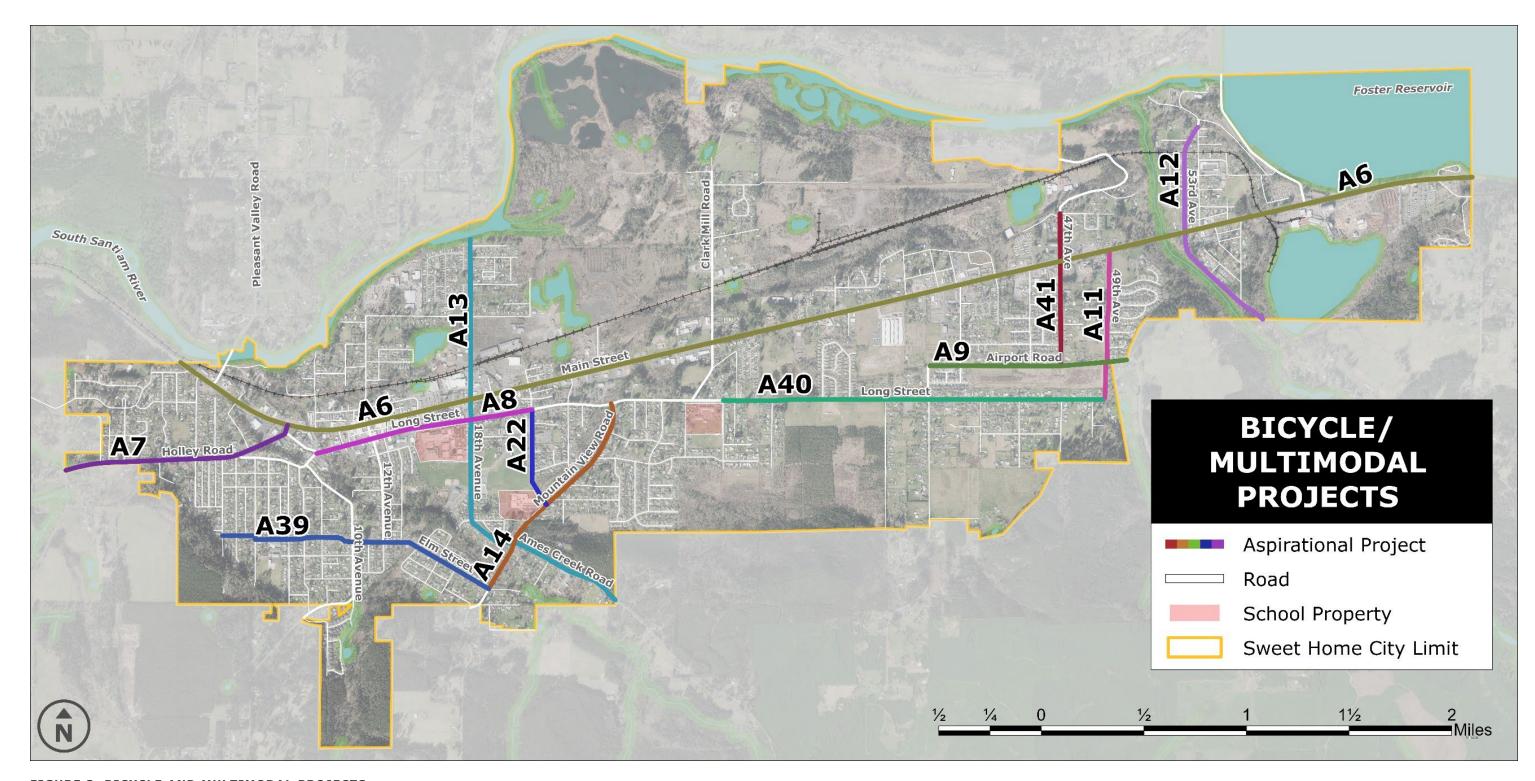


FIGURE 3. BICYCLE AND MULTIMODAL PROJECTS

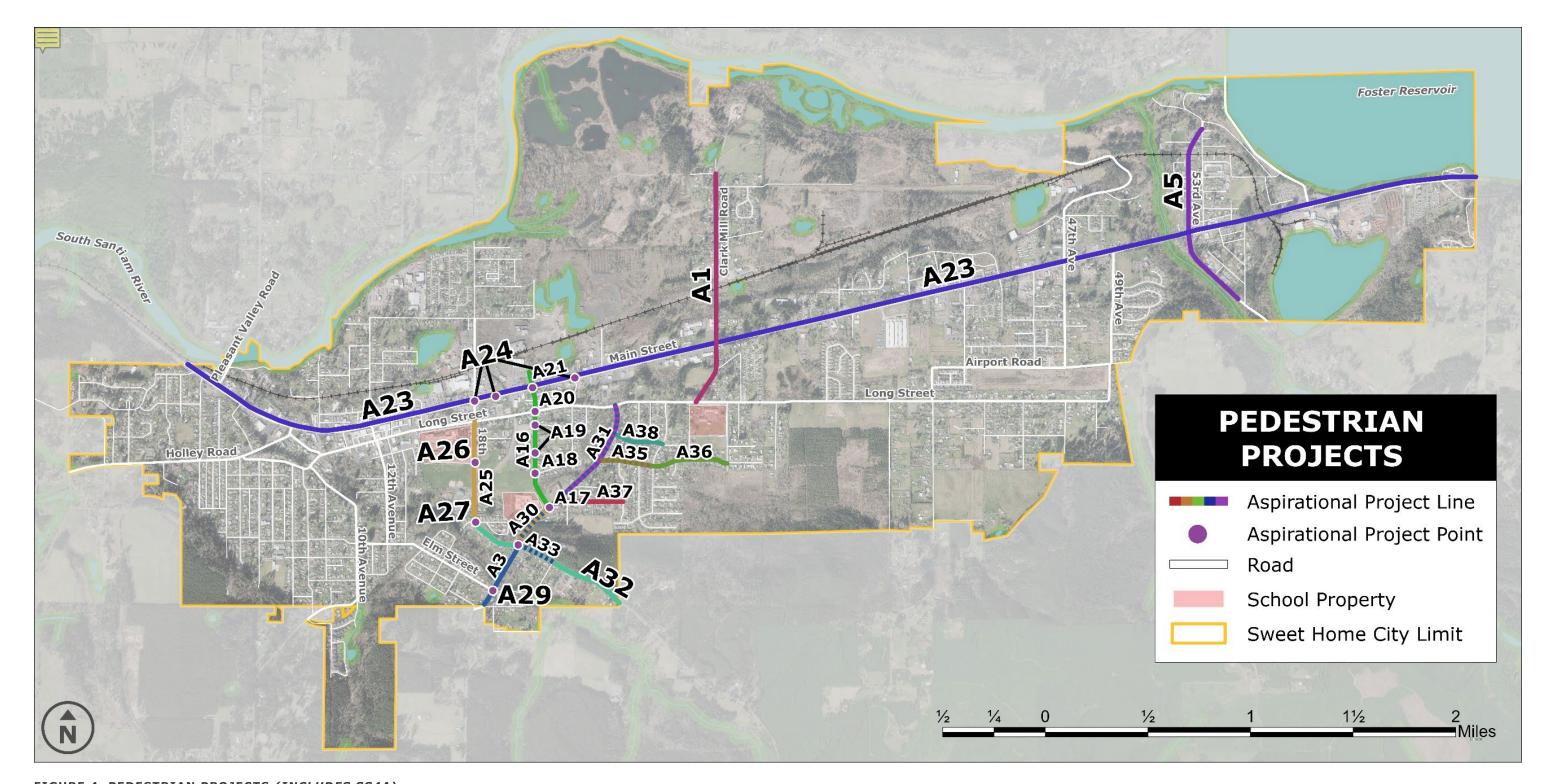


FIGURE 4. PEDESTRIAN PROJECTS (INCLUDES SS4A)

Other aspirational projects are shown in the following tables, including Downtown Streetscape (Table 8), Railroad (Table 9), Safety (Table 10), and Smart Mobility (Table 11) and are mapped in Figure 5.

TABLE 8. ASPIRATIONAL DOWNTOWN STREETSCAPE PROJECTS

PROJECT ID	PROJECT NAME	DESCRIPTION	COST ESTIMATE	SDC	PARTNER FUNDING	DEVELOPMENT FRONTAGE	ACTIVE TRANSPORT GRANT	SAFETY GRANT
P1	Long Street Sidewalk Buffer	Provide landscaping along the sidewalk edge and remove on-street parking to add a landscape buffer.	\$481,000					x
P2	Long Street Pedestrian Island	Add a pedestrian island or curb bulb-outs to shorten crossing distance at key intersections	\$1,500,400					x
P3	Long Street Parking Restriping	Revise lane striping to add parking in areas where narrowing the travel lanes results in additional width for on-street parking	\$81,400					
P5	Parking Management Policy	Implement a policy for Downtown that limits parking to 2-hours on-street and 4-hour off street. Increase level of enforcement to ensure turn over occurs.						
P6	Long Street Modification 10 th to 18th	Maintain 11' sidewalks, 8' parking lanes and 11' travel lanes from 10 th Ave to midway between 15 th and 18 th . Include bulb-outs at the intersections	\$4,114,300					x
P7	Main Street Modification	Addition of bulb-outs along the corridor which will provide spaces for lighting, streetscape amenities and trees. Add a median and remove pedestrian lighting from the existing median. From 9th to 18th	\$2,477,100		x			x
	Total		\$8,735,600					

TABLE 9. ASPIRATIONAL RAILROAD PROJECTS

PROJECT ID	PROJECT NAME	DESCRIPTION	COST ESTIMATE	SDC	PARTNER FUNDING	DEVELOPMENT FRONTAGE	ACTIVE TRANSPORT GRANT	SAFETY GRANT
R1	Pleasant Valley Road Rail Crossing	Upgrade signing and striping, install railroad crossing gates, and install ADA-accessible improvements to align with current railroad safety guidelines	\$600,000		x			x
R2	9th Avenue Rail Crossing	Upgrade signing and striping, install railroad crossing gates, and install ADA-accessible improvements to align with current railroad safety guidelines	\$600,000		x			x
R3	12th Avenue Rail Crossing	Upgrade signing and striping, install railroad crossing gates, and install ADA-accessible improvements to align with current railroad safety guidelines	\$600,000		x			x
R4	18th Avenue Rail Crossing	Upgrade signing and striping, install railroad crossing gates, and install ADA-accessible improvements to align with current railroad safety guidelines	\$600,000		x			x
R6	Clark Mill Road Rail Crossing	Upgrade signing and striping, install railroad crossing gates, and install ADA-accessible improvements to align with current railroad safety guidelines	\$600,000		x			x
R7	47th Avenue (West) Rail Crossing	Upgrade signing and striping, install railroad crossing gates, and install ADA-accessible improvements to align with current railroad safety guidelines	\$600,000		x			x

R8	47th Avenue (East) Rail Crossing	Upgrade signing and striping, install railroad crossing gates, and install ADA-accessible improvements to align with current railroad safety guidelines	\$600,000	x	x
R9	53rd Avenue Rail Crossing	Upgrade signing and striping, install railroad crossing gates, and install ADA-accessible improvements to align with current railroad safety guidelines	\$600,000	x	x
R10	54th Avenue Rail Crossing	Upgrade signing and striping, install railroad crossing gates, and install ADA-accessible improvements to align with current railroad safety guidelines	\$600,000	x	x
R11	Main Street Railroad Bridge	Replace damaged trestle bridge	\$20,000,000	x	х
	Total		\$25,400,000		

TABLE 10. ASPIRATIONAL SAFETY PROJECTS

PROJECT ID	PROJECT NAME	DESCRIPTION	COST ESTIMATE	SDC	PARTNER FUNDING	ACTIVE TRANSPORT GRANT	SAFETY GRANT
S1	Long/18 th intersection improvements	Monitor intersection to determine if additional improvements are needed to reduce crash frequency. Improvements may include adding signing upgrades and potential on-street parking reductions to improve visibility and alert drivers of pedestrian activity and traffic control.	\$70,000				x
S2	Shea Viewpoint / Riggs Hill Road	Install safety enhancements to the eastern gateway. These may include signing, striping, lighting, and/or traffic control to decrease speed of traffic entering urban area and allow safe pedestrian crossings.	\$200,000		x		x
S 3	Long St/ Holley Rd Right in Right Out	Restrict left turn movements at the intersection to reduce vehicle conflicts that occur near Main Street. Add signage as well as well as barriers to prevent left turns from Long Street to OR 228 and from OR 228 to Long Street. These improvements would also improve the traffic flow from Main Street to Holley Road making the route more attractive and decreasing traffic cutting through on 1st Avenue to avoid the intersection.	\$400,000				x
S4	Main Street Reservoir Crossing	Install a pedestrian crossing near the Foster Reservoir	\$500,000		x		x
	Total		\$1,170,000				

TABLE 11. ASPIRATIONAL SMART MOBILITY PROJECTS

PROJECT ID	PROJECT NAME	DESCRIPTION	COST ESTIMATE ^B	SDC	PARTNER FUNDING	DEVELOPMENT FRONTAGE	ACTIVE TRANSPORT GRANT	SAFETY GRANT
E1	EV Charging Stations	Install electric vehicle charging stations at key destinations, such as downtown and at parks	\$150,000	x	x	x		

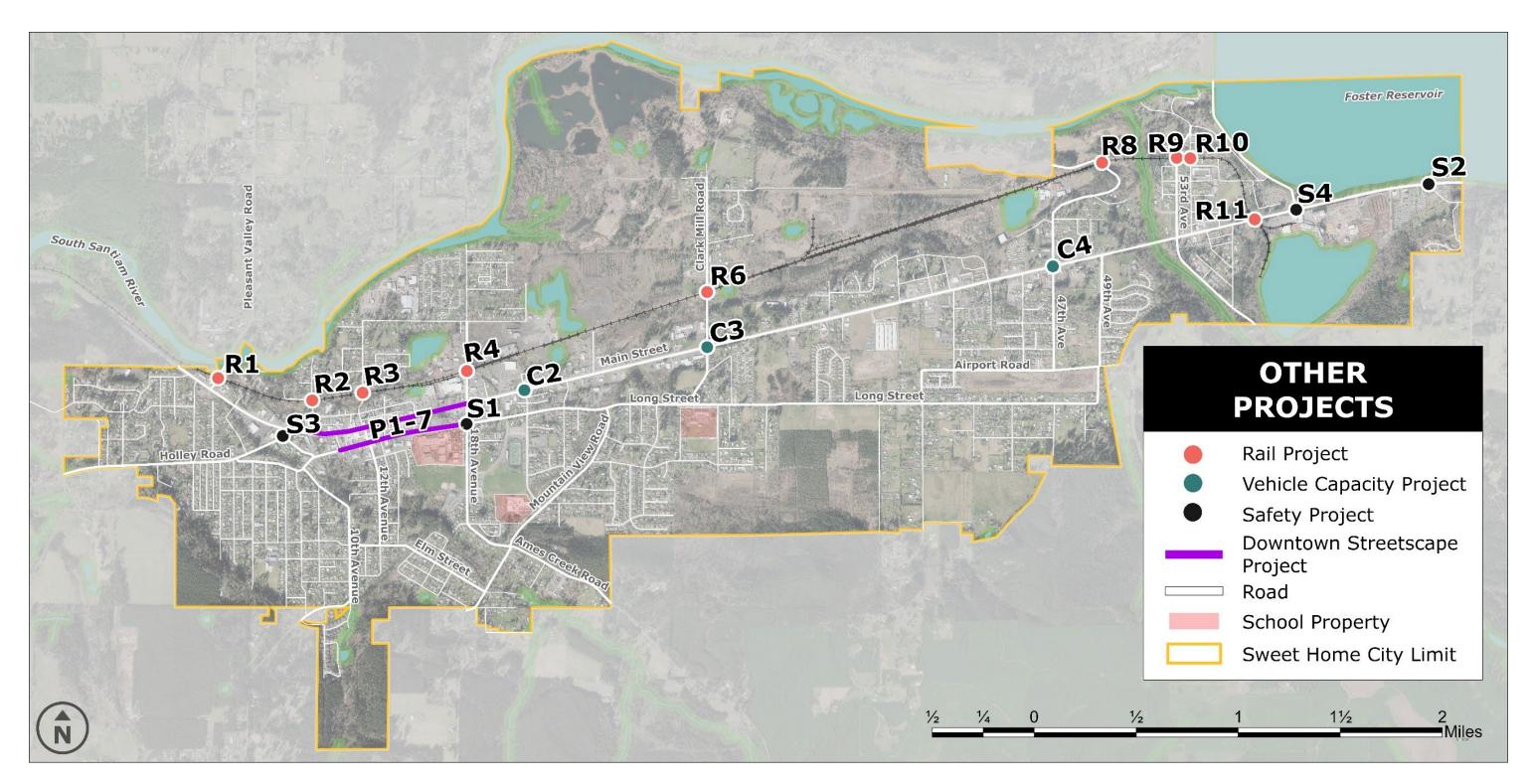


FIGURE 5. OTHER ASPIRATIONAL PROJECTS

NORTH SWEET HOME AREA PLAN PROJECTS

In conjunction with the update to the Sweet Home TSP, a refinement plan for the North Sweet Home Area (NSHA) has also been developed. The NSHA is the area north of the Albany and Eastern Railroad which includes over 500 acres of undeveloped land, including natural resource amenities. The following projects have been recommended through the development of this plan depending on final plan outcomes. These new street improvements would include pedestrian and cyclist connectivity improvement within the area.

TABLE 12. NSHA ASPIRATIONAL PROJECTS (PLACEHOLDER PENDING DEVELOPMENT OF NSHA PLAN)

PROJECT ID	PROJECT NAME	DESCRIPTION	COST ESTIMATE	SDC	PARTNER FUNDING	DEVELOPMENT FRONTAGE	ACTIVE TRANSPORT GRANT	SAFETY GRANT
N1	Street Network Scenario 2	24 th Avenue is designated as the framework street and serves as the primary connection into the NSHA.		x	x	x		
N2	New East West Connection	Provide a future connection that improves east-west connectivity between Clark Mill Road and 47 th Street.		x	x	x		

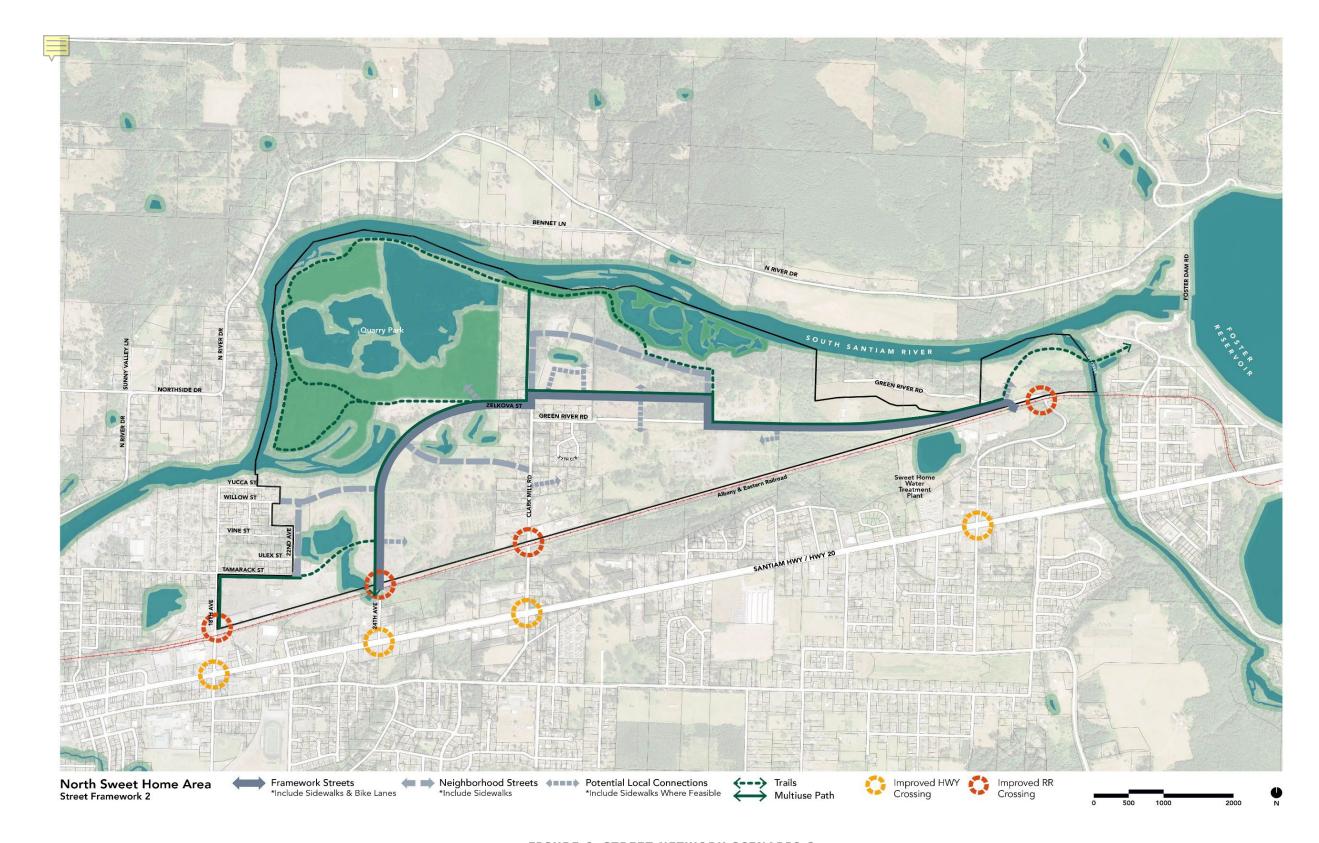


FIGURE 6. STREET NETWORK SCENARIO 2

APPENDIX

CONTENTS

SECTION 1: TITLE

SECTION 2: TITLE

SECTION 3: TITLE

SECTION 4: TITLE

SECTION 1: TITLE

SUBTITLE



Implementing Ordinances

City of Sweet Home Transportation System Plan Update

DATE March 27, 2025

TO City of Sweet Home

FROM Andrew Parish, AICP and Matt Hastie, AICP

CC

INTRODUCTION

This document provides implementing ordinances necessary for implementing the City of Sweet Home's updated Transportation System Plan (TSP). It includes proposed amendments to the Sweet Home Development Code (SHDC) and the Sweet Home Comprehensive Plan. This document is organized into the following topics required in the TSP scope of work:

- 1. Street width standards with the goal of sizing streets for safety and economy
- 2. Right-size parking standards, looking for opportunities to decrease them.
- 3. Traffic Impact Study requirements
- 4. State transportation planning requirements, including findings for the Transportation Planning Rules, to support adoption of the Updated TSP by City.

This document provides <u>underline</u>/strikeout language for specific edits to code language. Notes and questions for reviewers are provided in-line below in blue boxes.

DEVELOPMENT CODE AMENDMENTS

1. Street width standards

Street standards are contained in **SHDC Chapter 17.42 - Street Standards**. Street width requirements are listed in Section 17.42.040, implementing TSP requirements.

Street widths in the following table are generally consistent with street widths in the TGM Model Code for Small Cities, edition 3.1. Local street and Residential Neighborhood Street lane width/parking aisle standards have been updated per discussion with City staff.

The following table implements the standards of the Transportation System Plan.

Standards Major Arterial Minor Collector Local Street Residential Neighborhood



					Street ***
ROW Width	80' (max)	70' (max)	60' (max)	50' (max)	20' (min)
Curb to curb width	60' (max)	40' (max)	40' (max)	36' (max)	20' (min)
Travel Lane width	11' (min)	10.5' (min)	10' (min)	7' <u>8'</u> (min)	7' <u>8'</u> (min)
Number of lanes	4 (max)	3 (max)	2 (min)	2 (max)	2 (min)
Median/center turn width (max)	12'	11.5'	Not required	Not required	Not required
Bike Lane width (min)	2 @ 6'	2 @ 6'	1 @ 6'	7'	Not required
Parking width (max)	8'	8'	8'	7' <u>8'</u>	Not required
Curb *	6"	6"	6"	6"	Not required
Planting Strip width (min)**	7'	7'	7'	3'	3'
Sidewalk width (min)	8'	7'	6'	5'	Not required
System spacing	1 mile	1/2 mile	1/2 mile	250'	100'
Design speed - (max)	40 mph	35 mph	25 mph	25 mph	20 mph
Access management: intersection spacing (min)****	300'	100' <u>250'</u>	100'	75'	50'
Access Management: driveway spacing	No direct driveway access	Shared driveway access	Shared driveway access	Direct access	Direct access allowed

^{*} Other City approved alternatives may be proposed, such as "Green Streets" standards, as defined by Portland Metro Green Streets handbook, and subsequent updates. A green street can be defined as a street designed to integrate a system of storm water management within its right of way, and to:

- Reduce the amount of water that is piped directly to streams and rivers.
- Be a visible component of a system of "green infrastructure" that is incorporated into the aesthetics of the community.
- Make the best use of the street tree canopy for storm water interception as well as temperature mitigation and air quality improvement.
- Ensure the street has the least impact on its surroundings, particularly at locations where it crosses a stream or other sensitive area.



- ** Planting strips may include filtration strips and swales.
- *** Allowed only within a Planned Development.
- **** Measured as adjacent edge to edge of right-of-way, with the higher street category controlling.

2. Parking standards

No changes to parking standards are included as part of this TSP update. The City may consider updating its parking requirements as part of upcoming housing-related planning efforts. Notes are provided below documenting the City's existing standards.

Parking standards are provided in Section 17.44.060 - Off Street Automobile and Bicycle Parking Requirements.

Several standards are tied to the number of employees for a particular use. This number can change over time; consider removing these requirements in the future.

Minimum bicycle parking requirements are generally lower than the amounts recommended in the DLCD Model Code for Small Cities and other sources.

Ordinance 2023-14 amended various portions of SHDC Title 17 to respond to HB2001 and other issues – parking and other standards for duplexes are consistent with standards for single family dwellings in the City's residential neighborhoods.

3. Traffic Impact Study requirements

17.42.130 TRAFFIC IMPACT STUDY

The purpose of this subsection is to coordinate the review of land use applications with roadway authorities and to implement Section OAR 660-012-00451.E. of the state Transportation Planning Rule (OAR 660-012-0045), which requires The City to adopt a process to apply conditions to development proposals in order to minimize impacts and protect transportation facilities. The following provisions also establish when a proposal must be reviewed for potential traffic impacts; when a Traffic Impact Analysis must be submitted with a development application in order to determine whether conditions are needed to minimize impacts to and protect transportation facilities; the required contents of a Traffic Impact Analysis; and who is qualified to prepare the analysis.

Changed specific outdated TPR reference to more general one.

A. When a traffic impact analysis is required. The City or other road authority with jurisdiction may require a Traffic Impact Analysis (TIA) as part of an application for development, a change in use, or a change in access. A TIA shall be required where a change of use or a



development involves one or more of the following:

- 1. A change in zoning or a plan amendment designation;
- 2. Operational or safety concerns documented in writing by a road authority;
- 3. An increase in site traffic volume generation by 300 Average Daily Trips (ADT) or more;
- 4. An increase in peak hour volume of a particular movement to and from a street or highway by 20 percent or more;
- 5. An increase in the use of adjacent streets by vehicles exceeding the 20,000-pound gross vehicle weights by 10 vehicles or more per day;
- 6. Existing or proposed approaches or access connections that do not meet minimum spacing or sight distance requirements or are located where vehicles entering or leaving the property are restricted, or such vehicles are likely to queue or hesitate at an approach or access connection, creating a safety hazard;
- 7. A change in internal traffic patterns that may cause safety concerns; or
- 8. A TIA required by ODOT pursuant to OAR 734-051.
- B. Traffic impact analysis preparation. A professional engineer registered by the State of Oregon, in accordance with the requirements of the road authority, shall prepare the Traffic Impact Analysis.
- C. Traffic Impact Analysis Scope. The City shall determine the study area, study intersections, trip rates, traffic distribution, and required content of the TIS based on information provided by the applicant about the proposed development.
 - 1. The study area will generally comprise an area within a ½-mile radius of the Development site. If the City determines that development impacts may extend more than ½ mile from the development site, a larger study area may be required.
 - 2. <u>If notice to ODOT or Linn County is required, the City will coordinate with these agencies to provide a comprehensive TIS scope.</u>

D. Traffic Impact Analysis Content

- 1. A TIS shall include all of the following elements, unless waived by the City.
- 2. Introduction and Summary. This section should include existing and projected trip generation including vehicular trips and mitigation of approved development not built to date; existing level and proposed level of service standard for City and County streets and volume to capacity for State roads; project build year and average growth in traffic between traffic count year and build year; summary of transportation operations; proposed mitigation(s); and traffic queuing and delays at study area intersections.
- 3. Existing Conditions. This section should include a study area description, including existing study intersection level of service.
- 4. Impacts. This section should include the proposed site plan, evaluation of the



- proposed site plan, and a project-related trip analysis. A figure showing the assumed future year roadway network (number and type of lanes at each intersection) should also be provided.
- 5. <u>Mitigation. This section should include proposed site and areawide specific</u> <u>mitigation measures. Mitigation measures shall be roughly proportional to potential impacts.</u>
- 6. Appendix. This section should include traffic counts, capacity calculations, warrant analysis, and any information necessary to convey a complete understanding of the technical adequacy of the TIS.
- E. Mitigation. The following measures may be used to meet mitigation requirements. Other mitigation measures may be suggested by the applicant or recommended by a state authority (e.g., ODOT) in circumstances where a state facility will be impacted by a proposed development. The City or other decision-making body shall determine if the proposed mitigation measures are adequate.
 - 1. On-and off-site improvements beyond required frontage improvements.
 - 2. Development of a transportation demand management program.
 - 3. Payment of a fee in lieu of construction.
 - 4. Correction of off-site transportation deficiencies within the study area that are not substantially related to development impacts.
 - 5. Construction of on-site facilities or facilities located within the right-of-way adjoining the development site that exceed minimum required standards and that have a transportation benefit to the public.

Added additional language modeled after Milwaukie, OR to specify the contents of a Traffic Impact Study and mitigation measurements that may be required.

4. Amendments to ensure compliance with the Transportation Planning Rule

Technical Memorandum #1 provided a detailed audit of the SHDC consistency with OAR 660-012, called the Transportation Planning Rule or TPR. Relevant sections of that review are provided below with applicable code changes or references to other sections of this document.

OAR 660-012-0045 - Implementation of the Transportation System Plan

0045 (1)(a) – Transportation uses to be allowed as permitted uses.

The Transportation Planning Rule (TPR) requires that cities allow for certain transportation uses consistent with the TSP without being subject to land use regulations. Currently transportation uses are not included in the list of permitted uses in the zoning ordinance, nor is there a general



provision indicating that transportation uses consistent with the adopted transportation system plan do not require a separate land use review.

See amendments to 17.08.020 below

17.08.020 PERMITTED USES - ALL ZONES

The following uses and activities are permitted in all zones:

- Placement and maintenance of underground or above ground wires, cables, pipes, guys, support structures, pump stations, drains, and detention basins within rights of way by public agencies and utility companies for telecommunications, or electrical power transmission, or transmission of natural gas, petroleum products, geothermal water, water, wastewater, sewage and rainwater.
- 2. Railroad tracks and related structures and facilities located within rights of ways controlled by railroad companies.
- 3. Surfaced travel lanes, curbs, gutters, drainage ditches, sidewalks, transit stops, landscaping and related structures and facilities located within rights of way controlled by a public agency.
- 4. Expansion of public right of way and widening or adding improvements within the right of way, provided the right of way is not expanded to more width than prescribed for the street in the Public Facilities segment of the Comprehensive Plan.
- 5. Operation, maintenance, and repair of transportation facilities identified in the TSP.
- 6. <u>Dedication of right-of-way, authorization of construction and the construction of facilities and improvements, where the improvements are consistent with clear and objective dimensional standards.</u>

0045 (2)(b) – Standards to protect the future operations of roads, transitways and major transit corridors

Review and amendments to the City's Transportation Impact Study requirements meet this TPR requirement. See Section 3 of this memorandum.

0045(2)(f) Regulations to provide notice to public agencies providing transportation facilities and services, MPOs, and ODOT

Notice requirements are detailed in Section 17.122, 17.124, 17.126, and 17.128. These sections address procedures for land use applications (Type I through Type IV). Wording varies somewhat between sections, though requirements are generally consistent with the TPR.



Note to reviewers: No changes recommended at this time.

17.122.010 PROCEDURE FOR TYPE I ACTION

•••

6. Notice. Notice of the decision is provided only to the applicant.

17.124.010 PROCEDURE FOR TYPE II ACTION

•••

- D. Notice. Before making a Type II decision, The City shall mail notice of the application to:
 - 1. All owners of record of real property within 100-feet of the subject site.
 - 2. Any person who submits a written request to receive a notice.
 - 3. Any governmental agency that is entitled to notice under an intergovernmental agreement entered into with The City, or required by State statute.
 - 4. The road authority, and rail authority and owner, when there is a proposed development abutting or affecting their transportation facility and allow the agency to review, comment on, and suggest conditions of decision for the application.
 - 5. The City may notify other affected agencies, as appropriate, for review of the application

17.126.01 PROCEDURES FOR TYPE III ACTIONS

•••

7. Planning commission hearing and notification area. City staff shall schedule a hearing before the Planning Commission. Written notice of the public hearing shall be mailed at least twenty (20) days prior to the hearing date to the applicant, owners of property within 300 feet of the boundaries of the subject property and to affected county and state agencies, including highways and roads. The Planning Commission shall conduct the hearing consistent with procedures set forth in Chapter 17.130. The notice of a pending Type III hearing shall include the following:

17.128.010 PROCEDURES FOR TYPE IV ACTIONS (QUASI-JUDICIAL)

•••



C. Agency referrals. Referrals will be sent to interested agencies such as City departments, police and fire departments, the school district, utility companies, and applicable state agencies. If a county road or state highway is impacted, referrals should be sent to the applicable County Public Works Department and/or Oregon Department of Transportation.

D. Planning commission hearing and notice. City staff shall schedule a hearing before the Planning Commission. The City Council and Planning Commission hearings can be combined if approved by the Mayor. The Planning Commission shall conduct the hearing consistent with procedures set forth in Chapter 17.130. Notice of the public hearings before the Planning Commission and City Council for a Type IV land use action, shall be published in a newspaper of general circulation in The City at least 20 days prior to each public hearing. Affected property owners within 300-feet of the subject property shall be notified by mail at least 20 days prior to the initial Planning Commission hearing. Mailed notice of a pending Type IV hearing shall include the following

0045(2)(g) Regulations assuring amendments to land use designations, densities, and design standards are consistent with the functions, capacities and performance standards of facilities identified in the TSP.

Amendments below add a specific criterion related to "functions, capacities, and performance standards" consistent with the adopted TSP.

17.112.050 DECISION CRITERIA

Plan map amendment proposals shall be approved if the applicant provides evidence substantiating the following:

- 1. All information and analysis must justify the proposed change relative to the Map designation to which the property is proposed to change, and to the Map designation from which the property is changing. The analysis must address the impacts from decreasing acreage of one map designation and increasing acreage for the proposed map designation.
- 2. Compliance is demonstrated with the Statewide Land Use Planning Goals and Guidelines and any relevant Administrative Rules applying to the subject properties or to the proposed land use designation. If the proposed designation requires an exception to the Goals, the applicable criteria in the Land Conservation and Development Commission (LCDC) Administrative Rules for the type of exception needed shall also apply.
- 3. Consistency with the applicable goals and policies in the Comprehensive Plan is demonstrated.
- 4. The Plan does not provide adequate areas in appropriate locations for uses allowed in the proposed land use designation and the addition of this property to the inventory of lands so designated is consistent with projected needs for such lands in the Comprehensive Plan.
- 5. The Plan provides more than the projected need for lands in the existing land use designation.
- 6. The proposed land use designation will not allow zones or uses that will destabilize the land use pattern in the vicinity or significantly adversely affect existing or planned uses on adjacent



lands.

- 7. Public facilities and services, including transportation facilities, necessary to support uses allowed in the proposed designation are available, or, will be available in the near future.
- 8. The proposed land use designations are consistent with the functions, capacities, and performance standards of facilities identified in the City's adopted Transportation System Plan.

0045(3)(a) Bicycle Parking Facilities

Consider adding transit transfer stations and park-and-ride lots to the list of facilities that require bicycle parking. Not considered to be a high priority at this time and no amendments are recommended.

0045(3)(b) Safe and Convenient Bicycle and Pedestrian Connections

New section 17.42.140 – Pedestrian and Bicycle Access and Circulation

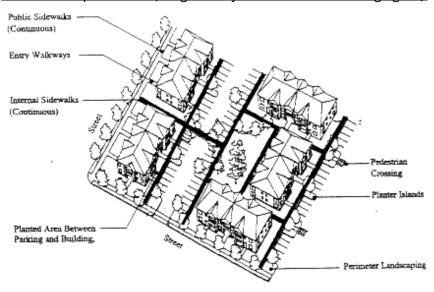
17.42.140 - Pedestrian and Bicycle Access and Circulation

- A. <u>Site Layout and Design:</u> To ensure safe, direct, and convenient pedestrian circulation, all developments shall provide a continuous pedestrian system. The pedestrian system shall be based on the standards in subsections 1-3, below:
- 1. Continuous Walkway System. The pedestrian walkway system shall extend throughout the development site and connect to all future phases of development, and to existing or planned off-site adjacent trails, public parks, and open space areas to the greatest extent practicable. The developer may also be required to connect or stub walkway(s) to adjacent streets and to private property with a previously reserved public access easement for this purpose in accordance with the provisions of other sections of 17.42 STREET STANDARDS, 17.58.040 ADDITIONAL STANDARDS FOR SUBDIVISIONS.
- 2. Safe, Direct, and Convenient. Walkways within developments shall provide safe, reasonably direct, and convenient connections between primary building entrances and all adjacent streets, based on the following criteria:
 - a. 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.
 - 2. Safe and convenient. Routes that are reasonably free from hazards and provide a reasonably direct route of travel between destinations.
 - 3. "Primary entrance" for commercial, industrial, mixed use, public, and institutional buildings is the main public entrance to the building. In the case where no public entrance exists, street connections shall be provided to the main employee entrance.
 - 4. "Primary entrance" for residential buildings is the front door (i.e., facing the street). For buildings in which units do not have their own exterior entrance, the "primary



entrance" may be a lobby, courtyard, or breezeway that serves as a common entrance for more than one dwelling.

- 3. Connections Within Development. Connections within developments shall be provided as required in subsections a-c, below:
 - a. Walkways shall be unobstructed and connect all building entrances to one another to the extent practicable, as generally shown in the following figure;



- b. Walkways shall connect all on-site parking areas, storage areas, recreational facilities and common areas, and shall 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; and
- c. For large parking areas with 80 or more parking spaces and depending on the layout of the parking lot, the City may require raised walkways a minimum of 5 feet wide to provide pedestrian safety.

0045(4)(b) Transit facilities

The following language requires new development to provide access to existing or planned transit facilities. It is contained in a new section 17.42.150. The City of Sweet Home is exempt from these requirements due to its size (below 25,000 in population) but is served by transit, so the following amendments are recommended.

- 17.42.150 Transit Facilities: Proposed uses other than single-unit residences and duplexes must provide for transit riders by providing developmental improvements to accommodate current or planned transit stops pursuant to the following:
- 1. If the proposed uses are located on a site within ¼ mile of an existing or planned transit stop, the



proposed pedestrian circulation system must demonstrate a safe and direct pedestrian route from building entrances to the transit stop or to a public right-of-way that provides access to the transit stop.

- 2. Proposed development must accommodate on site any existing or planned transit facility, if identified in the Community Transit Plan, through one or more of the following:
 - a. Provide a transit passenger landing pad accessible to disabled persons.
 - b. Provide an easement or dedication of land to accommodate passenger seating or shelter if requested by the transit provider.

COMPREHENSIVE PLAN AMENDMENTS

We recommend that the City amend its Comprehensive Plan to replace existing narrative, goals and policies related to transportation with a reference to the TSP as the transportation element of the Comprehensive Plan. The current content would be eliminated/repealed and replaced with the following statement.

The City of Sweet Home Transportation System Plan serves as the transportation element of the Comprehensive Plan.



REQUEST FOR COUNCIL ACTION

Title: Request for Council Action – Ordinance Bill No. 4 for 2025,

Ordinance No. 1332 – North Sweet Home Area (NSHA) Plan

Preferred Agenda: April 22, 2025

Submitted By: Angela Clegg, Planning & Building Manager

Reviewed By: Blair Larsen, City Attorney

Cecily Pretty, Deputy City Manager

Type of Action: Resolution \square Motion \boxtimes Roll Call \square Other \square

Relevant Code/Policy: Sweet Home Comprehensive Plan, Chapter 6

Towards Council Goal: Aspiration II: Effective and Efficient government; Goal 2.1:

Update and Streamline Processes; Goal 2.2: Develop continuity

in planning and permitting processes.

Attachments: Ordinance Bill No. 4 for 2025, Ordinance No. 1332

Draft Planning Commission Minutes - April 3, 2025

2025 NSHA Plan, Exhibits & Appendices

Purpose of this RCA:

The purpose of this RCA is to conduct the third reading of Ordinance Bill No. 4 for 2025, Ordinance No. 1332, to adopt the 2025 North Sweet Home Area (NSHA) Plan and text amendments to the Sweet Home Comprehensive Plan, Chapter 6: Transportation Systems.

Background/Context:

This legislative amendment, LA 25-01, consists of the 2025 North Sweet Home Area Plan and text amendments to Sweet Home Comprehensive Plan, Chapter 6. The NSHA Plan is a sub-element of the 2025 Transportation System Plan (TSP). The proposed text amendments were identified by the consultants, based on data provided by the technical advisory committee (TAC), the public advisory committee (PAC), staff, and feedback from the Planning Commission.

The following is a timeline of meetings and notices associated with this project:

- June 18, 2024: TAC/PAC workshop with consultants and staff.
- October 15, 2024: Staff submitted LA25-01 to DLCD.
- October 30, 2024: TAC/PAC workshop with consultants and staff.
- November 12, 2024: Joint City Council and Planning Commission Work Session with consultants and staff.
- January 9, 2025: TAC/PAC workshop with consultants and staff.
- January 28, 2025: Joint City Council and Planning Commission Work Session with consultants and staff.
- March 18, 2025: Notice sent to the New Era and Democrat Herald for publishing.

- April 3, 2025: The Planning Commission held a public hearing on the proposed text amendments. The Planning Commission moved to recommend approval of the amended Development Code to City Council.
- April 22, 2025, the City Council held a public hearing regarding this legislative amendment and conducted the first and second reading of the legislative amendment.

On May 13, 2025, the City Council will conduct the third reading of the legislative amendment.

The Challenge/Problem:

Should the City adopt the North Sweet Home Area Plan and amend Chapter 6 of the Comprehensive Plan in the manner recommended by the Planning Commission?

Issues and Financial Impacts:

This change will have no financial impact on the City.

Elements of a Stable Solution:

A stable solution involves adopting the North Sweet Home Area Plan and changes to the City's Comprehensive Plan that improve the quality of development for current and future residents and businesses, without overly burdening property owners and developers in a way that is clear, consistent, and does not require significant staff interpretation. In addition, a stable solution would be consistent with the City's policies and goals.

Options:

- 1. Move to approve Ordinance Bill No. 4 for 2025, Ordinance No. 1332, as proposed.
- 2. Move to amend Ordinance Bill No. 4 for 2025 for approval.
- 3. <u>Move to deny Ordinance Bill No. 4 for 2025 or take no action, leaving the Comprehensive Plan as is.</u>

Recommendation:

Staff recommends option 1: Move to approve Ordinance Bill No. 4 for 2025, Ordinance No. 1332.

ORDINANCE BILL NO. 4 FOR 2025

ORDINANCE NO. 1332

SWEET HOME ORDINANCE ADOPTING THE 2025 NORTH SWEET HOME AREA PLAN AS AN AMENDMENT TO AND SUB-ELEMENT OF THE CITY OF SWEET HOME TRANSPORTATION SYSTEM PLAN AND COMPREHENSIVE PLAN

WHEREAS, the City of Sweet Home Transportation System Plan was last updated in 2005 and did not include a North Sweet Home Area transportation plan; and

WHEREAS, ORS 197.175 requires the City to prepare, adopt, and implement Comprehensive Plans consistent with statewide planning goals adopted by the Land Conservation and Development Commission; and

WHEREAS, a North Sweet Home Area Plan is needed to provide direction for current and long-range planning; and

WHEREAS, the primary purpose of the North Sweet Home Area Plan is a long-term planning document that guides future development and investment of the transportation system; and

WHEREAS, the North Sweet Home Area Plan outlines the current transportation conditions in Sweet Home, identifies gaps and areas for improvement, and establishes clear goals for the City to consider for future planning; and

WHEREAS, following the timely mailing and publication of required notice, the Planning Commission conducted a public hearing on April 3, 2025, wherein the Commission received public testimony, staff reports, and exhibits, and thereafter deliberated and voted to recommend to the City Council the approval and adoption of the proposed North Sweet Home Area Plan for the City of Sweet Home an amendment to and a sub-element of the Sweet Home Transportation System Plan and Comprehensive Plan; and

WHEREAS, a copy of the record of the aforementioned Planning Commission action and recommendation, including the City Staff Legislative Findings, marked Exhibit A, is attached hereto and incorporated by reference herein; and

WHEREAS, the City Council, following the timely mailing and publication of required notice, held a public hearing on April 22, 2025 to review the proposed North Sweet Home Area Plan, and to gather additional testimony and evidence regarding the proposed Transportation System Plan; and

WHEREAS, the City Council has afforded all interested parties an opportunity to be heard on this subject and has entered all available evidence and testimony into the public record of its proceeding; and WHEREAS, the City Council has duly considered the subject, including the Planning Commission recommendations and all the exhibits and testimony introduced and offered by all interested parties.

NOW THEREFORE,

The City of Sweet Home does ordain as follows:

- Section 1. The above-recited findings are adopted and incorporated by reference herein as findings and conclusions, which include the staff report. The City Council further finds and concludes that the adoption of the proposed 2025 North Sweet Home Area Plan is necessary to serves as a roadmap for the City to identify and prioritize projects, policies, and programs that could receive funding over the next 20 years. These projects, policies, and programs are framed by recommended goals and policies aimed at preserving and enhancing the quality of life in Sweet Home.
- Section 2. The 2025 North Sweet Home Area Plan, attached hereto and marked as Exhibit B, is hereby adopted. Based on such findings, the City Council hereby adopts the 2025 North Sweet Home Area Plan, attached hereto and marked as Exhibit B, as an amendment to and sub-element of the City of Sweet Home Transportation System Plan and Comprehensive Plan and incorporated by reference as if fully set forth herein.
- Section 3. To reflect adoption of the North Sweet Home Area Plan, City staff are directed to make any conforming changes to the Comprehensive Plan necessary to incorporate the amendments adopted herein.

PASSED by the Council and approved by the Mayor this 13th day of May, 2025.

	Mayor
ATTEST:	
City Manager – Ex Officio City Recorder	



CITY OF SWEET HOME PLANNING COMMISSION MINUTES

April 03, 2025, 6:30 PM Sweet Home City Hall, 3225 Main Street Sweet Home, OR 97386

WIFI Passcode: guestwifi

PLEASE silence all cell phones - Anyone who wishes to speak, please sign in.

Meeting Information

The City of Sweet Home is streaming the meeting via the Microsoft Teams platform and asks the public to consider this option. There will be opportunity for public input via the live stream. To view the meeting live, online visit http://live.sweethomeor.gov. If you don't have access to the internet you can call in to 541-367-5128, choose option #1 and enter the meeting ID to be logged in to the call. Meeting ID: 212 001 640 706

Call to Order and Pledge of Allegiance

The meeting was called to order at 6:30 PM

Roll Call of Commissioners

PRESENT Henry Wolthuis Laura Wood Nancy White Joe Graybill

ABSENT Eva Jurney Jamie Melcher

STAFF

Angela Clegg, Planning and Building Manager Amber Steinborn, Planning & Building Technician Adam Leisinger, Special Projects Manager

GUESTS
Garth Appanaitis, DKS Associates
Andrew Parish, MIG

Public Comment. None

Public Hearings

LA25-01 Transportation System Plan and North Sweet Home Area Plan

a) LA25-01 Transportation System Plan and North Sweet Home Area Plan

The Public Hearing was opened at 6:31 PM

Commissioner Wood read the hearing disclosure statement and asked the Commission if there were any ex parte, conflicts of interest, or personal bias, there were none.

The location of the meeting is accessible to the disabled. If you have a disability that requires accommodation, advanced notice is requested by notifying the City Manager's Office at 541-367-8969.

Planning & Building Manager Clegg presented the staff report and asked the Commissioners if there were any questions. There were none.

Project consultants, Andrew Parish and Garth Appanaitis, presented a slide show to the Commissioners. The consultants asked if there were questions from the commissioners. Commissioner Wolthuis asked about the trestle and the sidewalk. Commissioner Graybill asked for document clarifications.

Testimony in Favor: None Testimony in Opposition: None Neutral Testimony: None

The Public Hearing was closed at 7:18 PM

A motion to recommend Application LA25-01 to City Council was made by Commissioner Wolthuis, seconded by Commissioner White.

Voting Yea: Commission Graybill, Commissioner White, Commissioner Wood,

Commissioner Wolthuis

Voting Nay: 0

Absent: Commissioner Melcher, Commissioner Jurney

Staff Updates:

Manager Clegg informed the Commission that the TSP goes to City Council on April 22nd. The Commissioners can testify in support of the plan. Clegg told the Commissioners to expect more code amendments later this year.

Manager Clegg gave a project update. The developer is starting to bid the infrastructure work on Coulter Subdivision. The planning department has 4 partition applications in review.

Planning Commission Business (Commission comments about topics not listed on the agenda)

None

Adjournment

The meeting was adjourned at 7:30 PM

Laura Wood, Chairperson Sweet Home Planning Commission

Respectfully submitted by Angela Clegg, Planning & Building Manager

EXHIBIT A



City of Sweet Home

Community and Economic Development Department- Planning Program 3225 Main Street, Sweet Home, OR 97386 541-367-8113

City of Sweet Home 2025 North Sweet Home Area Plan Adoption Legislative Findings

INTRODUCTION

The Draft 2025 North Sweet Home Area (NSHA) Plan is intended to provide guidance for future City decisions, certainty for landowners, and a cohesive and functional built environment through incremental development of NSHA properties. The Plan was prepared in collaboration with City staff, stakeholders, and community residents and documents the research, analysis, and community involvement process used to identify system assets and needs. The intent with this plan is to add it as an amendment to and sub-element of the 2025 Transportation System Plan (TSP) and current Comprehensive Plan.

The 2010 Sweet Home Comprehensive Plan includes goals for transportation systems in Sweet Home, incorporating Statewide Planning Goals 12 (Transportation). The Plan also adds community goals to balance the development needs of future land development with a system that serves all users. This Draft 2005 NSHA Plan is compatible with these goals and further details recommendations and improvement projects to align with the intent of the Comprehensive Plan.

The Draft 2025 NSHA Plan is proposed for adoption as an amendment to the Comprehensive Plan and a contextual sub-element document to the 2025 TSP that replaces the 2005 TSP. This document includes criteria of approval and findings of compliance that support a Type IV Legislative Procedure for plan adoption.

CRITERIA OF APPROVAL

Sweet Home Municipal Code Chapter 17.116 sets out the decision-making criteria for amendments to the Comprehensive Plan and Development Code. The decision criteria are listed in bold text with findings in plain text.

17.116.030 DECISION CRITERIA

Amendments to the Comprehensive Plan or Development Code test shall be approved if the evidence can substantiate the following:

- A. The proposed amendment will not adversely impact the following:
 - 1. Traffic generation and circulation patterns;

The Draft 2025 NSHA Plan includes an analysis of existing conditions; creation and evaluation of land use/transportation options; selection of a preferred alternative; and suggestion of changes to comprehensive plan and zoning designations, as well as policies and transportation projects identified in the Draft 2025 NSHA Plan. Therefore, this criterion is satisfied.

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2. Demand for public facilities and services;

The proposed plan does not include any improvements that will increase demand for public services—all proposed improvements are intended to satisfy existing demand, and future demand resulting from population growth. Therefore, this criterion is satisfied.

3. Level of park and recreation facilities;

The Draft 2025 NSHA Plan does not include any changes in the level of park and recreation facilities. Therefore, this criterion is satisfied.

B. A demonstrated need exists for the proposed amendment.

The current Comprehensive Plan includes the goal for "a well-planned, comprehensive transportation system that balances the need for future land development with a system that serves all users." The last Transportation System Plan that was mentioned in the Comprehensive Plan was completed in 2005 and did not include a North Sweet Home Area plan. The City of Sweet Home has grown substantially since that time. TSPs are mandated by Oregon's land use laws to promote thoughtful growth and assist local agencies in developing transportation systems that meet the needs of residents. The Draft 2025 NSHA Plan was prepared in conjunction with the 2025 TSP. Therefore, this criterion is satisfied.

C. The proposed amendment complies with all applicable Statewide Planning Goals and administrative rule requirements. In addition, amendments to the Development Code shall conform with applicable City Comprehensive Plan policies.

Goal 1 Citizen Involvement:

To develop a citizen involvement program that insures the opportunity for citizens to be involved in all phases of the planning process: To provide for widespread citizen involvement; To assure effective two-way communication with citizens; To provide the opportunity for citizens to be involved in all phases of the planning process; To assure that technical information is available in an understandable form; To assure that citizens will receive a response from policy-makers; and To insure funding for the citizen involvement program.

The Draft 2025 NSHA Plan is a long-term planning document that guides future development and investment in a transportation system in the north Sweet Home area. The development of the Plan included technical analysis, guidance from a combined Public Advisory Committee (PAC) and Technical Advisory Committee (TAC), and public engagement events. The project team created an introductory video and used flyers and a combination of social media and physical posters to generate public interest. Stakeholders represented small businesses, Sweet Fire District, Linn Shuttle, ODOT representatives, local landowners, Albany & Eastern Railroad, City committees, and City officials.

The process for approval of the Draft 2025 NSHA Plan is detailed in 17.128.020. The adoption process requires public hearings and notifications as outlined in 17.128.020(D) and (F): two hearings are required, one Planning Commission hearing and one City Council hearing, for application approval. The Planning Commission public hearing date is scheduled for April 3, 2025. The City Council public hearing is scheduled for April 22, 2025. The City provided notice in accordance with 17.128.020(D) and (F), which details the required public hearing notification process. In compliance with these sections, the City met the required notice timelines and published the notices in the local newspaper. Additionally, the Department of Land Conservation and Development was notified in writing by the City.

Based on the above findings, the process for adoption of the amendment complies with Goal 1 and meets the requirements of the State's Citizen Involvement provisions.

Goal 2 Land Use Planning:

To establish a land use planning process and policy framework as a basis for all decision and actions related to use of land and to assure an adequate factual base for such decisions and actions. City, county, state and federal agency and special district plans and actions related to land use shall be consistent with the comprehensive plans of cities and counties and regional plans adopted under ORS Chapter 268.

The City has an established land use planning process and a policy framework that serves as a basis for the decision on this request. The policy framework is found in the City's acknowledged Comprehensive Plan, which includes policies and goals relevant to the decision. An analysis of how the Draft 2025 NSHA Plan is consistent with this policy framework is presented below, as required for the requested Comprehensive Plan amendments.

- Amendments to the City's Comprehensive Plan have become part of the policy framework that serves as the basis for decisions and actions related to the use of land. The proposal is to replace the currently adopted 2005 TSP with the Draft 2025 NSHA Plan as an amendment to and sub-element of the 2025 TSP and current Comprehensive Plan, to be adopted and incorporated by reference as an element of the Comprehensive Plan.
- Existing state, regional, and local plans, policies, and regulations relevant to the Draft 2025 NSHA Plan were reviewed and summarized in order to guide the development of the NSHA Plan. (See Appendix A, TM #1, Plans & Policy Framework).
- Coordination between state, regional, and local agencies was accomplished through both the PMT, which included key City staff members, the TAC and PAC. Members of the TAC and PAC that provided guidance on the development of the NSHA Plan included representatives from multiple agencies and organizations, including those listed below.
 - o City of Sweet Home
 - Sweet Home Planning Commission
 - Sweet Home City Council
 - Sweet Home Fire District
 - o DLCD
 - o ODOT
 - Albany & Eastern Railroad
 - US Forest Service
 - Sweet Home School District
 - Sweet Home Chamber of Commerce
 - Linn Shuttle/Senior Center
- The project management team for the Draft 2025 NSHA Plan was comprised of City staff and consultants from DKS Associates, MIG and ODOT. In addition, the project team met in workshops with the PAC and TAC members on June 18, 2024, October 30, 2024, and January 9, 2025. The project team had joint work sessions with the Planning Commission and City Council on November 12, 2024 and January 28, 2025.

Based on the above findings, the process for adoption of the amendment complies with Goal 2 and meets the requirements of the State's Land Use Planning provisions.

Goal 3 - Agricultural Lands:

Agricultural lands shall be preserved and maintained for farm use, consistent with existing and future needs for agricultural products, forest and open space and with the state's agricultural land use policy expressed in ORS 215.243 and 215.700.

Goal 3 is not applicable to the Draft 2025 NSHA Plan.

Goal 4 Forest Land:

To conserve forest lands by maintaining the forest land base and to protect the state's forest economy by making possible economically efficient forest practices that assure the continuous growing and harvesting of forest tree species as the leading use on forest land consistent with sound management of soil, air, water, and fish and wildlife resources and to provide for recreational opportunities and agriculture.

Goal 4 is not applicable to the Draft 2025 NSHA Plan.

Goal 5 - Natural Resources, Scenic and Historic Areas, and Open Spaces:

To protect natural resources and conserve scenic and historic areas and open spaces. Local governments shall adopt programs that will protect natural resources and conserve scenic, historic, and open space resources for present and future generations. These resources promote a healthy environment and natural landscape that contributes to Oregon's livability.

OAR 660-015-0000(5) requires local governments to protect significant riparian corridors, upland wildlife habitat, and wetlands to conserve these resources and the biological systems they contain and support. The City of Sweet Home details protection and conservation efforts in the Comprehensive Plan and Development Code (Title 17 of the Sweet Home Municipal Code).

The Draft 2025 NSHA Plan contains significant areas of wetlands and floodplains in the vicinity of the South Santiam River. Much of the area is within a Natural Resources overlay zone, which requires additional screening for environmental issues through the City's development process.

The Draft 2025 NSHA Plan Policies and Plan Elements (see Exhibit B, NSHA Plan) support natural and cultural resource protection, including objectives below specifically address protection objectives and projects that generally support protection by promoting walking, biking, and taking transit.

- NSHA Policy 4, Parks and Trails: The existing Quarry Park, riverfront amenities, and new parks
 and open spaces will be connected by a system of trails and pathways, including a mixed-use
 path along the area's framework streets.
- NSHA Policy 5, Natural Resources: The North Sweet Home Area contains significant river frontage, riparian areas, wetland features, scenic views, and other natural resources that will be protected and enhanced as the area develops.
- Plan Element, Parks and Trails: A system of parks and trails are envisioned for the NSHA to take advantage of existing City-owned open space and buildout of new transportation infrastructure. The park and trails system will include the following elements.
 - Public Riverfront access at key locations
 - Connections to and through Quarry Park
 - Multi-use trails along key roadways to provide safe and comfortable access for people walking and rolling
 - Protected wetlands to provide open spaces within future development areas
- Proposed Transportation Projects:
 - M-1: 18th Avenue Multiuse Path: Install multiuse path along 18th Avenue and Tamarack Street.
 - M-2: New Neighborhood Street 2 MUP: Install multiuse path along New Neighborhood Street 2.
 - o M-3: Quarry Park Trail: Install new trail route through Quarry Park.
 - M-4: Tamarack Street Pedestrian Trail: Install new trail route between Tamarack Street and
 24th Avenue, including pedestrian bridge over existing body of water.
 - M-5: 24th Ave/Neighborhood St 1 Crossing: Install pedestrian crossing at 24th Ave/New Neighborhood Street 1 intersection. Type of crossing to be identified following engineering study.

- M-6: 24th Ave/Neighborhood St 2 Crossing: Install pedestrian crossing at 24th Ave/New Neighborhood Street 1 intersection. Type of crossing to be identified following engineering study.
- M-7: 25th Ave/Willow St Crossing: Install pedestrian crossing at 24th Ave/Willow Street intersection. Type of crossing to be identified following engineering study.

The Draft 2025 NSHA Plan provides a draft set of goals and objectives that are built upon the existing transportation goal and incorporates other key interests of Sweet Home (see Appendix B, TM #2 Goals Objectives and Evaluation Criteria).

- Goal 2 Safety:
 - o Identify and improve safe crossings for bicycles and pedestrians.
 - o Prioritize safe routes to school.
 - Expand the sidewalk network throughout the city.
 - o Identify and implement bicycle corridors to navigate the city.
 - o Improve lighting along pedestrian and bicycle corridors.
- Goal 3 Quality of Life:
 - Minimize the impacts of transportation system improvements on existing land uses.
 - Identify and seek funding for programs that encourage healthy transportation habits.
 - o Connect the city through pedestrian and bicycle paths.

The Draft 2025 NSHA Plan Goals and Objectives: will protect water quality resources and wetlands as required by law and provides land available to riverfront hospitality uses along the South Santiam River, which will continue to be protected through riparian area regulations. The preferred alternative should include a robust and connected transportation network is proposed in this area, for those walking, rolling, and driving (see Appendix B, TM #2, Goals Objectives and Evaluation Criteria).

The cumulative effect of the planned projects in the Draft 2025 NSHA Plan will protect and conserve existing natural resources and improve open spaces in Sweet Home. The amendment does not change or functionally alter any previously established protection or conservation measures.

Based on the above findings, the process for adoption of the amendment complies with Goal 5 and meets the requirements of the State's Natural Resources, Scenic and Historic Areas and Open Spaces provisions.

Goal 6 - Air, Water and Land Resources Quality:

To maintain and improve the quality of the air, water and land resources of the state. All waste and process discharges from future development, when combined with such discharges from existing developments shall not threaten to violate, or violate applicable state or federal environmental quality statutes, rules and standards.

Recommendations and development projects in the Draft 2025 NSHA Plan were designed to protect air, water, and land resources from pollution and contaminants. The recommendations support the enhancement of air, water, and land quality, ensuring the amendment aligns with Statewide Planning Goal 6.

Goal 7 - Areas Subject to Natural Disasters and Hazards:

To protect people and property from natural hazards. Local governments shall adopt comprehensive plans (inventories, policies and implementing measures) to reduce risk to people and property from natural hazards.

This amendment does not directly address potential natural disasters and hazards. These hazards are addressed in other planning processes. Therefore, this amendment is consistent with Statewide Planning Goal 7.

Goal 8 - Recreational Needs:

To satisfy the recreational needs of the citizens of the state and visitors and, where appropriate, to provide for the siting of necessary recreational facilities including destination resorts.

Roughly 70 acres of land north of Zelkova Street and adjacent to the South Santiam River is designated as Residential with a "Hospitality Overlay" zone. This designation is intended to provide additional allowances for development that takes advantage of the site's potential as a recreational hub (see Exhibit B, NSHA Plan). Riverfront hospitality considerations include:

- A resort could be designed around unique site features and take advantage of views of the river and mountain landscape.
- A small resort or lodge sited adjacent to neighborhoods could be more residential in character.
- Riverfront hospitality uses like cabins and campgrounds could preserve natural features within the NSHA.
- Hospitality uses including short term rentals, campsites, yurts, or RV resorts could be located within hospitality zones.

A large new commercially focused area is envisioned for the land in the southwestern area of the NSHA, west of 24th Avenue, occupying a portion of the former Sweet Home Mill site. Many commercial uses may also be developed as outright permitted use within the Hospitality Overlay zone (see Exhibit B, NSHA Plan). Additional commercial considerations include:

- Interim uses in commercial zones could include pop- up food and drink vendors, potentially serving tourism during the Oregon Jamboree.
- Small retail businesses could serve locals as well as tourists passing through town.
- Incubator space related to tourism could be located within NSHA Hospitality overlay zone.
- A covered stage area could be located within Quarry Park.
- A commercial node near the Hospitality Overlay zone could include outdoor equipment rentals.
- Open space within the NSHA could be used to host events like the Oregon Jamboree.

A system of parks and trails are envisioned for the NSHA to take advantage of existing City-owned open space and buildout of new transportation infrastructure (see Exhibit B, NSHA Plan). The park and trails system will include the following elements.

- Public Riverfront access at key locations
- Connections to and through Quarry Park
- Multi-use trails along key roadways to provide safe and comfortable access for people walking and rolling
- Protected wetlands to provide open spaces within future development areas

Based on the above findings, the process for adoption of the amendment complies with Goal 8 and meets the requirements of the State's Recreational Needs provisions.

Goal 9 - Economic Development:

This goal requires that local comprehensive plans and policies contribute to a stable and healthy economy in all regions of the state.

The Draft 2025 NSHA Plan Economic Development Policy: will provide opportunities for industrial, commercial, and service jobs. New employment areas will be focused in the vicinity of 24th Avenue and within the Hospitality Overlay area (see Exhibit B, NSHA Plan).

The Draft 2025 NSHA Plan contains roughly 75 acres of land in Industrial designation in a large contiguous site, located at the rail crossing at 24th Avenue. This location would allow future industrial

users to take advantage of the active rail line and the flat topography of the former Sweet Home Mill site (see Exhibit B, NSHA Plan). Industrial considerations include:

- Manufacturers of prefabricated buildings or prefabricated wood components could take advantage of nearby timber industry businesses and sources.
- Timber-related industrial uses would be well situated on this railroad-adjacent site in the NSHA.
- Employment areas could include pedestrian and bike connections for both workers and residents to access the river and downtown.
- Small scale "Craft" manufacturing related to nearby tourism industries (e.g., boating, snow sports, hiking, etc.), could locate manufacturing and show-room space within the NSHA in this option.
- A brewery or food-related manufacturer could locate their facility within employment industrial employment areas.

The Draft 2025 NSHA Plan includes roughly 70 acres of land north of Zelkova Street and adjacent to the South Santiam River is designated as Residential with a "Hospitality Overlay" zone. This designation is intended to provide additional allowances for development that takes advantage of the site's potential as a recreational hub (see Exhibit B, NSHA Plan). Riverfront hospitality considerations include:

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- Interim uses in commercial zones could include pop- up food and drink vendors, potentially serving tourism during the Oregon Jamboree.
- Small retail businesses could serve locals as well as tourists passing through town.
- Incubator space related to tourism could be located within NSHA Hospitality overlay zone.
- A covered stage area could be located within Quarry Park.
- A commercial node near the Hospitality Overlay zone could include outdoor equipment rentals.
- Open space within the NSHA could be used to host events like the Oregon Jamboree.

Goal 4 – Economic Development (see Appendix B, TM #2) promotes economic development and tourism. The objectives of the TM #2 Goal 4 are as follows:

- Provide facilities to connect the public to downtown, parks, and other event locations and recreation opportunities
- Manage arterials to support freight in the efficient movement of goods and services
- Improve wayfinding and signage around the City to improve the ability to confidently navigate the transportation network by residents and visitors
- Coordinate with state and regional partners to implement transportation strategies that support increased tourism
- Improve walkability in the Downtown area to promote economic activity.

The Draft 2025 NSHA Plan Goals and Objectives (see Appendix E, TM #10):

• The Preferred Alternative provides land for a range of industrial and commercial uses, in areas to the SW of the study area, closest to existing downtown uses and activity.

This amendment does not directly impact or inhibit economic activities or propose any zoning designation changes. Based on the above findings, the process for adoption of the amendment complies with Goal 9 and meets the requirements of the State's Economic Development provisions.

Goal 10 - Housing:

This goal requires the City plans provide for the appropriate type, location and phasing of public facilities and services sufficient to support housing development in areas presently developed or undergoing development or redevelopment.

Several Draft 2025 NSHA Plan policies and projects promote a transportation system that can adequately support housing development and future travel demand. The Draft 2025 NSHA Plan will provide a variety of housing types to help accommodate the long-term growth of the City. Residentially designated land in the NSHA will receive the R-2 zoning designation, with the possibility of additional flexibility provided by the City's Planned Development process. The residential Plan element of the Draft 2025 NSHA Plan includes over 300 acres of the NSHA area has a residential designation, providing land to help the City of Sweet Home meet its future housing needs. Design of residential neighborhoods in the NSHA will follow the following principles (see Exhibit B, NSHA Plan):

- Preserve natural features for future enjoyment of all
- Provide scenic views
- Include parks, trails, and open spaces
- Are pedestrian and bicycle friendly
- Have connected streets
- Have a mix of activities
- Provide housing for a range of incomes and lifestyles
- Have a variety of housing forms

Travel demand analysis conducted through the TSP/NSHA Plan process estimates total traffic will increase by over 20% (approximately 1,785 new households) by 2045 (see Appendix D, TM #5). Many of the identified Draft 2025 NSHA Plan projects are intended to increase travel capacity among various modes to accommodate future demand. Transportation improvements that accommodate traffic increases over the next 20 years will also help the City meet future housing needs. Many other projects are intended to complete the transportation network and options within existing residential areas. Examples of goals and projects that support increased housing capacity and other transportation improvements that serve existing residential areas include (see Appendix B, TM #2):

- Goal 1: Mobility, Accessibility, and Connectivity.
 - o Address intersection capacity needs for present and future traffic volumes.
 - Upgrade key intersection locations to meet Americans with Disabilities Act (ADA) requirements.
 - Encourage active transportation through policy and engineering.
 - Ensure the transportation system provides equitable access for all people.
 - Provide connectivity within the city and identify and prioritize needed transportation connections.
- Goal 2: Safety
 - o Identify and improve safe crossings for bicycles and pedestrians.
 - o Prioritize safe routes to school.
 - Expand the sidewalk network throughout the city.
 - Identify and implement bicycle corridors to navigate the city.
 - Improve traffic safety through a comprehensive program of engineering, education, and enforcement.
 - Design streets to serve their anticipated function and intended use.
 - Improve lighting along pedestrian and bicycle corridors.
- Goal 3: Quality of Life
 - o Preserve community identity through transportation design choices.

- o Minimize the impacts of transportation system improvements on existing land uses.
- o Connect the city through pedestrian and bicycle paths.
- Goal 4: Economic Development
 - Provide facilities to connect the public to downtown, parks, and other event locations and recreational opportunities.
 - Improve wayfinding and signage around the city to improve the ability to confidently navigate the transportation network by residents and visitors.
 - o Improve walkability in the Downtown area to promote economic activity.
- Goal 5: System Management and Maintenance
 - Maintain a roadway functional classification system that prioritizes the purpose and design of each existing and future roadway. Classify streets according to function to achieve consistency in construction, operation, and maintenance.
 - Streets should operate with the intended purpose and provide a combination of mobility and access consistent with the functional classification. Traffic volumes should align with the functional classification with higher classification facilities generally carrying higher traffic volumes.
 - Street policies and design standards should be based on functional classification and other contextual considerations. Streets should be constructed to these standards unless exceptions are granted as approved by Public Works.
 - Where existing streets do not meet standards or proposed streets are unable to meet standards, other management practices (such as parking prohibition) may be utilized to maintain safe operation.
 - Balance local access to US 20 with the need to serve regional and statewide traffic, while supporting adjacent land uses
 - Plan for a transportation system that supports projected population and employment growth and maximize travel options by providing efficient routes for all modes of transportation.
- TSP and NSHA Considerations: The TSP and NSHA will likely incorporate the same or similar transportation goals and policies. However, there may be deviations to apply additional focus for considerations within the NSHA or other parts of Sweet Home. Potential considerations between variation in TSP (Citywide) and NSHA goals and policies may include:
 - Location and context specific considerations
 - Presence of rail crossings within NSHA
 - NSHA connections to downtown
 - Many areas of Sweet Home are built out while NSHA has more space for right of way opportunities
 - Intent-based considerations
 - Promotion of future development within NSHA
- Street Improvement Projects (Draft 2025 NSHA Plan, Table 1, Projects C-1 and C-2)
- New Neighborhood Street Projects (Draft 2025 NSHA Plan, Table 1, Project C-3 and C-4)
- Street Extension Projects (Draft 2025 NSHA Plan, Table 1, Projects C-5 and C-6)
- Street Improvement Projects (Draft 2025 NSHA Plan, Table 1, Projects S-1 through S-9)
- Multiuse Path Projects (Draft 2025 NSHA Plan, Table 1, Projects M-1 and M-2)
- Trail Projects (Draft 2025 NSHA Plan, Table 1, Project M-3 and M-4)
- Street Crossing Projects (Draft 2025 NSHA Plan, Table 1, Projects M-5 through M-7)

The provisions of this amendment do not address the planning or development of housing. Based on the above findings, the process for adoption of the amendment complies with Goal 10 and meets the requirements of the State's Housing provisions.

Goal 11 - Public Facilities and Services:

Goal 11 requires cities and counties to plan and develop a timely, orderly and efficient arrangement of public facilities and services to serve as a framework for urban and rural development. The goal requires that urban and rural development be "guided and supported by types and levels of urban

and rural public facilities and services appropriate for, but limited to, the needs and requirements of the urban, urbanizable and rural areas to be served."

Transportation facilities, including roadways, bikeways, sidewalks, and multi-use paths are a primary type of public facility and, in Sweet Home, are managed by public agencies including the City, Linn County, and ODOT. The Draft 2025 NSHA Plan documents existing conditions and future needs for Sweet Home's transportation system based on the existing and planned land uses (see Appendix C, TM #3 and Appendix D, TM #5), respectively. The Draft 2025 NSHA Plan projects (listed in Draft 2025 NSHA Plan Table1, Exhibit B) are tailored to meet identified existing and future needs and address project goals and objectives.

Based on the above findings, the process for adoption of the amendment complies with Goal 11 and meets the requirements of the State's Public Facilities and Services provisions.

Goal 12- Transportation:

Goal 12 requires cities, counties, metropolitan planning organizations, and ODOT to provide and encourage a "safe, convenient and economic transportation system." This is accomplished through development of Transportation System Plans based on inventories of local, regional and state transportation needs. Goal 12 is implemented through OAR 660, Division 12, also known as the Transportation Planning Rule ("TPR"). The TPR contains numerous requirements governing transportation planning and project development. (See the "OAR 660, Division 12" section of this document for findings of compliance with the TPR.)

Project goals and priorities that address mobility and connectivity, capital investments/funding, community needs, system management, environment, transit, safety, equity, and health guided the development of the Draft 2025 NSHA Plan. Existing conditions and future transportation needs were analyzed with respect to these goals and objectives. Elements of the Draft 2025 NSHA Plan – including existing conditions and future needs, as well transportation system standards, implementation strategies, and recommended transportation system improvements – are consistent with TPR Section - 0020 requirements.

The inventory and analysis of existing and future conditions identified opportunities, by mode, to improve the transportation system are in the Draft 2025 NSHA Plan (see Appendix C, TM #3). These needs were identified in the existing conditions and needs analysis; by project team members, advisory committee members, and other community members; and through analysis using projected future traffic volumes and patterns, consistent with TPR Section -0030 requirements.

Evaluation criteria, developed in accordance with TPR Section -0035 and based on the NSHA Plan goals and objectives, were used to evaluate improvement alternatives that would address identified needs. Evaluation criteria is detailed in the Draft 2025 NSHA Plan (see Appendix B, TM #2). The criteria were presented to and refined during discussions with the TAC/PAC during their scheduled meetings and community members at public meetings.

The regulatory basis for proposed transportation policies and development code amendments – in particular, TPR requirements – is outlined in the Draft 2025 NSHA Plan (see Appendix A, TM #1) and Comprehensive Plan and Development Code Amendments (see Appendix F). This coordination of land use and transportation planning is consistent with both the general purpose and specific requirements in the TPR, including Section -0045 (Implementation of the Transportation System Plan).

The Draft 2025 NSHA Plan will be adopted as an amendment to and sub-element of the 2025 TSP, the Transportation Element of the City's Comprehensive Plan. NSHA Plan adoption will be accomplished through a legislative amendment process consistent with City procedures and requirements.

Based on the above findings, the process for adoption of the amendment complies with Goal 12 and meets the requirements of the State's Transportation provisions.

Goal 13 - Energy Conservation:

To conserve energy. Land and uses developed on the land shall be managed and controlled so as to maximize the conservation of all forms of energy, based upon sound economic principles.

A robust set of bicycle and pedestrian projects are recommended in the Draft 2025 NSHA Plan. The transportation sector is the biggest Green House Gas (GHG) polluter, and the transportation system is increasingly vulnerable to climate change and extreme weather events. Reducing GHG emissions through mitigation actions is necessary to help achieve Oregon's climate goals and decarbonize the transportation system. As the climate changes and there are more wildfires, floods, and landslides, efforts are needed to adapt the transportation system to be able to better withstand or recover quickly from these events (Oregon Transportation Plan, Chapter 2 - Key Drivers of Change, 2.2 Climate Change).

Active transportation relies on safe and connected bicycle and pedestrian infrastructure tailored to Oregon's diverse communities (Oregon Transportation Plan 3.2 – Bicycle and Pedestrian Infrastructure)

The Draft 2025 NSHA Plan includes policies and projects that are intended to promote pedestrian and bicycle mobility, which supports energy conservation for the City's transportation system (see Appendix B, TM #2). The following Draft 2025 NSHA Plan policies and projects support the City's pedestrian and bicycle mobility goals:

- Goal 2: Safety
 - Expand the sidewalk network throughout the city.
 - Identify and implement bicycle corridors to navigate the city.
- Goal 3: Quality of Life
 - o Identify and seek funding for programs that encourage healthy transportation habits.
 - Connect the city through pedestrian and bicycle paths.
- Goal 4: Economic Development
 - o Improve walkability in the Downtown area to promote economic activity.
- Comprehensive Plan Policy 5: The Standards for Pedestrian and Bicycle System improvements listed in the Transportation System Plan, shall be implemented when reviewing new development.

The Draft 2025 NSHA Plan Policies and Plan Elements (see Exhibit B, NSHA Plan) support natural and cultural resource protection, including objectives below specifically address protection objectives and projects that generally support protection by promoting walking, biking, and taking transit.

- NSHA Policy 4, Parks and Trails: The existing Quarry Park, riverfront amenities, and new parks
 and open spaces will be connected by a system of trails and pathways, including a mixed-use
 path along the area's framework streets.
- Proposed Transportation Projects (see Exhibit B, Table 1):
 - M-1: 18th Avenue Multiuse Path: Install multiuse path along 18th Avenue and Tamarack Street
 - M-2: New Neighborhood Street 2 MUP: Install multiuse path along New Neighborhood Street 2.
 - M-3: Quarry Park Trail: Install new trail route through Quarry Park.
 - M-4: Tamarack Street Pedestrian Trail: Install new trail route between Tamarack Street and 24th Avenue, including pedestrian bridge over existing body of water.
 - M-5: 24th Ave/Neighborhood St 1 Crossing: Install pedestrian crossing at 24th Ave/New Neighborhood Street 1 intersection. Type of crossing to be identified following engineering study.

- M-6: 24th Ave/Neighborhood St 2 Crossing: Install pedestrian crossing at 24th Ave/New Neighborhood Street 1 intersection. Type of crossing to be identified following engineering study.
- M-7: 25th Ave/Willow St Crossing: Install pedestrian crossing at 24th Ave/Willow Street intersection. Type of crossing to be identified following engineering study.

Based on the above findings, the process for adoption of the amendment complies with Goal 13 and meets the requirements of the State's Energy Conservation provisions.

Goal 14 - Urbanization:

To provide for an orderly and efficient transition from rural to urban land use, to accommodate urban population and urban employment inside urban growth boundaries, to ensure efficient use of land, and to provide for livable communities.

The Draft 2025 NSHA Plan includes a number of policies and projects that are intended to accommodate future housing and employment growth forecasted out to 2045, as described in findings for Statewide Planning Goals 9 (Economic Development) and 10 (Housing).

Draft 2025 NSHA Plan Goal 1 – Mobility, accessibility and Connectivity (see Appendix B, TM #2):

- Address intersection capacity needs for present and future traffic volumes.
- Draft 2025 TSP Goal 5 System Management and Maintenance (see Appendix B, TM #2):
 - Plan for a transportation system that supports projected population and employment growth and maximize travel options by providing efficient routes for all modes of transportation.

See findings to Goal 9 and 10 for more details on how specific Draft 2025 NSHA Plan policies and projects are intended to respond to a growing community.

Based on the above findings, the process for adoption of the amendment complies with Goal 14 and meets the requirements of the State's Urbanization provisions.

Statewide Planning Goals 15 (Willamette River Greenway), **16** (Estuarine Resources), **17** (Coastal Shorelines), **18** (Beaches and Dunes), and **19** (Ocean Resources) are not applicable to the City of Sweet Home.

Conforming with Applicable City Comprehensive Plan Policies

The 2000 Sweet Home Comprehensive Plan (updated in 2010) includes Transportation Systems goals outlined in Chapter 6. The goals are:

• The City of Sweet Home wants a well-planned, comprehensive transportation system that balances the needs of future land development with a system that serves all users.

Development of the Draft 2025 NSHA Plan included a community outreach and involvement process that involved the collection of feedback from a variety of community members that informed recommendations used to develop the goals and objectives of the NSHA Plan update and identify community needs and priorities. The project team evaluated the existing conditions and future needs of the transportation system in Sweet Home to develop several technical memorandums and a list of recommended projects for the City to consider over the next 20 years.

As stated previously, the Draft 2025 NSHA Plan is designed to be consistent with the Comprehensive Plan goals and further implements the goals through recommendations and projects in the Plan. The proposed amendment does not affect any other goals in the Comprehensive Plan nor create any inconsistency within the Comprehensive Plan. Therefore, this criterion is satisfied.

D. The amendment is appropriate as measured by at least one of the following criteria:

1. It corrects identified error(s) in the provisions of the plan.

The previous 2005 TSP did not include an NSHA Plan. The NSHA Plan is an amendment to and subelement of the 2025 TSP and current Comprehensive Plan.

2. It represents a logical implementation of the plan.

Because the Comprehensive Plan includes the goal that the City "wants a well-planned, comprehensive transportation system that balances the needs of future land development with a system that serves all users," this Plan represents a logical implementation of the current Sweet Home Comprehensive Plan. Therefore, this criterion is satisfied.

3. It is mandated by changes in federal, state, or local law.

TSPs are mandated by Oregon's land use laws to promote thoughtful growth and assist local agencies in developing transportation systems that meet the needs of residents. The NSHA Plan is an amendment to and sub-element of the 2025 Transportation System Plan (TSP) and current Comprehensive Plan Therefore, this criterion is satisfied.

4. It is otherwise deemed by the City Council to be desirable, appropriate, and proper.

The Draft 2025 NSHA Plan will be brought before the Planning Commission for recommendation and the City Council for adoption, which will further show that the amendment is deemed by the Council to be desirable, appropriate, and proper. Therefore, this criterion is satisfied.

Exhibit B: Draft North Sweet Home Area Plan

Appendix A: Technical Memorandum #1
Appendix B: Technical Memorandum #2
Appendix C: Technical Memorandum #3
Appendix D: Technical Memorandum #5
Appendix E: Technical Memorandum #10

Appendix F: Comprehensive Plan and Development Code Amendments



Department of Transportation

Transportation and Growth Management Program 350 W . Marine Drive Astoria, Oregon, 97103 Phone: (971) 239-3670

Date: April 16th, 2025

TO: City of Sweet Home City Council

FROM: Michael Duncan

Senior Region Planner,

Transportation Growth Management Program Grant Manager

ODOT Region 2

SUBJECT: City of Sweet Home Transportation System Plan Update and North Sweet Home Area Plan, 2025

Congratulations on nearing completion of your Transportation System Plan (TSP) and Area Plan. ODOT is pleased to have participated in developing this plan, which identifies needed improvements, programs, and policy context on both the local street system and the state system.

ODOT supports the technical analysis used to identify problems and solutions, and the policies you established for making transportation-related investment decisions. We endorse your adoption of the plan.

We appreciate the difficult choices involved in deciding which projects and programs to include in the TSP's financially-constrained project list— the projects that are likely to be constructed or implemented within the 20-year planning horizon, given the limited amount of funding the TSP anticipates will be available.

As noted in the TSP, a good portion of the forecasted funding that was identified in the TSP's financial analysis section as reasonably likely to be available for the financially constrained projects and programs identified on the state highway system and included in the TSP are not secured at this time. Consequently, actual project and program implementation will be dependent on those funding forecasts being fully realized. This is an important consideration for both Sweet Home and ODOT.

ODOT looks forward to working with you to implement your TSP as resources allow.

Regards,

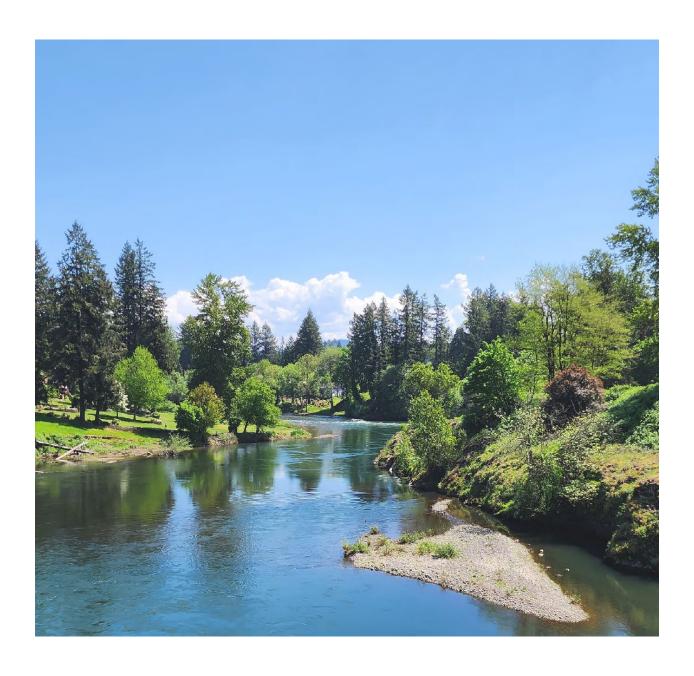
Michael Duncan TGM Grant Manager, Sr. Region Planner 350 W. Marine Drive Astoria, Oregon 97103

CC: Naomi Zwerdling, ODOT Region 2 Planning and Development Review Manager

North Sweet Home Area Plan

City of Sweet Home, Oregon

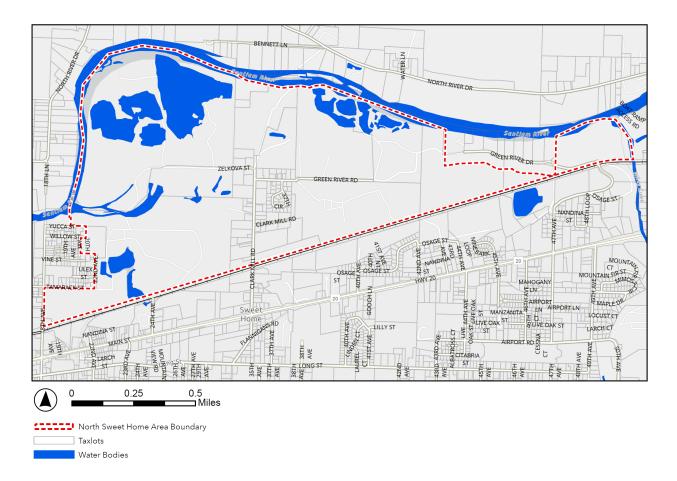
DRAFT April 17, 2025



Introduction

This area plan was prepared by the City of Sweet Home for land in the northern part of the City limits, called the North Sweet Home Area (NSHA). The NSHA is shown in Figure 1.

Figure 1. North Sweet Home Area



The North Sweet Home Area Plan is intended to provide guidance for future City decisions, certainty for landowners, and a cohesive and functional built environment through incremental development of NSHA properties. The plan document includes:

- 1. Introductory materials, including an overview of plan policies and the planning process.
- 2. A description of existing conditions in the NSHA.
- 3. Plan elements describing the plan's intent and policies across each of several topic areas

- 4. Case studies of other communities which have successfully redeveloped similar sites, providing lessons for the City of Sweet Home
- 5. Implementation actions
- 6. Appendices which include a summary of alternatives evaluated, implementing Comprehensive Plan and Zoning Code amendments, and supporting information from the Transportation System Plan.

NSHA Policies

The following policies are intended to guide the incremental development of the North Sweet Home Area into a cohesive and vibrant part of the City of Sweet Home.

- **1. Housing.** The North Sweet Home Area will provide a variety of housing types to help accommodate the long-term growth of the City.
- **2. Economic Development.** The North Sweet Home Area will provide opportunities for industrial, commercial, and service jobs. New employment areas will be focused in the vicinity of 24th Avenue and within the Hospitality Overlay area.
- **3. Connectivity.** The North Sweet Home Area will be served by a connected and multimodal transportation system built consistent with the standards in the City's Transportation System Plan.
- **4. Parks and Trails.** The existing Quarry Park, riverfront amenities, and new parks and open spaces will be connected by a system of trails and pathways, including a mixed use path along the area's framework streets.
- **5. Natural Resources.** The North Sweet Home Area contains significant river frontage, riparian areas, wetland features, scenic views, and other natural resources that will be protected and enhanced as the area develops.

Planning Process

This area planning effort includes the following steps: 1) an analysis of existing conditions; 2) creation and evaluation of land use/transportation options; 3) selection of a preferred alternative; and 4) suggestion of changes to comprehensive plan and zoning designations, as well as policies and transportation projects identified in the updated TSP.

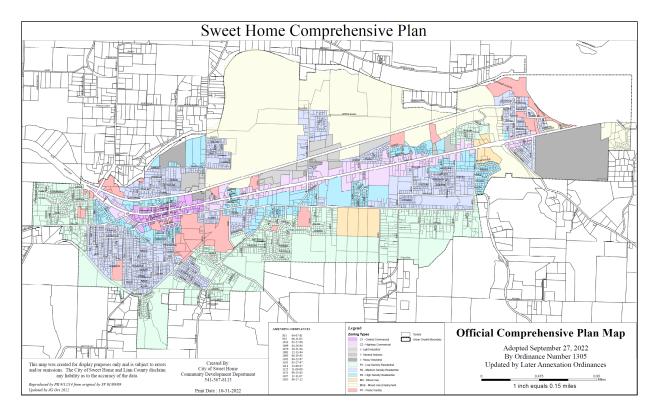
The North Sweet Home Area Plan was prepared in consultation with City staff, elected and appointed officials, property owners in the study area, and the broader public. Three alternatives were prepared to examine different potential combinations of land use and

transportation systems in the area. They are summarized in the Community Booklet, included as Appendix A.

Existing Conditions

The North Sweet Home Area today consists of roughly 750 acres in total, including the Cityowned Quarry Park, the former Sweet Home Mill site, existing residences and businesses, and undeveloped land. The majority of the land has a "Mixed Use Employment" Comprehensive Plan designation and a "Recreational Commercial" zoning designation. Comprehensive Plan designations are shown on Figure 2 and zoning map designations are shown in Figure 3.

Figure 2. Comprehensive Plan Designations



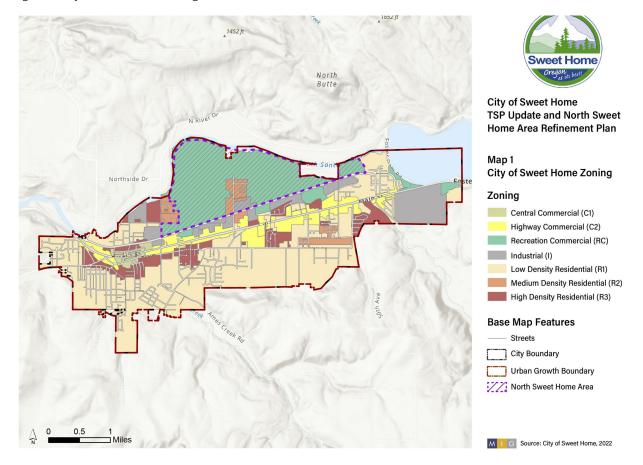


Figure 3. City of Sweet Home Zoning

Existing Land Use

Existing land uses in the North Sweet Home Area are shown in Figure 4. Uses include residential neighborhoods, industrial and/or commercial uses, and open spaces. Much of the area is undeveloped or underdeveloped, with low-improvement uses occupying most large parcels in the area. The former Sweet Home Mill site is within the study area, which serves as an opportunity for a redevelopment anchor and informs the likely infrastructure phasing.

Residential
Commercial
Industrial
Transportation/Utilities
Water
Civic/Institutional
Underutilized Land

Open Space
Sweet Home TSP and North Sweet
Home Area Plan Update
Underutilized Land

Figure 4. Existing Land Uses

Environmental Characteristics

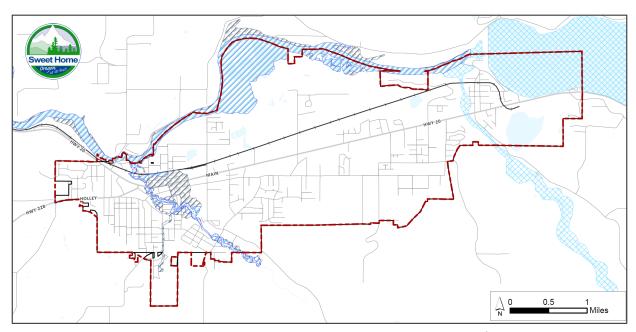
Vacant Land

Natural Conservation

The North Sweet Home Area contains significant areas of wetlands and floodplains in the vicinity of the South Santiam River. Much of the area is within a Natural Resources overlay zone, which requires additional screening for environmental issues through the City's development process. These features are shown in Figure 5.



Figure 5. Environmental Characteristics



Environmental Conditions

FEMA Floodplain

500-year Floodplain

A (100-year undetermined)

AE (100yr)

AE (100yr) Floodway

Waterbody

Sweet Home City Limits

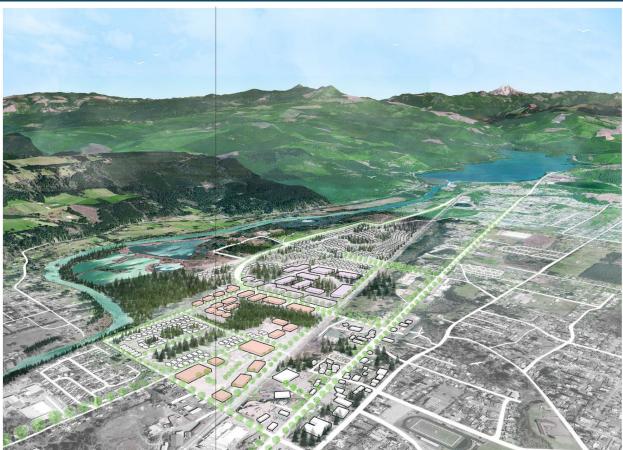
Urban Growth Boundary

Environment

Sweet Home TSP and North Sweet Home Area Plan Update



Plan Elements



A view looking NE across the North Sweet Home area towards Foster Reservoir and the Cascade Mountains, showing one potential buildout of the Preferred Alternative in the next 20-30 years, integrating a new neighborhood into this beautiful riverfront next to downtown Sweet Home. The ultimate eventual developed neighborhood will be shaped by this plan, with flexibility for individual design decisions from property owners and developers.

Land Use Summary

The Preferred Land Use Plan is shown in Figure 6. It contains industrial and commercial uses in the Southwest of the NSHA, open space designations on Quarry Park and wetland areas, and residential uses in the remainder of the area. A "Hospitality Overlay" zone on land in the vicinity of the South Santiam River is intended to allow for uses catering to a visiting public, including hotels, restaurants, equipment rentals, and similar uses. Hospitality uses could range in scale depending on the size of a given development, but could retain a more residential feel to match surrounding uses. Less intensive hospitality

uses may include rental cabins, campsites, yurts, or RV sites with access to the river or nearby riverfront trails. More intensive hospitality uses could include a small resort.

Nearby commercial and employment lands could also provide services related to tourism, like outdoor recreation equipment rentals or venue / restaurant space.

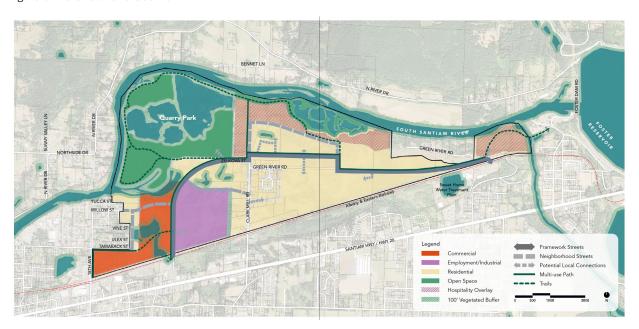


Figure 6. Preferred Land Use Plan

Employment / Industrial

The Plan contains roughly 75 acres of land in Industrial designation in a large contiguous site, located at the rail crossing at 24th Avenue. This location would allow future industrial users to take advantage of the active rail line and the flat topography of the former Sweet Home Mill site. Industrial considerations include:

- Manufacturers of prefabricated buildings or prefabricated wood components could take advantage of nearby timber industry businesses and sources.
- Timber-related industrial uses would be well situated on this railroad-adjacent site in the NSHA.
- Employment areas could include pedestrian and bike connections for both workers and residents to access the river and downtown.
- Small scale "Craft" manufacturing related to nearby tourism industries (e.g., boating, snow sports, hiking, etc.), could locate manufacturing and show-room space within the NSHA in this option.

• A brewery or food-related manufacturer could locate their facility within employment industrial employment areas.













Riverfront Hospitality



Roughly 70 acres of land north of Zelkova Street and adjacent to the South Santiam River is designated as Residential with a "Hospitality Overlay" zone. This designation is intended to provide additional allowances for development that takes advantage of the site's potential as a recreational hub. For additional details about the Hospitality Overlay zone, see **Appendix B: Comprehensive Plan and Zoning Code Amendments.**

Riverfront hospitality considerations include:

- A resort could be designed around unique site features and take advantage of views of the river and mountain landscape.
- A small resort or lodge sited adjacent to neighborhoods could be more residential in character.
- Riverfront hospitality uses like cabins and campgrounds could preserve natural features within the NSHA.
- Hospitality uses including short term rentals, campsites, yurts, or RV resorts could be located within hospitality zones.









Residential

Over 300 acres of the NSHA area has a residential designation, providing land to help the City of Sweet Home meet its future housing needs. Design of residential neighborhoods in the NSHA will follow the following principles:

Neighborhood Design Principles:

Great neighborhoods...

- Preserve natural features for future enjoyment of all
- Provide scenic views
- Include parks, trails, and open spaces
- Are pedestrian and bicycle friendly

- Have connected streets
- Have a mix of activities
- Provide housing for a range of incomes and lifestyles
- Have a variety of housing forms

Residentially designated land in the NSHA will receive the R-2 zoning designation, with the possibility of additional flexibility provided by the City's Planned Development process.





Commercial, Retail, & Event Spaces

A large new commercially-focused area is envisioned for the land in the southwestern area of the NSHA, west of 24th Avenue, occupying a portion of the former Sweet Home Mill site. Many commercial uses may also be developed as outright permitted use within the Hospitality Overlay zone.

Additional commercial considerations include:

- Interim uses in commercial zones could include pop- up food and drink vendors, potentially serving tourism during the Oregon Jamboree.
- Small retail businesses could serve locals as well as tourists passing through town.
- Incubator space related to tourism could be located within NSHA Hospitality overlay zne, like this photo of incubator wineries at the Port of Walla Walla.
- A covered stage area could be located within Quarry Park.
- A commercial node near the Hospitality Overlay zone could include outdoor equipment rentals.
- Open space within the NSHA could be used to host events like the Oregon Jamboree.











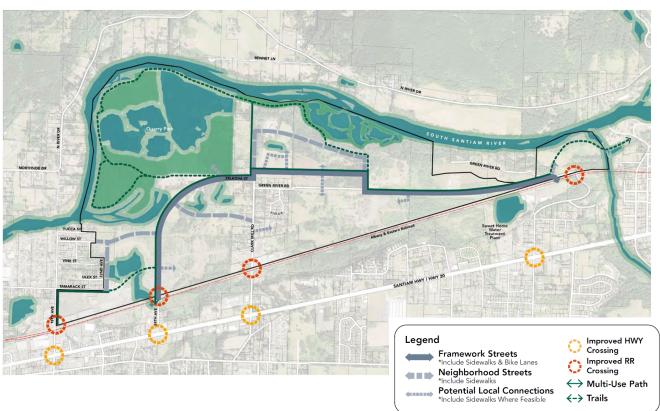
Transportation

The NSHA Street Network includes a main vehicular entrance into the study area along 24th Ave, and a connection to the east that stays as close to city limits as possible. The City has received approval of a new rail crossing at 24th Avenue.

New transportation facilities could support and be supported by redevelopment of the mill site. Pedestrian and bike infrastructure improvements are proposed throughout the study area, including improved crossings along the framework street, 24th Avenue/Zelkova Street, at the following intersections: 18th Avenue, 24th Avenue, Clark Mill Road, and 47th Avenue. Recreational paths are also proposed through Quarry Park and along the Riverfront, including a pedestrian footbridge across Wiley Creek at the eastern edge of the NSHA.

The proposed street network (Figure 7) addresses the transportation-related needs for the North Sweet Home Area by emphasizing connectivity for bikes and pedestrians in/ around the North Sweet Home Area. As the area grows and develops, impacts to the city and regional transportation system that can be mitigated with reasonable projects that emphasize the efficiency and safety of auto travelers, pedestrians, and cyclists alike.

Figure 7. NSHA Transportation Network



A list of projects was developed that supports the preferred land use and street network. Projects were divided into three categories Corridor (C), Spot (S), and Multi-modal (M) improvements projects. These projects were identified as part of the Sweet Home Transportation System Plan Update.

Table 1 shows each proposed project and its associated cost, which includes a new roadway and path system. The total cost of transportation projects supportive of the NSHA Preferred Scenario is approximately \$120 million. The Corridor (C) projects focus on providing connectivity through the North Sweet Home Area by providing a parallel collector street to Main Street (US20) that also supports development and re-development of parcels abutting the new framework street. New street extensions and new neighborhood streets stemming from the framework street will help serve the new developments that arise in the North Sweet Home Area and further enhance connectivity for pedestrians and cyclists. The corridor projects form the backbone of the transportation network that the Spot (S) projects and Multimodal (M) projects enhance.

The Framework Streets (Projects C-1 and C-2) will be built to the cross-section standards outlined in this memorandum (Fig. 6), however there is potential that this project could be modified to have a wider cross section on 24th Avenue (project C-1). The City of Sweet Home in coordination with ODOT rail have determined that a 4 to 5 lane section could be allowable along this alignment.

While traffic is not anticipated to reach levels that would require 4 to 5 travel lanes, the City may choose to develop with flexibility in mind in case dense development takes place in the North Sweet Home Area. Doing so would require the 3 lane framework street to include larger on-street bike lane buffers that allows for future conversion to a 5 lane section without any full-deep pavement construction (i.e. dedicate 22 feet between the curbs to bike lanes and buffers) and without relocating existing curblines. This is not anticipated to take place within the planning horizon, and project C-1 does not assume this to take place.

Table 1. Transportation Projects

Index	Project Name	Project Description	Planning Level Cost Estimate
C-1	24th Ave Improvements	Widen 24th Ave with Framework Street cross section from US20 to railroad. Extend 24th Avenue north of railroad to to Zelkova St.	\$21,450,000

Index	Project Name	Project Description	Planning Level Cost Estimate
C-2	Zelkova St Improvements	Extend Zelkova Street east of 24th Avenue to Zelkova Street.	\$43,550,000
C-3	New Neighborhood Street 1	Construct new neighborhood street connecting 24th Avenue to Clark Hill Road.	\$9,005,000
C-4	New Neighborhood Street 2	Construct new neighborhood street connecting Zelkova Street to proposed hospitality district.	\$18,005,000
C-5	Willow St Extension	Extend Willow Street east of 20th Avenue to 24th Avenue.	\$9,000,000
C-6	22nd Ave Extension	Extend 22nd Avenue from Tamarack Street to Willow Street.	\$9,000,000
S-1	US20/18th Ave Improvements	Modify existing signal to meet capacity needs, including potential addition of protected left turns on US20.	\$150,000
S-2	US20/24th Ave Improvements	Install signal at existing intersection.	\$1,000,000
S-3	US20/Clark Mill Rd Improvements	Traffic control upgrade pending the completion of an Intersection Control Evaluation and review and approval of ODOT Traffic Engineer	\$2,000,000
S-4	US20/47th Ave Improvements	Traffic control upgrade pending the completion of an Intersection Control Evaluation and review and approval of ODOT Traffic Engineer	\$2,000,000
S-5	Zelkova St/Clark Mill Rd Improvements	Traffic control upgrade pending the completion of an Intersection Control Evaluation and review and approval of ODOT Traffic Engineer	\$2,000,000
S-6	18th Ave Railroad Crossing Improvements	Upgrade signing and striping, install railroad crossing gates, and install ADA-accessible improvements to align with current railroad safety guidelines	\$600,000
S-7	24th Ave Railroad Crossing Improvements	Upgrade signing and striping, install railroad crossing gates, and install ADA-accessible improvements to align with current railroad safety guidelines	\$600,000
S-8	Clark Mill Rd Railroad Crossing Improvements	Upgrade signing and striping, install railroad crossing gates, and install ADA-accessible improvements to align with current railroad safety guidelines	\$600,000

Index	Project Name	Project Description	Planning Level Cost Estimate
S-9	47th Ave Railroad Crossing Improvements	Upgrade signing and striping, install railroad crossing gates, and install ADA-accessible improvements to align with current railroad safety guidelines	\$600,000
M-1	18th Avenue Multiuse Path	Install multiuse path along 18th Avenue and Tamarack Street.	\$360,000
M-2	New Neighborhood Street 2 MUP	Install multiuse path along New Neighborhood Street 2	\$260,000
M-3	Quarry Park Trail	Install new trail route through Quarry Park.	\$1,440,000
M-4	Tamarack Street Pedestrian Trail	Install new trail route between Tamarack Street and 24th Avenue, including pedestrian bridge over existing body of water.	\$1,650,000
M-5	24th Ave/Neighborhood St 1 Crossing	Install pedestrian crossing at 24th Ave/New Neighborhood Street 1 intersection. Type of crossing to be identified following engineering study.	\$50,000
M-6	24th Ave/Neighborhood St 2 Crossing	Install pedestrian crossing at 24th Ave/New Neighborhood Street 1 intersection. Type of crossing to be identified following engineering study.	\$50,000
M-7	25th Ave/Willow St Crossing Total:	Install pedestrian crossing at 24th Ave/Willow Street intersection. Type of crossing to be identified following engineering study. \$123,420,000	\$50,000

The Spot (S) projects focus on intersections that will require operational and safety upgrades based on the new street network. For example, additional side street traffic is expected at the existing intersections with US20, including: 18th Avenue, 24th Avenue, Clark Mill Road, and 47th Avenue due to additional trip demand in the North Sweet Home Area. As development takes place, this additional trip demand will cause operational deficiencies at these existing intersections that need to be mediated with intersection control upgrades. Similarly, additional traffic using the existing rail crossings will spur the need to update existing rail crossing orders and upgrade the existing rail crossings. Today, some of the existing rail crossings do not include pedestrian or bicycle facilities to safely cross the rail, and some of the crossings do not include any treatment other than signing and striping for motor vehicles. See Figures 4 and 5.

The Multimodal (M) projects focus on safety and connectivity specific to cyclist and pedestrian modes, including the installation of new multiuse paths that enhance pedestrian connectivity, and improvements to the trail system that provide a recreational aspect to the walking and biking previously unavailable in the North Sweet Home Area. Pedestrian crossing installations are also included at some strategic locations to enhance the pedestrian network. Additional street crossings should be considered as development occurs to include crossings at/near schools or neighborhoods. Street crossing treatment types should be determined with an engineering study to identify the appropriate treatments based on vehicle traffic volumes and speeds as growth occurs.

Project costs for some projects, especially those constructing new roadways, trend on the higher end due to the expectation that the terrain will be difficult to build on due to variable grades, wetlands, and anticipated impacts to existing parcels. The Preferred Street Network may require changes to alignment to conform to the natural environment and to maneuver other obstacles, such as the area the encompasses much of Green River Road that is not within the City urban growth boundary (UGB).



Rail crossing at 47th Avenue (Google Maps, 2022)



Rail crossing at 18th Avenue (Google Maps, 2022)

Figure 8. Framework Street with adjacent Multi-use Path (MUP)

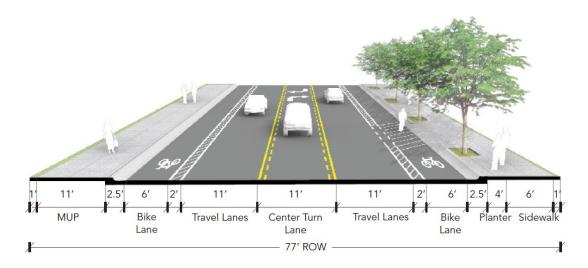


Figure 9. Neighborhood Street

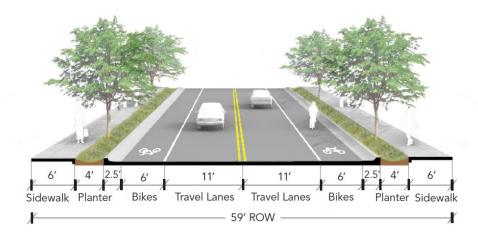


Figure 10. Neighborhood Street with Parking

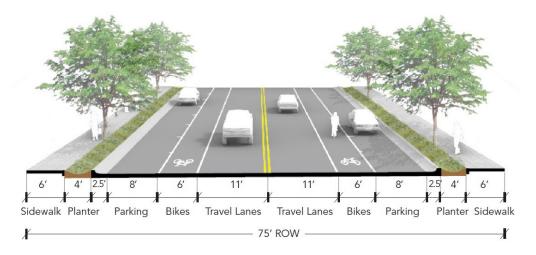
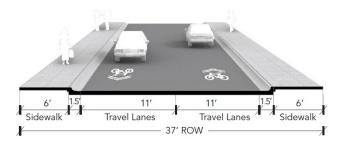


Figure 11. Local Street



Parks and Trails

A system of parks and trails are envisioned for the NSHA to take advantage of existing Cityowned open space and buildout of new transportation infrastructure. The park and trails system will include the following elements.

- Public Riverfront access at key locations
- Connections to and through Quarry Park
- Multi-use trails along key roadways to provide safe and comfortable access for people walking and rolling (see Figure 13)
- Protected wetlands to provide open spaces within future development areas





A multi-use path in the vegetated buffer along employment areas could provide a direct dedicated connection from the NSHA to Foster Reservoir and into town.





Trails could weave through neighborhood open spaces, providing pedestrian connectivity to natural resources, and access to passive recreation opportunities.

Case Studies

The following case studies offer inspiration for the North Sweet Home Area. They include a range of residential, industrial, commercial, and hospitality efforts that have successfully transformed other communities.

Case Study 1: Chemainus, BC

The closure of a sawmill in 1983 devastated the local economy in Chemainus, a small town on Vancouver Island, British Columbia. But it revived itself as a tourist destination, hosting events like the Festival of Murals Society since 1987 and the Theater Festival since 1993. Strategic long-term planning efforts transformed the resource- based economy into a successful community-based tourist industry.



The Chemainus Theater is a popular tourist destination.



Paul Ygartua's Native Heritage mural pictured above is a highlight of the Chemainus Festival of Murals.

Case Study 2: Prineville, OR

The decline in the timber industry 30+ years ago led to the highest unemployment in Oregon. But Prineville attracted data centers to support the high-tech industry over the last 15 years.

While other timber towns in Oregon pivoted to outdoor recreation and craft breweries, Prineville invested in an economy around data centers.



Aerial view of the Meta data center campus in Prineville.



The newest Meta data center in Prineville is LEED Gold certified.

Case Study 3: Port Gamble, WA

Port Gamble is undergoing a transformative redevelopment effort aimed at rejuvenating its economy while preserving its rich legacy. It was originally established in the 1850s by New England timber entrepreneurs and built as a company town for the Puget Mill Company to produce lumber for the California gold rush.

For roughly 140 years, the mill churned out lumber, holding the title as the nation's longest-operating mill until it ceased operations in 1995. The decline in the timber industry has led to economic challenges for the town.

The current redevelopment initiative, driven by a collaborative partnership involving private developers, local government entities, and community stakeholders, seeks to revitalize Port Gamble into a thriving, sustainable community. Central to this effort is the preservation of its historic charm and architectural heritage, which includes carefully restoring and repurposing existing buildings to maintain their historical significance.

The master plan for Port Gamble's redevelopment emphasizes a mix of land uses designed to enhance the town's livability and attractiveness to visitors. This includes plans for new residential units to support a diverse population, commercial spaces to foster local business growth, and recreational amenities to promote tourism and community engagement.

Key components of the 318-acre redevelopment project include infrastructure improvements such as road enhancements and utility upgrades, ensuring that the town can accommodate new development while maintaining its environmental integrity.

The plan also includes provisions for public spaces and parks, aimed at enhancing the quality of life for residents and visitors alike. Community involvement played a crucial role in shaping the redevelopment vision, with ongoing input from local residents and stakeholders guiding the project's evolution. This collaborative approach aims to create a sustainable economic future for Port Gamble while honoring its unique history and character.

Overall, the Port Gamble redevelopment project represents a comprehensive effort to revitalize a historic community, stimulate economic growth through thoughtful development, and create a sustainable and vibrant destination that celebrates its past while looking towards the future.



Historic Port Gamble water tanks, painted with the city's logo.



Olympic Outdoor Center in Port Gamble.



The Port Gamble General Store.



Port Gamble's historic buildings are popular filming locations.

Implementation

The North Sweet Home Area Plan will be realized through the following implementing actions:

- Adoption of the Sweet Home TSP, which establishes an updated set of transportation standards, projects, and plans for the City of Sweet Home. These are intended to improve the City's multi-modal transportation system, including in the North Sweet Home Area.
- Adoption of the North Sweet Home Area Plan as an attachment to the City of Sweet Home's Comprehensive Plan, as described in Appendix B: Comprehensive Plan and Zoning Code Amendments
- Adoption of changes to the City of Sweet Home Comprehensive Plan Map and Zoning Map included in Appendix B: Comprehensive Plan and Zoning Code Amendments.

Appendices

Appendix A: North Sweet Home Area Community Booklet

Appendix B: Comprehensive Plan and Zoning Code Amendments



DRAFT TECHNICAL MEMORANDUM#1

Plans and Policy Framework

Sweet Home TSP and North Sweet Home Area Plan

DATE March 6, 2023

TO Project Management Team

FROM Matt Hastie, Andrew Parish & Emma-Quin Smith, MIG|APG

CC

OVERVIEW

This **draft** document presents a review of the local, county, and state level plans that may be relevant to the Sweet Home Transportation System Plan (TSP) Update and North Sweet Home Area Plan (NSHAP). Plans and policies are arranged by jurisdiction – City of Sweet Home, Linn County, and State of Oregon.

Following the document review, an audit of the Sweet Home's comprehensive plan and development code for compliance with the Oregon Transportation Planning Rule (TPR) is also included.

SECTION 1: PLANS AND POLICIES REVIEW

Local Plans and Policies

This section addresses plans and policies enacted by the City of Sweet Home.

Sweet Home Comprehensive Plan

The Sweet Home Comprehensive Plan, adopted in 2003, was most recently amended in 2010.

Land Uses

Table 1 shows the Comprehensive Plan designations identified in the Land Use Element (Chapter 2). The Comprehensive Plan does not specifically identify North Sweet Home as an area of special concern.

Table 1. City of Sweet Home Comprehensive Plan Designations

Land Use Designation	Purpose	
Low Density Residential	To provide appropriate lands for low density, single-family homes. This category has the lowest density of the residential designations s, providing larger lots for single family homes.	
Medium Density Residential	To provide areas suitable and desirable for single family homes, duplexes on corner lots, condominiums, town houses, and appropriate community facilities. Densities in this category are slightly higher than those in the low density category.	
High Density Residential	To provide areas suitable and desirable for higher density residential development, and particularly for apartments, manufactured home parks, other residential uses, and appropriate community facilities.	
Mixed Use Residential	To provide areas suitable for medium to high density residential with limited commercial, institutional, office, and service uses distributed on a site.	
Central Commercial	To provide an area suitable and desirable for retail and service firms, offices, financial institutions, and other uses appropriate in the intensively developed commercial center of the community.	
Highway Commercial	To provide suitable and desirable commercial areas along the highway intended to meet the business needs of the community.	
Recreation Commercial	To provide and maintain areas that possess unique characteristics for recreational commercial development that caters to tourist and recreational activities. Development should maintain or enhance the appearance of the area and its unique value to the community.	
Heavy Industrial	To provide areas for intense manufacturing activities, characterized by their potential conflicts with residential and other land uses.	
General Industrial	To provide for the appropriate locations for general industrial uses with minimum conflict between industrial uses and residential and commercial uses.	
Light Industrial	To provide for heavier commercial use and limited manufacturing that have few nuisance characteristics.	
Public	To provide areas suitable and desirable for government offices and facilities, schools and associated grounds. The Public designation includes areas suitable and desirable for recreation activities (both active and passive) and facilities. Recreation areas include, but are not limited to, open spaces (including cemeteries), scenic landscapes, waterways, parks, special use areas, and trails.	

Land Use Designation	Purpose	
Natural Resource Overlay	To protect areas identified as significant natural resources. The designation shall ensure reasonable economic use of property, while protecting valuable natural resources.	
Planned Development Overlay	To allow diversification in the relationships between buildings and open spaces in planned building groups, while ensuring compliance with the purposes and objectives of the various zoning regulations and the intent and purpose of this ordinance.	

Transportation Element

Cities in Oregon are required to adopt a TSP as part of their comprehensive plan. The 2005 Sweet Home TSP is incorporated into the 2010 amendment of the Sweet Home Comprehensive Plan. The Transportation Systems Chapter (Chapter 6) of the Sweet Home Comprehensive Plan addresses statewide planning Goal 12, provides an overview of street functional classifications, summarizes key improvement projects identified in Chapter 8 of the 2005 TSP, and identifies nine transportation policies to support the implementation of the TSP. The City's transportation policies will need to be reviewed and revised to be consistent with the goals and objectives of this TSP update and its ensuing recommendations.

What this means for the Sweet Home TSP and NSHAP

Land use designations in the North Sweet Home area will be a key item of discussion and possible amendment as part of the NSHAP. Updates could include re-designation of land in the area, creation of new land use districts, or amendment of existing districts.

The TSP update process will provide an opportunity to review and update the Comprehensive Plan transportation element and other transportation policies, to better represent current state and local practices and objectives. Potential policy changes may reflect issues that have emerged since the TSP was last updated, such as strategies to optimize transportation management and maximizing the efficiency of the existing transportation system, integrating alternative transportation options, balancing modal capacity of facilities, and the role the transportation system plays in human health. Towards the end of the planning process, when solutions have been identified to satisfy future needs, policy statements will be developed to help implement TSP recommendations. Updated policy statements may augment or replace adopted comprehensive plan transportation policies and will help guide future actions, including land use decisions, after the TSP is adopted.

Sweet Home Development Code

The Sweet Home Development Code is title adopted as Title 17 – Zoning in the City's Municipal Code.

- What zones are there? What types of uses are allowed in each zone?
- What zones are in the North Sweet Home area?

Note that a detailed TPR audit is in a following section.

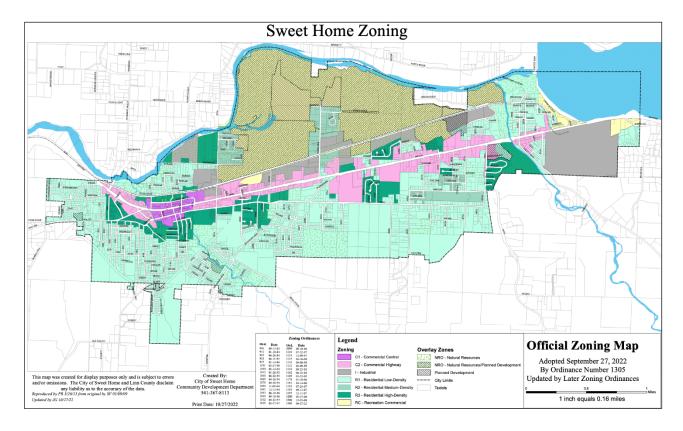
Zoning Designations

The following table includes a summary of the purpose and permitted uses of each zone in Sweet Home.

Table 2. City of Sweet Home Zoning Designations

Zoning Designation	Purpose	
Residential Low- Density (R-1)	The purpose of the R-1 zone is to provide areas suitable and desirable for single-family homes, associated public service uses and duplexes on corner lots. Permitted uses include single-family homes and duplexes.	
Residential Medium-Density (R-2)	The R-2 zone allows slightly higher density single-family housing than the R-1 zone, including single-family homes, duplexes, townhouses, and amenities to support those development.	
Residential High- Density (R-3)	The purpose of the R-3 zone is to provide multifamily housing options and the amenities and services associated with those developments. Permitted uses include single-family attached and detached dwellings, duplexes, and multi-family dwellings.	
Mixed-Use (MU)	The mixed-use zone provides a variety of businesses and services in a commercial center that can meet the needs of associated residential development. Uses permitted in the MU zone include multifamily housing, shops, offices, hotels and motels, and eating and drinking establishments. Single family attached dwellings are also allowed in this zone.	
Commercial Central (C-1)	The purpose of the C-1 zone is to provide an area suitable and desirable for retail and service enterprises, offices, financial institutions and public service uses which are appropriate in the intensively developed commercial center of the community in order to meet shopping and other business needs of area residents.	
Commercial Highway (C-2)	The purpose of the C-2 zone is to provide areas suitable and desirable for highway related commercial enterprises intended to meet the business needs of area residents and highway travelers.	
Industrial (I)	The purpose of the Industrial zone is to provide areas suitable and desirable for all types of industrial activity; provided that, development controls are utilized to minimize possible harmful effects related to air and water pollution and to potential nuisance hazards such as fire, explosion, or noise.	
Public Facility (PF)	The purpose of the Public Facility zone is to provide areas appropriate for specific public and semi-public uses and to ensure their compatibility with adjacent uses. Permitted uses include schools, fire stations, libraries, parks, and utilities.	

Recreation Commercial (RC)	The purpose of the RC zone is to provide and maintain areas which possess unique characteristics for recreation-related commercial and residential development, and which are suitable and desirable for recreation businesses for tourists and recreationists in the area. Permitted uses include museums, hotels, RV parks, resorts, restaurants, and recreational retail.	
Mixed-Use Employment (MUE)	The purpose of the Mixed-Use Employment zone is to provide a mix of business and professional services, research facilities, offices, retail and services firms and limited manufacturing opportunities and serve as an employment center. A mix of residential, commercial, public facilities, and light industrial uses are permitted in this zone.	



Overlay Zones

The following overlay zones can apply in addition to base zoning.

• **Natural Resource Overlay (NRO):** The NRO zone is designed to protect identified significant natural resources in The City of Sweet Home. The intent of this zone is to ensure reasonable economic use of property while protecting valuable natural resources.

- **Flood Hazard Overlay (FHO):** This overlay was established in compliance with ORS 197.175. It is the purpose of the FHO is to promote public health, safety, and general welfare, and to minimize public and private losses due to flooding in flood hazard areas
- Historical Property Overlay (HPO): The purpose of the HPO zone is to foster civic pride, preserve the history of the community, and promote LCDC Goal 5.
- Planned Development Overlay: The purpose of Planned Development regulations is to
 encourage and allow more creative and imaginative design of land developments than is
 possible under district zoning regulations. Planned Developments are intended to allow
 substantial flexibility in planning and designing a proposal. This flexibility often is in the form
 of relief from compliance with conventional zoning ordinance site and design requirements.

NSHAP Zoning

The North Sweet Home Area Plan includes parcels zoned RC, R-2, and I. The area is within a NRO overlay zone and planned development area. Additional detail will be provided as part of a later task examining existing conditions in the area.

What this means for the Sweet Home TSP and NSHAP

The zoning designations of the North Sweet Home Area may be amended as part of the Area Plan, including re-designation of properties, text amendments to the development code, or the creation of new zones/overlays to implement the plan. Much of the area is under the "Planned Development" overlay and the Natural Resources overlay.

As part of the TSP update, amendments to the City's zoning code may be recommended in order to implement the plan's goals. These may include changes to the uses allowed, dedication requirements for rights-of-way, procedural updates, or other amendments. The TPR audit at the end of this document identifies some areas of potential changes.

Other City Plan Documents

Table 3 presents a review of existing local plans, regulations, and policies that are relevant to this process.

Table 3. City Planning Document Review

PLAN DOCUMENT (YEAR)	PLAN DESCRIPTION	RELATION TO SWEET HOME TSP / NSHAP
Streetscape Plan (2021)	The Streetscape Plan highlights opportunities to enhance the pedestrian experience, build attractive streets, and create gathering places in the Downtown Core. The plan also recommends parking improvements. The plan focuses on Main St. (Hwy 20), Long St., and intersecting streets. The plan recommends locations for pedestrian improvements, street trees and pocket parks, and identifies development opportunities sites. The plan also provides a materials and fixtures palette.	The TSP update will consider the recommendations of the downtown streetscape plan along Hwy between 12th Ave. and 15th Ave.
Natural Hazards Mitigation Plan (2022)	This plan identifies the natural hazards Sweet Home is most at risk for and recommends way to mitigate the risk from these natural hazards. The top 5 hazards Sweet Home is most at risk for are: • Severe Storms (High risk) • Wildland-Urban Interface Fires (Medium risk) • Floods (Medium risk) • Earthquakes (Medium risk) • Volcanic events (Medium risk)	The TSP may consider how the transportation network in Sweet Home and contribute to the resilience of the community and reduce threats to the transportation system. Updates to the TSP could also consider how emergency response and post-disaster recovery can be improved through the transportation network.
Economic Opportunities Analysis (2017)	This document includes a buildable lands inventory, forecasted land need to support employment, and recommendations to support economic development. Key recommendations include: • Align the City's goals for economic development with planning for infrastructure development.	The TSP and NSHAP projects should align with the goals of the EOA, particularly identifying areas where infrastructure can support economic development. The use of City property in the North Sweet Home Area is also a potential economic driver.

PLAN DOCUMENT (YEAR)	PLAN DESCRIPTION	RELATION TO SWEET HOME TSP / NSHAP
Sweet Home Livability Assessment (2014)	The Livability Assessment identifies opportunities to connect the community to public lands, provide more transportation options, and foster the unique character and economy of Sweet Home. Key recommendations include: Take a regional approach Develop a strategic economic development plan Invest in existing infrastructure and downtown Become active stewards of community character and natural resources Make improving quality of life for residents a priority 	The TSP will address transportation options in Sweet Home with the goal of enhancing connectivity within the City and to the broader region.
24th Ave. Rail Crossing Order (2021)	A rail crossing was approved by ODOT for 24 th Avenue. Per the order, the crossing must be constructed within five years of the order date.	The location and design of this crossing will be addressed and included in the TSP update.
Santiam River Club / Salmon Run Master Plan (2022)	The Santiam River Development project, Salmon Run Master Plan, is a 36 lot single-dwelling subdivision accessed via 1400 Clark Mill Road.	The subdivision is located in the NSHAP area and will be taken into consideration as part of this project.
Capital Improvement Program	The City's Capital Improvement Program identifies major projects and funding sources for improvements, including transportation improvements.	A key outcome of the TSP will be a list of priority projects for inclusion in the CIP.
Oregon Downtown Development Association (ODAA) Report (1994)	This report details the findings of a two-day assessment completed in March 1994. The goals of the assessment were to educate the community, assess capacity to implement long term downtown redevelopment, identify opportunities and constraints for downtown redevelopment, and identify implementation steps or prioritize downtown projects. The assessment concluded that Sweet Home should identify one group to lead downtown redevelopment and hire an economic	The TSP and NSHAMP may continue to implement the recommendations of this report, particularly through implementing design and development standards.

PLAN DOCUMENT (YEAR)	PLAN DESCRIPTION	RELATION TO SWEET HOME TSP / NSHAP
	development staff person. Design and maintenance projects were also recommended to continue.	
ODDA Resource Team Report (2003)	The goals of the Sweet Home Resource Team were to promote a mixed-use, pedestrian friendly, attractive, and efficient downtown district. The Resource Team recommended concentrating commercial development and revitalization to the downtown core. The team proposed gateway design and downtown design standards. The report also includes connectivity and parking policy suggestions.	The TSP may revisit or implement outstanding connectivity, parking, and gateway recommendations suggested in this report.
Council Vision and Goals (2022)	Sweet Home's City Council identifies its vision and goals annually. https://www.sweethomeor.gov/citycouncil/page/council-goals Infrastructure, Economic Development, and Image Building are key elements of the current vision and goals.	The TSP and NSHAP will implement Council goals, with direct input from councilmembers.
City Strategic Plan (2014)	Sweet Home developed a community strategic plan in 2013. The plan focused on creating a vision and strategy for Hobart Park and other city parks. Vision components include protection of open space, a robust and diverse economy, education, and inclusivity.	These vision elements will be incorporated into the long-range plan for North Sweet Home and in the goals of the TSP itself.
Park System Master Plan (2014)	The Parks Master Plan inventories existing park facilities and identifies current and future needs for the parks system. The plan includes a Capital Improvement Plan with specific improvements, costs, and an implementation timeline. The plan also identifies potential funding sources to implement the CIP.	The Plan identifies a need for a multimodal path and trail system that will be reviewed and potentially updated as part of the TSP

County Planning documents

Linn County TSP (2018)

Linn County updated their TSP in 2018. Table 4 shows Financially Constrained and Aspirational Projects that would improve multimodal transportation in Sweet Home were identified in the 2018 TSP.

Table 4. Financially Constrained and Aspirational Project List

PROJECT ID	PROJECT DESCRIPTION	PROJECT ELEMENTS
BP-55	Mt. Home Dr Road Surface Improvement	Pave Mt. Home Dr. between Sodaville Mountain Home Rd. and Northern Dr. to allow bicycle travel between Sweet Home and Brownsville without using OR 228.
BP-01	Bike Route - Halsey to Brownsville (Peoria Rd.) Hwy 99E	Connect and expand existing bike routes (Brownsville to Lebanon / Sweet Home and from Corvallis/Peoria)
BP-20	US 20 through Sweet Home - Pedestrian Access Improvements	Pedestrian Access Improvements.
RM-14	OR 228 / Crawfordsville Dr. (east end of Crawfordsville Dr., near Holley) - Improve Sight Distance and Provide Two-Stage Left Turn Bay	Sight distance improvement. Provide two-stage left turn bay sized for school busses exiting Crawfordsville Dr. heading toward Sweet Home
RM-22	City of Sweet Home - Local Roads Shoulder Improvements	Widen shoulder pavement outside fog line on local road network in Sweet Home
SI-61	US 20 - Sweet Home Police Department Access Improvements	Vehicle and pedestrian access improvements
SI-85	US 20 / Pleasant Valley Rd. (Sweet Home) - Additional Hotspot Intersection Safety Improvements	Monitor impact of systemic safety improvements and consider need for additional (beyond systemic) hotspot safety improvements. Potential options include: Enhanced Signing Treatment, Roundabout, Traffic Signal pending engineering investigation and warrant.
SS-085	US 20 / 9th Ave. (Sweet Home) - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements
SS-088	US 20 / Clark Mill Rd. (Sweet Home) - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements
SS-096	US 20 / Pleasant Valley Rd. (Sweet Home) - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements

Linn County Comprehensive Land Use Plan (2015)

The Linn County Comprehensive Plan was most recently amended in 2015. The Comprehensive Plan addresses the use of land outside urban growth boundaries, and coordination on land use within urban growth boundaries, pursuant to State law.

What this means for the Sweet Home TSP and NSHAP The TSP update process will provide an opportunity to review and coordinate with Linn County planning efforts. Timelines and funding sources

for projects identified in the County TSP could potentially align with projects in the Sweet Home TSP update.

State Planning Documents

Table 5 presents a review of existing state plans, regulations, and policies that affect transportation planning in Sweet Home. The review explains the relationship between the document and the planning process and identifies key issues that will factor into the project. The plans and regulations will guide decisions regarding selection of preferred transportation improvements and identifies potential amendments to related plan documents that would occur later in the planning process.

Some documents in this review establish transportation-related standards, target, and guidelines with which the corridor study must be coordinated and consistent with; others contain transportation improvements that will need to be factored and reflected in the project.

Table 5. State Planning Documents and Relevance to Sweet Home TSP and NSHAP

PLAN DOCUMENT (YEAR)	PLAN SUMMARY & RELEVANCE
Oregon Highway Plan (1999 with 2006 amendments, recent updates through 2015 Amendments)	The Oregon Highway Plan (OHP) is a functional element of the Oregon Transportation Plan. The OHP establishes policies and investment strategies for Oregon's state highway system over a 20-year period and refines the goals and policies found in the Oregon Transportation Plan (OTP) Policies in the OHP emphasize the efficient management of the highway system to increase safety and to extend highway capacity, partnerships with other agencies and local governments, and the use of new techniques to improve road safety and capacity
	Oregon Highway 228 and US-20 lie within Sweet Home.
	US-20:
	Regional Highway
	Freight: Reduction Review Route, OHP Freight Route (west of OR 228)
	OR 228:
	District Highway
	No freight designation
Bicycle & Pedestrian Plan (2016)	The intent of the Oregon Bicycle and Pedestrian Plan (OBPP) is to create a policy foundation that supports decision-making for walking and biking investments, strategies, and programs. The OBPP contains standards and designs for bicycle and pedestrian facilities on state highways, and for a variety of roadway types and land uses. OBPP policies will apply to projects and designs that affect highways within the study area.
Oregon Freight Plan (2011)	The Oregon Freight Plan (OFP) identifies a number of challenges facing Oregon's freight system including system operation and development, safety, communications, environmental considerations, and funding.
	Implementation actions to improve the freight system include working with cities and counties to consider the freight system in transportation planning, as well as developing performance measures to help make choices about where to invest in freight improvements.

PLAN DOCUMENT (YEAR)	PLAN SUMMARY & RELEVANCE					
Oregon Public Transportation Plan (2018)	Highways in Sweet Home play an important role in freight movement – the Oregon Freight Plan's policies will apply to designs and projects affecting those facilities. The Oregon Public Transportation Plan (OPTP) is the modal plan of the OTP that provides guidance for ODOT and public transportation agencies regarding the development of public transportation systems.					
(2020)	The OPTP provides guidance for the development of transit, rideshare, and transportation demand management services over a 20-year period. The OPTP provides technical information on public transportation standards and needs that assist communities preparing the TSPs required under the TPR and responds to TPR requirements for per capita reductions in vehicle miles traveled in Oregon's metropolitan communities.					
Oregon Transportation Options Plan (2015)	The purpose of the Oregon Transportation Options (OTO) Plan is to "establish a vision and policy guidance that integrates transportation options in local, regional, and state transportation planning, programming, and investment." The OTO Plan: • Identifies opportunities to expand transportation choices. • Looks to increase funding opportunities for transportation options programs and investments. • Provides information to better integrate transportation options into local, regional,					
Transportation Planning Rule (OAR 660-012).	and state transportation planning. The purpose of the TPR is "to implement Statewide Planning Goal 12 (Transportation) and promote the development of safe, convenient, and economic transportation systems that are designed to reduce reliance on the automobile so that the air pollutions, traffic, and other livability problems faced by urban areas in other parts of the country might be avoided." The TPR also established requirements for coordination among affected levels of government for preparation, adoption, refinement, implementation, and amendment of transportation system plans. A detailed audit of the TPR is included in this memorandum.					
Access Management Rule (OAR 734-051).	Oregon Administrative Rule 734-051 defines the State's role in managing access to highway facilities in order to maintain functional use and safety and to preserve public investment. The provisions in the access management rules include spacing standards for varying types of state roadways. It also lists criteria for granting right of access and approach locations onto state highway facilities.					
ODOT Analysis Procedures Manual Version 2	The Analysis Procedures Manual (APM) provides current methodologies, practices, and procedures for conducting long-term analysis of ODOT plans and projects.					
Highway Design Manual (2012),	The 2012 Highway Design Manual (HDM) provides uniform standards and procedure for the Oregon Department of Transportation (ODOT) Intended to provide guidance for the design of new construction, major reconstruction, resurfacing, restoration, and rehabilitation of state roadways.					
Blueprint for Urban Design (2020)	The Blueprint for Urban Design (BUD) is a "bridging document" that establishes revised criteria to be used when design urban projects on the state system. The document provides guidance for urban design on Oregon state highways until such time that all ODOT manuals related to urban areas are updated. The Blueprint for Urban Design and its recommendations will be utilized in the TSP update.					
American Association of State Highway Transportation Officials: Policy of Geometric Design of Highways and Streets	The American Association of State Highway Transportation Officials (AASHTO) Policy for Geometric Design of Highways and Streets provides additional design standards to supplement ODOT's HDM and BUD. AASHTO standards are organized in a system so the roadway's functional classification and other variables can be used to determine applicable roadway policies and designs. The HDM identifies the 2011 version as the basis for ODOT 4R/New Standard for New Construction and Reconstruction on all State Highways.					
Draft 2021 2024 Statewide Transportation	The Statewide Transportation Improvement Program (STIP) is Oregon's 4-year transportation capital improvement program. The STIP documents funding sources and implementation schedules for transportation improvement projects and programs throughout the state.					

PLAN DOCUMENT (YEAR)	PLAN SUMMARY & RELEVANCE
System Improvement Program (STIP)	 The following STIP Projects are planned in Sweet Home: 18853 US 20: 53rd Avenue east of 60th Ave – Construct sidewalks, bike lanes along US20, and add midblock crossings near 40th and 49th Avenues to improve safety 21900 North River Drive Public Access Improvements Project - Construct a combination of roadway widening improvements, road surface repair and pavement preservation to meet current and future needs. 22391 US20/OR228 Curb ramps - Construct curb ramps to meet compliance with the Americans with Disabilities Act (ADA) standards. Convert the traffic loops to radar and add a median island at 22nd Street. 22742 US 20 from US 101 to the Idaho border - Install National Electric Vehicle Infrastructure (NEVI) fast charging stations every 50 miles along US20 from US101 to the Idaho border, to provide electric vehicle drivers with reliable and fast charging.

SECTION 2: TRANSPORTATION PLANNING RULE AUDIT

Table 6 describes how City land division, zoning, and development requirements meet specific Transportation Planning Rule (TPR) requirements and identifies recommended improvements where local requirements could be strengthened or modified to be more consistent with the TPR. Suggested draft code language will be prepared at the implementation phase of the TSP update that supports the policies and recommendations of the draft TSP and ensures consistency with the TPR.

Table 6. TPR Requirements and Recommendations for the Sweet Home Development Code

TPR REQUIREMENT MUNICIPAL CODE REFERENCES AND RECOMMENDATIONS OAR 660-012-0045 – Implementation of the Transportation System Plan (1) Each local government shall amend its land use regulations to implement the TSP. The purpose of this provision is to allow for certain transportation uses, (a) The following transportation facilities, services and such as operation, maintenance, and repair of transportation facilities improvements need not be subject to land use regulations except identified in the TSP, without being subject to land use regulations. as necessary to implement the TSP and, under ordinary circumstances do not have a significant impact on land use: Currently transportation uses are not included in the list of permitted (A) Operation, maintenance, and repair of existing uses in the zoning ordinance, nor is there a general provision indicating transportation facilities identified in the TSP, such as road, that transportation uses consistent with the adopted transportation bicycle, pedestrian, port, airport and rail facilities, and system plan do not require a separate land use review. major regional pipelines and terminals; (B) Dedication of right-of-way, authorization of This TPR provision is not met. construction and the construction of facilities and improvements, where the improvements are consistent Recommendation: with clear and objective dimensional standards; The City should amend the Zoning Code (Title 17) to allow transportation (C) Uses permitted outright under ORS 215.213(1)(m) improvements in all zones, provided that the proposed improvements through (p) and 215.283(1)(k) through (n), consistent with implement the TSP and/or can be shown to be consistent with adopted the provisions of 660-012-0065; and policy. (D) Changes in the frequency of transit, rail and airport services. (b) To the extent, if any, that a transportation facility, service, or improvement concerns the application of a comprehensive plan provision or land use regulation, it may be allowed without further land use review if it is permitted outright or if it is subject to standards that do not require interpretation or the exercise of factual, policy or legal judgment. TPR Section -0050 addresses project development and implementation -(c) In the event that a transportation facility, service or how a transportation facility or improvement authorized in a TSP is improvement is determined to have a significant impact on land designed and constructed. Project development may or may not require use or requires interpretation or the exercise of factual, policy or land use decision-making. The TPR directs that during project

legal judgment, the local government shall provide a review and

facilitate implementation of the TSP, each local government shall

approval process that is consistent with 660-012-0050. To

development, projects authorized in an acknowledged TSP will not be

subject to further justification with regard to their need, mode, function,

or general location. To this end, the TPR calls for consolidated review of land use decisions and proper noticing requirements for affected

TPR REQUIREMENT	MUNICIPAL CODE REFERENCES AND RECOMMENDATIONS
amend regulations to provide for consolidated review of land use decisions required to permit a transportation project.	transportation facilities and service providers. §17.42.130 – Traffic Impact Study requires a TIA as part of a development application, change in use, or change in access. This TPR provision is met.
(2) Local governments shall adopt land use or subdivision ordinal requirements, to protect transportation facilities corridors and si	
(a) Access control measures, for example, driveway and public road spacing, median control and signal spacing standards, which are consistent with the functional classification of roads and consistent with limiting development on rural lands to rural uses and densities;	§17.42.040 – Streets includes system spacing, intersection spaces, and driveway spacing standards by functional classification per the Transportation System Plan. This TPR provision is met.
(b) Standards to protect the future operations of roads, transitways and major transit corridors	§17.42.130 addresses Traffic Impact Studies. The City or other road authority with jurisdiction may require a Traffic Impact Analysis (TIA) as part of an application for development, a change in use, or a change in access as specified in OAR 660-012-0060. This study is intended to ensure that operations of transportation facilities is maintained through individual land use decisions. Recommendation: This TPR provision is met. However, the TSP update provides an ideal opportunity to revisit the thresholds that trigger a TIA, as well as the process and requirements. Any recommended changes resulting from this review may necessitate updates to §17.42.130.
(c) Measures to protect public use airports by controlling land uses within airport noise corridors and imaginary surfaces, and by limiting physical hazards to air navigation;	There is no airport in Sweet Home, therefor the municipal code does not regulate the use. This TPR provision is met.
(d) A process for coordinated review of future land use decisions affecting transportation facilities, corridors or sites;	See response to -0045(1)(c). This TPR provision is met.
(e) A process to apply conditions to development proposals in order to minimize impacts and protect transportation facilities, corridors or sites;	This section is implemented by section 17.42.130 (Traffic Impact Study), 17.42.104 (Conditional Uses), and 17.42 (Street Standards). Section 17.42.130 establishes the standards for when a proposal must be reviewed for potential traffic impacts, when a TIS must be submitted with a development application, and who is qualified to prepare the analysis. This TPR provision is met. The provisions of these sections will be revisited to ensure compliance with the updated TSP.
(f) Regulations to provide notice to public agencies providing transportation facilities and services, MPOs, and ODOT of:	Notice requirements are detailed in Section 17.122, 17.124, 17.126, and 17.128. These sections address procedures for land use applications (Type I through Type IV). Wording varies somewhat between sections,

TPR REQUIREMENT MUNICIPAL CODE REFERENCES AND RECOMMENDATIONS though is generally consistent with the TPR. (A) Land use applications that require public hearings; (B) Subdivision and partition applications; Recommendation: (C)Other applications which affect private access to roads; This TPR provision is met, though additional review of notice language is and recommended as part of the TSP update. (D)Other applications within airport noise corridor and imaginary surfaces which affect airport operations. (g) Regulations assuring amendments to land use designations, Decision criteria for Comprehensive Plan map amendments are located densities, and design standards are consistent with the functions, in 17.112.050. Decision criteria for other uses are located in various capacities and performance standards of facilities identified in locations in the code. Language includes "The proposed development is the TSP. timely, considering the adequacy of transportation systems, public facilities and services, existing or planned for the area affected by the use" but does not specifically reference standards of the TSP Recommendation: Include specific requirements ensuring consistency with the "functions, capacities, and performance standards of facilities identified in the TSP" in 17.112.050 and elsewhere as appropriate. (3) Local governments shall adopt land use or subdivision regulations for urban areas and rural communities as set forth below. Bicycle parking is addressed in Section 17.44.060. Bicycle parking (a) Bicycle parking facilities as part of new multi-family facilities are required as part of new multifamily residential residential developments of four units or more, new retail, office developments of 4 units or more, as well as new retail, office, and and institutional developments, and all transit transfer stations institutional developments. The amount of bicycle parking required and park-and-ride lots. depends on the number of required vehicle parking spaces. Recommendation: As appropriate, consider adding transit transfer stations and park-andride lots to the facilities which require bicycle parking. On-site circulation and connections: Circulation diagrams are a (b) On-site facilities shall be provided which accommodate safe required part of a 17.102 showing the vehicular and pedestrian and convenient pedestrian and bicycle access from within new circulation patterns, parking, loading and service areas. subdivisions, multi-family developments, planned developments, However, requirements related to on-site circulation and connections to shopping centers, and commercial districts to adjacent residential nearby activity centers for non-motorized modes of transportation are areas and transit stops, and to neighborhood activity centers not addressed in the either the Zoning or the Land Division Ordinance. within one-half mile of the development. Single-family residential Parking Lots: Chapter 17.44 addresses off-street parking and loading, developments shall generally include streets and accessways. and access requirements. Pedestrian and/or bicycle circulation through Pedestrian circulation through parking lots should generally be parking lots are not addressed. provided in the form of accessways. Bikeways and sidewalks: Street standards are identified in 17.42, (A) "Neighborhood activity centers" includes, but is not including sidewalks and bikeways. limited to, existing or planned schools, parks, shopping Street and accessway layout: 17.58.040 includes standards for areas, transit stops or employment centers; subdivisions, including a maximum block length of 1,000' and a note that (B) Bikeways shall be required along arterials and major the City may require accessways for blocks greater than 600' in length. collectors. sidewalks shall be required along arterials, **Cul-de-sacs:** Cul-de-sacs may be required to include pedestrian collectors and most local streets in urban areas except that accessways. They are also limited to a length of 800 feet (17.42.030). sidewalks are not required along controlled access roadways, such as freeways;

Recommendations:

TPR REQUIREMENT

MUNICIPAL CODE REFERENCES AND RECOMMENDATIONS

- (C) Cul-de-sacs and other dead-end streets may be used as part of a development plan, consistent with the purposes set forth in this section;
- (D) Local governments shall establish their own standards or criteria for providing streets and accessways consistent with the purposes of this section. Such measures may include but are not limited to: standards for spacing of streets or accessways; and standards for excessive out-of-direction travel;
- (E) Streets and accessways need not be required where one or more of the following conditions exist:
 - (i) Physical or topographic conditions make a street or accessway connection impracticable. Such conditions include but are not limited to freeways, railroads, steep slopes, wetlands or other bodies of water where a connection could not reasonably be provided;
 - (ii) Buildings or other existing development on adjacent lands physically preclude a connection now or in the future considering the potential for redevelopment; or
 - (iii) Where streets or accessways would violate provisions of leases, easements, covenants, restrictions or other agreements existing as of May 1, 1995, which preclude a required street or accessway connection.

Amend the development code to include language related to on-site circulation and connections, and pedestrian access through parking lots. Include references to adopted street standards in the updated TSP. Street standards will need to comply with the bikeway requirements within the TPR.

Evaluate the 1,000' block length and accessway requirements as part of the TSP update.

(c) Off-site road improvements are otherwise required as a condition of development approval, they shall include facilities accommodating convenient pedestrian and bicycle and pedestrian travel, including bicycle ways on arterials and major collectors

Off-site improvement requirements area not mentioned specifically in the code.

Recommendation:

Add specific language stating that the City may require off-site improvements proportionate to the impacts of proposed development and that conditioned improvements may include facilities accommodating convenient pedestrian and bicycle travel, consistent with the TSP. Proposed code modifications would suggest what type of findings are necessary to require such off-site improvements.

- (d) For purposes of subsection (b) "safe and convenient" means bicycle and pedestrian routes, facilities and improvements which:
 - (A) Are reasonably free from hazards, particularly types or levels of automobile traffic which would interfere with or discourage pedestrian or cycle travel for short trips;
 - (B) Provide a reasonably direct route of travel between destinations such as between a transit stop and a store; and

Adopted City development requirements do not contain language requiring "safe and convenient" bicycle and pedestrian routes.

Recommendation:

Address TPR requirements related to bicycle and pedestrian access and mobility through the addition of a new Pedestrian Access and Circulation section in the Land Division Ordinance. Review the applicability of proposed new requirements for all future subdivisions.

TPR REQUIREMENT	MUNICIPAL CODE REFERENCES AND RECOMMENDATIONS
(C) Meet travel needs of cyclists and pedestrians considering destination and length of trip; and considering that the optimum trip length of pedestrians is generally 1/4 to 1/2 mile.	
(e) Internal pedestrian circulation within new office parks and commercial developments shall be provided through clustering of buildings, construction of accessways, walkways and similar techniques.	The City currently does not have requirements related to non-motorized circulation internal to office park and commercial development. Recommendation: See recommendation above.
	eater than 25,000, where the area is already served by a public transit ansit system is feasible, local governments shall adopt land use and
(a) Transit routes and transit facilities shall be designed to support transit use through provision of bus stops, pullouts and shelters, optimum road geometrics, on-road parking restrictions and similar facilities, as appropriate	The City of Sweet Home does not have a population greater than 25,000. However, the community is currently served by modest transit service. The updated TSP will address existing and future transit facilities and services.
	This provision is met.
(b) New retail, office and institutional buildings at or near major transit stops shall provide for convenient pedestrian access to transit through the measures listed in (A) and (B) below.	Access to transit is not currently addressed by the TSP. Recommendation: See response to -0045(4)(a).
(A) Walkways shall be provided connecting building entrances and streets adjoining the site;	
(B) Pedestrian connections to adjoining properties shall be provided except where such a connection is impracticable. Pedestrian connections shall connect the on site circulation system to existing or proposed streets, walkways, and driveways about the property. Where adjacent properties are undeveloped or have potential for redevelopment, streets, accessways and walkways on site shall be laid out or stubbed to allow for extension to the adjoining property;	
(C) In addition to (A) and (B) above, on sites at major transit stops provide the following:	
(i) Either locate buildings within 20 feet of the transit stop, a transit street or an intersecting street or provide a pedestrian plaza at the transit stop or street intersection;	
(ii) A reasonably direct pedestrian connection between the transit stop and building entrances on the site	
(iii) A transit passenger landing pad accessible to disabled persons	
(iv) An easement or dedication for a passenger shelter if requested by the transit provide; and	

TPR REQUIREMENT	MUNICIPAL CODE REFERENCES AND RECOMMENDATIONS
(v) Lighting at the transit stop.	
(c) Local governments may implement 4(b)A) and (B) above through the designation of pedestrian districts and adoption of appropriate implementing measures regulating development within pedestrian districts. Pedestrian districts must comply with the requirement of (4)(b)(C) above.	The City can also meet the requirements of the TPR related to pedestrian connections to transit (TPR -0045(4)(b)(A) and (B)) by adopting appropriate implementing measures within a designated pedestrian district. The City of Sweet Home currently does not have pedestrian district designations.
	Recommendation: For the approach offered by TPR -0045(4)(c), the City would need to consider designating pedestrian districts and developing specific code language to address, among other things, "major transit stops," as defined through the TSP update.
(d) Designated employee parking areas in new developments shall provide preferential parking for carpools and vanpools	Section 17.44 addresses parking and loading, and does not address preferential parking for carpools/vanpools.
	Recommendation: The City should consider requiring that new developments with planned designated employee parking areas provide preferential parking for employee carpools and vanpools. A typical local code requirement is requiring employers with more than a specific number of employees, or developments where required parking spaces exceed a specific number, to dedicate a percentage of the required parking spaces for car/vanpools.
(6) In developing a bicycle and pedestrian circulation plan as required by 660-012-0020(2)(d), local governments shall identify improvements to facilitate bicycle and pedestrian trips to meet local travel needs in developed areas. Appropriate improvements should provide for more direct, convenient and safer bicycle or pedestrian travel within and between residential areas and neighborhood activity centers (i.e., schools, shopping, transit stops). Specific measures include, for example, constructing walkways between cul-de-sacs and adjacent roads, providing walkways between buildings, and providing direct access between adjacent uses.	The TSP update is expected to include a considerable update to the City's bicycle and pedestrian circulation plan, consistent with TPR -0020. This TPR requirement is currently implemented in City requirements as follows. Walkways between cul-de-sacs and adjacent roads – See response and recommendations related to cul-de-sacs, Section -0045(3)(b). Walkways between buildings – See response and recommendations related to accessways, Section -0045(3)(b). Access between adjacent uses – See response and recommendations related to accessways, Section -0045(3)(b). Recommendation: This requirement will be addressed by the TSP update planning process and can be implemented locally by requiring improvements in developing areas consistent with adopted code provisions.
(7) Local governments shall establish standards for local streets and accessways that minimize pavement width and total ROW consistent with the operational needs of the facility. The intent of this requirement is that local governments consider and reduce excessive standards for local streets and accessways in order to reduce the cost of construction, provide for more efficient use of urban land, provide for emergency vehicle access while discouraging inappropriate traffic volumes and speeds, and which accommodate convenient pedestrian and bicycle circulation. Notwithstanding section (1) or (3) of this rule, local street	Section 17.42.040 includes right-of-way widths for streets Recommendation: The TSP update process provides the City with the opportunity to evaluate local streets standards to determine if modifications need to be made to both meet the current and future needs of the community and implement this TPR requirement.

TPR REQUIREMENT	MUNICIPAL CODE REFERENCES AND RECOMMENDATIONS
standards adopted to meet this requirement need not be adopted as land use regulations.	
OAR 660-12-0060	
Amendments to functional plans, acknowledged comprehensive plans, and land use regulations that significantly affect an existing or planned transportation facility shall assure that allowed land uses are consistent with the identified function,	in Section 17.42.130 TRAFFIC IMPACT STUDY outlines the requirements of traffic impact analyses. Findings of significant affect and consistency with the TSP are not explicitly mentioned in the development code.
capacity, and performance standards of the facility.	Recommendation:
	Update Section 17.42.130 to explicitly address the requirements of OAR 660-12-0060.

APPENDIX B



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TM#2 GOALS OBJECTIVES AND EVALUATION CRITERIA (DRAFT)

DATE: May 24, 2023

TO: Sweet Home TSP PMT

FROM: Garth Appanaitis | DKS Associates

SUBJECT: Sweet Home TSP Update and NSHA Project #20020-015

The purpose of this memorandum is to identify potential goals and objectives for the updated Sweet Home Transportation System Plan (TSP) and the North Sweet Home Area Plan (NSHA). The goal and supporting policies from the existing Sweet Home TSP will be expanded to incorporate additional areas of community interest.

The followings sections summarize the existing Sweet Home TSP goal and provide additional goal areas used by other communities for consideration. An initial draft set of goals and policies are provided that will be updated through review and coordination with the community.

EXISTING GOAL AND ADDITIONAL CONSIDERATIONS

The following section summarizes the existing Sweet Home transportation goal and policies and identifies other potential goal areas for consideration.

EXISTING TRANSPORTATION GOAL AND POLICIES

The Sweet Home Comprehensive Plan currently includes a transportation goal with nine policies. The existing policies primarily focus on maintaining the transportation system and setting appropriate standards.

Goal: The City of Sweet Home wants a well-planned, comprehensive transportation system that balances the needs of future land development with a system that serves all users.

- Policy 1 As a general guideline, all streets shall carry volumes and speeds at the appropriate range for all street classifications as described the Functional Classifications Guidelines.
- Policy 2 To achieve consistency in construction, operation, and maintenance within street classifications, Sweet Home shall classify streets according to their function.

- Policy 3 The roadway design standards in the Transportation System Plan shall be implemented in the land development and land division ordinances for the development of future roadway facilities.
- Policy 4 Private streets must be built to City standards as approved as part of the development plan.
- Policy 5 The Standards for Pedestrian and Bicycle System improvements listed in the Transportation System Plan, shall be implemented when reviewing new development.
- Policy 6 The City shall encourage access management actions that:
 - o Minimize the number of potential conflicts among all users of the street system.
 - Minimize local cost for transportation improvements needed to provide additional capacity and/or access improvements along unimproved roadways.
- Policy 7 The City seeks to encourage transportation projects that enhance overall system continuity. Where ever possible, the City shall consider street connectivity when reviewing new street development.
- Policy 8 Many existing streets in Sweet Home do not meet the standards and it may not be
 possible to improve the streets to the maximum extent feasible to meet access conditions
 and "traffic feature" standards. It may be necessary in some circumstances to prohibit
 parking on one or both sides of the street, particularly on designated arterials and
 collectors.
- Policy 9 The City shall study and implement financing options for needed street improvements.

OPTIONAL GOALS FROM OTHER COMMUNITIES

The following transportation goals have been used in other communities to differentiate different aspects of the transportation system goals:

- Safety Improve the safety of the transportation system for all users.
- **Active Transportation** Complete safe networks of facilities that make walking and biking and attractive choice by people of all ages and abilities.
- Mobility & Accessibility Promote efficient travel that provides access to goods, services, community facilities, homes, and employment to meet the daily needs of all users, as well as to local and regional activity centers.
- **Mobility & Connectivity** Provide a transportation system that prioritizes mobility and connectivity for all users.
- **Equity** Support and equitable transportation system that justly allocates the benefits and burdens of transportation projects, policies, plans, and processes.
- **Environmental** Minimize environmental impacts on natural resources and encourage carbon-neutral or efficient transportation alternatives.
- **Economic Development** Promote economic development and tourism.
- **Investments and Funding** Promote cost effective investments to the transportation system.
- **Regional coordination** Coordinate with other jurisdictions to plan and fund projects that better connect [the city] with the region and consistent with local, regional, and state plans.

- Community Needs Provide a transportation system that supports specific community needs.
- **System Management** Promote traffic management to achieve the efficient use of transportation infrastructure.
- **Transit** Provide safe, efficient, high-quality transit service that gives [city] residents, employees, employers, and visitors more freedom to meet their needs within the city, region and state. Create a transit system that offers an alternative to private automobile use, supports efficient use of roadways and reduces air pollution and energy use.
- **Health** Support options for exercise and healthy lifestyles to enhance the quality of life.
- **Quality of Life** Enhance the city's quality of life by providing adequate access to residences, employment, services, social and recreational opportunities.
- **Coordination** Collaborate and coordinate with state, county, and other agencies during long-range planning efforts, development review, design and construction of transportation projects, and any other land use or transportation programs, policies, or developments.

POTENTIAL GOALS AND OBJECTIVES

The following section provides a draft set of goals and objectives that build upon the existing transportation goal and incorporates other key interests of Sweet Home. Many of the existing policies are incorporated into Goal 5.

Note: These potential goals and objectives are provided as an initial starting point to generate discussion and will be revised based on feedback from the community.

GOAL 1 - MOBILITY, ACCESSIBILITY, AND CONNECTIVITY

Provide a system that is accessible and efficient for all travel modes and purposes.

Associated Objectives

- Develop an integrated transportation system that accommodates a wide range of transportation options.
- Provide access for all types of vehicles and equipment, including freight, emergency vehicles, and equipment.
- Address intersection capacity needs for present and future traffic volumes.
- Upgrade key intersection locations to meet Americans with Disabilities Act (ADA) requirements.
- Encourage active transportation through policy and engineering.
- Ensure the transportation system provides equitable access for all people.
- Provide connectivity within the city and identify and prioritize needed transportation connections.

GOAL 2 - SAFETY

Provide safe routes, corridors, and intersections for all modes of transportation.

Associated Objectives

- Identify and improve safe crossings for bicycles and pedestrians.
- Prioritize safe routes to school.
- Expand the sidewalk network throughout the city.
- Identify and implement bicycle corridors to navigate the city.
- Improve traffic safety though a comprehensive program of engineering, education, and enforcement.
- Identify and improve locations with high crash frequency.
- Design streets to serve their anticipated function and intended use.
- Improve lighting along pedestrian and bicycle corridors.

GOAL 3 - QUALITY OF LIFE

Provide a transportation network that preserves the character of the city and makes it more convenient for people to walk, bicycle, use transit, and drive less to meet their daily needs.

Associated Objectives

- Preserve community identity through transportation design choices.
- Balance the needs and desires of a small city with a highway running through it. Value the simplicity of a small city.
- Minimize the impacts of transportation system improvements on existing land uses.
- Identify and seek funding for programs that encourage healthy transportation habits.
- Support improvements that make the downtown area safe and comfortable to walk.
- Support regional tourism and strategies to encourage stops by visitors.
- Connect the city through pedestrian and bicycle paths.
- Improve the transportation system that has direct access to employment.

GOAL 4 - ECONOMIC DEVELOPMENT

Promote economic development and tourism.

Associated Objectives

- Provide facilities to connect the public to downtown, parks, and other event locations and recreational opportunities.
- Manage arterials to support freight in the efficient movement of goods and services.
- Improve wayfinding and signage around the city to improve the ability to confidently navigate the transportation network by residents and visitors.
- Coordinate with state and regional partners to implement transportation strategies that support increased tourism.
- Improve walkability in the Downtown area to promote economic activity.

GOAL 5 - SYSTEM MANAGEMENT AND MAINTENANCE

Promote traffic management to achieve the efficient use of transportation infrastructure.

Associated Objectives

- Maintain a roadway functional classification system that prioritizes the purpose and design
 of each existing and future roadway. Classify streets according to function to achieve
 consistency in construction, operation, and maintenance.
- Streets should operate with the intended purpose and provide a combination of mobility and access consistent with the functional classification. Traffic volumes should align with the functional classification with higher classification facilities generally carrying higher traffic volumes.
- Street policies and design standards should be based on functional classification and other contextual considerations. Streets should be constructed to these standards unless exceptions are granted as approved by Public Works.
- Where existing streets do not meet standards or proposed streets are unable to meet standards, other management practices (such as parking prohibition) may be utilized to maintain safe operation.
- The City shall study and implement financing options for needed street improvements.
- Balance local access to US 20 with the need to serve regional and statewide traffic, while supporting adjacent land uses
- Plan for a transportation system that supports projected population and employment growth and maximize travel options by providing efficient routes for all modes of transportation.

TSP AND NSHA CONSIDERATIONS

The TSP and NSHA will likely incorporate the same or similar transportation goals and policies. However, there may be deviations to apply additional focus for considerations within the NSHA or other parts of Sweet Home. Potential considerations between variation in TSP (Citywide) and NSHA goals and policies may include:

- Location and context specific considerations
 - Presence of rail crossings within NSHA
 - NSHA connections to downtown
 - Many areas of Sweet Home are built out while NSHA has more space for right of way opportunities
- Intent-based considerations
 - o Promotion of future development within NSHA

EVALUATION CRITERIA

As transportation improvement alternatives are developed, evaluation criteria based on the objectives will be used to assess the relative value of each project considered for inclusion in the TSP. This will include criteria that are both qualitative and quantitative in nature. While some goals include more objectives than others, all goals will be weighted equally unless the advisory committee decides that some are more important than others. Using the criteria, considered projects will be rated and categorized as high, medium, or low priorities according to their ability to meet a broad range of community objectives.

APPENDIX C



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TM#3 EXISTING CONDITIONS INVENTORY AND ANALYSIS (DRAFT)

DATE: September 12, 2023

TO: Project Management Team

FROM: Garth Appanaitis, PE | DKS

Dock Rosenthal, PE | DKS

Alex Haag | DKS

SUBJECT: Sweet Home TSP and NSHA Refinement

TM#3 Existing Conditions

Project #20020-015

INTRODUCTION

This memorandum summarizes the transportation inventory of existing conditions for the City of Sweet Home and analyzes the existing multimodal travel conditions. A review of the existing transportation conditions for walking, biking, transit, motor vehicles, freight, and safety is included in the inventory.

The purpose of this existing conditions inventory and analysis is to assess the current conditions of the transportation system in Sweet Home, including its physical infrastructure, operational characteristics, and usage patterns. This includes an inventory of the existing transportation network, including roadways, sidewalks, bike infrastructure, and transit facilities. The analysis also includes an assessment of existing traffic conditions and a review of historical crash rates. The inventory will help identify potential gaps and deficiencies in the transportation system.

BACKGROUND

Sweet Home is a small city located in Linn County, Oregon, United States. As of the 2020 census, the population was approximately 10,000 people. The community is situated in the foothills of the Cascade Mountains and is known for its outdoor recreation opportunities, including hiking, fishing, and camping. Sweet Home is located approximately 19 miles east of Interstate-5 (I-5). Sweet Home is approximately 80 miles south of Portland, 40 miles north of Eugene/Springfield, and 45 miles west of Santiam Pass. The area surrounding Sweet Home is primarily rural and has historically been served by a mostly agricultural and timber-based economy. Located within the

South Santiam Watershed, the city is situated along the South Fork of the Santiam River at an elevation of about 537 feet.

U.S. 20 (Santiam Highway) runs east-west through the city along Main Street and forms the major transportation link through the community. ORE 228 (Holley Road) enters Sweet Home from the west and curves north to terminate at U.S. 20 near the west end of the city.

Sweet Home is served by the Sweet Home School District. The district includes Sweet Home High School, a junior high school, and four elementary schools. The district covers Sweet Home, Cascadia, Crawfordsville, Holley, Liberty, Pleasant Valley, and other surrounding communities.

The study area boundary for this plan generally coincides with the Urban Growth Boundary (UGB), which is shown in **Figure 1** together with the city limits and street system, and key destinations identified within the city.

Figure 2 illustrates a zoning map of Sweet Home that shows how different land uses are oriented around the City. Most commercial land is found in the downtown area, and highway commercial along U.S. 20. High density residential is primarily located along Long Street or adjacent to the downtown area, and medium and low density radiating outward from the downtown area. In Fall 2022 the City updated the Development Code and added a Mixed Use Employment Zone (MUE) designation. This update was accompanied by an update to the Comprehensive Plan map and all the properties currently zoned RC had the Comprehensive Plan designation changed to MUE. While existing zoning in the area was not changed during this process, the modification enables flexibility by providing the benefits of the existing RC zoning while facilitating future transition to the MUE. **Figure 3** illustrates the City's 2022 Zoning Update.

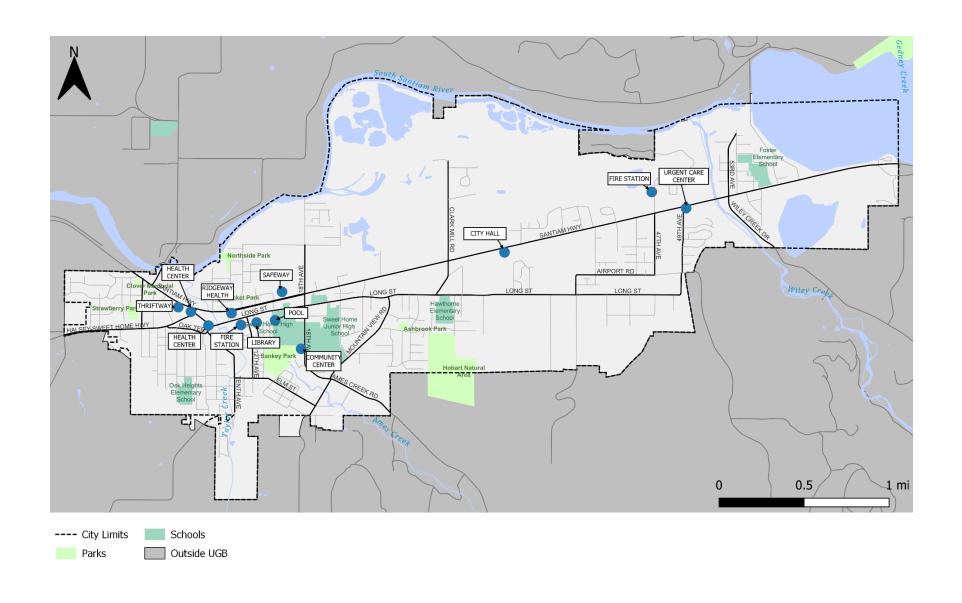


FIGURE 1: SWEET HOME AND KEY DESTINATIONS

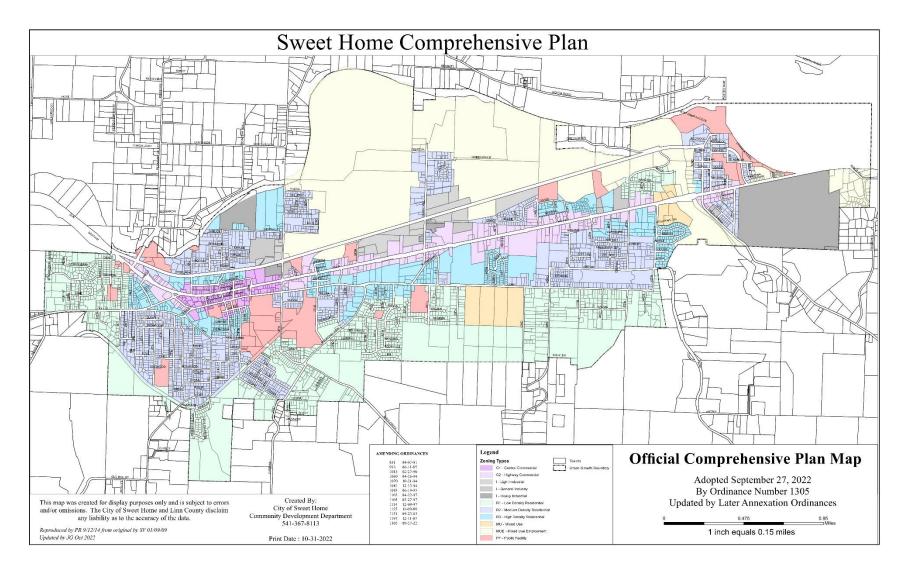


FIGURE 2: SWEET HOME COMPREHENSIVE PLAN (2022) LAND USE DESIGNATIONS

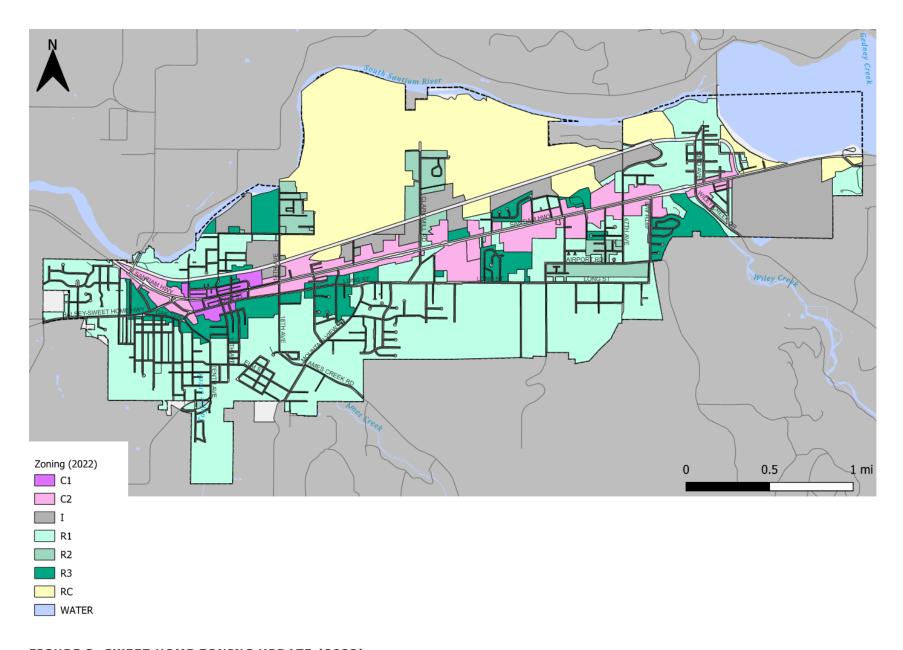


FIGURE 3: SWEET HOME ZONING UPDATE (2022)

WALKING AND BIKING CONDITIONS

Sweet Home is a compact city with many destinations located within a half-mile to three miles of each other. The system connectivity, density, and generally flat topography offer excellent pedestrian and cycling conditions in many areas of the city. Sweet Home's downtown area features a grid pattern of short blocks only interrupted by Ames Creek. Older areas in town also have a grid pattern, while newer areas transition to more suburban character with long blocks and cul-de-sacs.

The primary corridor through Sweet Home is U.S. 20 (Main Street/South Santiam Highway), which facilitates traffic flow between I-5 and Central Oregon. The high travel speeds of motor passing through the town to reach other destinations highlights the need for safe and highly visible pedestrian and bicycling facilities. Although improvements have been made, U.S. 20 still lacks adequate infrastructure for pedestrians and bicyclists along much of its length. However, the downtown stretch of the highway features a median with mid-block crosswalks, promoting enhanced visibility and safety for motorists, cyclists, and pedestrians.

While some streets in downtown provide satisfactory pedestrian amenities and can accommodate bicycles, many other streets in Sweet Home lack basic amenities such as sidewalks. Several barriers contribute to inefficient and less desirable pedestrian and bicycle travel, including the absence of walkways and challenges in crossing U.S. 20 outside of downtown, the lack of sidewalks and bike lanes or paths on collector streets, limited east-west connectivity (aside from Long Street and U.S. 20), and the absence of a connection between the newer and older parts of town via the street system, making it difficult to link the downtown core with the newer residential areas.

PEDESTRIAN NETWORK

Pedestrian facilities are a key aspect of a complete multimodal transportation system. Emphasizing pedestrian infrastructure not only promotes healthy lifestyles but also addresses social equity concerns by ensuring that individuals of all ages, including the young and elderly, as well as those without access to motorized transportation, can access essential goods, services, employment opportunities, public transit, and education.

Sidewalks are provided throughout the downtown core and some residential areas. Sidewalks are located in all of the commercial areas along Main Street and are well connected with most streets improved with curbs and sidewalks. Moving away from the downtown and nearby residential areas, the roads take on a more rural, unimproved character with the eastern part of the City having fewer sidewalks than the western and central areas.

Sidewalks are present on one or both sides of the street on arterials and collectors in streets, but there are deficiencies and gaps in multiple locations. Deficiencies are defined at locations where there is no sidewalk on either side of the street. Deficiencies exist on Long Street, Airport Road, 47th Avenue, 49th Avenue, 53rd Avenue and Wiley Creek Drive. Full sidewalks on both sides of the street are generally provided downtown and near the schools, as well as along Santiam Highway.

A map of existing pedestrian facilities can be found in **Figure 4**.

BICYCLE NETWORK

Bicycling plays a key role in the transportation system's ability to support healthy lifestyles and provide a variety of travel choices beyond the motor vehicle. Biking trips are an option for getting to and from school, shopping, commuting to work, and for travel to other activity generators in the City, as well as for recreational purposes. Currently, there are several designated bike routes and lanes within Sweet Home's downtown area, including portions of Main Street and Long Street.

Currently there are no separated cycling facilities in Sweet Home, however, painted bike lanes are present along a large portion of U.S. 20 and one segment of Long Street between 22nd Avenue and 35th Avenue. Sweet Home's existing bicycle facilities is shown in **Figure 5**.

BICYCLE LEVEL OF TRAFFIC STRESS

The Bicycle Level of Traffic Stress (LTS) is a measure used to assess the comfort and safety of bicycling conditions on different streets and routes. It quantifies the level of stress or discomfort experienced by cyclists when riding in proximity to motor vehicle traffic. The LTS methodology was developed to evaluate the suitability of streets and determine the need for bicycle infrastructure improvements.

LTS categorizes streets into four levels based on their traffic characteristics:

- LTS 1: Very Low Stress These streets typically have minimal or no traffic, low vehicle speeds, and dedicated bicycle facilities such as bike lanes or separated paths. They are considered highly comfortable for cyclists.
- LTS 2: Low Stress These streets have low traffic volumes and speeds, and they may have shared roadways or designated bicycle lanes. They are generally comfortable for most cyclists.
- LTS 3: Moderate Stress These streets have moderate traffic volumes and speeds, often lacking dedicated bicycle facilities. Cyclists may have to share the road with vehicles, and there may be some challenges at intersections or other conflict points.
- LTS 4: High Stress These streets are characterized by high traffic volumes, high vehicle speeds, and a lack of dedicated bicycle facilities. Cyclists face significant challenges sharing the road with fast-moving and heavy traffic, making these streets uncomfortable and potentially unsafe for biking.

By evaluating streets using the LTS framework, transportation planners and policymakers can identify areas where improvements are needed to create a more bicycle-friendly environment. This may include implementing bike lanes, protected bike facilities, traffic calming measures, or other infrastructure enhancements to reduce stress and enhance safety for cyclists.

Collector and Arterial streets in Sweet Home have been evaluated based on the BLTS methodology outlined in the *ODOT Analysis Procedures Manual Version 2 (2020)*. Based on this methodology, the majority of Sweet Home's arterial and connector street network is BLTS level 3 or BLTS level 4, with the score primarily driven by the high travel speeds on these corridors. BLTS on Sweet Home's transportation network is summarized in **Figure 6**.

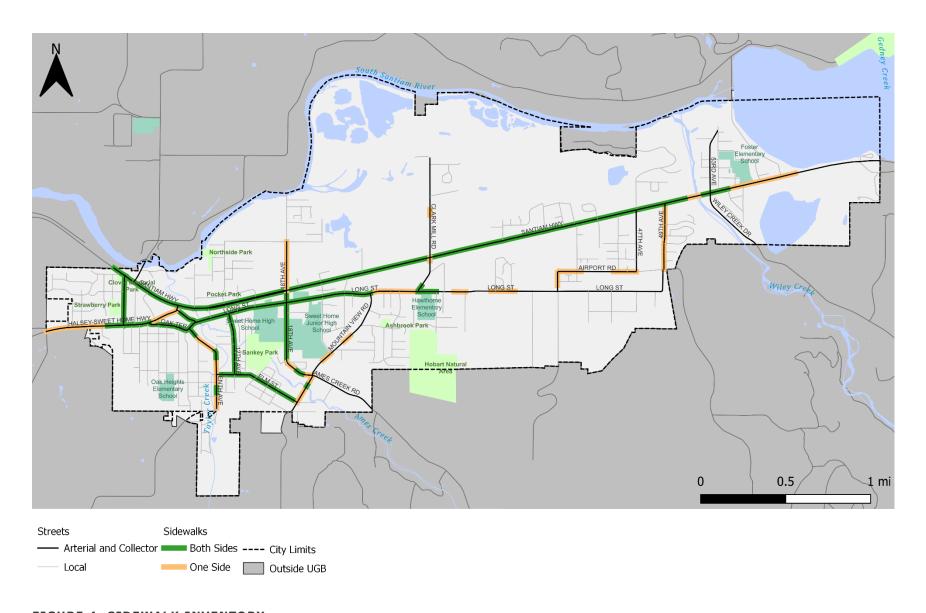


FIGURE 4: SIDEWALK INVENTORY

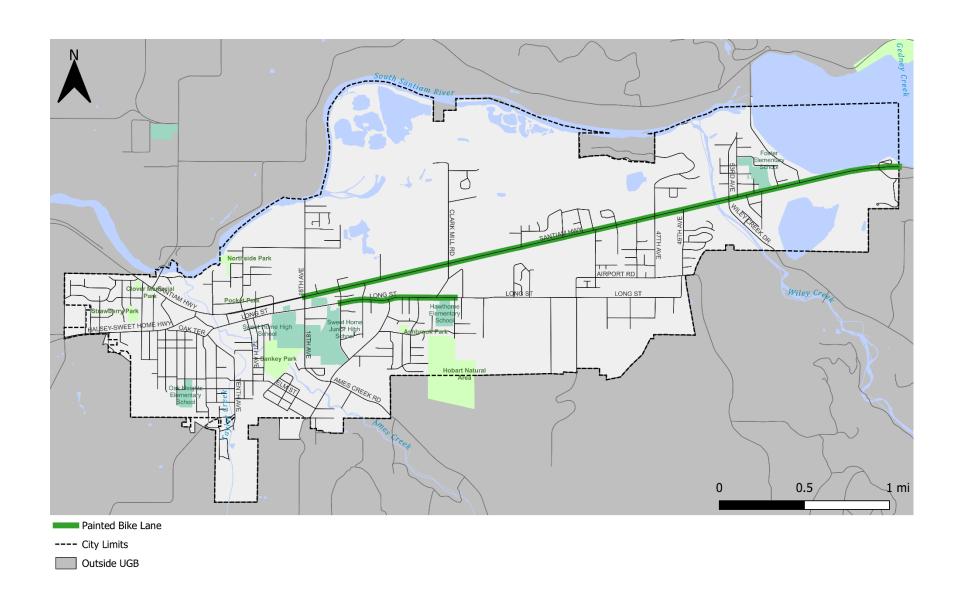


FIGURE 5: EXISTING BICYCLE FACILITIES



FIGURE 6: BLTS ON CITY COLLECTOR AND ARTERIAL STREETS

TRANSIT CONDITIONS

Transit service is provided in Sweet Home through three main routes. The Linn Shuttle, the Sweet Home Shopper, and Dial-A-Bus Service. A description of these three services is summarized in the following sections.

LINN SHUTTLE

The non-profit Senior Citizens of Sweet Home operates the Linn Shuttle fixed route service between Sweet Home-Lebanon-Albany. The Linn Shuttle connects with the Linn-Benton Loop (at the Linn- Benton Community College Albany Campus) to provide service to East Linn County residents who wish to travel to Albany or Corvallis. Seven round trips a day between Sweet Home-Lebanon-Albany with an additional 5 round trips between Lebanon and LBCC-Albany called the "LBCC-Lebanon Express". Service is available Monday-Friday between 6:30 a.m. and 7:30 p.m.

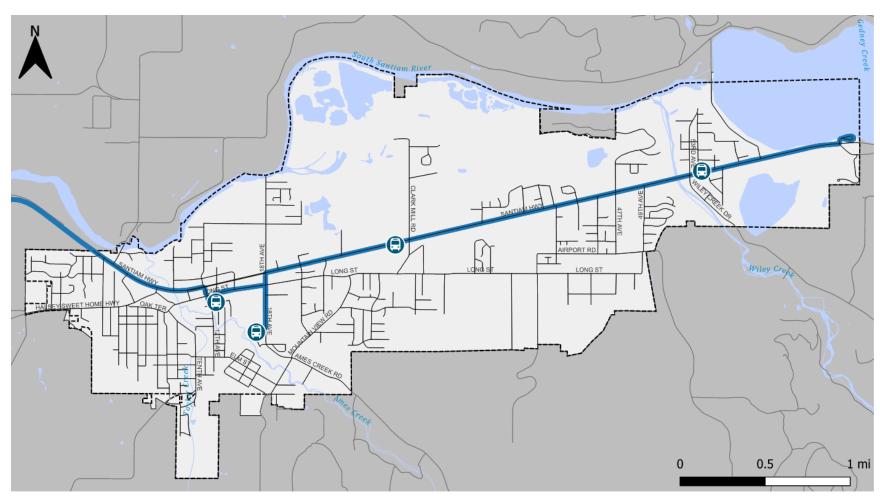
Funding for the Linn Shuttle comes from State Cigarette Tax funds allocated for elderly and handicapped transportation systems, as well as small cities and rural transportation funds from the Department of Transportation. Anyone can ride the Linn Shuttle. Linn-Benton Community College students and staff can ride for free by showing their ID cards. The shuttle operates on a scheduled route and the route is illustrated in **Figure 7**.

SWEET HOME SHOPPER

The Shopper is available to everyone, is wheelchair accessible, and buses are equipped with bike racks. The Shopper operates Monday Through Friday from 9:00 a.m. to 4:00 p.m. There are four trips from town out to Foster and back. On Tuesdays and Thursdays, the Shopper goes to Cascadia (stopping at Cascadia Short Bridge Rest Stop) with a trip in the morning and a return in the afternoon. The Sweet Home Shopper Route is illustrated in **Figure 8.**

DIAL-A-BUS

The non-profit Senior Citizens of Sweet Home operates the Sweet Home Dial-A-Bus which provides curb-to-curb service to older adults, people with disabilities and the general public within the boundaries of the Sweet Home School District. It also operates a limited "deviated fixed route" program within the boundaries of the City of Sweet Home. Dial-A-Bus Service is available Monday-Friday between 7:00 a.m. and 4:00 p.m. Rides must be scheduled in advance.

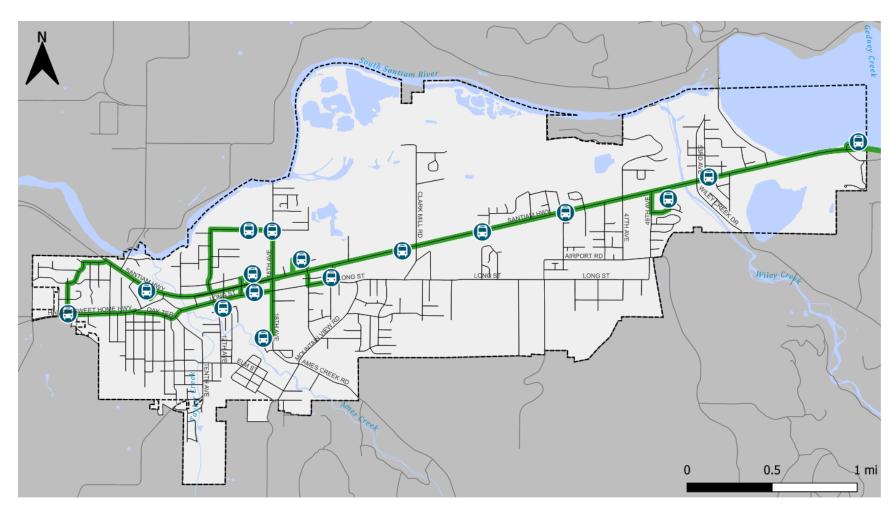


Stops

Route

Linn Shuttle

FIGURE 7: LINN SHUTTLE ROUTE



Stops

Route

Sweet Home Shopper

FIGURE 8: SWEET HOME SHOPPER ROUTE

SAFETY CONDITIONS

SAFETY ANALYSIS

Transportation infrastructure must be safe for everyone, whether walking, biking, rolling, or driving. Assessing historical collision data helps identify any shortcomings in the system and improve safety conditions for Sweet Home residents. Crash data from 2017 through 2021 (the most recent five years available) was obtained from the Oregon Department of Transportation (ODOT) and reviewed to identify any high-crash locations and trends involving people walking or biking who are typically the most vulnerable to serious injuries. All crashes within Sweet Home are mapped in **Figure 9**. Bicycle and pedestrian only crashes are mapped in **Figure 10**.

During this five-year period, there were a total of 299 crashes, 13 of which involved a pedestrian, and 9 involved a cyclist. 19 crashes were flagged for drug or alcohol involvement. As seen in Figure 13, there were three fatalities and 69 crashes that resulted in serious injuries during this period. These comprise almost of quarter of all crashes in Sweet Home.

Many crashes occurred along US 20 (Main Street), including 104 at study intersections for the Transportation System Plan. There was one Fatal crash on US 20 (Main Street) at 1st Avenue and four Injury A crashes occurred at the intersections with Holley Road, 12th Avenue, 15th Avenue and 22nd Avenue.

The two other fatal crashes occurred at the intersection of 12th Avenue/Hawthorne Street (involved pedestrian) and at the intersection of Ames Creek Road/Mountain View Road.

The most common collision types, in order of frequency, include turning vehicles, rear-end crashes, crashes with fixed objects and angle crashes (often referred to as "T-bone" crashes). Thirty-one percent of crashes involved turning movements. Over half of these turning crashes resulted in injury. Most of these crashes were caused by a failure to yield at a stop sign. There were 71 rear end collisions, 34 of which resulted in only property damage. There were 50 fixed-object crashes and 33 angle collisions. Many of these crashes occurred at stop-controlled intersections.

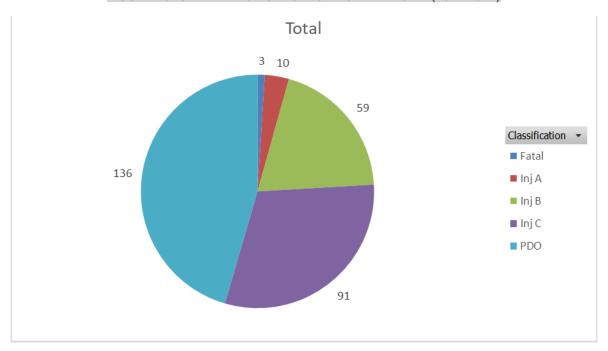


FIGURE 13: SEVERITY OF CRASHES IN SWEET HOME (2017-2021)

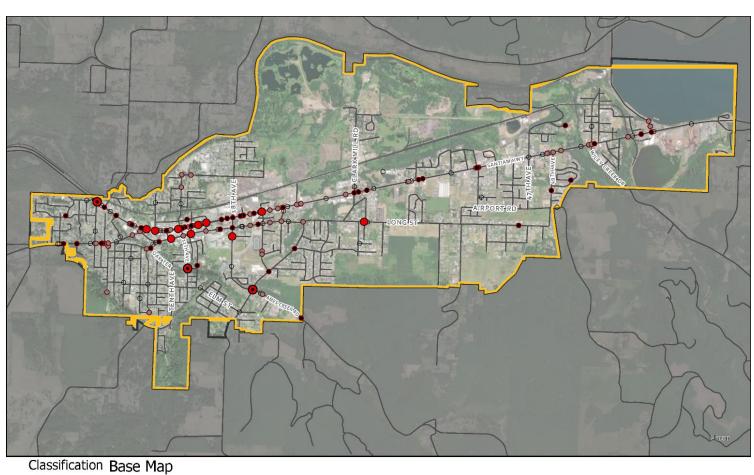
Of the nine pedestrian crashes most were caused by a failure to yield, one of these resulted in a pedestrian fatality. The fatality occurred at the intersection of Hawthorne Street and 12th Avenue in dry conditions during the day. Of the nine bicycle involved crashes there were no serious injuries.

The crash analysis was supplemented by a review of ODOT's Safety Priority Index System listings for locations in the City that ranked among the state's top ten percent of hazardous locations. The Safety Priority Index System (SPIS) is a method developed by ODOT for identifying hazardous locations on state highways, with the score based on three years of crash data, considering crash frequency, rate, and severity. ODOT bases its SPIS on 0.10-mile segments to account for variances in how crash locations are reported. This rating provides a general comparison of the overall safety of the highway based on crash information for all highway segments throughout the state. According to ODOT 2020 SPIS ratings (data reported between 2017 and 2019), the only location within Sweet Home in the top ten percent of segments is along US 20 (Main Street) just east of 9th Avenue.

TABLE: COLLISION TYPE FOR STUDY INTERSECTIONS

STUDY INTERSECTION	ANGLE	ВАСК	FIXED OBJECT	NCOL	OTHER	PEDESTRIAN	REAR END	SIDE SWIPE OPPOSITE	TURNING
1. MAIN STREET (U.S. 20) AND PLEASANT VALLEY ROAD			2					1	3
2. MAIN STREET (U.S. 20) AND HOLLEY ROAD (HWY 228)							6	1	10
3. MAIN STREET (U.S. 20) AND 12 TH AVENUE	5	1	2				1	2	3
4. MAIN STREET (U.S. 20) AND 15 TH AVENUE	3						1	1	5
5. MAIN STREET (U.S. 20) AND 18 TH AVENUE	2		2			2	3		3
6. MAIN STREET (U.S. 20) AND 22 ND AVENUE	5			1		2	4	1	7
7. MAIN STREET (U.S. 20) AND 24 TH AVENUE			1				1	1	3
8. MAIN STREET (U.S. 20) AND CLARK MILL ROAD	3		1		1		2	1	5
9. MAIN STREET (U.S. 20) AND 44 TH AVENUE			3						3
10. MAIN STREET (U.S. 20) AND 47 TH AVENUE			1						1

STUDY INTERSECTION	ANGLE	ВАСК	FIXED OBJECT	NCOL	OTHER	PEDESTRIAN	REAR END	SIDE SWIPE OPPOSITE	TURNING
11. MAIN STREET (U.S. 20) AND 49 TH AVENUE								1	3
12. MAIN STREET (U.S. 20) AND 53 RD AVENUE	1		1				1		2
14. MAIN STREET (U.S. 20) AND 60 TH AVENUE (FOSTER DAM ROAD)			3				1		1
15. HOLLEY ROAD (HWY 228) AND 1 ST AVENUE			1				3	1	
16. HOLLEY ROAD (HWY 228) AND OAK TERRACE									1
17. LONG STREET AND 18 TH AVENUE	4		1			1	1		2
TOTAL	23	1	18	1	1	5	24	10	52



Inj A UGB

● Inj B — Rail

Inj C — Streets

o PDO

FIGURE 9: 2017 TO 2021 CRASH MAP BY SEVERITY

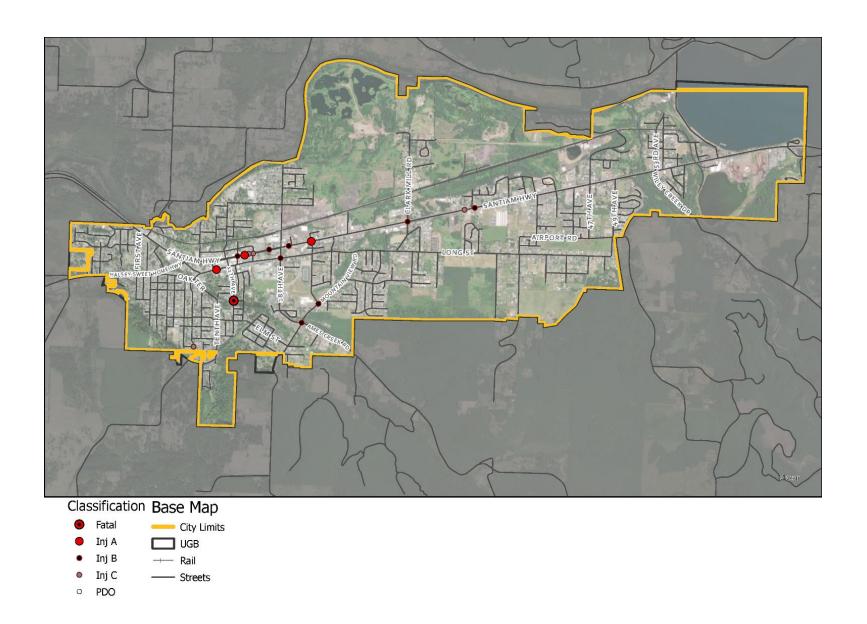


FIGURE 10: 2017 TO 2021 BICYCLE AND PEDESTRIAN CRASHES BY SEVERITY

MOTOR VEHICLE CONDITIONS

KEY CORRIDORS

U.S. 20 and Highway 228 are the key arterials in Sweet Home. U.S. 20 is a major east-west highway that runs through Sweet Home. It begins at the Oregon Coast in Newport and travels eastward through the Willamette National Forest before eventually reaching the Idaho border. In Sweet Home, U.S. 20 runs through the center of town along Main Street. It is an important transportation route for local residents, as well as for travelers passing through the area. Highway 228 is a shorter highway that runs north-south through Sweet Home. It begins at U.S. 20 near the eastern edge of town and travels southward through the Willamette National Forest before eventually reaching the city of Brownsville. In Sweet Home, Highway 228 provides access to several recreational areas and natural attractions, including Quartzville Creek and Green Peter Lake.

In addition to the two highways, Long Street serves as the primary east-west arterial in Sweet Home. Long Street begins at Highway 228 to the west, and eventually terminates at Airport Road and connects to U.S. 20 via 47th Avenue.

The arterial and collector road network in Sweet Home is illustrated in **Figure** 11**11**. The posted speeds on this study road network is illustrated in **Figure** 12**12**.

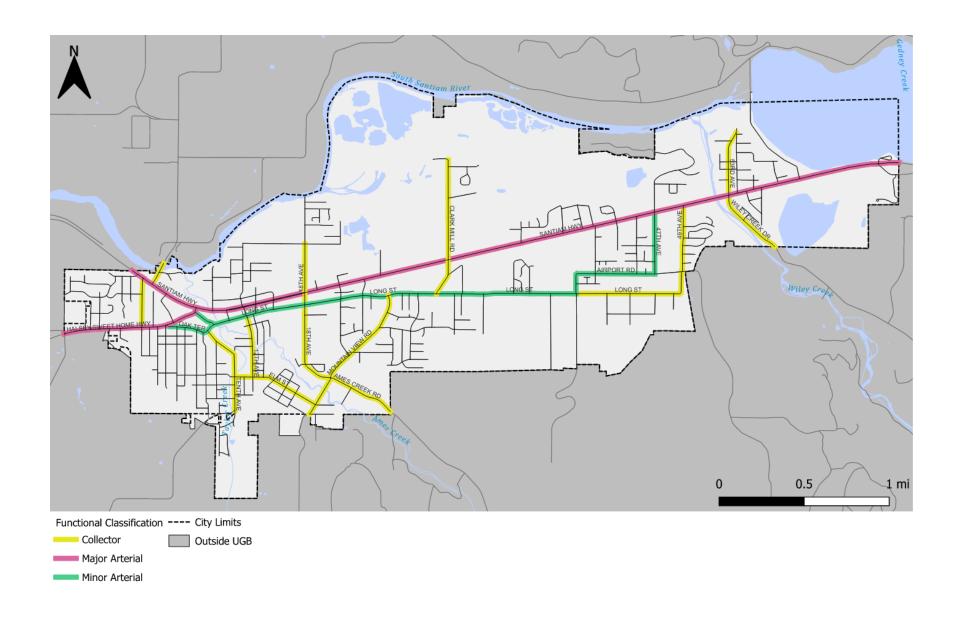


FIGURE 11: ARTERIAL AND COLLECTOR ROAD NETWORK



FIGURE 12: POSTED SPEEDS ON ARTERIAL AND COLLECTOR ROAD NETWORK

EXISTING TRAFFIC CONDITIONS AT STUDY INTERSECTIONS

Congestion levels at a selection of key intersections (**Figure 9**) in Sweet Home were evaluated to understand where motorists experience higher delays. The study intersections include five signalized intersections, 12 two-way stop-controlled (TWSC) intersections, and two all-way stop-controlled (AWSC) intersections.

Traffic counts were collected in June 2021 and existing conditions analysis has assumed a base year of 2021. Study intersection traffic operations have been analyzed using estimated 30th highest hour traffic volume (30 HV) conditions. A singular system peak hour has been used to derive intersection traffic volumes for traffic analysis. The peak hour for the study intersections was identified using the Oregon Traffic Monitoring System MS2 platform, which determined the system p.m. peak hour to be 4:15 to 5:15 p.m. A seasonal adjustment factor of 1.04 has been applied to the volumes based on the methodology described in **Task 3.1 Existing Conditions Inventory and Analysis**. Traffic volumes for the weekday p.m. peak hour are shown in **Figures 12 and 13**.

The County and City have adopted vehicle mobility standards. These standards provide a benchmark to measure intersection congestion against and ensure that the transportation system will have adequate capacity to support planned growth. These standards are either measured with level of service (LOS) or volume-to-capacity ratio (v/c ratio). The LOS is an A to F rating of the level of delay the average vehicle will experience at an intersection (similar to a report card, where LOS A has very little delay and LOS F has a lot of delay). The v/c ratio is a proportion from zero to one that measures the approximate amount of an intersection's capacity to move traffic that is being used. For example, a v/c ratio of 0.90 indicates that 90 percent of an intersection's capacity to move traffic is being used Existing Peak Hour traffic conditions have been compared to ODOT

and City mobility targets/operating standards in

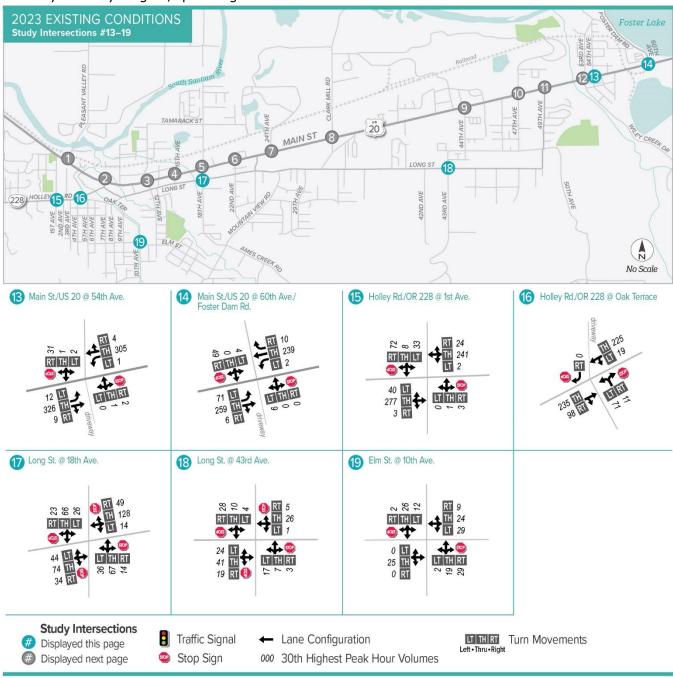


Figure 14: Study Intersetion Lane Configuration and Traffic Volume (Part 2)

Table 1.

Results of the traffic operations analysis indicate that all study intersections are operating within analysis thresholds. Results of the traffic operations analysis are summarized in

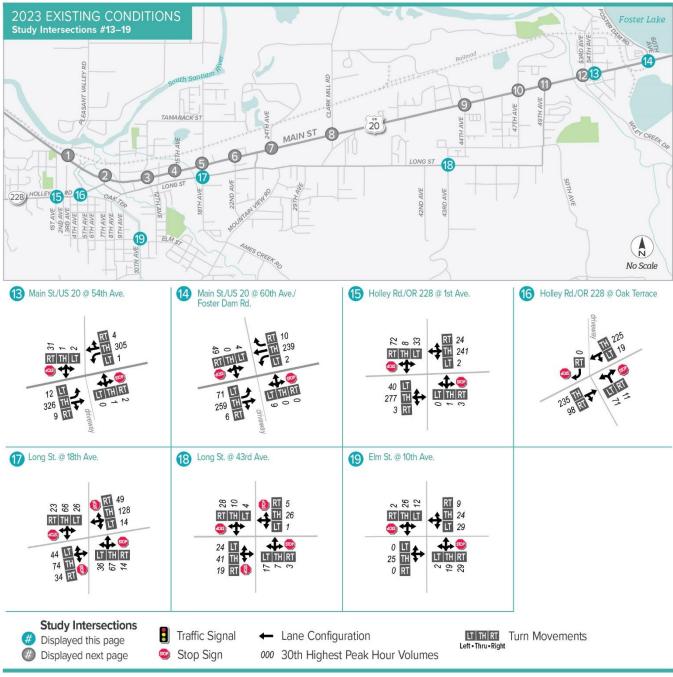


Figure 14: Study Intersetion Lane Configuration and Traffic Volume (Part 2)

Table 1.



FIGURE 9: STUDY INTERSECTIONS

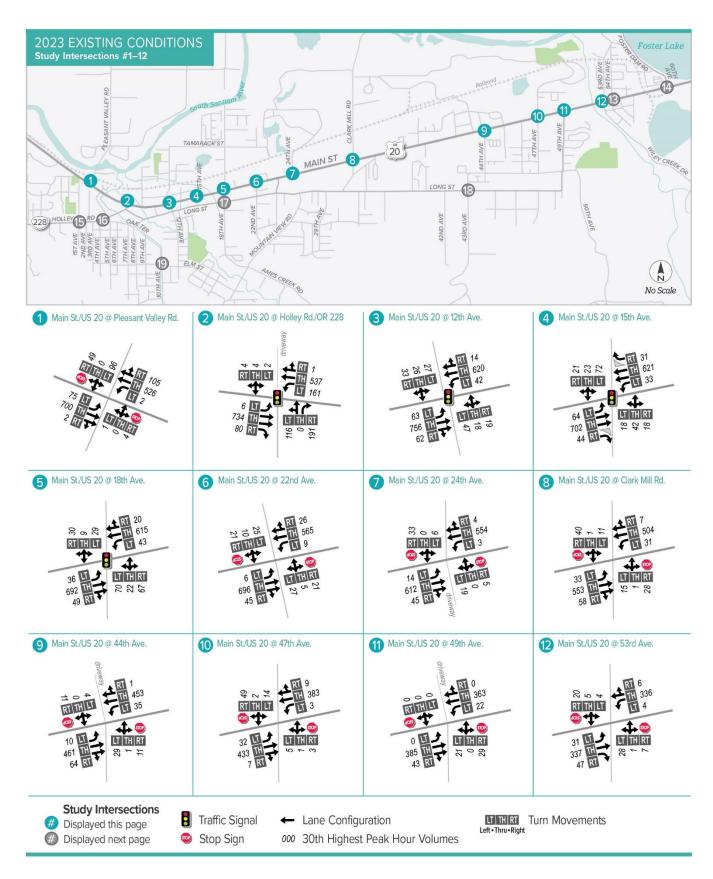


FIGURE 13: STUDY INTERSETION LANE CONFIGURATION AND TRAFFIC VOLUME (PART 1)

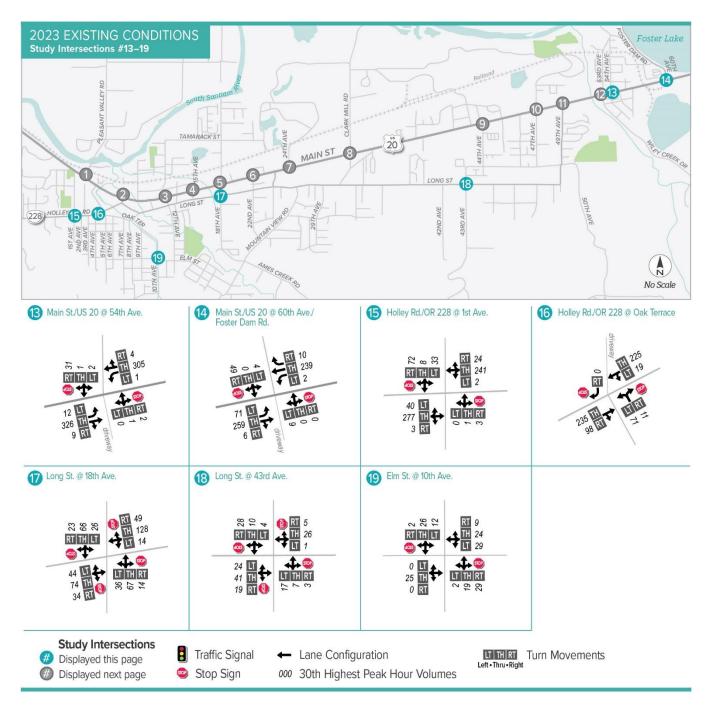


FIGURE 14: STUDY INTERSETION LANE CONFIGURATION AND TRAFFIC VOLUME (PART 2)

TABLE 1: EXISTING (2021) TRAFFIC OPERATIONS AT STUDY INTERSECTIONS - WEEKDAY PM PEAK HOUR

INTERSECTION	CONTROL TYPE	MOBILITY STANDARD	LOS	DELAY (SECONDS	V/C RATIO
1. MAIN STREET (U.S. 20) AND PLEASANT VALLEY ROAD	TWSC	v/c ≤ 0.85	A/F	1/97	0.02/0.91
2. MAIN STREET (U.S. 20) AND HOLLEY ROAD (HWY 228)	Signal	v/c ≤ 0.90	В	12	0.78
3. MAIN STREET (U.S. 20) AND 12 TH AVENUE	Signal	v/c ≤ 0.90	А	5	0.43
4. MAIN STREET (U.S. 20) AND 15 TH AVENUE	Signal	v/c ≤ 0.90	А	5	0.4
5. MAIN STREET (U.S. 20) AND 18 TH AVENUE	Signal	v/c ≤ 0.90	А	6	0.44
6. MAIN STREET (U.S. 20) AND 22 ND AVENUE	Two-Way Stop	v/c ≤ 0.90	A/E	0.2/35	0.01/35
7. MAIN STREET (U.S. 20) AND 24 TH AVENUE	Two-Way Stop	v/c ≤ 0.90	A/D	0.2/27	0.02/0.15
8. MAIN STREET (U.S. 20) AND CLARK MILL ROAD	Two-Way Stop	v/c ≤ 0.85	A/C	0.5/19	0.04/0.16
9. MAIN STREET (U.S. 20) AND 44 TH AVENUE	Two-Way Stop	v/c ≤ 0.85	A/C	0.6/22	0.04/0.18
10. MAIN STREET (U.S. 20) AND 47 TH AVENUE	Two-Way Stop	v/c ≤ 0.85	A/C	0.6/19	0.04/0.16
11. MAIN STREET (U.S. 20) AND 49 TH AVENUE	Two-Way Stop	v/c ≤ 0.85	A/B	0.5/14	0.02/0.16
12. MAIN STREET (U.S. 20) AND 53 RD AVENUE	Two-Way Stop	v/c ≤ 0.85	A/C	0.6/20	0.03/0.15
13. MAIN STREET (U.S. 20) AND 54 TH AVENUE	Two-Way Stop	v/c ≤ 0.85	A/B	0.3/13	0.01/0.07
14. MAIN STREET (U.S. 20) AND 60 TH AVENUE (FOSTER DAM ROAD)	Two-Way Stop	v/c ≤ 0.85	A/C	2/19	0.07/0.09
15. HOLLEY ROAD (HWY 228) AND 1 ST AVENUE	Two-Way Stop	v/c ≤ 0.95	A/C	1/16	0.04/0.29
16. HOLLEY ROAD (HWY 228) AND OAK TERRACE	Two-Way Stop	v/c ≤ 0.95	A/C	1/16	0.02/0.23

INTERSECTION	CONTROL TYPE	MOBILITY STANDARD	LOS	DELAY (SECONDS)	V/C RATIO
17. LONG STREET AND 18 TH AVENUE	AWSC	LOS D	А	10	0.32
18. LONG STREET AND 43 RD AVENUE	AWSC	LOS D	А	8	0.11
19. ELM STREET AND 10 TH AVENUE	Two-Way Stop	LOS D	A/B	3/11	0.03/0.08

^a Note: Overall intersection measures reported for signal and AWSC intersections. The worst approach for major/minor approaches is reported for TWSC intersections.

FREIGHT NETWORK

The existing freight network, railways and rail crossing locations are shown in **Figure 15**. U.S. 20 is part of the National Highway System and handles moderate truck volumes between Sweet Home and I-5 to the west, with an average daily traffic (ADT) range between 500 and 14,999.

One rail line serves Sweet Home from the west terminating at the Foster Mill site on the east side of the City. The line is operated by Albany and Eastern Railroad Company and connects Sweet Home to Albany. Within the City limits the line is located roughly one block north of U.S. 20 running roughly parallel thereto.

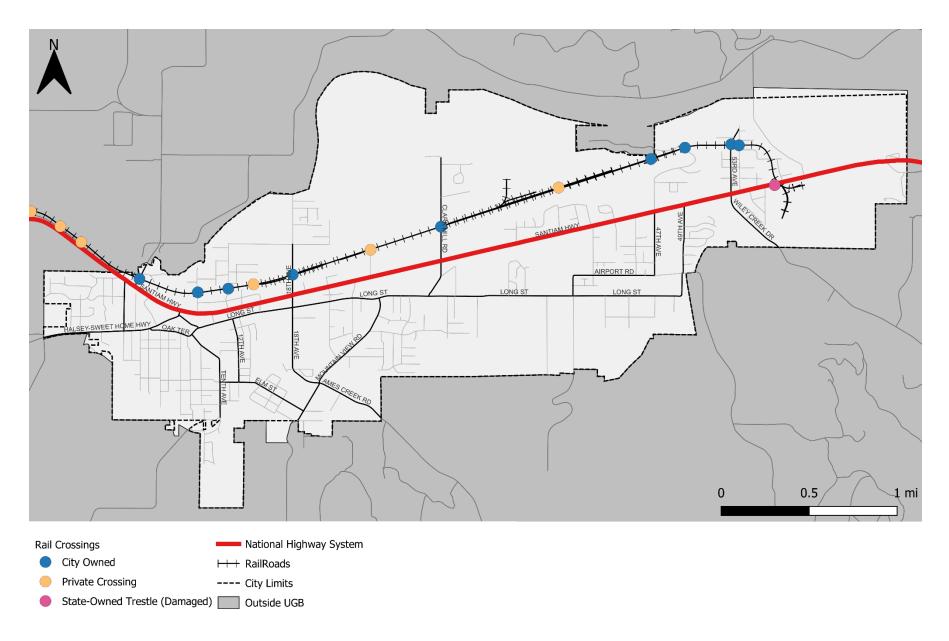


FIGURE 105: EXISTING FREIGHT NETWORK

APPENDIX A: EXISTING TRAFFIC OPERATIONS ANALYSIS RESULTS

Intersection												
Int Delay, s/veh	9.5											
• •		CDT.		WDL	MPT	MDD	ND	NET	NDD	ODI	ODT	ODD
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		∱ ⊅	_	<u> ነ</u>	ΦÞ			4			4	
Traffic Vol, veh/h	75	700	2	2	526	105	1	0	4	96	0	49
Future Vol, veh/h	75	700	2	2	526	105	1	0	4	96	0	49
Conflicting Peds, #/hr	1	0	1	1	0	1	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	150	-	-	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, %	2	2	2	4	4	4	0	0	0	1	1	1
Mvmt Flow	83	778	2	2	584	117	1	0	4	107	0	54
Major/Minor M	lajor1		N	Major2			Minor1		N	/linor2		
Conflicting Flow All	702	0	0	781	0	0	1242	1652	391	1203	1595	352
Stage 1	702	U	U	101	-	U	946	946	J91 -	648	648	332
Stage 1 Stage 2	-	•	-	-	_	-	296	706	<u>-</u>	555	947	_
Stage 2 Critical Hdwy	4.14	-	-	4.18	-	-	7.5	6.5	6.9	7.52	6.52	6.92
Critical Hdwy Stg 1	4.14		<u>-</u>	4.10	_	-	6.5	5.5	0.9	6.52	5.52	0.92
, ,		-	-	-	-	-		5.5		6.52	5.52	
Critical Hdwy Stg 2	- 2 22	-	-	2.24	-	-	6.5		2 2			2 21
Follow-up Hdwy	2.22	-	-		-	-	3.5	4	3.3	3.51	4.01	3.31
Pot Cap-1 Maneuver	891	-	-	819	-	-	133	100	614	141	107	647
Stage 1	-	-	-	-	-	-	285	343	-	428	467	-
Stage 2	-	-	-	-	-	-	694	442	-	486	340	-
Platoon blocked, %	000	-	-	040	-	-	440	00	040	400	07	0.40
Mov Cap-1 Maneuver	890	-	-	818	-	-	113	90	613	130	97	646
Mov Cap-2 Maneuver	-	-	-	-	-	-	113	90	-	130	97	-
Stage 1	-	-	-	-	-	-	258	311	-	388	466	-
Stage 2	-	-	-	-	-	-	634	441	-	437	308	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.9			0			16.3			97.1		
HCM LOS	0.0						C			F		
10 200										'		
							=					
Minor Lane/Major Mvmt		NBLn1	EBL	EBT	EBR	WBL	WBT	WBR :				
Capacity (veh/h)		325	890	-	-	818	-	-				
HCM Lane V/C Ratio		0.017	0.094	-	-	0.003	-	-	0.905			
HCM Control Delay (s)		16.3	9.5	-	-	9.4	-	-	97.1			
HCM Lane LOS		С	Α	-	-	Α	-	-	F			
HCM 95th %tile Q(veh)		0.1	0.3	-	-	0	-	-	6.8			

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	^	7	ሻ	∱ ∱			4	7		4	
Traffic Volume (veh/h)	6	734	80	161	537	1	116	0	191	2	4	4
Future Volume (veh/h)	6	734	80	161	537	1	116	0	191	2	4	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1709	1709	1709	1709	1709	1709	1709	1709	1709	1750	1750	1750
Adj Flow Rate, veh/h	7	807	88	177	590	1	127	0	210	2	4	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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	0	0	0
Cap, veh/h	9	1497	666	232	1989	3	375	0	454	104	139	108
Arrive On Green	0.01	0.46	0.46	0.14	0.60	0.59	0.17	0.00	0.17	0.17	0.17	0.17
Sat Flow, veh/h	1628	3247	1445	1628	3326	6	1403	0	1448	132	813	630
Grp Volume(v), veh/h	7	807	88	177	288	303	127	0	210	10	0	0
Grp Sat Flow(s),veh/h/ln	1628	1624	1445	1628	1624	1708	1403	0	1448	1575	0	0
Q Serve(g_s), s	0.2	9.5	1.9	5.6	4.6	4.6	4.1	0.0	6.2	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.2	9.5	1.9	5.6	4.6	4.6	4.4	0.0	6.2	0.3	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.20		0.40
Lane Grp Cap(c), veh/h	9	1497	666	232	971	1022	375	0	454	350	0	0
V/C Ratio(X)	0.78	0.54	0.13	0.76	0.30	0.30	0.34	0.00	0.46	0.03	0.00	0.00
Avail Cap(c_a), veh/h	367	2472	1100	765	1236	1300	793	0	887	432	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	26.4	10.3	8.2	21.9	5.2	5.2	20.1	0.0	14.7	18.4	0.0	0.0
Incr Delay (d2), s/veh	39.8	0.4	0.1	3.9	0.2	0.2	0.4	0.0	0.5	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	2.9	0.5	2.2	1.2	1.3	1.4	0.0	1.9	0.1	0.0	0.0
Unsig. Movement Delay, s/veh		10.7	0.4	05.0	EE	EE	20 5	0.0	15.0	10.4	0.0	0.0
LnGrp Delay(d),s/veh	66.2 E	10.7 B	8.4 A	25.8 C	5.5	5.5	20.5 C	0.0	15.2 B	18.4 B	0.0	0.0
LnGrp LOS			A	U	A 700	A	U	A	D	D	A 40	A
Approach Vol, veh/h		902			768			337			10	
Approach LOS		10.9			10.1			17.2			18.4	
Approach LOS		В			В			В			В	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.6	28.5		13.1	4.3	35.8		13.1				
Change Period (Y+Rc), s	4.0	4.5		4.0	4.0	4.5		4.0				
Max Green Setting (Gmax), s	25.0	40.0		12.0	12.0	40.0		25.0				
Max Q Clear Time (g_c+l1), s	7.6	11.5		2.3	2.2	6.6		8.2				
Green Ext Time (p_c), s	0.6	12.5		0.0	0.0	8.3		0.9				
Intersection Summary												_
HCM 6th Ctrl Delay			11.7									
HCM 6th LOS			В									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	7	Λħ		1	∱ ∱			4			4		
Traffic Volume (veh/h)	63	756	62	42	620	14	47	18	19	27	26	33	
Future Volume (veh/h)	63	756	62	42	620	14	47	18	19	27	26	33	
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.98	0.99		0.98	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	1.00	
Work Zone On Approac		No			No			No			No		
Adj Sat Flow, veh/h/ln	1695	1695	1695	1668	1668	1668	1723	1723	1723	1736	1736	1736	
Adj Flow Rate, veh/h	70	840	69	47	689	16	52	20	21	30	29	37	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
Percent Heavy Veh, %	4	4	4	6	6	6	2	2	2	1	1	1	
Cap, veh/h	604	1952	160	506	2050	48	242	50	39	181	75	77	
Arrive On Green	0.65	0.65	0.63	0.65	0.65	0.63	0.13	0.13	0.13	0.13	0.13	0.13	
Sat Flow, veh/h	731	3013	248	594	3166	73	661	397	308	376	588	604	
Grp Volume(v), veh/h	70	449	460	47	345	360	93	0	0	96	0	0	
Grp Sat Flow(s), veh/h/li		1611	1650	594	1585	1655	1366	0	0	1568	0	0	
Q Serve(g_s), s	1.7	4.8	4.9	1.5	3.5	3.5	0.2	0.0	0.0	0.0	0.0	0.0	
Cycle Q Clear(g_c), s	5.2	4.8	4.9	6.3	3.5	3.5	2.1	0.0	0.0	1.9	0.0	0.0	
Prop In Lane	1.00	10.10	0.15	1.00	1000	0.04	0.56		0.23	0.31		0.39	
Lane Grp Cap(c), veh/h		1043	1069	506	1026	1072	332	0	0	332	0	0	
V/C Ratio(X)	0.12	0.43	0.43	0.09	0.34	0.34	0.28	0.00	0.00	0.29	0.00	0.00	
Avail Cap(c_a), veh/h	965	1838	1884	800	1809	1888	708	0	0	773	0	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	
Uniform Delay (d), s/vel		3.1	3.1	4.6	2.8	2.8	14.4	0.0	0.0	14.4	0.0	0.0	
Incr Delay (d2), s/veh	0.1	0.4	0.4	0.1	0.3	0.3	0.3	0.0	0.0	0.4	0.0	0.0	
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),vel			0.0	0.1	0.4	0.5	0.0	0.0	0.0	0.0	0.0	0.0	
Unsig. Movement Delay	4.1	3.5	3.5	4.7	3.1	3.1	14.8	0.0	0.0	14.7	0.0	0.0	
LnGrp Delay(d),s/veh LnGrp LOS	4.1 A	3.5 A	3.5 A	4.7 A	3.1 A	3.1 A	14.0 B	Α	Α	14.7 B	Α	Α	
		979			752		U	93		U	96		
Approach Vol, veh/h Approach Delay, s/veh		3.5			3.2			14.8			14.7		
Approach LOS		3.5 A			3.2 A			14.0 B			14.7 B		
Approach LOS		А			А			D			D		
Timer - Assigned Phs		2		4		6		8					
Phs Duration (G+Y+Rc)), s	27.0		8.5		27.0		8.5					
Change Period (Y+Rc),		4.5		4.0		4.5		4.0					
Max Green Setting (Gm	, ,	40.0		15.0		40.0		15.0					
Max Q Clear Time (g_c		7.2		3.9		8.3		4.1					
Green Ext Time (p_c), s	3	15.3		0.2		11.1		0.2					
Intersection Summary													
HCM 6th Ctrl Delay			4.5										
HCM 6th LOS			Α										

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	ች	^	7	*	^	7		4			4		
Traffic Volume (veh/h)	64	702	44	33	621	31	18	42	18	72	23	21	
Future Volume (veh/h)	64	702	44	33	621	31	18	42	18	72	23	21	
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.98		0.97	0.98		0.97	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	0.90	
Work Zone On Approac		No			No			No		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	No		
	1723	1723	1723	1695	1695	1695	1736	1736	1736	1736	1736	1736	
Adj Flow Rate, veh/h	74	807	0	38	714	0	21	48	21	83	26	24	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	
Percent Heavy Veh, %	2	2	2	4	4	4	1	1	1	1	1	1	
Cap, veh/h	561	1998	_	515	1966		154	158	59	279	69	42	
Arrive On Green	0.61	0.61	0.00	0.61	0.61	0.00	0.17	0.17	0.17	0.17	0.17	0.17	
Sat Flow, veh/h	734	3273	1460	663	3221	1437	196	914	338	695	399	241	
Grp Volume(v), veh/h	74	807	0	38	714	0	90	0	0	133	0	0	
Grp Sat Flow(s), veh/h/lr		1637	1460	663	1611	1437	1447	0	0	1336	0	0	
Q Serve(g_s), s	2.1	4.7	0.0	1.2	4.1	0.0	0.0	0.0	0.0	1.2	0.0	0.0	
Cycle Q Clear(g_c), s	6.2	4.7	0.0	5.9	4.1	0.0	2.0	0.0	0.0	3.2	0.0	0.0	
Prop In Lane	1.00	7.1	1.00	1.00	7.1	1.00	0.23	0.0	0.23	0.62	0.0	0.18	
Lane Grp Cap(c), veh/h		1998	1.00	515	1966	1.00	371	0	0.20	390	0	0.10	
V/C Ratio(X)	0.13	0.40		0.07	0.36		0.24	0.00	0.00	0.34	0.00	0.00	
Avail Cap(c_a), veh/h	917	3583		836	3527		695	0.00	0.00	683	0.00	0.00	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	
Uniform Delay (d), s/veh		3.7	0.0	5.2	3.6	0.0	13.5	0.0	0.0	13.9	0.0	0.0	
Incr Delay (d2), s/veh	0.1	0.2	0.0	0.1	0.2	0.0	0.2	0.0	0.0	0.4	0.0	0.0	
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh		0.8	0.0	0.1	0.7	0.0	0.6	0.0	0.0	0.9	0.0	0.0	
Unsig. Movement Delay			0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.5	0.0	0.0	
LnGrp Delay(d),s/veh	5.3	3.9	0.0	5.3	3.8	0.0	13.7	0.0	0.0	14.3	0.0	0.0	
LnGrp LOS	3.5 A	Α	0.0	3.5 A	Α.	0.0	13.7 B	Α	Α	В	Α	Α	
Approach Vol, veh/h		881	Α		752	Α		90			133		
Approach Delay, s/veh		4.0			3.8			13.7			14.3		
Approach LOS		4.0 A			3.0 A			В			14.3 B		
											D		
Timer - Assigned Phs		2		4		6		8					
Phs Duration (G+Y+Rc)		26.6		10.4		26.6		10.4					
Change Period (Y+Rc),		4.5		4.0		4.5		4.0					
Max Green Setting (Gm	ax), s	40.0		15.0		40.0		15.0					
Max Q Clear Time (g_c-	+I1), s	8.2		5.2		7.9		4.0					
Green Ext Time (p_c), s	3	13.9		0.3		11.7		0.2					
Intersection Summary													
HCM 6th Ctrl Delay			5.2										
HCM 6th LOS			A										
Notes													

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	ሻ	ħβ		ሻ	ħβ			4			4		
Traffic Volume (veh/h)	36	692	49	43	615	20	70	22	67	29	9	30	
Future Volume (veh/h)	36	692	49	43	615	20	70	22	67	29	9	30	
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approac		No			No			No			No		
Adj Sat Flow, veh/h/ln	1695	1695	1695	1668	1668	1668	1668	1668	1668	1668	1668	1668	
Adj Flow Rate, veh/h	40	778	55	48	691	22	79	25	75	33	10	34	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	
Percent Heavy Veh, %	4	4	4	6	6	6	6	6	6	6	6	6	
Cap, veh/h	527	1764	125	471	1812	58	244	67	123	226	84	135	
Arrive On Green	0.58	0.58	0.56	0.58	0.58	0.56	0.19	0.21	0.19	0.19	0.21	0.19	
Sat Flow, veh/h	725	3051	216	638	3135	100	503	328	599	425	408	659	
Grp Volume(v), veh/h	40	411	422	48	349	364	179	0	0	77	0	0	
Grp Sat Flow(s),veh/h/l		1611	1656	638	1585	1650	1431	0	0	1492	0	0	
Q Serve(g_s), s	1.2	5.3	5.4	1.7	4.4	4.4	2.6	0.0	0.0	0.0	0.0	0.0	
Cycle Q Clear(g_c), s	5.6	5.3	5.4	7.1	4.4	4.4	4.2	0.0	0.0	1.6	0.0	0.0	
Prop In Lane	1.00	004	0.13	1.00	0.40	0.06	0.44	•	0.42	0.43	•	0.44	
Lane Grp Cap(c), veh/h		931	957	471	916	954	415	0	0	425	0	0	
V/C Ratio(X)	0.08	0.44	0.44	0.10	0.38	0.38	0.43	0.00	0.00	0.18	0.00	0.00	
Avail Cap(c_a), veh/h	904	1767	1817	802	1738	1810	903	0	0	902	0	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	
Uniform Delay (d), s/ve		4.4	4.4	6.4	4.2	4.2	13.5	0.0	0.0	12.5	0.0	0.0	
Incr Delay (d2), s/veh	0.1	0.5	0.5	0.1	0.4	0.4	1.0	0.0	0.0	0.3	0.0	0.0	
Initial Q Delay(d3),s/ve		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),ve			l.l	0.2	8.0	0.9	1.3	0.0	0.0	0.5	0.0	0.0	
Unsig. Movement Dela	•	4.9	4.9	6.5	4.6	4.6	14.5	0.0	0.0	12.8	0.0	0.0	
LnGrp Delay(d),s/veh LnGrp LOS	5.8 A	4.9 A	4.9 A	0.5 A		4.0 A	14.5 B	Ο.0	0.0 A	12.0 B		0.0 A	
		873			761		Ь			ь	A 77		
Approach Vol, veh/h		4.9			761 4.7			179 14.5			77 12.8		
Approach LOS								14.5 B			12.0 B		
Approach LOS		Α			Α			D			D		
Timer - Assigned Phs		2		4		6		8					
Phs Duration (G+Y+Ro	, .	25.3		11.6		25.3		11.6					
Change Period (Y+Rc)		4.5		4.5		4.5		4.5					
Max Green Setting (Gn		40.0		20.0		40.0		20.0					
Max Q Clear Time (g_c		7.6		3.6		9.1		6.2					
Green Ext Time (p_c),	S	13.3		0.4		11.1		1.0					
Intersection Summary													
HCM 6th Ctrl Delay			6.1										
HCM 6th LOS			Α										

Intersection												
Int Delay, s/veh	2.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	LDL	413	LDIX	ኘ	†	WDIX	NDL	4	NDIN	ODL	4	ODIT
Traffic Vol, veh/h	6	696	45	9	565	26	27	5	21	25	10	21
Future Vol, veh/h	6	696	45	9	565	26	27	5	21	25	10	21
Conflicting Peds, #/hr	0	0	4	4	0	0	2	0	0	0	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	_	-	None	-	_	None
Storage Length	-	-	-	100	-	-	-	-	-	-	-	-
Veh in Median Storage,	# -	0	-	-	0	-	_	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	3	3	3	4	4	4	6	6	6	0	0	0
Mvmt Flow	7	782	51	10	635	29	30	6	24	28	11	24
Major/Minor M	lajor1		ľ	Major2		ľ	Minor1		N	Minor2		
Conflicting Flow All	664	0	0	837	0	0	1171	1510	421	1078	1521	334
Stage 1	-	-	-	-	-	-	826	826	-	670	670	-
Stage 2	-	-	-	-	-	-	345	684	-	408	851	-
Critical Hdwy	4.16	_	-	4.18	-	-	7.62	6.62	7.02	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.62	5.62	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.62	5.62	-	6.5	5.5	-
Follow-up Hdwy	2.23	-	-	2.24	-	-	3.56	4.06	3.36	3.5	4	3.3
Pot Cap-1 Maneuver	914	-	-	780	-	-	143	115	570	176	120	668
Stage 1	-	-	-	-	-	-	324	375	-	417	459	-
Stage 2	-	-	-	-	-	-	633	437	-	596	379	-
Platoon blocked, %		-	-		-	-				4		
Mov Cap-1 Maneuver	914	-	-	777	-	-	124	111	568	159	116	667
Mov Cap-2 Maneuver	-	-	-	-	-	-	124	111	-	159	116	-
Stage 1	-	-	-	-	-	-	318	368	-	411	453	-
Stage 2	-	-	-	-	-	-	587	431	-	555	372	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0.1			35.3			30.3		
HCM LOS							Е			D		
Minor Lane/Major Mvmt		NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1			
Capacity (veh/h)		177	914	-	-	777	-	-	204			
HCM Lane V/C Ratio		0.336		_	-	0.013	-	-	0.308			
HCM Control Delay (s)		35.3	9	0.1	-	9.7	-	-	30.3			
HCM Lane LOS		Е	Α	Α	-	Α	-	-	D			
HCM 95th %tile Q(veh)		1.4	0	-	-	0	-	-	1.2			

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		ħβ		ሻ	∱ }			4			4	
Traffic Vol, veh/h	14	612	45	3	554	4	19	0	5	6	0	33
Future Vol, veh/h	14	612	45	3	554	4	19	0	5	6	0	33
Conflicting Peds, #/hr	0	0	6	6	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	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	5	5	5	4	4	4	0	0	0	3	3	3
Mvmt Flow	16	703	52	3	637	5	22	0	6	7	0	38
Major/Minor M	ajor1		ľ	Major2		N	/linor1		N	/linor2		
Conflicting Flow All	642	0	0	761	0	0	1092	1415	384	1030	1439	321
Stage 1	-	-	-	-	-	-	767	767	-	646	646	-
Stage 2	-	-	-	-	-	-	325	648	-	384	793	-
Critical Hdwy	4.2	_	-	4.18	-	-	7.5	6.5	6.9	7.56	6.56	6.96
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.56	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.56	5.56	-
Follow-up Hdwy	2.25	-	-	2.24	-	-	3.5	4	3.3	3.53	4.03	3.33
Pot Cap-1 Maneuver	918	-	-	834	-	-	172	139	620	186	131	672
Stage 1	-	-	-	-	-	-	365	414	-	424	463	-
Stage 2	-	-	-	-	-	-	667	469	-	608	396	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	918	-	-	829	-	-	159	135	616	181	127	672
Mov Cap-2 Maneuver	-	-	-	-	-	-	159	135	-	181	127	-
Stage 1	-	-	-	-	-	-	357	404	-	417	461	-
Stage 2	-	-	-	-	-	-	627	467	-	592	387	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0.1			27.4			13.4		
HCM LOS							D			В		
Minor Lane/Major Mvmt	ا	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR S	SBLn1			
Capacity (veh/h)		188	918	_	-	829	_	_	474			
HCM Lane V/C Ratio		0.147		-	-	0.004	-	-	0.095			
HCM Control Delay (s)		27.4	9	-	-	9.4	-	-	13.4			
HCM Lane LOS		D	Α	-	-	Α	-	-	В			
HCM 95th %tile Q(veh)		0.5	0.1	-	-	0	-	-	0.3			

Intersection												
Int Delay, s/veh	1.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ħ	†	LUI	YVDL	↑ ↑	וטוע	NUL	4	וטו	ODL	4	ODIN
Traffic Vol, veh/h	33	553	58	31	504	7	15	1	28	11	1	40
Future Vol, veh/h	33	553	58	31	504	7	15	1	28	11	1	40
Conflicting Peds, #/hr	1	0	0	0	0	1	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	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	4	4	4	2	2	2	2	2	2	6	6	6
Mvmt Flow	36	608	64	34	554	8	16	1	31	12	1	44
Major/Minor N	lajor1			Major2			Minor1		I	Minor2		
Conflicting Flow All	563	0	0	672	0	0	1058	1343	336	1004	1371	282
Stage 1	-	-	-	-	-	-	712	712	-	627	627	-
Stage 2	-	-	-	-	-	-	346	631	-	377	744	-
Critical Hdwy	4.18	-	-	4.14	-	-	7.54	6.54	6.94	7.62	6.62	7.02
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.62	5.62	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.62	5.62	-
Follow-up Hdwy	2.24	-	-	2.22	-	-	3.52	4.02	3.32	3.56	4.06	3.36
Pot Cap-1 Maneuver	991	-	-	915	-	-	179	151	660	190	140	703
Stage 1	-	-	-	-	-	-	389	434	-	428	465	-
Stage 2	-	-	-	-	-	-	643	473	-	606	410	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	990	-	-	915	-	-	158	140	660	170	130	702
Mov Cap-2 Maneuver	-	-	-	-	-	-	158	140	-	170	130	-
Stage 1	-	-	-	-	-	-	375	418	-	412	447	-
Stage 2	-	-	-	-	-	-	579	455	-	555	395	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.4			0.5			19.1			15.4		
HCM LOS							С			С		
Minor Lane/Major Mvmt		NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1			
Capacity (veh/h)		304	990	-	-	915	-	-				
HCM Lane V/C Ratio		0.159		_	_	0.037	-	_	0.142			
HCM Control Delay (s)		19.1	8.8	-	-	9.1	_	-	15.4			
HCM Lane LOS		С	Α	-	-	Α	-	-	С			
HCM 95th %tile Q(veh)		0.6	0.1	-	-	0.1	-	-	0.5			

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	†	LDIX	ሻ	†	VVDIX	NDL	4	NUIN	ODL	4	ODIN
Traffic Vol, veh/h	10	461	64	35	453	1	29	1	11	4	0	11
Future Vol, veh/h	10	461	64	35	453	1	29	1	11	4	0	11
Conflicting Peds, #/hr	2	0	1	1	0	2	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
Storage Length	100	-	-	100	_	-	_	-	-	_	-	-
Veh in Median Storage,		0	-	-	0	-	-	0	-	-	0	_
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	4	4	4	4	4	4	0	0	0	0	0	0
Mvmt Flow	11	530	74	40	521	1	33	1	13	5	0	13
Major/Minor N	/lajor1		ı	Major2			Minor1		N	/linor2		
Conflicting Flow All	524	0	0	605	0	0	931	1194	303	892	1231	263
Stage 1	-	-	-	-	-	-	590	590	-	604	604	
Stage 2	-	_	-	-	-	-	341	604	-	288	627	-
Critical Hdwy	4.18	-	-	4.18	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.24	-	-	2.24	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1025	-	-	955	-	-	225	188	699	240	179	742
Stage 1	-	-	-	-	-	-	466	498	-	457	491	-
Stage 2	-	-	-	-	-	-	653	491	-	701	479	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1023	-	-	954	-	-	212	178	698	225	169	741
Mov Cap-2 Maneuver	-	-	-	-	-	-	212	178	-	225	169	-
Stage 1	-	-	-	-	-	-	460	492	-	451	469	-
Stage 2	-	-	-	-	-	-	615	469	-	679	473	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0.6			22			13.1		
HCM LOS							С			В		
Minor Lane/Major Mvmt	t I	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR :	SBLn1			
Capacity (veh/h)		259			-	954	-	_				
HCM Lane V/C Ratio		0.182		_		0.042	_		0.037			
HCM Control Delay (s)		22	8.6	-	-	8.9	-	-	13.1			
HCM Lane LOS		C	A	_	_	A	_	_	В			
HCM 95th %tile Q(veh)		0.7	0	-	-	0.1	-	-	0.1			

Intersection												
Int Delay, s/veh	1.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	†	LDIX	ሻ	†	אוטוע	NDL	4	NUIN	ODL	4	ODIN
Traffic Vol, veh/h	32	433	7	3	383	9	5	1	3	14	2	49
Future Vol, veh/h	32	433	7	3	383	9	5	1	3	14	2	49
Conflicting Peds, #/hr	4	0	6	6	0	4	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	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	3	3	3	4	4	4	11	11	11	2	2	2
Mvmt Flow	39	522	8	4	461	11	6	1	4	17	2	59
Major/Minor N	1ajor1		ľ	Major2			Minor1		N	/linor2		
Conflicting Flow All	476	0	0	536	0	0	850	1094	271	819	1093	240
Stage 1	-	_	-	-	-	-	610	610		479	479	
Stage 2	-	-	-	-	-	-	240	484	-	340	614	-
Critical Hdwy	4.16	-	-	4.18	-	-	7.72	6.72	7.12	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.72	5.72	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.72	5.72	-	6.54	5.54	-
Follow-up Hdwy	2.23	-	-	2.24	-	-	3.61	4.11	3.41	3.52	4.02	3.32
Pot Cap-1 Maneuver	1075	-	-	1014	-	-	239	199	700	267	213	761
Stage 1	-	-	-	-	-	-	427	461	-	537	553	-
Stage 2	-	-	-	-	-	-	717	528	-	648	481	-
Platoon blocked, %	10=1	-	-	1000	-	-						
Mov Cap-1 Maneuver	1071	-	-	1008	-	-	211	189	696	255	203	758
Mov Cap-2 Maneuver	-	-	-	-	-	-	211	189	-	255	203	-
Stage 1	-	-	-	-	-	-	409	442	-	516	549	-
Stage 2	-	-	-	-	-	-	656	524	-	619	461	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.6			0.1			18.9			13.5		
HCM LOS							С			В		
Minor Lane/Major Mvm	t N	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR:	SBLn1			
Capacity (veh/h)		270	1071	-	-	1008	-	-	502			
HCM Lane V/C Ratio			0.036	_		0.004	-	_	0.156			
HCM Control Delay (s)		18.9	8.5	-	-	8.6	-	-	13.5			
HCM Lane LOS		С	Α	-	-	Α	-	-	В			
HCM 95th %tile Q(veh)		0.1	0.1	-	-	0	-	-	0.5			

Intersection												
Int Delay, s/veh	1											
	•											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	∱ ∱		ነ	∱ ∱			4			4	
Traffic Vol, veh/h	0	385	43	22	363	0	21	0	29	0	0	0
Future Vol, veh/h	0	385	43	22	363	0	21	0	29	0	0	0
Conflicting Peds, #/hr	1	0	0	0	0	1	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	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	5	5	5	6	6	6	9	9	9	0	0	0
Mvmt Flow	0	438	49	25	413	0	24	0	33	0	0	0
Major/Minor N	Major1			Majora		N	Minor1			/linor2		
	Major1	0		Major2	0			007			054	200
Conflicting Flow All	414	0	0	487	0	0	720	927	244	683	951	208
Stage 1	-	-	-	-	-	-	463	463	-	464	464	-
Stage 2	4.0	-	-	4.00	-	-	257	464	7.00	219	487	-
Critical Hdwy	4.2	-	-	4.22	-	-	7.68	6.68	7.08	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.68	5.68	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.68	5.68	-	6.5	5.5	-
Follow-up Hdwy	2.25	-	-	2.26	-	-	3.59	4.09	3.39	3.5	4	3.3
Pot Cap-1 Maneuver	1120	-	-	1045	-	-	303	255	736	339	262	804
Stage 1	-	-	-	-	-	-	530	545	-	553	567	-
Stage 2	-	-	-	-	-	-	706	545	-	769	554	-
Platoon blocked, %	1110	-	-	1015	-	-	000	0.40	700	240	055	000
Mov Cap-1 Maneuver	1119	-	-	1045	-	-	298	249	736	318	255	803
Mov Cap-2 Maneuver	-	-	-	-	-	-	298	249	-	318	255	-
Stage 1	-	-	-	-	-	-	530	545	-	552	553	-
Stage 2	-	-	-	-	-	-	689	531	-	735	554	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.5			14			0		
HCM LOS							В			Α		
Minor Long/Major M.		JDI p4	EDI	CDT	EDD	WDI	WDT	WDD	CDI n4			
Minor Lane/Major Mvm	it I	VBLn1	EBL	EBT	EBR	WBL	WBT	WBR	ODLIII			
Capacity (veh/h)		455	1119	-	-	1045	-	-	-			
HCM Lane V/C Ratio		0.125	-	-		0.024	-	-	-			
HCM Control Delay (s)		14	0	-	-	8.5	-	-	0			
HCM Lane LOS		В	A	-	-	A	-	-	Α			
HCM 95th %tile Q(veh)		0.4	0	-	-	0.1	-	-	-			

Intersection												
Int Delay, s/veh	1.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	↑	7	ሻ	f)			4			4	
Traffic Vol, veh/h	31	337	47	4	336	6	28	1	7	4	5	20
Future Vol, veh/h	31	337	47	4	336	6	28	1	7	4	5	20
Conflicting Peds, #/hr	1	0	3	3	0	1	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	100	100	-	-	-	-	-	-	-	-
Veh in Median Storage	e, # -	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	5	5	5	7	7	7	3	3	3	7	7	7
Mvmt Flow	36	387	54	5	386	7	32	1	8	5	6	23
Major/Minor I	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	394	0	0	444	0	0	876	866	391	893	917	391
Stage 1	-	-	-	-	-	-	462	462	-	401	401	-
Stage 2	_	_	-	_	_	-	414	404	_	492	516	_
Critical Hdwy	4.15	_	_	4.17	_	_	7.13	6.53	6.23	7.17	6.57	6.27
Critical Hdwy Stg 1	_	-	-	-	_	-	6.13	5.53	-	6.17	5.57	-
Critical Hdwy Stg 2	-	_	_	-	-	-	6.13	5.53	-	6.17	5.57	-
Follow-up Hdwy	2.245	-	-	2.263	_	-	3.527	4.027	3.327	3.563	4.063	3.363
Pot Cap-1 Maneuver	1148	-	_	1090	-	-	268	290	655	257	267	647
Stage 1	-	-	-	-	-	-	578	563	-	616	592	-
Stage 2	-	-	-	-	-	-	614	597	-	549	526	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1147	-	-	1087	-	-	246	278	653	246	256	646
Mov Cap-2 Maneuver	-	-	-	-	-	-	246	278	-	246	256	-
Stage 1	-	-	-	-	-	-	558	544	-	596	588	-
Stage 2	-	-	-	-	-	-	584	593	-	524	508	-
Ŭ												
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.6			0.1			20			14		
HCM LOS							С			В		
Minor Lane/Major Mvm	nt I	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR :	SBLn1			
Capacity (veh/h)		281	1147		-	1087	-	-	434			
HCM Lane V/C Ratio		0.147		_		0.004	_		0.077			
HCM Control Delay (s)		20	8.2	_	_	8.3	_	_	14			
HCM Lane LOS		C	A	_	_	A	_	_	В			
HCM 95th %tile Q(veh))	0.5	0.1	_	_	0	_	_	0.2			
	,	0.0							7.2			

Intersection Int Delay, s/veh
Traffic Vol, veh/h
Traffic Vol, veh/h
Traffic Vol, veh/h
Future Vol, veh/h
Conflicting Peds, #hr 9
Sign Control Free Free
RT Channelized
Veh in Median Storage, # 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - 0 - 0 - 0 - 0 - 0 - 0 0 0 0 - 0 - 0 0 0 0 0 - 0 - 0
Grade, % - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - 0 0 - 0<
Peak Hour Factor
Heavy Vehicles, %
Mymit Flow 15 408 11 1 381 5 0 1 3 3 1 39 Major/Minor Major1 Major2 Minor1 Minor2 Conflicting Flow All 395 0 0 423 0 0 868 845 418 841 848 407 Stage 1 - - - - - 448 448 - 395 395 - Stage 2 - - - - 420 397 - 446 453 - Critical Hdwy Stg 1 - - - - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1
Major/Minor Major1 Major2 Minor1 Minor2 Conflicting Flow All 395 0 423 0 868 845 418 841 848 407 Stage 1 - - - - - 448 448 - 395 395 - Stage 2 - - - - 420 397 - 446 453 - Critical Hdwy 4.14 - - 4.16 - - 7.1 6.5 6.2 7.1 6.5 6.2 7.1 6.5 6.2 7.1 6.5 6.2 7.1 6.5 6.2 7.1 6.5 6.2 7.1 6.5 6.2 7.1 6.5 6.2 7.1 6.5 6.2 7.1 6.5 6.2 7.1 6.5 6.2 7.1 6.5 6.2 7.1 6.5 6.2 7.1 6.5 6.2 7.1 6.5 6.2 7.1
Conflicting Flow All 395 0 0 423 0 0 868 845 418 841 848 407 Stage 1 448 448 - 395 395 - Stage 2 4416 7.1 6.5 6.2 7.1 6.5 6.2 Critical Hdwy Stg 1 6.1 5.5 - 6.1 5.5 - 6.2 Critical Hdwy Stg 2 6.1 5.5 - 6.1 5
Conflicting Flow All 395 0 0 423 0 0 868 845 418 841 848 407 Stage 1 - - - - - - 448 448 - 395 395 - Stage 2 - - - - - 420 397 - 446 453 - Critical Hdwy 4.14 - - 4.16 - - 7.1 6.5 6.2 7.1 6.5 6.2 Critical Hdwy Stg 1 - - - - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 <t< td=""></t<>
Stage 1 - - - 448 448 - 395 395 - Stage 2 - - - - 420 397 - 446 453 - Critical Hdwy 4.14 - - 4.16 - - 7.1 6.5 6.2 7.1 6.5 6.2 Critical Hdwy Stg 1 - - - - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.0
Stage 1 - - - - 448 448 - 395 395 - Stage 2 - - - - - 420 397 - 446 453 - Critical Hdwy 4.14 - - 4.16 - - 7.1 6.5 6.2 7.1 6.5 6.2 Critical Hdwy Stg 1 - - - - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 -
Critical Hdwy 4.14 - - 4.16 - - 7.1 6.5 6.2 7.1 6.5 6.2 Critical Hdwy Stg 1 - - - - 6.1 5.5 - 6.1 5.5 - Critical Hdwy Stg 2 - - - - 6.1 5.5 - 6.1 5.5 - Critical Hdwy Stg 2 - - - - 6.1 5.5 - 6.1 5.5 - Critical Hdwy Stg 2 - - - - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 5.5 - 6.1 6.8 6.2 6.2 6.2 6.8 6.2
Critical Hdwy Stg 1 6.1 5.5 - 6.1 5.5 - Critical Hdwy Stg 2 6.1 5.5 - 6.1 5.5 - Follow-up Hdwy 2.236 2.254 3.5 4 3.3 3.5 4 3.3 Fot Cap-1 Maneuver 1153 - 1115 - 275 302 639 287 301 648 Stage 1 594 576 - 634 608 - Stage 2 615 607 - 595 573 - Platoon blocked, % 615 607 - 595 573 - Platoon blocked, % 615 607 - 595 573 - Platoon blocked, % 250 294 637 280 293 634 Mov Cap-2 Maneuver 1143 - 1111 250 294 - 280 293 - Stage 1 584 566 - 620 602 - Stage 2 568 601 - 584 563 - ENTEROR MOV Cap-1 Maneuver 1 568 601 - 584 563 - ENTEROR MOV Cap-2 Maneuver 568 601 - 584 563 - ENTEROR MOV Cap-2 Maneuver 588 566 - 620 602 - Stage 2 568 601 - 584 563 - ENTEROR MOV Cap-2 Maneuver 568 601 - 584 563 - ENTEROR MOV Cap-2 Maneuver 568 601 - 584 563 - ENTEROR MOV Cap-2 Maneuver 568 601 - 584 563 - ENTEROR MOV Cap-2 Maneuver 568 601 - 584 563 - ENTEROR MOV Cap-2 Maneuver 568 601 - 584 563 - ENTEROR MOV Cap-2 Maneuver
Critical Hdwy Stg 2 6.1 5.5 - 6.1 5.5 - Follow-up Hdwy 2.236 2.254 3.5 4 3.3 3.5 4 3.3 Pot Cap-1 Maneuver 1153 - 1115 - 275 302 639 287 301 648 Stage 1 594 576 - 634 608 - Stage 2 615 607 - 595 573 - Platoon blocked, % 615 607 - 595 573 - Platoon blocked, % 250 294 637 280 293 634 Mov Cap-2 Maneuver 1143 - 11111 250 294 637 280 293 - Stage 1 584 566 - 620 602 - Stage 2 568 601 - 584 563 - EB WB NB SB HCM Control Delay, s 0.3 0 12.9 11.8 HCM LOS B B B
Follow-up Hdwy 2.236 2.254 3.5 4 3.3 3.5 4 3.3 Pot Cap-1 Maneuver 1153 1115 275 302 639 287 301 648 Stage 1 594 576 - 634 608 - 514 607 - 595 573 - 514 607 - 595 573 - 615 607 - 615 607
Pot Cap-1 Maneuver 1153 - - 1115 - - 275 302 639 287 301 648 Stage 1 - - - - 594 576 - 634 608 - Stage 2 - - - - 615 607 - 595 573 - Platoon blocked, % -
Stage 1 - - - - 594 576 - 634 608 - Stage 2 - - - - 615 607 - 595 573 - Platoon blocked, % -
Stage 2 - - - - 615 607 - 595 573 - Platoon blocked, % - <t< td=""></t<>
Platoon blocked, % - - - - Mov Cap-1 Maneuver 1143 - 11111 - - 250 294 637 280 293 634 Mov Cap-2 Maneuver - - - - - 250 294 - 280 293 - Stage 1 - - - - - 584 566 - 620 602 - Stage 2 - - - - - 568 601 - 584 563 - Approach EB WB NB SB B B H H H B B B B B B B B B B B B B B B A
Mov Cap-1 Maneuver 1143 - 1111 - 250 294 637 280 293 634 Mov Cap-2 Maneuver - - - - - 250 294 - 280 293 - Stage 1 - - - - - 584 566 - 620 602 - Stage 2 - - - - - 568 601 - 584 563 - Approach EB WB NB
Mov Cap-2 Maneuver - - - - 250 294 - 280 293 - Stage 1 - - - - - 584 566 - 620 602 - Stage 2 - - - - - 568 601 - 584 563 - Approach EB WB NB
Stage 1 - - - - 584 566 - 620 602 - Stage 2 - - - - - 568 601 - 584 563 - Approach EB WB NB SB HCM Control Delay, s 0.3 0 12.9 11.8 HCM LOS B B B Minor Lane/Major Mvmt NBLn1 EBL EBT EBR WBL WBR SBLn1 Capacity (veh/h) 459 1143 - 1111 - - 572
Stage 2 - - - - - 568 601 - 584 563 - Approach EB WB NB SB HCM Control Delay, s 0.3 0 12.9 11.8 HCM LOS B B B Minor Lane/Major Mvmt NBLn1 EBL EBT EBR WBL WBT WBR SBLn1 Capacity (veh/h) 459 1143 - 1111 - - 572
Approach EB WB NB SB HCM Control Delay, s 0.3 0 12.9 11.8 HCM LOS B B B Minor Lane/Major Mvmt NBLn1 EBL EBT EBR WBL WBT WBR SBLn1 Capacity (veh/h) 459 1143 - - 1111 - - 572
HCM Control Delay, s 0.3 0 12.9 11.8 HCM LOS B B B
HCM Control Delay, s 0.3 0 12.9 11.8 HCM LOS B B B
HCM LOS B B Minor Lane/Major Mvmt NBLn1 EBL EBT EBR WBL WBT WBR SBLn1 Capacity (veh/h) 459 1143 - - 1111 - - 572
Minor Lane/Major Mvmt NBLn1 EBL EBT EBR WBL WBT WBR SBLn1 Capacity (veh/h) 459 1143 1111 572
Capacity (veh/h) 459 1143 1111 572
Capacity (veh/h) 459 1143 1111 572
HCM Control Delay (s) 12.9 8.2 8.2 11.8
HCM Lane LOS B A A B
HCM 95th %tile Q(veh) 0 0 0.2

Intersection												
Int Delay, s/veh	2.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ች	1		ች		7		4			44	
Traffic Vol. veh/h	71	259	6	2	239	10	9	0	0	4	0	49
Future Vol, veh/h	71	259	6	2	239	10	9	0	0	4	0	49
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	_	None	-	-	None
Storage Length	150	-	-	125	-	125	-	-	-	-	-	-
Veh in Median Storage	e, # -	0	-	-	0	_	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	5	5	5	7	7	7	0	0	0	4	4	4
Mvmt Flow	83	301	7	2	278	12	10	0	0	5	0	57
Major/Minor I	Major1			Major2		<u> </u>	Minor1			Minor2		
Conflicting Flow All	290	0	0	308	0	0	788	765	305	753	756	278
Stage 1	-	-	-	-	-	-	471	471	-	282	282	-
Stage 2	-	-	-	-	-	-	317	294	-	471	474	-
Critical Hdwy	4.15	-	-	4.17	-	-	7.1	6.5	6.2	7.14	6.54	6.24
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.14	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.14	5.54	-
Follow-up Hdwy	2.245	-	-	2.263	-	-	3.5	4	3.3	3.536	4.036	3.336
Pot Cap-1 Maneuver	1255	-	-	1225	-	-	311	336	740	324	335	756
Stage 1	-	-	-	-	-	-	577	563	-	721	674	-
Stage 2	-	-	-	-	-	-	698	673	-	570	554	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1255	-	-	1225	-	-	273	313	740	307	312	756
Mov Cap-2 Maneuver	-	-	-	-	-	-	273	313	-	307	312	-
Stage 1	-	-	-	-	-	-	539	526	-	673	673	-
Stage 2	-	-	-	-	-	-	644	672	-	532	517	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.7			0.1			18.7			10.8		
HCM LOS							С			В		
Minor Lane/Major Mvm	nt 1	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1			
Capacity (veh/h)		273	1255	-	-	1225	-		681			
HCM Lane V/C Ratio		0.038		-	-	0.002	-	-	0.09			
HCM Control Delay (s)		18.7	8.1	-	-	7.9	-	-	10.8			
HCM Lane LOS		С	Α	-	-	A	-	-	В			
HCM 95th %tile Q(veh))	0.1	0.2	-	-	0	-	-	0.3			

Intersection												
Int Delay, s/veh	3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Traffic Vol, veh/h	40	277	3	2	241	24	0	1	3	33	8	72
Future Vol, veh/h	40	277	3	2	241	24	0	1	3	33	8	72
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage	, # -	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	4	4	4	3	3	3	0	0	0	1	1	1
Mvmt Flow	50	346	4	3	301	30	0	1	4	41	10	90
Major/Minor I	Major1			Major2		1	Minor1		1	Minor2		
Conflicting Flow All	331	0	0	350	0	0	820	785	348	773	772	316
Stage 1	-	-	-	-	-	-	448	448	-	322	322	-
Stage 2	-	-	-	-	-	-	372	337	-	451	450	-
Critical Hdwy	4.14	-	-	4.13	_	-	7.1	6.5	6.2	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.11	5.51	-
Follow-up Hdwy	2.236	-	-	2.227	-	-	3.5	4	3.3	3.509	4.009	3.309
Pot Cap-1 Maneuver	1217	-	-	1203	-	-	296	327	700	317	331	727
Stage 1	-	-	-	-	-	-	594	576	-	692	653	-
Stage 2	-	-	-	-	-	-	653	645	-	590	573	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1217	-	-	1203	-	-	243	309	700	301	313	727
Mov Cap-2 Maneuver	-	-	-	-	-	-	243	309	-	301	313	-
Stage 1	-	-	-	-	-	-	564	547	-	657	651	-
Stage 2	-	-	-	-	-	-	562	643	-	556	544	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1			0.1			11.8			15.5		
HCM LOS							В			С		
Minor Lane/Major Mvm	nt 1	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR :	SBLn1			
Capacity (veh/h)			1217	_		1203	-	_	482			
HCM Lane V/C Ratio		0.009		-		0.002	_	_	0.293			
HCM Control Delay (s)		11.8	8.1	0	-	8	0	-	15.5			
HCM Lane LOS		В	Α	A	-	A	A	-	С			
HCM 95th %tile Q(veh))	0	0.1	-	-	0	-	-	1.2			
.,												

Intersection												
Int Delay, s/veh	2.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	LDL	₽	LDIX	VVDL	<u>₩Ы</u>	WDIX	NDL	4	NOIN	ODL	וטט	7
Traffic Vol, veh/h	0	235	98	19	225	0	71	0	11	0	0	0
Future Vol, veh/h	0	235	98	19	225	0	71	0	11	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	_	-	-	_	-	-	_	-	-	_	0
Veh in Median Storage,	# -	0	-	-	0	-	_	0	-	_	0	_
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	5	5	5	4	4	4	0	0	0	0	0	0
Mvmt Flow	0	270	113	22	259	0	82	0	13	0	0	0
Major/Minor N	1ajor1			Major2		N	/linor1		N	/linor2		
Conflicting Flow All	-	0	0	383	0	0	630	630	328	-	-	259
Stage 1	-	-	-	-	-	-	327	327	-	-	-	-
Stage 2	-	-	-	-	-	-	303	303	-	-	-	-
Critical Hdwy	-	-	-	4.14	-	-	7.1	6.5	6.2	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	-	-	-
Follow-up Hdwy	-	-	-	2.236	-	-	3.5	4	3.3	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	1165	-	0	397	401	718	0	0	785
Stage 1	0	-	-	-	-	0	690	651	-	0	0	-
Stage 2	0	-	-	-	-	0	711	667	-	0	0	-
Platoon blocked, %		-	-		-							
Mov Cap-1 Maneuver	-	-	-	1165	-	-	390	392	717	-	-	785
Mov Cap-2 Maneuver	-	-	-	-	-	-	390	392	-	-	-	-
Stage 1	-	-	-	-	-	-	690	651	-	-	-	-
Stage 2	-	-	-	-	-	-	695	652	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.6			16.2			0		
HCM LOS							С			Α		
Minor Lane/Major Mvmt	: 1	NBLn1	EBT	EBR	WBL	WBT S	SBLn1					
Capacity (veh/h)		415	-		1165	-	-					
HCM Lane V/C Ratio		0.227	_		0.019	-	-					
HCM Control Delay (s)		16.2	-	-	8.1	0	0					
HCM Lane LOS		С	-	-	Α	A	A					
HCM 95th %tile Q(veh)		0.9	-	-	0.1	-	-					

Intersection												
Int Delay, s/veh	6.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Traffic Vol, veh/h	0	25	0	29	24	9	2	19	29	12	26	2
Future Vol, veh/h	0	25	0	29	24	9	2	19	29	12	26	2
Conflicting Peds, #/hr	3	0	1	1	0	3	2	0	1	1	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage,	,# -	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	69	69	69	69	69	69	69	69	69	69	69	69
Heavy Vehicles, %	0	0	0	2	2	2	0	0	0	3	3	3
Mvmt Flow	0	36	0	42	35	13	3	28	42	17	38	3
Major/Minor N	/lajor1		ľ	Major2		ı	Minor1		ı	Minor2		
Conflicting Flow All	51	0	0	37	0	0	185	172	38	201	166	47
Stage 1	-	-	-	-	-	-	37	37	-	129	129	-
Stage 2	-	-	-	-	-	-	148	135	-	72	37	-
Critical Hdwy	4.1	-	-	4.12	-	-	7.1	6.5	6.2	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.13	5.53	-
Follow-up Hdwy	2.2	-	-	2.218	-	-	3.5	4	3.3	3.527	4.027	3.327
Pot Cap-1 Maneuver	1568	-	-	1574	-	-	780	725	1040	755	725	1019
Stage 1	-	-	-	-	-	-	984	868	-	872	787	-
Stage 2	-	-	-	-	-	-	859	789	_	935	862	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1564	-	-	1573	-	-	729	703	1038	686	703	1014
Mov Cap-2 Maneuver	-	-	-	-	-	-	729	703	-	686	703	-
Stage 1	-	-	-	-	-	-	983	867	-	869	763	-
Stage 2	-	-	-	-	-	-	791	765	-	868	861	-
_												
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			3.4			9.5			10.5		
HCM LOS							A			В		
Minor Lane/Major Mvmt	h N	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR S	SBI n1			
Capacity (veh/h)		866	1564	-	-	1573	-	-	709			
HCM Lane V/C Ratio		0.084	1504	-		0.027	-		0.082			
HCM Control Delay (s)		9.5	0	-	-	7.4	0	_	10.5			
HCM Lane LOS		9.5 A	A	<u> </u>	_	7.4 A	A	_	10.5 B			
HCM 95th %tile Q(veh)		0.3	0		_	0.1	-	_	0.3			
HOW JOHN JOHN Q(VEII)		0.0	- 0			0.1			0.0			

Intersection												
Intersection Delay, s/veh	9.8											
Intersection LOS	Α											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Traffic Vol, veh/h	44	74	34	14	128	49	36	67	14	26	66	23
Future Vol, veh/h	44	74	34	14	128	49	36	67	14	26	66	23
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Heavy Vehicles, %	3	3	3	3	3	3	2	2	2	14	14	14
Mvmt Flow	54	91	42	17	158	60	44	83	17	32	81	28

Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	1			1			1			1		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	1			1			1			1		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	1			1			1			1		
HCM Control Delay	9.7			10.1			9.6			9.8		
HCM LOS	Α			В			Α			Α		

Lane	NBLn1	EBLn1	WBLn1	SBLn1	
Vol Left, %	31%	29%	7%	23%	
Vol Thru, %	57%	49%	67%	57%	
Vol Right, %	12%	22%	26%	20%	
Sign Control	Stop	Stop	Stop	Stop	
Traffic Vol by Lane	117	152	191	115	
LT Vol	36	44	14	26	
Through Vol	67	74	128	66	
RT Vol	14	34	49	23	
Lane Flow Rate	144	188	236	142	
Geometry Grp	1	1	1	1	
Degree of Util (X)	0.206	0.256	0.314	0.208	
Departure Headway (Hd)	5.134	4.906	4.787	5.272	
Convergence, Y/N	Yes	Yes	Yes	Yes	
Cap	690	724	743	673	
Service Time	3.227	2.987	2.863	3.366	
HCM Lane V/C Ratio	0.209	0.26	0.318	0.211	
HCM Control Delay	9.6	9.7	10.1	9.8	
HCM Lane LOS	А	Α	В	Α	
HCM 95th-tile Q	8.0	1	1.3	0.8	

intersection	
Intersection Delay, s/veh	7.5
Intersection LOS	Α

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Traffic Vol, veh/h	24	41	19	1	26	5	17	7	3	4	10	28
Future Vol, veh/h	24	41	19	1	26	5	17	7	3	4	10	28
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles, %	3	3	3	6	6	6	12	12	12	3	3	3
Mvmt Flow	28	47	22	1	30	6	20	8	3	5	11	32
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	1			1			1			1		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	1			1			1			1		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	1			1			1			1		
HCM Control Delay	7.6			7.4			7.7			7.1		
HCM LOS	Α			Α			Α			Α		

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	63%	29%	3%	10%
Vol Thru, %	26%	49%	81%	24%
Vol Right, %	11%	23%	16%	67%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	27	84	32	42
LT Vol	17	24	1	4
Through Vol	7	41	26	10
RT Vol	3	19	5	28
Lane Flow Rate	31	97	37	48
Geometry Grp	1	1	1	1
Degree of Util (X)	0.038	0.108	0.042	0.051
Departure Headway (Hd)	4.433	4.039	4.127	3.825
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	800	883	861	925
Service Time	2.501	2.082	2.182	1.894
HCM Lane V/C Ratio	0.039	0.11	0.043	0.052
HCM Control Delay	7.7	7.6	7.4	7.1
HCM Lane LOS	А	Α	Α	Α
HCM 95th-tile Q	0.1	0.4	0.1	0.2

APPENDIX D

FUTURE FORECASTING -TECHNICAL MEMORANDUM #5 (DRAFT)

DATE: June 28, 2023

TO: Project Management Team

FROM: Garth Appanaitis | DKS Associates

Eileen Chai I DKS Associates

Emilio Calderon | DKS Associates

SUBJECT: Sweet Home TSP and NSHA Refinement Plan

TM#5 Future Forecasting

Project #P20020-015

INTRODUCTION

Future traffic forecasting is an important step in the transportation planning process and provides estimates of future travel demand. This memorandum documents the traffic forecasting methodology and results associated with the small community model developed for the Sweet Home Transportation System Plan (TSP) Update. The small community modeling approach, in conjunction with post-processing, provides study intersection turn movement forecasts for the 2045 TSP horizon year. These traffic volumes will be analyzed during future steps in the TSP update to identify future traffic needs.

METHODOLOGY OVERVIEW

The forecasting methodology associated with the small community model (also referred as enhanced zonal cumulative analysis or EZCA) expands upon a cumulative analysis approach, as defined in the Oregon Department of Transportation (ODOT) Transportation Planning Analysis Unit's (TPAU's) *Analysis Procedures Manual Version 2 (APM V2)*. In the context of the traditional 4-step travel demand model approach, the typical cumulative analysis is used for trip generation and trip distribution purposes only. The result is a trip table (for growth increment only) that is used as an input into traffic assignment where analysis is completed by manually assigning the new trips to a street network and then adding them to existing traffic volumes to estimate future volumes.

The enhanced zonal cumulative analysis tool uses the same trip generation and trip distribution methodology as the typical cumulative analysis, but it applies the methodology to all land uses within the city (i.e., both existing uses as well as any future development based on a land use inventory). The enhanced tool then uses Visum modeling software and incorporates intersection node delay to complete the equilibrium trip assignment. The result is an improved traffic volume forecasting tool that dynamically assigns both new and existing trips to the transportation network using an equilibrium assignment procedure that represents routing choice more accurately than manual assignment because it is responsive to varying levels of congestion and delay as traffic

patterns change. This tool enables a more comprehensive analysis of future conditions and potential TSP alternatives.

The following sections of this memorandum detail each component of the travel forecast methodology associated with the small community model including: the roadway network, transportation analysis zones (TAZs), land use, and travel demand. The resulting 2045 future projected volumes are also provided.

FORECAST TOOL COMPONENTS

The following sections summarize the forecast tool components that are used to forecast the future traffic volumes.

ROADWAY NETWORK

The roadway network included in the Sweet Home TSP Visum forecast tool consists of the arterial and collector roadways along with most local public streets within the Sweet Home Urban Growth Boundary (UGB). The roadway network is also extended beyond the UGB to capture potential regional routing decisions that could result from future trips to/from Sweet Home and/or conditions in the local street system. These areas outside the UGB included in the model for routing potential routing purposes include:

- N River Drive (north side of model area)
- Wiley Creek Road (east side of model area)
- Shea Hill Drive (east side of model area)

An existing roadway network was created using centerline data from Open Street Map. Additional roadway attributes were added based on an existing conditions inventory that included posted speeds, traffic control, lane geometries, and number of travel lanes. The purpose of the existing conditions network was to configure the forecast tool and act as a base in the development of the future tool.

The 2045 future year baseline roadway network was then developed to represent the 2045 No-Build conditions. No committed transportation improvements were identified within the model area that are expected to influence traffic routing. Therefore, the 2045 No Build network is identical to the 2021 network. The 2045 future year network will be further refined as it is used to perform analysis of the various transportation alternatives and improvements to be analyzed for the Sweet Home TSP Update.

TRANSPORTATION ANALYSIS ZONES

For transportation forecasting purposes, the Sweet Home UGB was divided into 40 transportation analysis zones (TAZs), which represent the location of various land uses and sources of vehicle trip generation within the city. These TAZ boundaries were determined based on geographical and physical features allowing the best representation of access for an area, along with maintaining homogenous land use types as much as possible (e.g. residential, commercial, etc.). Centroid

connectors were located to best represent access to the street network and major parking facilities. Additionally, there are 4 rural zones that are located to the north of Sweet Home. These rural zones are included to capture land use and trip patterns interactions with areas inside the UGB. The internal TAZs are shown in Figure 1.

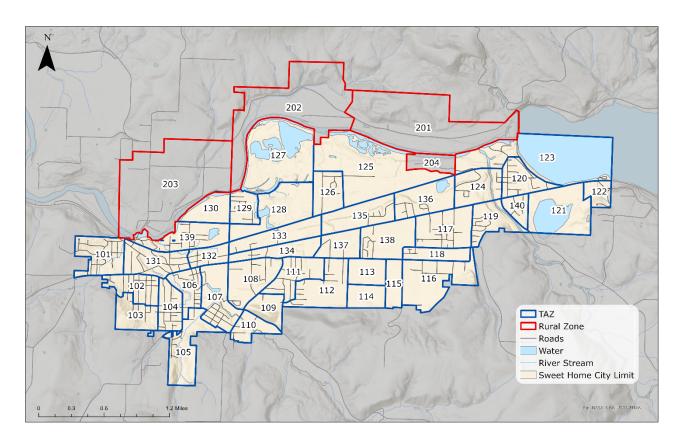


FIGURE 1: SWEET HOME TAZ MAP

LAND USE

Land use is a key factor affecting travel demands placed on Sweet Home's transportation system. The location, density, type, and mix of land uses have a direct impact on traffic levels and patterns. An existing 2021 land use inventory and future 2045 land use projection were performed for each TAZ in the Sweet Home UGB based on existing uses, zoning, and anticipated development patterns.

The housing and employment forecasts used for this TSP analysis relied heavily on three key sources of data:

• The Portland State University Population Research Center prepared the *Coordinated Population Forecast, 2015 through 2065, for Sweet Home County Urban Growth Boundaries (UGB) and Area Outside UGBs,* which provided the population forecast data.

- The 2021 American Community Survey, which provided average persons per household data.
- Oregon Employment Department inventory of Covered Employers and Employment that summarizes the job type and location of employers

The base 2021 land use inventory approximated the number of households and the amount of retail employment, service employment, educational employment, and other employment that currently exist in each TAZ. Existing employment land uses within Sweet Home were obtained from Oregon Employment Department data and a review of other data sources (tax assessor data, census data, and zoning data and compared with existing aerial photography). The existing land uses correspond to a population of 9,461 residents, which is based on Portland State University Population Research Center estimates. This corresponds to approximately 3,931 households based on an average household size of 2.46 (US Census data).

The future 2045 land use projection is an estimate of the amount of each land use (household and employment) that the TAZ could reasonably accommodate given market conditions and current build-out of vacant or underdeveloped lands assuming Comprehensive Plan zoning. The projected land uses correspond to a year 2045 population projection of approximately 11,246 residents, which corresponds to a 19 percent growth through the planning horizon.

A summary of the existing land use estimates and future projections for the entire Sweet Home UGB is listed in Table 1.

Table 1. Sweet Home UGB Land Use Summary

Land Use / Growth Category	-		Future 2045 Quantities
Population	9,461	1,785 (+19%)	11,246
Households	3,931	641 (+16%)	4,572
Employees			
Retail	х	х	х
Service	х	х	х
Education	х	х	х
Other	х	х	х
Total	х	х	х

TRAVEL DEMANDS

Travel demand on roadways and at intersections in Sweet Home was estimated using the ODOT APM V2 methodology for the EZCA method. This methodology included estimating all vehicle trips (not just growth increment), adjusting the trip distribution to reduce household-to-household trips, and using Visum modeling software to perform the trip assignment. Travel forecasting was performed for the 30th highest hour conditions for both 2021 and 2045. The purpose of the 2021 forecast tool was to calibrate the network in preparation for developing the 2045 network, which would then be used for future analysis.

The travel demand analysis includes the translation of City land use information into motor vehicle trips. This was done for each of the TAZs based on the existing and projected land uses described previously in the Land Use section of this memorandum. Trips traveling to and from the external TAZs were also estimated for both the 2021 and 2045 analysis years. This section of the memorandum describes the methodology used to determine the different trip types and how the trips were distributed and assigned to the roadway network.

TRIP TYPES

Travel forecast projections involve the determination of three distinct types of trips, which are categorized based on whether their origin and/or destination (i.e., the trip ends) are internal or external to the Sweet Home UGB. The three trip types and how they apply to Sweet Home are:

- External-External (E-E) Trips do not have an origin or destination in Sweet Home and either do not stop or only make a very minor stop while passing through the Sweet Home UGB. These trips are typically referred to as "through traffic." An example would be a person from Corvallis traveling on US 20 while heading to Bend.
- Internal-External (I-E) Trips originate in Sweet Home and are traveling to a location outside of the Sweet Home UGB (e.g., someone working in Sweet Home that returns north to Lebanon in the evening), while External-Internal (E-I) Trips originate outside of the Sweet Home UGB and are traveling to a location within Sweet Home (e.g., someone from Lebanon traveling into Sweet Home for shopping).
- **Internal-Internal (I-I) Trips** travel from one location within the Sweet Home UGB to another location within the UGB. An example would be a person traveling between their office and home within Sweet Home.

EXTERNAL TRIP ENDS

External trip ends are the origin and/or destination of E-E, I-E, or E-I trips and were estimated for both 2021 and 2045 and for 30th highest hour conditions at each of the gateways.

The number of 2021 external trip ends was based on existing traffic volumes at key gateways to the city:

• North: US 20 north of Osage St

• East: Oregon 228 (Halsey-Sweet Home Highway) east of Fern Ridge Rd/Rowell Hill Rd

South: Old Holley Road east of Elkhorn St

South: 21st Avenue southwest of Cedar St

South: Ames Creek Road west of Surrey Ln

South: 43rd Avenue south of Coulter Ln

South: 50th Ave to the south of Airport Rd

· South: Wiley Creek Road east of Riggs Hill Rd

East: Shea Hill Drive east Riggs Hill Rd

East: US 20 east of Riggs Hill Rd/Shea Viewpoint

North: N River Drive east of Foster Dam Rd

North: Pleasant Valley Road north of Northside Drive

Replica¹, a web-based data model that includes travel estimation, was used to estimate the portion of through traffic compared to the portion of traffic with either an origin or destination within Sweet Home. The Replica data model is based on "big data" (mobile network) sources and reflects travel trends experienced over a duration of time. The datasets provides an estimate of travel behavior based on sampled conditions. The regional travel patterns and trip types are summarized in Table 2.

Table 2. Regional Travel Patterns Observed at External Gateways

	Percent Entering Traffic		Percent Exi	iting Traffic
Gateway	With a Destination in Sweet Home	With an External Destination	With an Origin in Sweet Home	With an External Origin
North: US 20 north of Osage St	72%	28%	87%	13%
East: Oregon 228 east of Fern Ridge Rd/Rowell Hill Rd	78%	22%	72%	28%
South: Old Holley Road east of Elkhorn St	78%	22%	83%	17%
South: 21st Avenue southwest of Cedar St	39%	61%	35%	65%
South: Ames Creek Road west of Surrey Ln	51%	49%	40%	60%
South: 43rd Avenue south of Coulter Ln	57%	43%	50%	50%
South: 50th Ave to the south of Airport Rd	50%	50%	55%	45%

¹ https://www.replicahq.com/

SWEET HOME TSP • TECHNICAL MEMO #5 (DRAFT) • JUNE 30, 2023

South: Wiley Creek Road east of Riggs Hill Rd	40%	60%	52%	49%
East: Shea Hill Drive east Riggs Hill Rd	50%	50%	25%	75%
East: US 20 east of Riggs Hill Rd/Shea Viewpoint	20%	80%	17%	83%
North: N River Drive east of Foster Dam Rd	45%	55%	35%	65%
North: Pleasant Valley Road north of Northside Drive	67%	33%	65%	35%
Average of All Gateways	54%	46%	51%	49%

Source: Replica Trip Count Data taken from 3:00-7:00pm

Table 2 indicates that the majority of external gateways have a trip end (origin or destination) in Sweet Home. Approximately 20 to 60 percent of external trips (varies by location) are also destined to another external location as a "through trip." The east end of US 20 includes the highest portion of external trips – approximately 80 percent of these trips travel through Sweet Home.

The external trip ends that have an internal pair are modeled to pair with the internal trip ends of corresponding land uses within the city (e.g., housing and employment). This modeling process is explained further in the "Trip Distribution" section of this memorandum.

Growth estimates were applied to each gateway to determine 2045 external trip ends for through traffic. The ODOT Future Projected Annual Average Daily Traffic Tables provided data for estimating future growth. The annual growth rates and associated growth factors for each external gateway are shown in Table 3.

Table 3. External Gateway Growth Forecasts for Sweet Home

Gateway	2021 AADT	2041 AADT	Annual Growth Rate	Growth Factor (From 2021 to 2041)
US 20, east of Osage St	10614	11000	0.18%	1.04
OR 228, east of Fern Ridge Rd	4318	4500	0.21%	1.04
US 20, east if Riggs Hill Rd	2262	2400	0.31%	1.06

Source: ODOT Future Projected Annual Average Daily Traffic Tables, Calculated annual growth forecasts

As listed in Table 3, traffic volumes at external gateways are expected to grow by four to six percent total over the 20 year period of 2021 to 2041.

INTERNAL TRIP ENDS

The number of internal trip ends in Sweet Home was determined using a land use-based trip generation methodology, which translates land use quantities (number of dwelling units or number of employees) into vehicle trip ends (number of vehicles entering or leaving a TAZ) based on empirically-derived trip generation rates. Weekday PM peak hour trip generation rates used in the forecast tool are listed in Table 4 for the applicable land uses. These rates were generally developed based on the Institute of Transportation Engineers (ITE) *Trip Generation Manual* and calibrated to observed traffic counts in Sweet Home.

Table 4. Average Weekday PM Peak Hour Trip Generation Rates by Land Use

Land Use	Trips In	Trips Out	Total Trip Ends
Single-family households (per dwelling unit)	0.50	0.30	0.80
Multi-family households (per dwelling unit)	0.40	0.20	0.60
Retail (per employee)	1.88	2.12	4.00
Service (per employee)	0.66	0.84	1.50
Education (per employee)	1.44	1.56	3.00
Other (per employee)	0.05	0.25	0.30

Source: Institute of Transportation Engineers Trip Generation Manual and local traffic counts

By applying these trip generation rates to the TAZ land uses, the number of trips entering and exiting each TAZ in Sweet Home was estimated. Internal trip estimates were obtained for both the existing 2021 land uses and the projected 2045 land uses.

TRIP DISTRIBUTION

Trip distribution was performed to estimate how many trips travel between each of the internal TAZs. Distribution for trips traveling to and from internal zones (i.e., trips having at least one internal trip end) was based on weighting the attractiveness of each zone, as measured by the number of trip ends generated by the zone.

The forecasting model is based on a trip table that describes the internal and external trip ends for each trip within the network. To develop this trip table, External-to-External (E-E) trips are

matched based on the external trip probabilities. Next, all remaining external trips (I-E and E-I) are paired with appropriate internal trip ends. These trips represent the inbound and outbound travel for Sweet Home residents and employees, respectively. Finally, the Internal-Internal (I-I) trip pairs are determined based on the land uses within Sweet Home. Note that the rural zones adjacent to Sweet Home (but outside the UGB) were also considered for I-I trip purposes.

TRIP ASSIGNMENT

Trip assignment involves the determination of the specific travel routes taken by the trips within the transportation network. This step was performed using Visum modeling software. Forecast tool inputs included the transportation network (i.e., road and intersection locations and characteristics, as determined from maps and field inventories) and a trip distribution table (described in prior sections). Iterated equilibrium assignment was then performed using estimated travel times along roadways and delays at intersection movements. The path choice for each trip was based on minimal travel times between locations. Forecast tool outputs include traffic volumes on roadway segments and at intersections.

CALIBRATION

Calibration will be performed on the 2021 base year forecast tools by comparing forecast tool turn volumes at the Sweet Home TSP study intersections with actual counted (measured) 2021 traffic volumes. A plot comparing the measured traffic volumes and the base year forecast tool volumes for all study intersection turn movements will be analyzed to evaluate the accuracy of each forecast tool.

FORECAST TOOL VOLUMES AND POST-PROCESSING

Forecast tool traffic growth plots (2045 minus 2021) for the design hour forecast tool will be included in the appendix. While the travel demand forecast tools were calibrated to local conditions and volumes, raw volumes from the tools are not used for capacity analysis. Rather, motor vehicle turn movement volume forecasts will be developed using post-processing methods consistent with the ODOT APM V2. This approach is derived from methodologies outlined in the National Cooperative Highway Research Program (NCHRP) Report 765, *Analytical Travel Forecasting Approaches for Project-Level Planning and Design*.

The post-processing methodology involves estimating trip growth at the intersection approach level (i.e., volume differences between base and future forecast tools), scaling the growth by the number of forecast years (i.e., forecast years divided by difference in forecast tool years), and adding these volumes to existing traffic counts. Engineering judgment is used as part of the post-processing methodology, with the routing decisions identified by the forecasting tool serving as a reference for making volume adjustments. The results of this process are future year forecasts derived from the Sweet Home enhanced cumulative analysis forecasting tool that are calibrated to observed data. The year 2045 traffic volume forecasts will serve as a future base volume forecast from which future conditions will be evaluated in subsequent memoranda.

Attachments:

• Figure A1 – Household Growth by TAZ

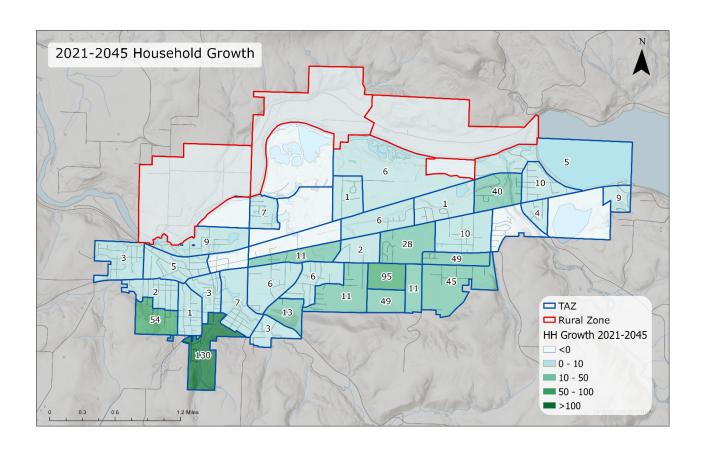


FIGURE A1: SWEET HOME 2021-2045 HOUSEHOLD GROWTH



North Sweet Home Area Plan

Technical Memo 10

Preferred Land Use Concept

Task 5.2



Draft February 2025

The North Sweet Home Area

The City of Sweet Home is in the process of updating its Transportation System Plan (TSP) and preparing an area plan for the land in the northern part of the City limits, called the North Sweet Home Area.

This area planning effort includes the following steps: 1) an analysis of existing conditions; 2) creation and evaluation of land use/transportation options; 3) selection of a preferred alternative;

and 4) potential changes to comprehensive plan and zoning designations as well as policies and transportation projects identified in the updated TSP.

This memo aims to provide information about the preferred alternative for the North Sweet Home Area, along with a preliminary transportation analysis of this alternative.

Goals & Objectives

Housing

The Preferred Alternative aims to provide land that can accommodate a variety of housing types needed in Sweet Home in the long term, including lodging in a riverfront hospitality district.

Economic Development

The Preferred Alternative provides land for a range of industrial and commercial uses, in areas to the SW of the study area, closest to existing downtown uses and activity.

Natural Resources & Recreation

This Plan will protect water quality resources and wetlands as required by law and provides land available to riverfront hospitality uses along the South Santiam River, which will continue to be protected through riparian area regulations.

Connectivity

A robust and connected transportation network is proposed in this area, for those walking, rolling, and driving.

The Preferred Alternarive has been designed with principles of...

Great Neighborhood Design

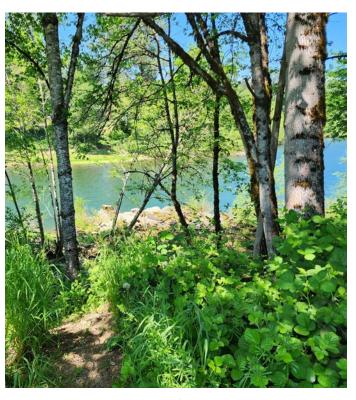
- + Natural feature preservation
- + Scenic views
- + Parks, riverfront trails, & open spaces
- + Pedestrian & bike friendly
- + Connected streets
- + Mix of activities
- + Housing for diverse incomes
- + Housing variety

Draft Alternative Review

Draft alternatives were presented to the PMT in a series of meetings in Summer 2024, and in a public meeting on June 3, 2024.

- Meetings were open to the public and took place at Sweet Home City Hall. The project team described the goals of the North Sweet Home Area plan and existing conditions in the area, followed by presentation of three land use alternatives and two transportation concepts.
- All alternatives supported a multimodal transportation system, new neighborhoods in North Sweet Home, and a parks and trails system that takes advantage of the area's natural resources. The land use alternatives differed in their emphasis on industrial, commercial, and residential uses. The transportation concepts differed in the "main entrance" to North Sweet Home Clark Mill versus a new connection on 24th Ave plus differences in the alignment and connections of the primary east-west street.

- Alternatives were presented to the Sweet Home City Council on January 28, 2025.
 Feedback indicated general support for Alternative 3, "Riverfront Hospitality" which forms the basis for the Preferred Alternative.
- Property owners and others indicated a desire for flexibility in the allowed uses of land.
- The owner of a large parcel within the "Recreational Commercial" area indicated he is having difficulty in developing large speculative projects in the current market environment. This Preferred Alternative plan should therefore assume that development will occur in smaller, incremental phases.



Preferred Alternative

Riverfront Hospitality

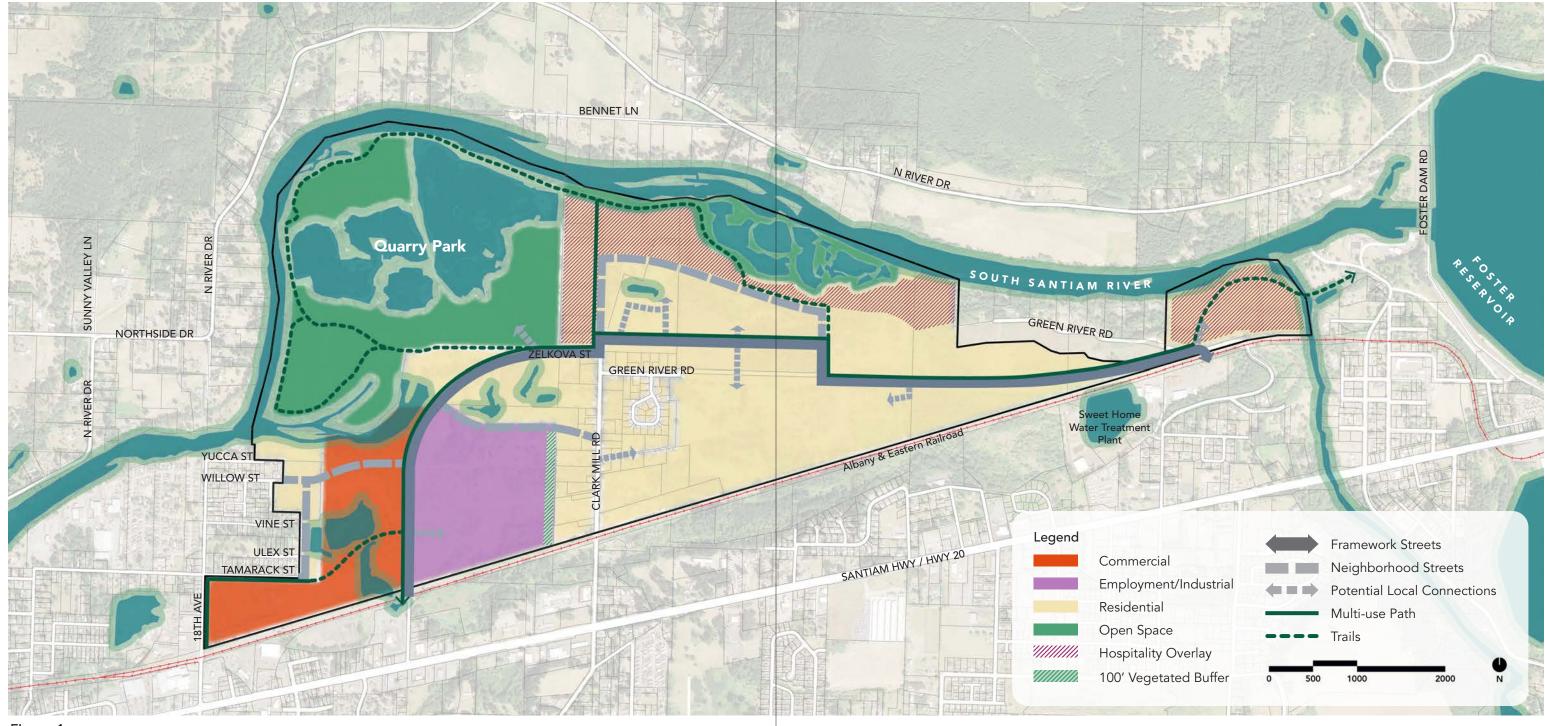


Figure 1

This alternative contains a balance of smaller industrial and commercial uses in the Southwest of the NSHA to take advantage of transportation connections and proximity to downtown Sweet Home, and residential uses in the remainder of the area. A "Riverfront Hospitality Zone" on land

(with residential base zoning) in the vicinity of the South Santiam River would allow for uses catering to a visiting public, including hotels, restaurants, equipment rentals, and similar uses.

Hospitality uses could range in scale but the plan envisions a residential/rustic aesthetic. Less intensive hospitality uses could include rental cabins, campsites, yurts, or RV sites with access to the river or nearby riverfront trails. More intensive hospitality uses could include a small resort.

Nearby commercial and employment lands could also provide services related to tourism, like outdoor recreation equipment rentals or venue/restaurant space.

Preferred Alternative

Riverfront Hospitality: Aerial Perspective

A view looking NE across the North Sweet Home area towards Foster Reservoir and the Cascade Mountains, showing one potential buildout of the Preferred Alternative in the next 20-30 years, integrating a new neighborhood into this beautiful riverfront next to downtown Sweet Home. The ultimate eventual developed neighborhood will be shaped by this plan, with flexibility for individual design decisions from property owners and developers.

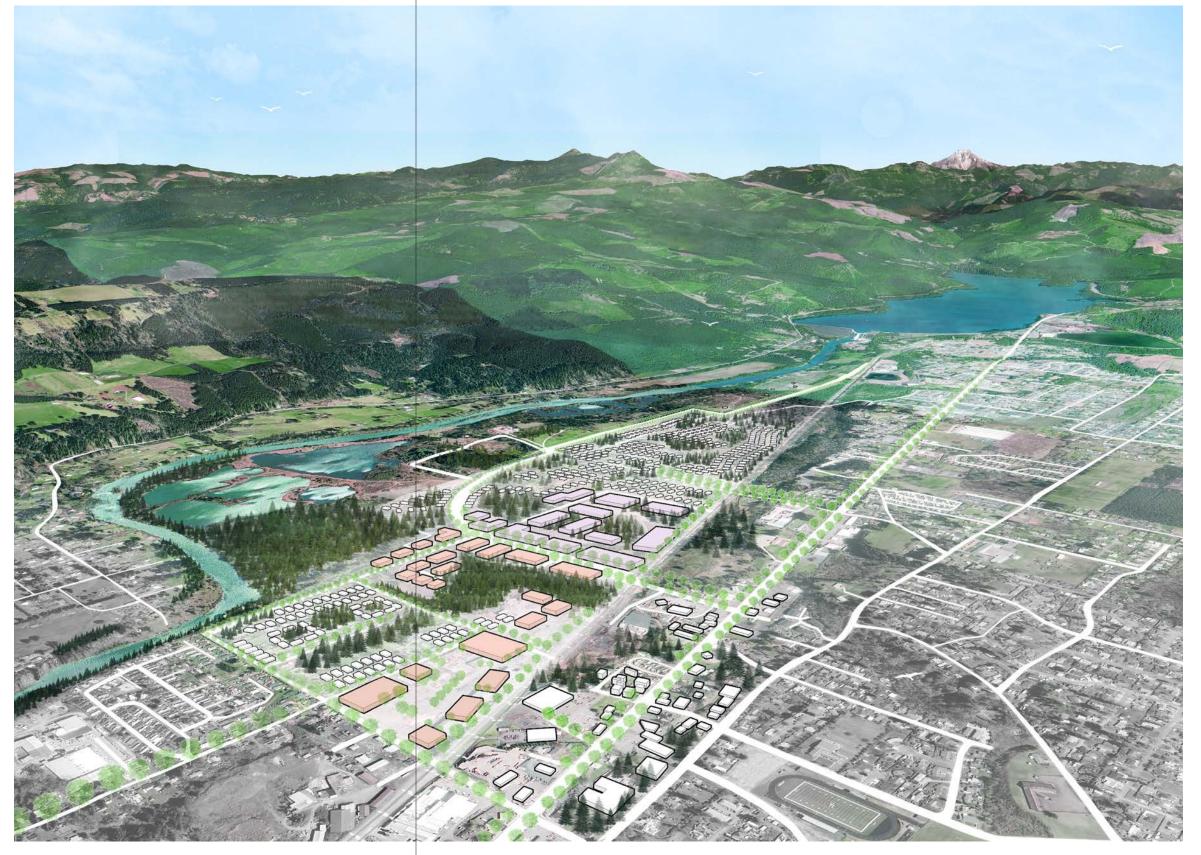


Figure 2

Industrial Employment



Employment areas could include pedestrian and bike connections for both workers and residents to access the river and downtown.

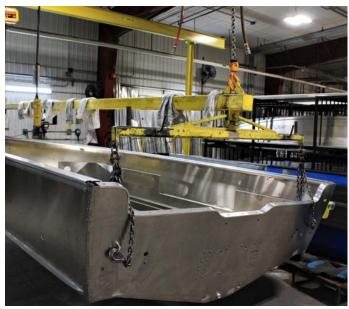


Commercial greenhouses could make use of nearby rail and expansive sites with solar access.





Manufacturers of prefabricated buildings or prefabricated wood components could take advantage of nearby timber resources and trained workforce.



Small scale "craft" manufacturing related to nearby tourism industries (eg, boating, snow sports, hiking, etc), could locate manufacturing and show-room space within the NSHA in this option.



A brewery or food-related manufacturer could locate their facility within employment industrial areas.



Timber-related industry would be well situated on this railroad-adjacent site in the NSHA.

Riverfront Hospitality & Residential



A resort could design around unique site features and take advantage of views of the river and mountain landscape.





Hospitality uses including short term rentals, campsites, yurts, or RV resorts could be located within hospitality zones.



A small resort or lodge sited adjacent to neighborhoods could be residential in character.



Riverfront hospitality uses like cabins and campgrounds could be built in harmony with natural features within the NSHA.



Neighborhoods could include pedestrian-friendly streets and homes with garages placed to the side or rear of street frontages.



Housing options could include single family residences and a variety of middle housing types.

Commercial, Retail, & Event



Interim uses in commercial zones could include popup food and drink vendors, potentially serving tourism during the Oregon Jamboree.



Incubator space related to tourism could be located within NSHA hospitality zones, like this photo of incubator wineries at the Port of Walla Walla.



Small retail could serve locals as well as tourists passing through town.



A covered stage area could be located within Quarry Park.

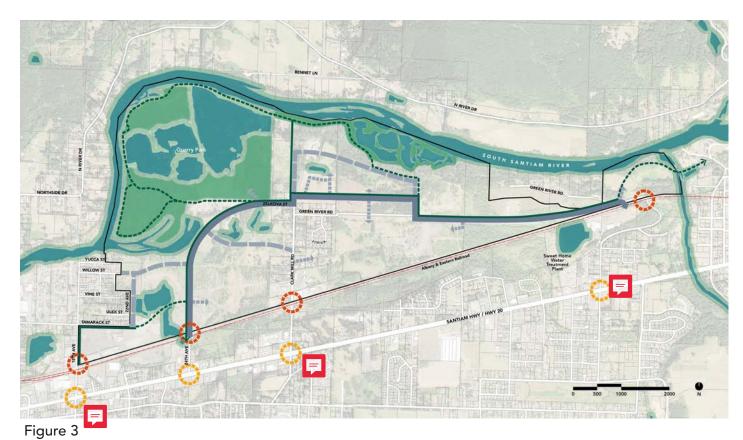


A commercial node near hospitality overlay could include outdoor equipment rentals.



Open space within the NSHA could be used to host events like the Oregon Jamboree.

Proposed Street Network



The Proposed Street Network (based on

Option 2 evaluated in TM #8), proposes a main vehicular entrance into the study area along 24th Ave, and a connection to the east that stays as close to city limits as possible. The City has received approval of a new rail crossing at 24th Avenue.

New transportation facilities could support and be supported by redevelopment of the mill site. Pedestrian and bike infrastructure improvements are proposed throughout the study area, including improved crossings along the framework street, 24th Avenue/Zelkova Street, at the following intersections: 18th Avenue, 24th Avenue, Clark Mill Road, and 47th Avenue. Recreational paths are also proposed through Quarry Park and along the Riverfront, including a pedestrian footbridge across Wiley Creek at the eastern edge of the NSHA.

Framework Streets *Include Sidewalks & Bike Lanes Neighborhood Streets *Include Sidewalks Potential Local Streets *Include Sidewalks Where Feasible Improved Hwy Crossing Improved RR Crossing Multi-Use Path Trails

Transportation Analysis

The proposed street network (Figure 3) addresses the transportation-related needs for the North Sweet Home Area by emphasizing connectivity for bikes and pedestrians in/around the North Sweet Home Area. As the area grows and develops, impacts to the city and regional transportation system that can be mitigated with reasonable projects that emphasize the efficiency and safety of auto travelers, pedestrians, and cyclists alike.

A list of projects was developed that supports the preferred land use and street network. Projects were divided into three categories Corridor (C), Spot (S), and Multi-modal (M) improvements projects. These projects were identified based on previous analyses documented in Technical Memorandum 8. Table 1 on the following page shows each proposed project and its associated cost, which includes a new roadway and path system. The total cost of transportation projects supportive of the NSHA Preferred Scenario is approximately \$120 million.

The Corridor (C) projects focus on providing connectivity through the North Sweet Home Area by providing a parallel collector street to Main Street (US20) that also supports development and re-development of parcels abutting the new framework street. New street extensions and new neighborhood streets stemming from the framework street will help serve the new developments that arise in the North Sweet Home Area and further enhance connectivity for pedestrians and cyclists. The corridor projects form the backbone of the transportation network that the Spot (S) projects and Multimodal (M) projects enhance.

The Framework Streets (Projects C-1 and C-2) will be built to the cross-section standards outlined in this memorandum (Fig. 6), however there is potential that this project could be modified to have a wider cross section on 24th Avenue (project C-1). The City of Sweet Home in coordination with ODOT rail have determined that a 4 to 5 lane section could be allowable along this alignment. While traffic is not anticipated to reach levels that would require 4 to 5 travel lanes, the City may choose to develop with flexibility in mind in case dense development takes place in the North Sweet Home Area. Doing so would require the 3 lane framework street to include larger on-street bike lane buffers that allows for future conversion to a 5 lane section without any full-deep pavement construction (i.e. dedicate 22 feet between the curbs to bike lanes and buffers) and without relocating existing curblines. This is not anticipated to take place within the planning horizon, and project C-1 does not assume this to take place.

Index	Project Name	Project Description Planning Level Cost Estimate	
C-1	24th Ave Improvements	Widen 24th Ave with Framework Street cross section from US20 to railroad. Extend 24th Avenue north of railroad to to Zelkova St.	\$21,450,000
C-2	Zelkova St Improvements	Extend Zelkova Street east of 24th Avenue to Zelkova Street.	\$43,550,000
C-3	New Neighborhood Street 1	Construct new neighborhood street connecting 24th Avenue to Clark Hill Road.	\$9,005,000
C-4	New Neighborhood Street 2	Construct new neighborhood street connecting Zelkova Street to proposed hospitality district.	\$18,005,000
C-5	Willow St Extension	Extend Willow Street east of 20th Avenue to 24th Avenue.	\$9,000,000
C-6	22nd Ave Extension	Extend 22nd Avenue from Tamarack Street to Willow Street.	\$9,000,000
S-1	US20/18th Ave Improvements	Modify existing signal to meet capacity needs, including potential addition of protected left turns on US20.	\$150,000
S-2	US20/24th Ave Improvements	Install signal at existing intersection.	\$1,000,000
S-3	US20/Clark Mill Rd Improvements	Install signal at existing intersection.	\$1,000,000
S-4	US20/47th Ave Improvements	Install signal at existing intersection.	\$1,000,000
S-5	Zelkova St/Clark Mill Rd Improvements	Install signal at existing intersection.	\$1,000,000
S-6	18th Ave Railroad Crossing Improvements	Upgrade signing and striping, install railroad crossing gates, and install ADA-accessible improvements to align with current railroad safety guidelines	\$600,000
S-7	24th Ave Railroad Crossing Improvements	Upgrade signing and striping, install railroad crossing gates, and install ADA-accessible improvements to align with current railroad safety guidelines	\$600,000
S-8	Clark Mill Rd Railroad Cross- ing Improvements	Upgrade signing and striping, install railroad crossing gates, and install ADA-accessible improvements to align with current railroad safety guidelines	\$600,000
S-9	47th Ave Railroad Crossing Improvements	Upgrade signing and striping, install railroad crossing gates, and install ADA-accessible improvements to align with current railroad safety guidelines	\$600,000
M-1	18th Avenue Multiuse Path	Install multiuse path along 18th Avenue and Tamarack Street.	\$360,000
M-2	New Neighborhood Street 2 MUP	Install multiuse path along New Neighborhood Street 2	\$260,000
M-3	Quarry Park Trail	Install new trail route through Quarry Park.	\$1,440,000
M-4	Tamarack Street Pedestrian Trail	Install new trail route between Tamarack Street and 24th Avenue, including pedestrian bridge over existing body of water.	\$1,650,000
M-5	24th Ave/Neighborhood St 1 Crossing	Install pedestrian crossing at 24th Ave/New Neighborhood Street 1 intersection. Type of crossing to be identified following engineering study.	\$50,000
M-6	24th Ave/Neighborhood St 2 Crossing	Install pedestrian crossing at 24th Ave/New Neighborhood Street 1 intersection. Type of crossing to be identified following engineering study.	\$50,000
M-7	25th Ave/Willow St Crossing	Install pedestrian crossing at 24th Ave/Willow Street intersection. Type of crossing to be identified following engineering study.	\$50,000
		Total:	\$120,420,000

Table 1: Project List

The Spot (S) projects focus on intersections that will require operational and safety upgrades based on the new street network. For example, additional side street traffic is expected at the existing intersections with US20, including: 18th Avenue, 24th Avenue, Clark Mill Road, and 47th Avenue due to additional trip demand in the North Sweet Home Area. As development takes place, this additional trip demand will cause operational deficiencies at these existing intersections that need to be mediated with intersection control upgrades. Similarly, additional traffic using the existing rail crossings will spur the need to update existing rail crossing orders and upgrade the existing rail crossings. Today, some of the existing rail crossings do not include pedestrian or bicycle facilities to safely cross the rail, and some of the crossings do not include any treatment other than signing and striping for motor vehicles. See Figures 4 and 5.

The Multimodal (M) projects focus on safety and connectivity specific to cyclist and pedestrian modes, including the installation of new multiuse paths that enhance pedestrian connectivity, and improvements to the trail system that provide a recreational aspect to the walking and biking previously unavailable in the North Sweet Home Area. Pedestrian crossing installations are also included at some strategic locations to enhance the pedestrian network. Additional street crossings should be considered as development occurs to include crossings at/near schools or neighborhoods. Street crossing treatment types should be determined with an engineering study to identify the appropriate treatments based on vehicle traffic volumes and speeds as growth occurs.

Project costs for some projects, especially those constructing new roadways, trend on the higher end due to the expectation that the terrain will be difficult to build on due to variable grades, wetlands, and anticipated impacts to existing parcels. The Preferred Street Network may require changes to alignment to conform to the natural environment and to maneuver other obstacles, such as the area the encompasses much of Green River Road that is not within the City urban growth boundary (UGB).



Figure 4: Rail crossing at 47th Avenue (Google Maps, 2022)



Figure 5: Rail crossing at 18th Avenue (Google Maps, 2022)

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Street Network:

Pedestrian and Bike Connections



A multi-use path along the edges of employment areas could provide easy connectivity from the NSHA to Foster Reservoir and into town.



Trails could weave through neighborhood open space, providing pedestrian connectivity to natural resources, and access to passive recreation.



A multi-use path along the river could serve the community and tourists. This could alternatively be a soft surface trail.

Street Network:

Framework Streets

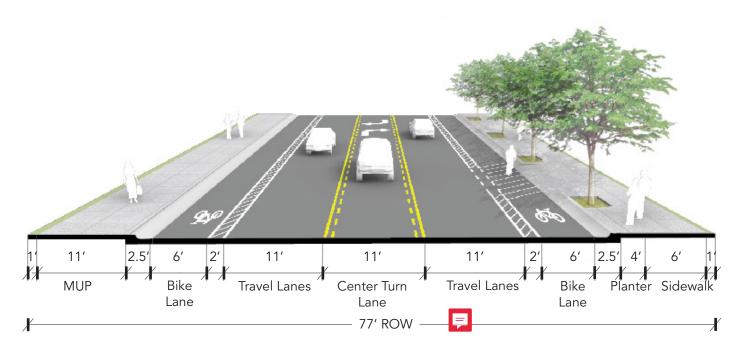


Figure 6: Framework Street with adjacent Multi-use Path (MUP)



Example of Framework Street with adjacent multi-use path in Bend, OR.

Street Network:

Neighborhood and Local Streets

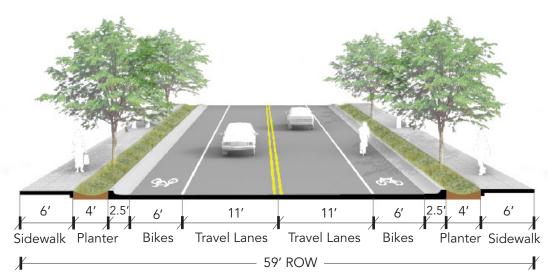


Figure 7: Neighborhood Street

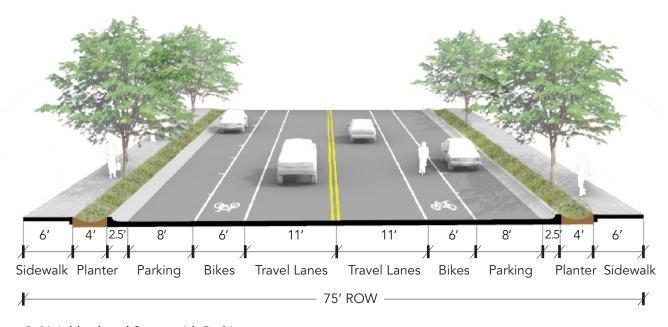


Figure 8: Neighborhood Street with Parking

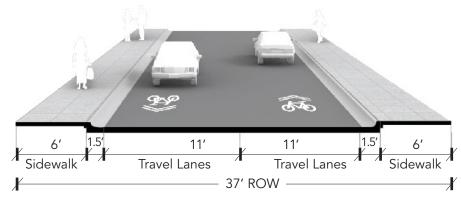


Figure 9: Local Street

20

Implementing Actions

Implementation of the Preferred Alternative's land use and transportation elements will require the following planning policies or actions:

- Addition of conceptual roadways, functional classifications, and other features to the City's updated Transportation System Plan.
- Changes to the comprehensive plan and zoning designations of the North Sweet Home Area, which currently has a combination of Recreation Commercial (RC), Industrial (M) and Residential Industrial Transition (RMT) designations, as well as Natural Resources Overlay and Planned Development Overlay designations.
- Potential recommendations may include the creation of new commercial, industrial, residential, and overlay designations to foster the desired outcomes for the NSHA.



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APPENDIX F



Comprehensive Plan and Development Code Amendments

City of Sweet Home – North Sweet Home Area Plan

DATE February 28, 2025

TO City of Sweet Home

FROM Andrew Parish, AICP and Matt Hastie, AICP

CC

INTRODUCTION

This document provides DRAFT recommendations for Comprehensive Plan and Zoning Code changes to implement the North Sweet Home Area Plan (NSHAP)

Additional text changes related to the implementation of the City of Sweet Home's Transportation System Plan (TSP) can be found in the separate "TSP Implementing Ordinances" document.

This draft provides <u>underline</u>/strikethrough language for specific edits to code language. Notes and questions for reviewers are provided in-line below in blue boxes.

Part 1. Comprehensive Plan Amendments

Changes to City of Sweet Home Comprehensive Plan Map

The adopted Comprehensive Plan map is shown below. The North Sweet Home Area consists primarily of the Mixed Use Employment Comprehensive Plan designation.

Changes to Comprehensive Plan designations are proposed consistent with the land use map on Figure 1. Discussion follows:

- The City's R-2 designation is intended to provide areas suitable and desirable for single-family homes, duplexes, condominiums, town houses and appropriate community facilities.
 Multifamily uses are allowed as a conditional use. The significant infrastructure investments and natural resources needed to develop in the North Sweet Home area would likely require densities and development types consistent with the R-2 zone.
- 2. The Mixed Use Employment designation is applied to commercial areas. This designation allows a broad range of commercial and industrial uses, as well as residential uses.
- 3. The I General Industrial designation is applied to Industrial areas on the land use map.



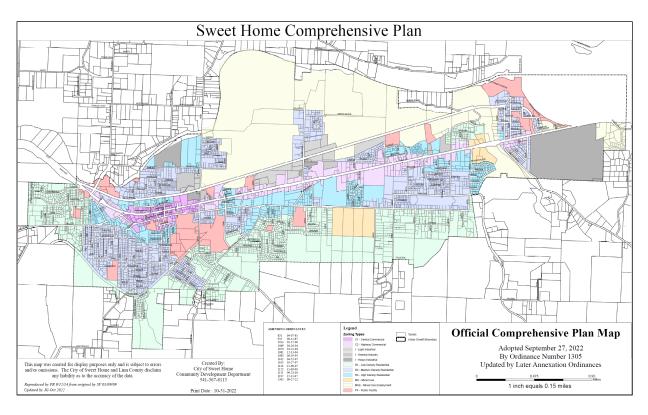
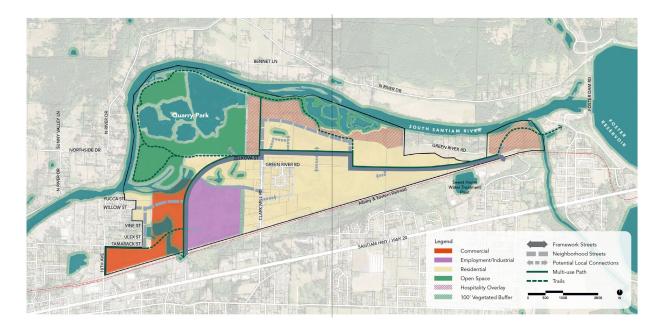


Figure 1: NSHA Comprehensive Plan Designations

Subsequent drafts will include detailed Comprehensive Plan map.





Changes to City of Sweet Home Comprehensive Plan Document

Note the recommendation below – to adopt the Area Plan as an ancillary document to the Comprehensive Plan. This is a common approach in other jurisdictions.

The North Sweet Home Area Plan shall be adopted as an ancillary document to the Comprehensive Plan, providing policy guidance for future land use activity, infrastructure provision, and transportation facilities in the area. The following policies shall apply to the North Sweet Home Area:

Policies from the NSHA Plan Document

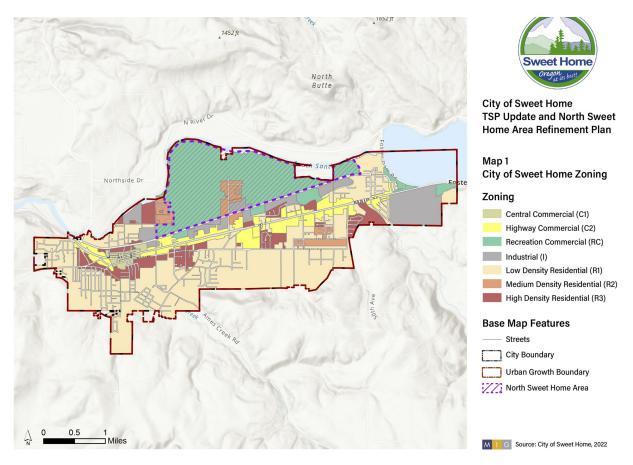
- 1. Housing. The North Sweet Home Area will provide a variety of housing types to help accommodate the long-term growth of the City.
- 2. Economic Development. The North Sweet Home Area will provide opportunities for industrial, commercial, and service jobs. New employment areas will be focused in the vicinity of 24th Avenue and within the Hospitality Overlay zone.
- 3. Connectivity. The North Sweet Home Area will be served by a connected and multi-modal transportation system built consistent with the standards in the City's Transportation System Plan.
- 4. Parks and Trails. The existing Quarry Park, riverfront amenities, and new parks and open spaces will be connected by a system of trails and pathways, including a mixed use path along the area's framework streets.
- 5. Natural Resources. The North Sweet Home Area contains significant river frontage, riparian areas, wetland features, scenic views, and other natural resources that will be protected and enhanced as the area develops.



Part 2. Development Code Amendments

Zoning Map

Current City of Sweet Home zoning designations are shown in the following figure. The area is predominantly within the "Recreation Commercial" zone and also subject to Planned Development and Natural Resources overlay zones.



The following zoning map amendments are recommended to implement the Preferred Land Use Plan:

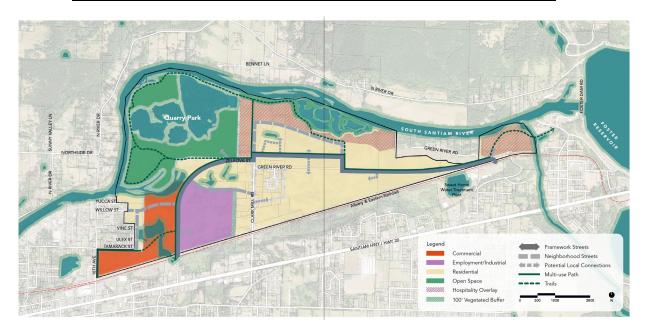
- 1. Amend base zoning designations in the NSHA consistent with Figure 2 below.
 - a. The City's R-2 zone is intended to" provide areas suitable and desirable for single-family homes, duplexes, condominiums, town houses and appropriate community facilities." Multifamily uses are allowed as a conditional use. The significant infrastructure investments and natural resources needed to develop in the North Sweet Home area would likely require densities and development types consistent with the R-2 zone.
 - b. The Mixed Use Employment designation is applied to commercial areas. This zone allows a broad range of commercial and industrial uses, as well as residential uses. Developments greater than one acre in size must be developed through the City's Planned Development process.



- c. The City has one industrial zone, which is applied to Industrial areas on the land use map.
- 2. Amend overlay zoning designations as follows:
 - a. Remove "Planned Development" overlay.
 - b. Add new "Hospitality Overlay" zone (see next section for text changes).

Figure 2: NSHA Zoning Designations

Subsequent drafts will include detailed zoning map.



Zoning Text Amendments

The following zoning code text changes are recommended. They impact code areas related to the establishment of zoning districts and creation of a new Hospitality Overlay zone.

17.06.020 CLASSIFICATION OF ZONES

For the purposes of this title, the following zones are established:

Zone	Abbreviation
Residential Low-Density	R-1
Residential Medium-Density	R-2
Residential High-Density	R-3
Mixed Use	MU
Commercial Central	C-1
Commercial Highway	C-2
Industrial	1



Public Facility PF
Recreation Commercial RC
Mixed Use Employment MUE
Natural Resources Overlay NRO
Flood Hazard Overlay FHO
Historic Property Overlay HPO
Hospitality Overlay HO

17.35 HOSPITALITY OVERLAY ZONE

17.35.10 PURPOSE

1. The purpose of the Hospitality Overlay Zone is to provide and maintain areas which take advantage of the natural features in the North Sweet Home Area in order to create a vibrant and cohesive mix of uses centered around hospitality, recreation, and natural areas.

17.35.020 ALLOWED USES

Use list from existing RC zone

In the Hospitality Overlay zone, the following uses and their accessory uses are permitted outright in addition to the uses permitted by the base zone:

- A. <u>Motel, hotel or resort.</u>
- B. Recreational vehicle park.
- C. Recreational vehicle park with owner time share.
- D. Museum or art gallery.
- E. <u>Community center, meeting facility, convention center or similar use.</u>
- F. Residential uses related to or in conjunction with a recreational development.
- G. Eating and drinking establishment, not including adult-oriented uses.
- H. Recreational retail, such as ski, hiking, climbing or similar equipment.
- I. Arts and crafts workshops and retail sales.
- J. Amusement or recreation services.
- K. Recreational teaching facilities.
- L. <u>Single-family and duplex dwellings, including those duplexes created through conversion of an existing detached single-family dwelling, on legal lots of record at the time of enactment of this Chapter.</u>
- M. Mobile Food Unit or Mobile Food Pod, Subject to SHMC Chapter 17.75.

17.35.030 SPECIAL USES



Special uses list from existing RC zone

The following uses, when developed under the applicable development standards of this

Development Code and special development requirements, are permitted in the Hospitality Overlay

Zone:

- A. Property line adjustments, subject to provisions in Chapter 17.92.
- B. Partitions, subject to provisions in Chapter 17.58.
- C. <u>Subdivisions subject to provisions in Chapter 17.58.</u>
- D. Planned development, subject to the provisions of Chapter 17.60.
- E. Home occupations within a pre-existing residence, subject to the provisions of Chapter 17.68.
- F. Residential accessory dwellings, subject to provisions of Chapter 17.72.
- G. Bed and breakfast within a pre-existing residence, subject to the provisions of Chapter 17.76.
- H. Temporary uses, subject to provisions in Chapter 17.74.
- I. Lot Division for Middle Housing, subject to provisions in Chapter 17.72.

17.35.030 REVIEW PROCESS

References other development code section; update from City's RC zone.

In the Hospitality Overlay Zone, submittal of a plan for development on a specific piece of property shall comply with the requirements of SHDC 17.102.050.



Community Health Committee Meeting Minutes

April 23, 2025, 4:00 PM Sweet Home City Hall, 3225 Main Street Sweet Home, OR 97386

Mission Statement

The City of Sweet Home will work to build an economically strong community with an efficient and effective local government that will provide infrastructure and essential services to the citizens we serve. As efficient stewards of the valuable assets available, we will be responsive to the community while planning and preparing for the future.

Call to Order & Pledge of Allegiance

The meeting was called to order at 4:00 PM.

Roll Call

PRESENT

Chair Kelsey Ann Wray

Vice Chair Bob Dalton

Committee Member Larry Horton (4:06 PM)

Committee Member Wanda Jones

Committee Member Dick Knowles

Committee Member Shirley Schumacher (4:08 PM)

ABSENT

Committee Member Michael Grenz

STAFF

Cecily Hope Pretty, Deputy City Manager Adam Leisinger, Special Projects Manager Sean Morgan, Community Services Officer

Approval of Minutes

a) 2025-03-19 Community Health Committee Meeting Minutes

Committee Member Knowles moved to approve the minutes of the March 19, 2025 Community Health Committee meeting. Vice Chair Dalton seconded the motion. The motion carried by the following vote:

AYE: Wray, Dalton, Jones, Knowles

NAY: None

ABSENT: Grenz, Horton, Schumacher

Recognition of Visitors / Public Comment

There were no visitors to be recognized.

Old Business

a) Community Needs Letter

Chair Wray stated that she had been contacted by a member of the news media to discuss the need for warming and cooling shelters and the letters that the Committee distributed regarding community needs. She noted that there are many community resources that are not well-known by community members. She stated that she had received only one response to the letters and requested Committee feedback as to whether she should continue to pursue responses from the recipients.

Committee Member Horton entered at this time.

There was consensus to follow up with the letter recipients to try to get additional responses.

No action was required for this item.

b) Partner Presentations

Chair Wray asked of inviting additional community health partners to present their services. Discussion ensued regarding invitations to Linn County Mental Health, the Family Assistance and Resource Center (FAC), and other partners.

Vice Chair Dalton suggested providing the Committee's annual report and presentation to the Rotary Club.

Committee Member Horton suggested a discussion with local partners on food insecurity.

No action was required for this item.

c) Community Health Fair

Vice Chair Dalton stated he was currently reviewing the previous application and flyer. Deputy City Manager Pretty offered staff assistance with the flyer. Vice Chair Dalton stated that participant applications would be available soon. He stated that he was seeking volunteers to assist with setup for the event.

No action was required for this item.

Committee Business for the Good of the Order

Chair Wray asked that the Committee begin planning the health summit that they planned to host as part of their annual goals.

Committee Member Jones asked if the intent was to focus on a single topic. Chair Wray suggested a narrow focus on either community resources or a specific topic. Discussion ensued regarding potential topics for the summit.

Adjournment

There being no further discussion, the meeting was adjourned at 4:37 PM.

ATTEST:	Chair
ATTEOT	
City Manager – Ex Officio City Recorder	-



CITY OF SWEET HOME PARKS & TREE COMMITTEE MINUTES

April 16, 2025, 8:30 AM 3225 Main Street, Sweet Home, OR 97386

WIFI Passcode: guestwifi

PLEASE silence all cell phones – Anyone who wishes to speak, please sign in.

Mission Statement

The City of Sweet Home will work to build an economically strong community with an efficient and effective local government that will provide infrastructure and essential services to the citizens we serve. As efficient stewards of the valuable assets available, we will be responsive to the community while planning and preparing for the future.

Call to Order and Pledge of Allegiance

The meeting was called to order at 8:30 AM.

Roll Call of Park and Tree Committee Members:

PRESENT:

Scott Swanson
Matthew Bechtel
Lena Tucker
Wally Shreves
Bob Dalton
Debra Northern
Nancy Patton
Aaron Hegge, City Councilor

STAFF:

Angela Clegg, Planning & Building Manager Greg Springman, Public Works Director Sean Hegge, Crew Lead: Facilities and Parks Cecily Hope Pretty, Deputy City Manager Amber Steinborn, Planning & Building Permit Tech Adam Leisinger, Special Projects Manager Rebecca Swoboda, Administrative Assistant

Time Reports

Chairman Shreves asked the Committee to email and turn in any time reports to Manager Clegg.

Meeting Minutes

a) 2025-03-19 Park & Tree Committee Meeting Minutes

A motion to approve the March 19, 2025 Meeting Minutes was made by Member Patton, seconded by Member Swanson.

Voting Yea: Chairman Shreves, Vice Chair Tucker, Member Patton, Member Swanson, Member Bechtel, Member Northern, Member Dalton.

Voting Nay: None

Public Comment.

None.

Old Business

Beautification Committee Update: Manager Clegg asked about the Beautification Committee's schedule that was emailed. Director Springman stated that they need volunteers and gave an update on tentative activities scheduled. Member Swanson stated that The New Era would be running a story about the need for volunteers. Director Springman indicated that the Committee will have a table at Arbor Day.

Arbor Day Event: Committee members confirmed meeting time and location at Sankey Park at 11:00 am to remove excess ivy from upper-area of Sankey Park. Setup for event will begin around noon, for event start time of 2:00 pm. Chairman Shreves confirmed Pacific Power will be attending the event with tree education around power lines, and other discussion about logistics. Chairman Shreves will bring rope-tac-toe; he will also be purchasing and picking up condiments, tongs, beverage cups, hotdogs, buns, a drink cooler for water, and lemonade for Member Patton to make for the event. Member Patton will be bringing a beverage dispenser with a spout for lemonade: parachute game; and large tic-tac-toe game. Vice-Chair Tucker will bring table-top Jenga and has purchased paper food trays ('boats") for hot dogs to be served in. Director Springman confirmed Public Works Department will bring the cornhole game, as well as a cooler full of ice from the ice machine (in lieu of purchasing ice from store); Public Works employees will also ensure pop-up tents, tables, and chairs are available for Event. Manager Clegg will bring serving gloves, leftover cups from Harvest Festival, disc golf, frisbees, tablecloth(s), tree city flag, brochures, and other informational flyers for the Park & Tree Committee. Manager Clegg will also email a list to Committee Members, to confirm supplies and who is bringing them; and will also check with Mayor Coleman to confirm whether or not she will be attending; City Manager, Jason Ogden, has confirmed that he will be present for the event. Chairman Shreves will read the Proclamation as he has done in past years for the Event. Committee members were given flyers from Staff Steinborn to hang up and pass around town for the Event. Manager Leisinger also confirmed that the Event had been shared from The City's official Facebook page & to share the event from there, onto personal social media pages if members wish to spread the word about the Event.

Sankey Park Phase III Update: Manager Clegg advised – no updates.

Weddle Bridge: Chairman Shreves touched base with a member of the Mill City Committee regarding a grant they received for one of their bridges & indicated he will be meeting with her again in-person. Member Patton spoke with members of Sweet Home Economic Development Group (SHEDG), as well as Buck's Sanitation, and asked if they would contribute or be interested in making a donation towards the costs for the bridge. SHEDG wanted to know who the General Contractor is, how much money the project is going to cost, who is reaching out to the donors, what is the timeline for the project (for both beginning and completing expected dates). There was discussion regarding determining the steps in the process for repairing the bridge and what all that encompasses (beings that it is a specialized process for repairing a bridge), for any interested parties who are willing to donate materials, labor, etc.. The Committee Members agreed with Manager Clegg and Director Springman that determining the first step in the process would be important, rather than just acting on removing parts of the bridge and finding out later that the incorrect process was used & will (in turn) create more work and more costs down the road.

New Business

Buttons: The request for "Park & Tree Committee" shirts was discussed previously, as a way for the Committee Members to stand apart from the General Public during events. Manager Clegg advised that the City of Sweet Home Charter has strict guidelines for the usage of The City's logo; Deputy City Manager Pretty advised that buttons were opted for, instead, as a low-cost alternative to shirts. Manager Leisinger verified that the Buttons have not yet arrived, but confirmed that they have been ordered.

Round Table Discussions

Park & Tree Committee updates to City Council: Councilor Hegge confirmed to Chairman Shreves that he does give updates regarding Park & Tree Committee during City Council Meetings. Manager Clegg also confirmed that Park & Tree Committee Meeting Minutes are uploaded to the City Council Packets so that City Council Members can read updates, as well. Manager Clegg will also be giving flyers to City Council Members in their packets on 4/22/2025. Chairman Shreves requested Councilor Hegge to, please, personally invite all City Council Members to the Arbor Day Event.

Adjournment





City of Sweet Home

Sweet Home Public Library 1101 13th Avenue Sweet Home, OR 97386 541-367-5007

Sweet Home Public Library

Statistics

April 2025	This month	Last month March 2025	Previous Year 2024	Year to date 2025
Patron Activity				
Door Count	4005	3723	45,620	15,172
Program participants (all ages)	295	328	3,697	1216
Total programs(all ages)	27	25	323	105
Circulation and Renewals				
Checkouts & renewals	6719	6169	72,250	25,201
E-audio & E-book checkouts	704	710	8,860	2839
Total items checked out	7423	6879	81,110	28,040
Public Computers				
Logins	253	225	3,016	885
Resource Sharing Savings				
Cost savings	5404.46	5968.14	63,565.22	21,772.13
Items borrowed by consortium libraries	391	368	4,300	1571
Items borrowed from consortium libraries	475	535	5,127	1946
Volunteer Hours				
Hours worked by volunteers	53	26	450.50	112
New Library Patrons				
New patron cards issued	44	50	620	172

Events this month: Our Dogman Birthday viewing party was very popular and fun was had by all. Megan & Kira attended the Oregon Library Association Annual conference in Eugene this month **Building updates:** We have some new furniture donations in the Children's area.

We have started a Tween space and collection. Currently only tween graphic novels and a few new non-fiction and fiction books are in the area. We also have had a donation of cushion/couch and pillows for the area. More donations are headed out way.

Our new outside book drop has been installed. It allows drive up returns for books and media (dvds & audiobooks). This addition allows for media to be returned afterhours without people having to navigate stairs.



1000 Books Before Kindergarten

Reading books at home is one of the best ways to get your child ready for school. Reading 1,000 books sounds like a lot, but if you read just 1 picture book with your child every day, you will read over 365 books in just 1 year! And 730 books in two years, and over 1,000 books in just three years.

Stop by the Library and pick up a reading log and starter packet. Keep track of the books you read. Every time you read 100 books and fill up your log, bring the log back to the library and get a certificate and prize. Pick up the next log for the next 100 books.

It's okay if you read the same book 100 times!

Any child that has not started Kindergarten can start this program! Families are encouraged to participate together, so feel free to sign up multiple children. You can even do it more than once!



Open House

We are having an open house on May 7th from 5-7pm. Stop in and see what is happening in your library as we ask for the renewal of our Operating Levy.

May Events

- Storytime Thursdays 10am &
- Afternoon Movie Wednesdays
- Lego Creators Club Tuesdays
- Anime Club May 29th 4pm Teen Game Night May 9th 6-
- Teen Movie Night May 16th 6-
- Community Read Discussion May 6th 6pm OR May 7th 10am
- Canning and Preserving Class May 24th 2pm

Contact Info

1101 13th Ave Sweet Home, OR shpl@sweethomeor.gov 541-367-5007 sweethomeor.gov/library







New Books



Giant Parsnip Soup by Daniela Sosa A feisty group of friends find a giant parsnip and set off on an adventure to gather the rest of the ingredients, from one to ten, to make delicious soup together. Come and count along! Includes a recipe for vegetable soup.

Tween

Way off Track by Carol Brundtland Nansi has never lost a race ... until snobby Tania beats her in an unofficial event. Surely it's Tania's flashy shoes that gave her the edge. Nansi has to get a pair before the track tryouts! But how will she kick up \$338?

Teen

Fairy Cat by Hisa Takano

A minuscule cat appears one rainy day, perched on Kanade's chair. But the moment he spots the tiny ball of fluff, it vanishes! Kanade knows fairy cats are a rare sight to behold, hiding out of reach in nooks and crannies—but now that he's seen one, he is determined to win its affection. Can Kanade coax the fairy cat out of hiding and befriend it?

Adult

Front Runner: The Life of Steve
Prefontaine by Brendan O'Meara
On the 50th anniversary of American
Track and Field icon Steve
Prefontaine's tragic death comes an
essential reappraisal of his life and
legacy, a powerful work of narrative
history exploring the forces and
psychology that made Pre great and
separating the man from the myths.

Cool Library Things

Outdoor Games for check out!

Our outdoor games are out and ready to be checked out, we have:

Horseshoes, Gator Sprinkler, Ball toss, Lawn Dice, Bocce, Croquet, Rollors, Chicken Toss and more!

Online Collections for FREE!

Northwest Digital Heritage Online includes digital collections from over 250 libraries and museums in Oregon, Washington and Idaho. Including a collection just about the Mt. St. Helens eruption and MORE!

Check it out: northwestdigitalheritage.org

Jim Bean Safety Fair/Summer Reading Kick Off Party

Join us at Sankey Park JUNE
21st from 9am-1pm
Join us for raffles, games,
safety education, bike rodeo,
summer reading sign up, free
hotdogs and popcorn and
more!

Summer Reading

Summer Reading Program for all ages will start on June 17th with programs for kids on most Fridays, plus lots of other activities for teens and adults



TO: City Council

Jason Ogden, City Manager

Interested Parties

FROM: Angela Clegg, Planning and Building Manager

DATE: April 22, 2025

SUBJECT: Planning, Building & Engineering Department Report – April 2025

The Planning, Building, and Engineering Department consists of the City's Building, Planning, Engineering, and Parks and Recreation programs. The following is a summary of activities and notes on current projects from April 1 to April 30, 2025.

1. BUILDING

SUMMARY OF BUILDING PROGRAM PERMITS ISSUED						
Permit Category	April 2025	March 2025	2025 YTD	2024 Total	2020-2024 Annual Average	
Residential 1 and 2 Family Dwellings	1	4	10	27	24	
Residential Demolition		0	2	4	7.8	
Residential Manufactured Dwellings		1	1	5	6.8	
Residential Mechanical	9	4	22	112	103.2	
Residential Plumbing	1	0	5	13	25.8	
Residential Site Development		0	0	0	0.2	
Residential Structural	13	3	26	39	47.4	
Commercial Alarm or Suppression Systems		0	0	2	3.6	
Commercial Demolition		0	0	0	3	
Commercial Mechanical	1	4	7	19	16.6	
Commercial Plumbing		0	1	7	8.2	
Commercial Phased	2		2			
Commercial Site Development		0	0	1	2.4	
Commercial Structural	2	2	6	28	32.2	
Total Permits	29	18	53	243	278.4	
Value Estimate of All Permits	\$2,274,443.00	\$4,517,788.00	\$8,690,914.25	\$17,738,221.41	\$18,256,308.81	
Fees Collected	\$28,014.12	\$23,831.44	\$78,979.03	202,214.77	\$227,074.23	

<u>Developments of note</u>: For your reference, below are some developments of note that were previously reported. Any changes are noted with **bold text**.

- The Storage Depot is expanding. They plan to add storage building at the back of the lot west of their RV/boat storage space.
- Mountain Fir Subdivision: a 5 lot plus 1 remainder lot subdivision extending Mountain Fir Street and adding 'Street A' (to be renamed prior to development). The applicant plans to develop the 5 lots with senior living cottages similar to those the abutting lot. The Planning Commission approved the Subdivision on November 21, 2024.
- Duck Hollow Phase III Subdivision: 51-lot single-family home subdivision located adjacent to the existing Duck Hollow Subdivision (41st Avenue and Long Street). This subdivision received planning approval in 2020, however there was a long delay due to wetlands regulations administered by the Oregon Department of State Lands. State approval has been granted, however there is no timeline available on actual construction.
- Live Oak Subdivision: 8-lot single-family home subdivision located between the two
 existing portions of Live Oak Street. The subdivision was approved in 2021, however the
 property changed hands, which delayed development. The new owner is planning on
 constructing 8 duplexes (16 housing units) on the lots. Development of the road and
 infrastructure is complete, and construction of the first buildings has begun. The developer
 is constructing duplexes taking advantage of the Middle Housing criteria.
- Foothills Ridge Subdivision: A single-family home subdivision located at the west end of Foothills Drive was originally approved in 2021; however, the property changed ownership, and the previous subdivision expired. The Planning Commission approved a new subdivision for the site consisting of 27 lots, on September 18, 2024. The developer is in the process of obtaining a wetland delineation report.
- Clear Water Subdivision: 18-lot single-family home subdivision located on the west side
 of 45th Avenue, just north of Kalmia Street. Planning approval was granted in June. Road,
 sidewalk, and other infrastructure construction is complete. Construction has been steady,
 development is moving forward, and homes are being sold.
- Coulter Subdivision: The Sweet Home Planning Commission approved a 157-lot low-density residential subdivision located at 43rd Avenue and Coulter Lane. This subdivision will be built in four phases. The property includes wetlands, and development will require mitigation and permitting through the Department of State Lands, which will likely decrease the number of lots that are ultimately developed. The initial phase is unhindered by wetlands and will likely move forward as soon as market conditions warrant construction. The Developer has submitted an amended site plan and infrastructure plans currently in review by staff. The developer has begun infrastructure and utility work.

2. PLANNING

Summary of Final Decisions on Planning Division Applications:

Application Type	April 2025	March 2025	2025 YTD	2024 Total	2020-2024 Annual Average
Adjustments	0	0	0	1	N/A
Annexations	0	0	0	0	0.4
Code Amendments	0	0	0	0	1.4
Conditional Use	1	0	1	4	7.4
Fence Permit	4	7	12	40	TBD
Home Occupation	1	1	1	0	0.20
Partition	0	0	1	3	11.8
Planned Development/ Subdivision	0	0	0	3	1.8
Property Line Adjustments	0	0	1	6	13.4
Temp RV Permit	0	0	0	4	TBD
Vacation	0	0	0	0	0.2
Variance	0	0	0	1	3.0
Zoning Map Amendment	0	0	0	1	2.2

• Total Planning Division Applications **Submitted**:

Total Completed Application	6	9	17	61	31.20
Total Fees Collected	\$535.00	\$840.00	\$2,295.00	\$10,150.00	\$15,883.50

- 3 Land Use Applications were submitted in April.
- 2 Land Use Applications are pending final approval.
- The City received a grant from the State to update our Transportation System Plan and create an Area Plan for the undeveloped land on the north side of the City. The project is fully underway. The Technical Advisory and Public Advisory Committee met with consultants on January 9th to discuss Technical Memo #6. The City held a joint work session with the Planning Commissioners and City Council on January 28th. The final draft of the TSP will be heard by the Planning Commission on April 3, 2025, and City Council on April 22, 2025. The Planning Commission voted to recommend the TSP and NSHA Plan to City Council at their April 3, 2025 meeting. The City Council voted to approve the TSP and NSHA Plan at the April 22, 2025 meeting. The Council completed the 1st and 2nd readings of the Ordinance. The 3rd reading is scheduled for the May 13th meeting.
- The Planning Commission last met for a regular meeting on April 3rd.

3. ENGINEERING

City Projects:

- Collaborating with PW Engineering to evaluate existing ADA compliance around locations identified in the street overlay program
- Researched map discrepancies and zoning ordinances and finished creating an updated Zone Map

GIS & Engineering Housekeeping:

- Ongoing tax lot & address GIS database updates
- Accounting for map & tax lot reassignments and updating internal records

Property Development:

• Engineering issued 5 Right of Way permits for the month of April

Application Type	April 2025	March 2025	2025 YTD	2024 Total	2023-2024 Annual Average
ROW	\$120.00	\$1,140.00	\$1,320.00	\$510.00	\$1,005.00
SC Inspections	\$30.00	\$0	\$60.00	\$50.00	\$510.00
Erosion Control	\$0	\$75.00	\$75.00	\$50.00	\$412.50
Parks SDC	\$1,201.00	\$13,211.00	\$16,814.00	\$12,708.00	\$22,729.36
Sewer SDC	\$4,345.00	\$53,195.00	\$67,130.00	\$41,822.39	\$75,911.03
Storm SDC	\$983.00	\$8,113.00	\$11,062.00	\$10,238.00	\$19,968.50
Streets SDC	\$2,947.00	\$32,417.00	\$41,258.00	\$30,764.88	\$72,691.07
Water SDC	\$5,524.00	\$49,716.00	\$66,288.00	\$62,483.00	\$92,623.87

Total \$15,150.00	\$157,867.00	\$204,007.00	\$158,626.00	\$285,851.00
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4. PARKS

- The Park and Tree Committee last met on April 16th. Their next meeting will be May 21st.
- Staff applied for a grant from the Oregon Park and Recreation Department for Phase III of Sankey Park improvements, which will provide trail connections (including ADA access) to the upper portion of the park as well as amphitheater-style seating. The engineers submitted 100% design documents. Staff are in the process of final review. Staff is collaborating with the Timber Framers Guild on a potential design and construction of the bandstand.
- Staff plans to re-apply for the Oregon Department of Forestry Community Green Infrastructure Grant. If approved, the grant funds will support the DEQ water quality project, which serves as mitigation for the fines issued to the WWTP in 2023. The City plans to collaborate with the South Santiam Watershed Council for project management and implementation.
- Park & Tree Committee members will be reaching out to Mill City regarding their campaign to save their bridge. The Committee members hope to gain some insight into how to move forward with a successful Weddle Bridge campaign. Staff have also applied for Weddle Bridge to be re-listed on the National Register of Historic Places. The State's National Register Program Coordinator replied on May 1st stating that the bridge may be eligible for relisting if additional criteria are met. Staff will coordinate a meeting with their office to discuss next steps.
- Arbor Day / Kid to Park Day Celebration was on April 26th from 2:00-4:00 PM at Sankey Park.
 Pacific Power, the Beautification Committee, and an OSU pollinator group joined the

Park & Tree Committee. Free hot dogs and beverages were handed out to the committee. Many families participated in the games that were spread out around the plaza.

5. SPECIAL EVENTS, RENTALS, AND MEMBERSHIPS

Application Type	April 2025	March 2025	2025 YTD	2024 Total	2023-2024 Annual Average
Chair & Table Rental	\$100.00	\$0	\$100.00	\$260.00	\$325.00
Gazebo Rental	\$232.50	\$0	\$232.50	\$640.05	\$607.58
Hut Rental	\$0	\$0	\$0	\$150.00	\$125.03
Racquetball Membership	\$0	\$0	\$0	\$257.00	\$391.13
Weddle Bridge Rental	\$0	\$0	\$0	\$135.00	\$117.53
Total Fees Collected	\$0	\$0	\$0	\$1,442.00	\$1,566.27

6. OTHER PROJECTS

- Willow Street Neighborhood LID: Staff have finalized a financing plan and received approval
 from the financing agency. Design was completed; however, staff identified additional items
 that may require a change order for engineering. If the change order is authorized, additional
 time for engineering will be needed and the financing plan may need to be amended, after
 which an RFP for construction can be issued.
- ODOT Foster Lake Sidewalk Project: Construction is complete. Staff contacted ODOT this
 month to restart talks on connecting the sidewalk portion under the railroad trestle.

MEMORANDUM

TO: City Council

FROM: Greg Springman, Public Works Director

DATE: May 13, 2025

SUBJECT: Public Works Monthly Report – April 2025



This memorandum provides a brief periodic update of specific projects, Water Treatment Plant (WTP) and Wastewater Treatment Plant (WWTP) operations and maintenance (O&M), and other activities performed by the Public Works Department.

WWTP Activities - Mahler Water Reclamation Facility

- 69.5 million gallons (MG) of wastewater treated this month
- 3.75 MG max daily flow discharged
- 2.35 MG average daily flow discharged

Compliance:

Wastewater plant process had no violations for April 2025.

O&M Projects:

Mahler Water Reclamation Facility Project has been fully designed and is waiting for funding.
 Staff have completed the WIFIA application and submitted the \$25,000 application fee but are waiting for financial documents (completed FY23 Audit and an updated Credit Rating Report for the City). Once the audit is completed, the application will be submitted.

WTP Activities - Sweet Home Water Treatment Plant

- 29.12 MG finish water treated this month
- 1.00 MG average daily demand

Compliance:

No violations for April 2025.

Raw Turbidity NTUs:

Levels currently range below 5 NTUs.

O&M Projects:

 The Automation Group (TAG) scheduled the new SCADA system upgrades to the WTP during the week of April 7, 2025. All SCADA system hardware has been installed. TAG is working to complete a project check list for completion. This upgrade will greatly improve the City's SCADA security system for the drinking water system.

Engineering Projects

 Linn County RV Dump Station: Work has been completed as of March 1, 2025 and is open for operation.

- Asphalt concrete pavement (ACP) overlay of Nandina Street (from 9th Avenue to 12th Avenue) is scheduled to take place on May 12, 2025. Public Works staff is working to prepare for paving the week prior to May 12th.
- Engineering staff are working on the Willow-Yucca LID Project; approaching final adjustments to plan set with Civil West.
- Staff are currently monitoring our wet weather flows on 43rd Avenue for a potentially large, 4phase subdivision that will likely require an upsize of our sewer mainline from Coulter Lane to Long Street.

Public Works Field Activities & Projects

Water Division

- Staff continues to repair water mains and services as needed due to age.
- Repaired several water main leaks in the public Right of Way (ROW).
- Staff began cleaning reservoir sites, including spraying, mowing and weed eating.
- Staff working with Treatment Plant Operators to set reservoir levels after SCADA change out.

Collections System Division

Staff started mowing ROW for access to sewer mains and manhole structures

Streets Division

- Staff began moving the street ROW, spraying curb lines and roadsides.
- Staff have begun asphalt patch work, weather permitting.
- Street Sweeper is currently operational since April 24th.

Parks & Facilities Division

- Staff made repaired drinking foundation at Sankey Park.
- Staff continue to maintain City parks, cleaning restrooms, and collect public trash cans.
- Staff began moving and weed eating in all City Parks and Facilities, once per week.
- Increase in graffiti on Weddle Bridge and Sankey Park restroom. PD is doing an outstanding
 job mitigating graffiti vandalism.

Stormwater Division

Staff starting to clean ditches along street easements.



Finance Department April 2025

Finance Activities

Accounts Payable: 170 payments processed

Passport Applications: 50 Passport Photos: 48 Lien Searches: 40

Payroll was processed in April for 74 employees.

Utility Billing Activities

Service Requests Processed	183
Accounts Opened	44
Accounts Closed	33
Utility Statements Processed	3510
Statements Mailed	2936
Statements Emailed	574
Past Due Notices Mailed	715
Accounts Turned off for Non-Payment	57

Submitted by:

Cindi Robeck Financial Services Manager