November 12, 2025 Project# 30785.002

To: City of Sherwood TSP Project Management Team

From: Kittelson & Associates, Inc

RE: Sherwood TSP Existing Conditions Memorandum

The City of Sherwood (Sherwood) is updating their Transportation System Plan (TSP) to meet the needs of their growing community, comply with new state transportation planning requirements, and update their previous plan, completed in 2014. The purpose of this Existing Conditions memorandum is to accomplish two primary tasks:

1. Summarize the inventory of transportation facilities and services and
2. Assess the existing transportation system performance and identify opportunities for improvements prior to the future conditions analysis.

Maps are used to display a database of information pertaining to the existence of transportation facilities and services, as well as their ownership, purpose, function, classification, and/or condition. Assessments of the existing conditions serve as the baseline for understanding future needs through identification of the transportation system performance in 2047.

A summary of the contents is listed below.

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Glossary of Acronyms & Terms

AADT - Average Annual Daily Traffic

ADA - Americans with Disabilities Act

ADT - Average Daily Traffic (may refer to bi-directional daily volume)

AASHTO - American Association of State Highway and Transportation Officials

APM - (ODOT) Analysis Procedures Manual

AWSC - All-Way Stop Control (intersection control type)

BLTS - Bicycle Level of Traffic Stress

BPA - Bonneville Power Administration

CA - Critical Approach (for unsignalized intersection reporting per APM)

CCR - Critical Crash Rate (HSM-based screening metric)

CFA - Climate Friendly Area

CM - Critical Movement (for unsignalized intersection reporting per APM)

EP - Excess Proportion (of specific crash types; safety screening metric)

FHWA - Federal Highway Administration

FSI - Fatal and Serious Injury (crashes)

GIS - Geographic Information System

HCM - Highway Capacity Manual

HSM - Highway Safety Manual

LOS - Level of Service

LTS - Level of Traffic Stress (see BLTS for bicycle network comfort)

MEV - Million Entering Vehicles (exposure used for crash rates)

MPO - Metropolitan Planning Organization (Metro, for Portland region)

MUTCD - Manual on Uniform Traffic Control Devices

NBIS - National Bridge Inventory System

ODOT - Oregon Department of Transportation

PDO - Property Damage Only (crash severity)

PGE - Portland General Electric

PNWR - Portland & Western Railroad

RDPO - Regional Disaster Preparedness Organization

RLIS - (Metro) Regional Land Information System

RTP - Regional Transportation Plan

SPIS - Safety Priority Index System (ODOT safety screening list)

TSP - Transportation System Plan

TriMet - Tri-County Metropolitan Transportation District of Oregon

TWSC - Two-Way Stop Control (intersection control type)

UGB - Urban Growth Boundary

v/c - Volume-to-Capacity (ratio)

VISTRO / Vistro - PTV Vistro software (HCM-based ops analysis)

YCTA - Yamhill County Transit Area

APPENDICES

Appendix A. Crash data

Appendix B. SPIS sites

Appendix C. Critical crash rate analysis worksheet

Appendix D. CCR and EP analysis results

Appendix E. Traffic count worksheet

Appendix F. Vistro worksheets

Summary of Existing Transportation Conditions Findings

Kittelson identified the following takeaways after reviewing existing conditions information:

Pedestrian System

- Sherwood's pedestrian network is generally well-developed and maintained, with 85% of facilities rated in good condition. Sidewalk coverage is most complete along arterials and collectors east of OR 99W and south of SW Tualatin-Sherwood Road.
- Key deficiencies include missing or incomplete sidewalks along SW Oregon Street and on the west side of SW Murdock Road.
- Fair- and poor-condition sidewalks are concentrated in older residential neighborhoods. Marked crossing opportunities are concentrated near schools and major activity centers, but long stretches of OR 99W and SW Roy Rogers Road have few marked crossings, creating barriers to pedestrian connectivity.
- Most transit stops are accessible via existing sidewalks in good condition, though isolated gaps remain along some routes.

Bicycle System

- Sherwood's bicycle network consists of facilities across five facility types: shared-use paths, bike lanes, shared bike lanes, paved shoulders, and trails that together provide citywide coverage and connectivity to schools, parks, and commercial centers.
- Bicycle Level of Traffic Stress analysis indicates that the majority of facilities operate at LTS 1 or 2.
- However, the network exhibits significant deficiencies, including high-stress corridors along OR 99W, SW Roy Rogers Road, SW Edy Road, and portions of SW Tualatin-Sherwood Road, where high vehicle speeds and limited separation reduce rider comfort.
- Missing links along SW Roy Rogers Road and OR 99W create barriers between neighborhoods and regional destinations.
- Several key corridors transition abruptly between facility types, creating discontinuities in user comfort and predictability along SW Oregon Street, SW Tualatin-Sherwood Road, SW Langer Farms Parkway, and SW Meinecke Parkway.

Public Transportation

- Transit service in Sherwood is provided by TriMet Lines 94 and 97 and YCTA Line 44, supplemented by a senior shuttle operated by the City.
- Fixed-route service is concentrated along OR 99W and connects Sherwood to Tigard, Tualatin, and regional destinations. However, service within Sherwood is limited, with most areas of the city more than a 20-minute walk from the nearest bus stop.

- Weekday headways on Line 94 range from 20 to 40 minutes, while Line 97 operates only during peak hours with limited frequency.
- Saturday service on YCTA Line 44 is currently suspended. Transit stop amenities and ADA accessibility vary, with downtown stops generally better served than those outside the city center.

Roadway Network and Traffic Operations

- Sherwood's roadway system consists of ODOT, Washington County, and City-maintained facilities organized into a functional hierarchy ranging from principal arterials to local streets.
- OR 99W serves as the primary regional corridor, while arterials such as Tualatin-Sherwood Road, SW Elwert Road, Roy Rogers Road, Oregon Street, and Sunset Boulevard provide regional and local connectivity.
- The local street network exhibits is disconnected in the eastern and western portions of the city, where limited through streets and cul-de-sac patterns limiting traffic on local streets and increasing it on arterial corridors.
- Intersection operations analysis identified that most study intersections operate within acceptable mobility standards during the weekday PM peak hour. However, two locations: OR 99W at SW Elwert Road/SW Sunset Boulevard and OR 99W at SW Chapman Road/SW Brookman Road exceed ODOT mobility standards with v/c ratios of 1.08 and 1.27, respectively. One additional location, SW Oregon Street at SW Tonquin Road, approaches mobility thresholds with a v/c ratio of 0.95.

Safety

- The five-year crash analysis (2019-2023) identified 894 reported crashes within the study area, resulting in 26 serious injuries and 3 fatalities.
- Rear-end collisions were the most common crash type, representing 47.5% of all crashes. Turning movement and angle crashes are 17.3% of crashes.
- Critical safety issues were identified at ten study intersections through excess proportion analysis, critical crash rate analysis, and Safety Priority Index System (SPIS) designation.
- Five intersections along OR 99W exhibited overrepresented crash patterns, with rear-end, angle, and turning movement crashes most prevalent.
- 31 crashes involving pedestrians and bicyclists were reported in the study area. They resulted in three pedestrian fatalities, 18 pedestrian injuries, and 5 bicyclist injuries. These crashes concentrated along SW Langer Farms Parkway, SW Trailblazer Place, and OR 99W. Failure of the driver to yield right-of-way was the leading contributing factor in pedestrian crashes.

Freight, Rail, and Utilities Systems

- OR 99W and Tualatin-Sherwood Road/Roy Rogers Road serve as designated freight routes and provide regional freight connections.

- The PNWR rail line traverses Sherwood in a northeast-southwest direction, with eight at-grade crossings, two of which (Brookman Road and Middleton Road) are ungated.
- High-pressure natural gas transmission pipelines operated by NW Natural and a petroleum products pipeline operated by Kinder Morgan are present along several major corridors, including Elwert Road, Cipole Road, Tualatin-Sherwood Road, and Oregon Street.
- BPA and PGE high-voltage electrical transmission lines cross the northeastern portion of the city, constraining future roadway network layout and connections in those areas.

Critical Deficiencies

The analysis identified several critical deficiencies that require prioritization in future phases of the TSP:

- **Pedestrian Infrastructure**: Missing sidewalks and substandard crossing opportunities along OR 99W, and SW Oregon Street limit safe pedestrian access to schools, transit, and activity centers.
- **Bicycle Infrastructure**: High-stress corridors along OR 99W, SW Roy Rogers Road, SW Edy Road, and portions of SW Tualatin-Sherwood Road create barriers to comfortable bicycling for riders of all ages and abilities. Missing links and abrupt transitions between facility types reduce network continuity and predictability, particularly along key corridors connecting residential neighborhoods to schools and employment centers.
- **Transit Service**: Limited service frequency, geographic coverage gaps, and lack of connectivity within Sherwood restrict transit as a viable travel option for most residents. The Sherwood West Expansion Area and recently relocated high school are not served by existing routes.
- **Roadway Operations**: Localized congestion along OR 99W and select side-street approaches exceeds mobility standards, indicating the need for operational or capacity improvements. Connectivity gaps in the eastern and western portions of the city increase reliance on arterial corridors and reduce network resiliency.
- **Safety**: Ten study intersections were flagged for elevated crash rates or overrepresented crash types, with OR 99W corridor intersections exhibiting the most significant concerns. Vulnerable road user crashes, though limited in number, resulted in severe outcomes and highlight the need for enhanced crossing treatments and driver awareness measures.
- **Freight and Rail**: Ungated at-grade rail crossings and potential conflicts between freight movements and local traffic at key intersections require operational and safety improvements.

Ongoing Projects & Data Availability

At the time of this document's preparation, the City of Sherwood is actively engaged in several transportation-related projects. Due to limitations in current data availability, the analysis presented may not fully reflect the most up-to-date conditions. A comprehensive list of ongoing

projects within the city is available here. Among these, the project team has identified several key initiatives that are expected to significantly influence the Transportation System Plan (TSP) analyses.

Sherwood West Area:

The 1,291-acre Sherwood West area is a designated regional urban reserve (Urban Reserve Area 5B). Sherwood West is land that will be added to the region's Urban Growth Boundary (UGB) and, over time, annexed into the City of Sherwood. The Sherwood West Area Concept Plan when its adopted will supplement the zoning and transportation facilities information in this area.

Tonquin Employment Area:

The Tonquin Employment Area Plan (2010) identified the Tonquin Employment Area (TEA) as an approximately 300-acre area added to the Urban Growth Boundary (UGB) by Metro Council 2004. The designated Industrial Area is expected to help fulfill the City's, and regions, employment needs. As of 2022, there are three major developments in various stages of design and construction within TEA. Since the existing conditions analysis uses the latest employment data available which is the 2022 Longitudinal Employer-Household Dynamics (LEHD), the number of jobs in this area is not reflective of the jobs available in 2025.

Ice Age Drive Improvements:

This project involves the creation of a new east-west connection between SW Oregon Street and SW 124th Avenue in Sherwood to facilitate development within the Tonquin Employment Area (TEA). The existing conditions analysis assumes the proposed alignment for this corridor since this project is currently under construction.

Edy Road and Elwert Road Intersection Improvements:

The project included in City of Sherwood Fiscal Year 2025-2029 is currently in the concept development stage. As part of this project, Edy Road/ Elwert Road intersection is currently being studied by Washington County's Department of Land Use and Transportation.

ODOT Multimodal Inventory for Metropolitan Areas:

This project will assist local jurisdictions in completing a multimodal transportation data inventory to comply with the new Transportation Planning Rule ("TPR") requirements in OAR Chapter 660, Division 12, as adopted through the Climate Friendly and Equitable Communities (CFEC) rulemaking. As part of this effort, the City of Sherwood is currently reviewing preliminary datasets provided through the project. The bicycle and pedestrian inventory and analysis presented in this document are based on the data currently available. It is important to note that this information may be incomplete and subject to refinement as additional data is collected and validated.

Planning Context and Community Profile

The City of Sherwood's land use and transportation systems are shaped by its location within the Portland metropolitan region, natural features, regional connections, and evolving community character. This section provides an overview of Sherwood's planning area, existing zoning patterns, key destinations, natural constraints, and community demographics that influence transportation planning decisions.

The system inventory and analysis encompasses all areas within the City of Sherwood's current Urban Growth Boundary (UGB).

Sherwood's transportation planning environment is shaped by both local growth dynamics and its location within a complex regional framework, requiring intergovernmental coordination with city, county, regional, and state agencies to ensure systemwide consistency.

Sherwood is geographically bordered by rural unincorporated areas of Washington County to the north, west, and south, and by the City of Tualatin to the east. While the city is located within Washington County, its planning environment is also influenced by proximity to Clackamas County to the east and Yamhill County to the south, both of which contribute to regional travel demand, freight circulation, and commuting patterns. Washington County retains jurisdiction over several regional collectors and arterials that either traverse or frame the Sherwood UGB, further underscoring the interdependence between city and county system planning.

At the state level, Pacific Highway 99W (OR 99W) serves as Sherwood's principal north–south corridor and primary state-owned facility. OR 99W provides connectivity to Tigard and Portland to the north and to Newberg and Yamhill County to the south, while also accommodating significant regional freight movement. Key Washington County facilities include Tualatin-Sherwood Road and Roy Rogers Road, which function as critical east–west and north–south connectors, respectively. These corridors provide essential multimodal access for local circulation, goods movement, and transit integration, while linking Sherwood to broader Washington County and Metro-area destinations.

At the metropolitan level, the City of Sherwood lies within the jurisdiction of Metro, the Portland region's metropolitan planning organization (MPO). Metro maintains authority over the regional transportation planning framework, including the Regional Transportation Plan (RTP) and Urban Growth Boundary (UGB) management. As a result, Sherwood's transportation investments and land use planning must align with Metro's policies, performance measures, and regional growth strategies to ensure compliance with statewide planning goals and long-term system integration.

Existing Zoning Plan

The City of Sherwood encompasses a mix of residential, commercial, industrial, and open space areas reflecting a balanced community structure. The city's Zoning Plan (Figure 1) identifies a range of zoning districts that support residential neighborhoods, employment centers, and retail destinations while preserving key open space and environmental areas.

Residential areas dominate the city's land use, with low- and medium-density residential zones concentrated east and west of OR 99W. High-density residential areas are primarily located near downtown Sherwood and along major corridors such as SW Pine Street and SW Tualatin-Sherwood Road, offering proximity to transit routes and commercial amenities.

Commercial zoning is primarily clustered along the OR 99W corridor, in Old Town, and near SW Tualatin-Sherwood Road. These areas accommodate general retail, office, and service-oriented businesses serving both local residents and regional visitors. Industrial zones, including General Industrial, Employment Industrial, and Light Industrial districts, are concentrated in the eastern and southeastern parts of the city, particularly near SW Cipole Road, SW Tualatin-Sherwood Road, and SW Tonquin Road. These areas provide critical space for manufacturing, logistics, and employment uses.

The city also includes significant Institutional and Public zones, encompassing public schools, civic buildings, and utility infrastructure, as well as a limited area designated with Open Space zoning that preserve natural features, floodplains, and parkland. While many parks and natural areas function as open space, only one area within the city is formally zoned Open Space. Other parks and natural features are located within various zoning districts that allow recreational or conservation uses.

Key Destinations and Activity Centers

Figure 2 shows major civic, recreational, educational, and employment centers that attract daily trips and form the backbone of community activity in Sherwood.

Community and Civic Destinations include City Hall, the Sherwood Public Library, and the Sherwood Center for the Arts, all located within or near downtown. The Sherwood High School and several public and private schools serve as significant local activity centers, particularly during peak school hours.

Recreational destinations such as Snyder Park, Stella Olsen Memorial Park, Langer Park, and the Tualatin River National Wildlife Refuge provide key community gathering spaces and contribute to Sherwood's active transportation network by offering trail connections and open space corridors.

Employment centers are concentrated east of downtown near SW Tualatin-Sherwood Road, SW Cipole Road, and SW Tonquin Road, with clusters of 200–500 jobs or more in industrial and commercial zones. Smaller employment clusters exist along OR 99W, supporting retail and service-based industries.

Sherwood's designated Climate Friendly Area (CFA) is located between Old Town and OR 99W, bordered by Cedar Creek to the West and Langer Farms Parkway to the East. Within Metro, Climate Friendly Areas are also known as Town Centers and were adopted in the 2010s through coordination with Metro. Climate Friendly Areas are locations identified under

Oregon's Climate Friendly and Equitable Communities (CFEC) rules where compact, mixed-use, and transit-supportive development is planned to reduce greenhouse-gas emissions and increase access to walking, biking, and transit. Sherwood's CFA represents a strategic opportunity for future infill and redevelopment that supports multimodal transportation access.

Figure 1

Zoning Plan

LEGEND

- Old Town Overlay
- Very Low Density Residential (PUD)
- Very Low Density Residential
- Low Density Residential
- Low Density Residential (PUD)
- Medium Density Residential Low
- Medium Density Residential Low (PUD)
- Medium Density Residential High
- Medium Density Residential High (PUD)
- High Density Residential
- High Density Residential (PUD)
- Institutional and Public
- General Commercial
- Retail Commercial
- Retail Commercial (PUD)
- Neighborhood Commercial
- Office Commercial
- Office Commercial (PUD)
- General Industrial
- Employment Industrial
- Light Industrial
- Light Industrial (PUD)
- Open Space
- Unanexed Area-Inside UGB
- Urban Growth Area-Concept Plan Required
- Sherwood West Area
- City Boundaries
- Urban Growth Boundary
- County Boundaries

Data Source:
City of Sherwood, October 2025

City of Sherwood, Oregon
House of the Tualatin River National Wildlife Refuge

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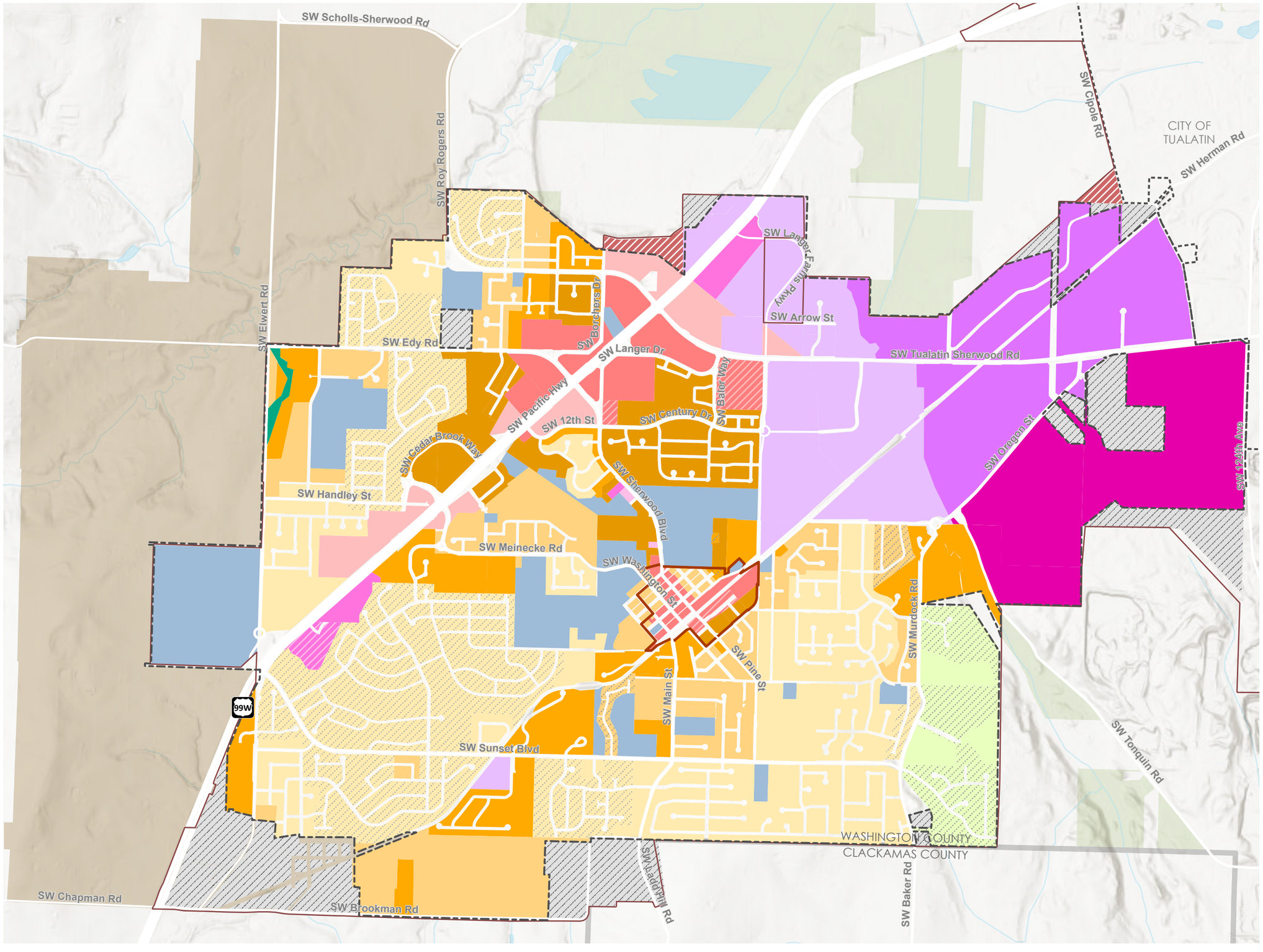

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Figure 2

Key Destinations and Activity Centers

LEGEND

- Clinic
- Fire Stations
- City Hall & Library
- Public Schools
- Private Schools
- Community Centers
- Parks
- Open Spaces / Trails
- Town Center

Employment Centers

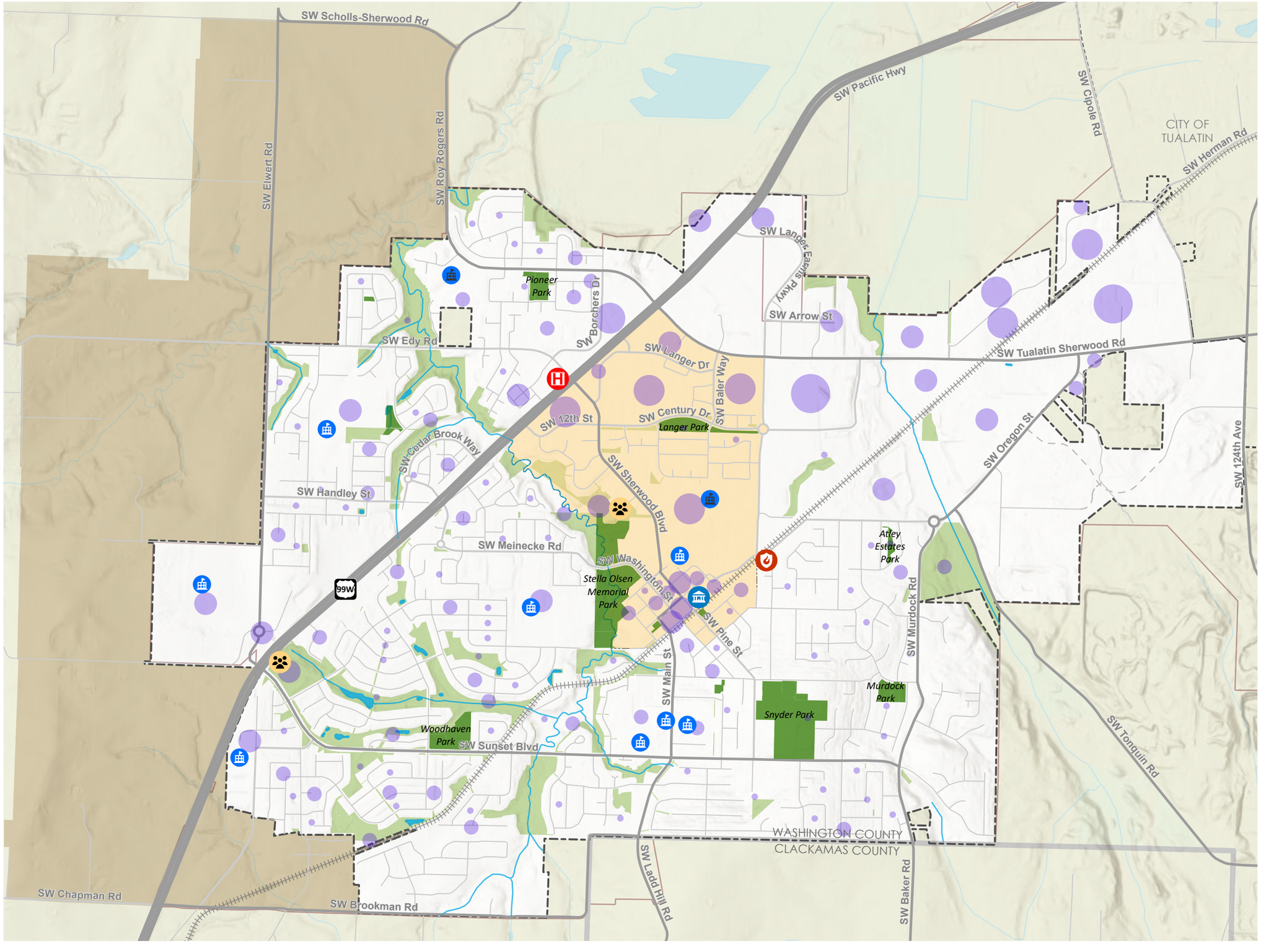
- 1-10 jobs
- 11-50 jobs
- 51-200 jobs
- 200-500 jobs
- More than 500 jobs

- Highway
- Arterial
- Collector
- Local
- Upcoming City Roadways
- Sherwood West Area
- City Boundaries
- Urban Growth Boundary
- County Boundaries

Data Sources:
Regional Land Information System (RLIS), Metro;
2022 Longitudinal Employer-Household Dynamics (LEHD), July 2025

City of Sherwood, Oregon
House of the Tualatin River National Wildlife Refuge

0 0.1 0.2 0.3 Miles



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Natural Hazards and Emergency Routes

Figure 3 identifies areas in Sherwood subject to natural hazards and routes critical for emergency response and regional connectivity.

Flood-prone areas are primarily located along Cedar Creek and its associated tributaries, extending through central and southern portions of the city, and along the Tualatin River corridor at the northern boundary. These areas include 1% and 0.2% annual chance flood hazard zones as defined by FEMA, as well as designated regulatory floodways that restrict new development and guide stormwater management and open space preservation. Several parks, including Langer Park, Woodhaven Park, and Stella Olsen Park, are located near or within these flood hazard areas. The Cedar Creek Greenway, while not a formal park, provides a trail network and natural open-space corridor that contributes to stormwater storage and flood resilience.

Sherwood's emergency routes include key regional lifeline corridors such as OR 99W, Roy Rogers Road, and Tualatin-Sherwood Road, which serve as designated Oregon State Seismic Lifeline Routes and Regional Emergency Routes managed through the Regional Disaster Preparedness Organization (RDPO). These corridors play a critical role in maintaining access to and from Sherwood during emergencies and ensuring redundancy within the regional transportation network.

Consideration of natural hazards and emergency access is essential for future transportation and land use planning, particularly in areas identified for growth such as Sherwood West and Brookman.

Community Profile

The community profile summarizes demographic, socioeconomic, employment, and equity characteristics of Sherwood's population that inform transportation planning needs and priorities. These characteristics help identify populations who may face greater transportation barriers or are more reliant on affordable and accessible mobility options.

Demographic Overview

The City of Sherwood is preparing updated demographic and socioeconomic data as part of ongoing planning efforts. The data includes population characteristics such as age, income, race and ethnicity, language proficiency, and disability status. In the near future, this information will be used to assess transportation needs and identify potential gaps in multimodal access and equity outcomes.

Transportation-Disadvantaged Populations

Future analysis will map the distribution of transportation-disadvantaged populations, including older adults, individuals with disabilities, youth, low-income households, and zero-vehicle households. These groups often rely more heavily on public transportation, walking, and biking for daily travel and are likely to experience barriers to accessing essential services and destinations.

Figure 3

Natural Hazards and Emergency Routes

LEGEND

- Oregon State Seismic Lifeline Route
- Regional Emergency Routes*

Flood Hazard Zones

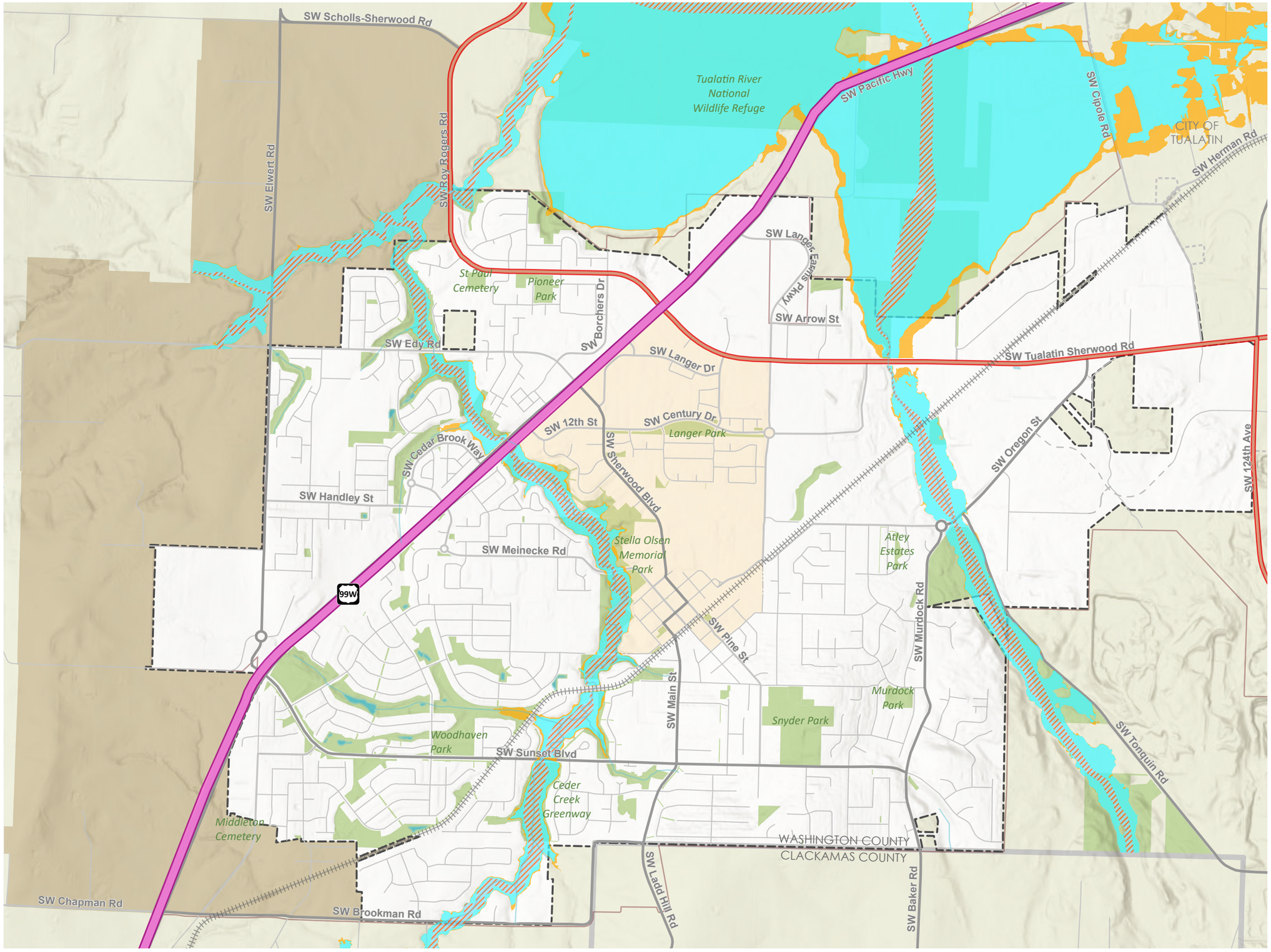
- Regulatory Floodway
- 1% Annual Chance Flood Hazard
- 0.2% Annual Chance Flood Hazard
- Rail Line
- Highway
- Arterial
- Collector
- Local
- Upcoming City Roadways
- Town Center
- Parks/ Open Spaces/ Trails
- Water Bodies/ Streams
- Sherwood West Area
- City Boundaries
- Urban Growth Boundary
- County Boundaries

* Designated by Metro and managed by Regional Disaster Preparedness Organization (RDPO)

Data Source:
FEMA Flood Zones;
Regional Land Information System (RLIS), Metro, July 2025

City of Sherwood Oregon
Home of the Tualatin River National Wildlife Refuge

0 0.1 0.2 0.3 Miles



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Pedestrian System Analysis

Pedestrian facilities are a core aspect of a transportation network as at some point in a journey, every person is a pedestrian. Like vehicles, the network consists of both links and intersections. The primary type of facility that comprise the links are sidewalks, however the network can also include bus stops, shared streets, multiuse paths, and parking lots.

In addition to measuring a pedestrian network by completeness (e.g. there is a sidewalk or there isn't), sidewalks can be evaluated by their condition as well as the quality. Sidewalk condition is often presented on a spectrum of poor to good, and is an indicator of the deterioration, cracking and spalling of the concrete. Sidewalk quality is a newer approach to measurement, and is intended to make walking a transportation choice in and of itself as compared with part of an overall journey. This is based on the understanding that the quality of a sidewalk can influence decisions more than system completeness. The distance from the edge of the roadway, presence of bike lanes and car parking, presence of vegetation, and presence of street trees all influence the quality of the user experience.

Intersections for pedestrians are comprised of uncontrolled (e.g. mid-block) and controlled (e.g. signalized intersection) crossings. Similar to links, crossings can be evaluated by their presence, as well as the quality.

Kittelson evaluated both travel paths and crossings as part of the existing conditions evaluation. The links were assessed for system completeness and condition , while the crossings were assessed for network completeness and length. While ODOT's APM provides guidance on evaluating sidewalk travel path quality, the data required for this analysis was not available.

Pedestrian System Inventory

The pedestrian network in Sherwood consists primarily of sidewalks along both sides of most arterial and collector streets, supplemented by shared-use paths within residential neighborhoods and near schools, parks, and commercial centers. The system provides generally good connectivity across the developed areas of the city, especially east of OR 99W and south of SW Tualatin-Sherwood Road.

Table 1. Pedestrian Network Summary

Metric	Miles	Percent of Street Network
Total Street Centerline	128.5	—
Total Sidewalk Facilities	107.4	84%

Sidewalk conditions are generally best along arterials and collectors, where newer development has constructed continuous facilities. Older residential areas and undeveloped frontages like south of SW Sunset Boulevard and West of Murdock Road exhibit more variability in width and condition, with some narrow or uneven sidewalks that are in fair conditions that may not fully meet ADA accessibility standards. Table 2 contains a summary of sidewalk condition.

Table 2. Sidewalk Condition

Sidewalk Condition	Percent of Sidewalk Link Network
Good	85 %
Fair	12 %
Poor	1 %
Unknown	2%

As seen in Figure 4, the majority of pedestrian facilities are in good condition, with 85% segments rated good, 12% segments rated fair, and 1% segments rated poor. Most facilities are designated for pedestrian use only, while segments along SW Tualatin Sherwood Road are wider shared-use paths accommodating both pedestrians and bicyclists.

Sidewalk widths generally range from 5 to 8 feet on collector and local streets and up to 10 feet along arterials and shared-use path corridors, meeting current city and ADA design standards in most locations. Facilities within Climate-Friendly Areas (CFAs) are largely complete, with continuous sidewalks and accessible curb ramps.

Crossing Inventory and Accessibility

As shown in Figure 5, pedestrian crossings are distributed throughout the network and concentrated near schools, parks, and key commercial corridors. Marked and signalized crossings are present along major arterials such as SW Tualatin-Sherwood Road, SW Langer Farms Parkway, and SW Sunset Boulevard. Unsignalized or unmarked crossings are common on local streets, where traffic volumes are lower. Table 3 below shows percentage of crossings under each crossing characteristic.

Table 3. Crossing Characteristics

Characteristic	Category	Percent of Total
Crossing Control Type	Signalized	19%
	Unsignalized	81%
Crossing Marking	Marked	99%
	Unmarked	1%
ADA Compliance	Curb Ramp Present	57%
	Curb Ramp Absent	43%

Crossing distances vary from 30 to 80 feet depending on roadway width and presence of medians. Most arterials and collectors include curb ramps at intersection crossings that comply with ADA standards, though a few older curb returns in residential areas and along SW Oregon Street require upgrades. Typical spacing between marked crossings along arterials is 500–800 feet, consistent with ODOT APM guidance.

Access to Key Destinations

As shown in Table 4, sidewalks are generally in good condition around schools, bus stops, parks, and within CFAs, providing safe and comfortable access for pedestrians.

Table 4. Access to Key Destinations

Destination Type	Sidewalk Condition	Accessibility Notes
Schools	Good	Continuous sidewalks and marked crossings at most public schools.
Bus Stops	Good	Nearly all TriMet and YCTA stops located along corridors with good sidewalks.
Parks	Good	Accessible via shared-use paths and neighborhood sidewalks.
CFAs	Good	Continuous sidewalks and compliant curb ramps.

Key school access observations:

- Middleton Elementary School: Sidewalks in good condition and crossings via SW Old Highway 99W and SW Timbrel Lane.
- Sherwood High School: Continuous sidewalks in good condition and marked crossings along SW Elwert Road.
- Ridges Elementary School: Sidewalks in good condition and crossings along SW Copper Terrace.
- St. Paul Lutheran School: Sidewalks along SW Roy Rogers Road are in good condition, but SW Cedarview Way sidewalks are fair; no marked crosswalk at SW Roy Rogers Road and SW Cedarview Way which would be a key access.
- Sherwood Middle School: Sidewalks in good condition and crossings along SW Meinecke Road.
- Hawks View Elementary School: Sidewalks in good condition and crossings along SW Sherwood Boulevard.
- St. Francis Catholic School: Sidewalk in good condition along SW Oregon Street, no marked crosswalk at SW Oregon Street and Oregon Street.
- Archer Glen Elementary School: Sidewalks in good condition and crossings along SW Sunset Boulevard.
- Sherwood Charter School: Sidewalks in good condition and crossings along SW Main Street.

Overall, the pedestrian environment near schools and transit stops is generally adequate, with high-priority improvement needs limited to isolated segments along major arterials and private school frontages.

Network Gaps and Deficiencies

While Sherwood's pedestrian network demonstrates strong coverage overall, totaling approximately 107.4 miles of sidewalks (about 84% of the city's 128.5-mile street system), localized gaps and accessibility issues remain. These deficiencies are concentrated in older neighborhoods and undeveloped areas, where sidewalks are missing, inconsistent, or in poor condition, which are summarized in Table 5.

Table 5. Summary of Key Pedestrian Network Gaps

Deficiency Type	Estimated Extent	Percent of Network
Missing Sidewalks	21.1 miles	16%
Sidewalks in Fair or Poor Condition	13.0 miles	12%
Crossings without ADA-Compliant Ramps	—	43% of crossings
Unsignalized Crossings	—	81% of crossings
Unmarked Crossings	—	1% of crossings

- Sidewalk coverage: Several roadway segments, particularly along local streets south of SW Brookman Road, include sidewalks on only one side or lack sidewalks entirely.
- Sidewalk quality: Segments in fair or poor condition are concentrated in older neighborhoods and along streets west of SW Roy Rogers Road.
- Crossings: As illustrated in Figure 4, marked and signalized crossings are concentrated near schools, activity centers, and key arterials such as SW Tualatin-Sherwood Road, SW Langer Farms Parkway, and SW Sunset Boulevard. However, long stretches of OR 99W and SW Roy Rogers Road have few marked crossings, creating barriers for pedestrians seeking to reach destinations on opposite sides. Unmarked or unsignalized crossings are common on local streets and within residential areas, where traffic volumes are lower.
- Transit access: The majority of bus stops are located along corridors with existing sidewalks in good condition, providing safe and accessible pedestrian connections.
- School access: Most public schools are well served by sidewalks and crossings, though isolated deficiencies remain at some private schools and along major roadways.

Pedestrian System Summary

Sherwood's pedestrian network provides strong coverage and good connectivity across most of the city, but targeted improvements are needed to enhance accessibility and safety:

- Rehabilitate fair- and poor-condition sidewalks to the west of SW Murdock Road, south of SW Sunset Boulevard, west of SW Pinehurst Drive ensure ADA compliance and pedestrian comfort

- Expand shared-use paths along key corridors to support both walking and bicycling connections.

Figure 4

Pedestrian Facilities

LEGEND

Sidewalk & Shared Use Paths

- Good
- Fair
- Poor

Transit Routes & Stops

- Bus Route
- Bus Stops

Key Destinations & Activity Centers

- Public Schools
- Private Schools
- Highway
- Arterial
- Collector
- Local
- Upcoming City Roadways
- Rail Line
- Town Center
- Sherwood West Area
- City Boundaries
- Urban Growth Boundary
- County Boundaries

Data Source:
City of Sherwood, TriMet GTFS,
Regional Land Information System (RLIS), Metro,
October 2025

City of Sherwood, Oregon
Home of the Tualatin River National Wildlife Refuge

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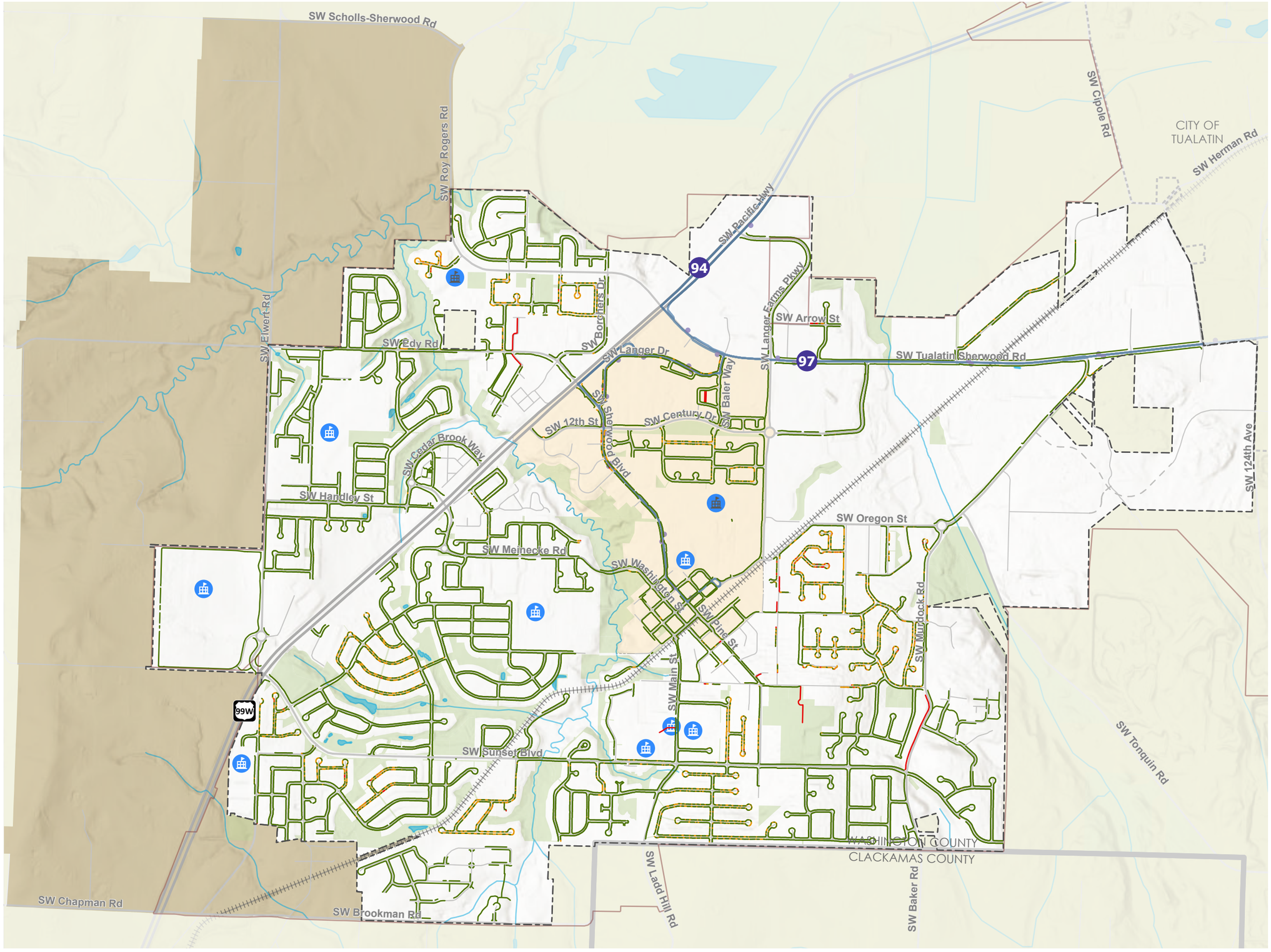

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Figure 5

Ped-Bike Crossings

LEGEND

Ped-Bike Crossings

CrossingType

- Marked & Signalized
- Marked & Partly Signalized
- Marked & Unsignalized
- Unmarked & Unsignalized

Transit Routes & Stops

- Bus Routes
- Bus Stops

Key Destinations & Activity Centers

- Public Schools
- Private Schools
- Highway
- Arterial
- Collector
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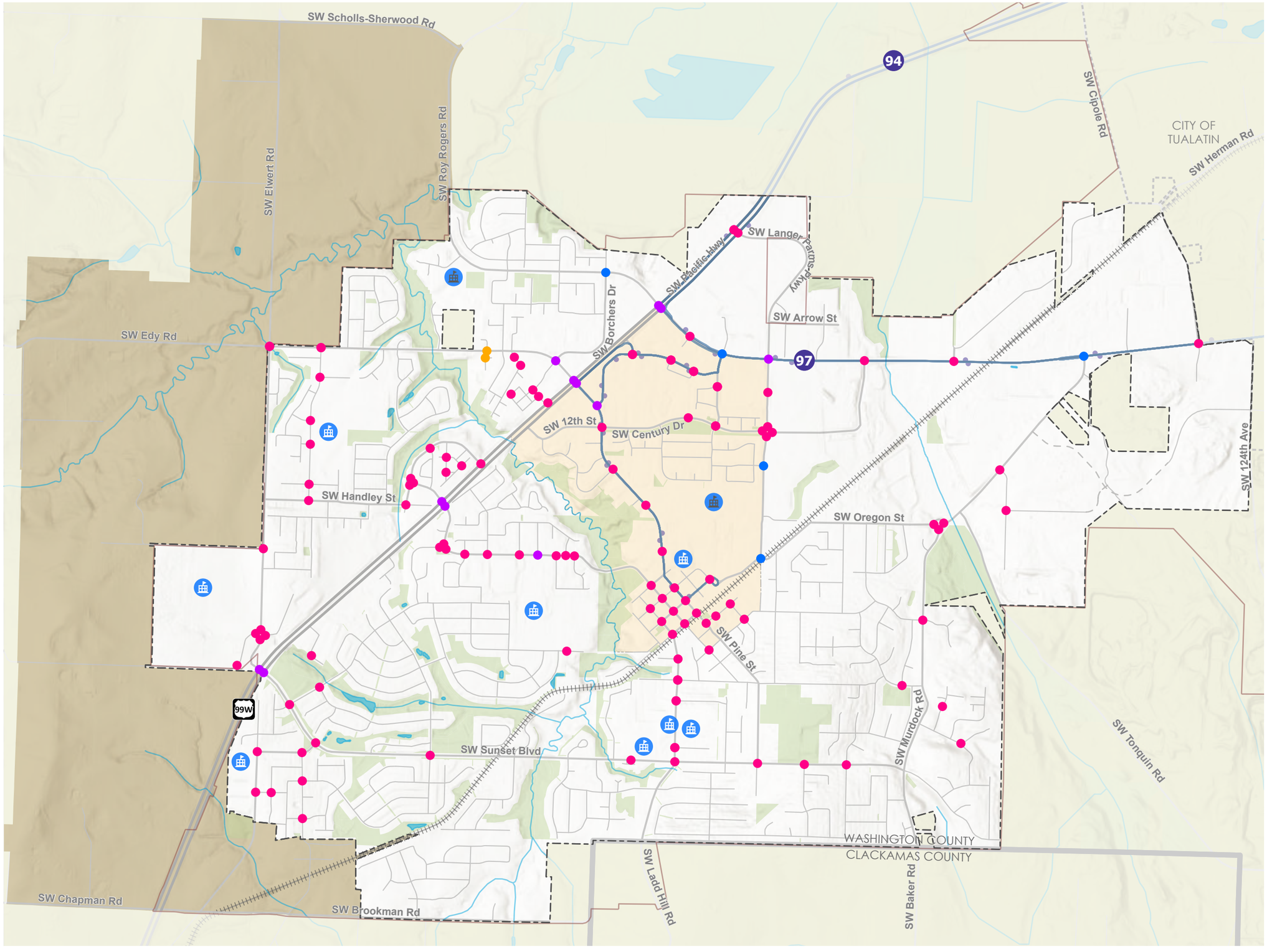

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Bicycle System Analysis

Sherwood's bicycle network consists of bicycle facilities distributed across five facility types, as shown in Figure 6. The system provides a mix of separated and on-street facilities that accommodate varying levels of bicycle rider comfort and experience.

The city's bicycle infrastructure includes the following facility types, defined in accordance with Oregon Department of Transportation (ODOT) and American Association of State Highway and Transportation Officials (AASHTO) standards:

- Shared-Use Paths: Physically separated facilities designed to accommodate both pedestrians and bicyclists, typically 10-12 feet wide with a paved surface. These paths are separated from motor vehicle traffic by open space or a barrier and provide the highest level of comfort for bicyclists of all ages and abilities. In Sherwood, shared-use paths are concentrated along major corridors such as SW Tualatin-Sherwood Road and within residential neighborhoods connecting to schools and parks.
- Bike Lanes: Dedicated on-street facilities designated exclusively for bicycle use, typically 5-6 feet wide and marked by pavement striping and signage. Bike lanes are located within the roadway but separated from motor vehicle travel lanes, providing moderate protection and comfort for experienced bicyclists. These facilities are present along several arterial and collector streets, including segments of SW Langer Farms Parkway and SW Oregon Street, and SW Meinecke Parkway/Road.
- Shared Bike Lanes: On-street facilities where bicyclists and motor vehicles share the same travel lane, marked with shared lane markings (sharrows) to indicate the presence of bicycle traffic and proper positioning within the lane. These facilities provide minimal physical separation and are typically used on lower-volume collector and local streets where traffic speeds are reduced. Shared bike lanes are distributed throughout residential areas and along connectors to the larger bicycle network.
- Paved Shoulders: Roadway shoulders that are paved and wide enough to accommodate bicycle travel, typically found along rural or suburban roadways without dedicated bicycle facilities. Paved shoulders provide space for bicyclists outside the motor vehicle travel lane but lack striping or signage designating them for bicycle use. Within Sherwood, paved shoulders are present along segments of OR 99W and other higher-speed roadways on the periphery of the city.
- Trails: Off-street recreational paths that may follow natural corridors, utility easements, or former rail lines, often unpaved or with compacted gravel surfaces. Trails provide low-stress connections for recreational bicycling and may serve as critical links in the overall bicycle network, particularly in areas where on-street facilities are limited. Trail facilities in Sherwood connect parks and open spaces, supplementing the on-street bicycle network.

Sherwood's bicycle system totals approximately 24.2 miles of designated facilities not including local streets, encompassing five distinct facility types (Table 6). Shared-use paths make up the majority of the system (54%), followed by on-street bike lanes (34%). Shared bike lanes and paved shoulders comprise the remaining 13%.

Table 6. Existing Bicycle Facilities by Type (Excluding Local Streets)

Facility Type	Length (mi)	Percent of Total	Description
Shared-Use Paths	13.1	54%	Paved, separated paths for pedestrians and bicyclists; concentrated along SW Tualatin–Sherwood Rd and near schools and parks.
Bike Lanes	8.3	34%	Striped lanes on arterial and collector streets such as SW Oregon St, SW Langer Farms Pkwy, and SW Meinecke Parkway/Road.
Shared Bike Lanes	1.1	5%	Sharrows or shared lanes on low-speed local streets.
Paved Shoulders	1.7	7%	Found primarily on higher-speed roadways such as OR 99W.
Total	**24.2**	**100%**	—

The distribution of these facility types reflects a network that is oriented primarily toward connecting residential neighborhoods with schools, parks, and commercial centers east of OR 99W. Shared-use paths along major corridors and bike lanes on arterials provide the backbone of the system, while shared bike lanes and trails extend connectivity into lower-density areas.

Figure 6

Bicycle Facilities

LEGEND

Bike Facilities by Type

- Share Use Path
- Bike Lane
- Shared Bike Lane
- Paved Shoulder
- Trail

Transit Routes & Stops

- Bus Stops
- Bus Routes

Key Destinations & Activity Centers

- Public Schools
- Private Schools
- Highway
- Arterial
- Collector
- Local
- Upcoming City Roadways
- Rail Line
- Town Center
- Sherwood West Area
- City Boundaries
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- County Boundaries

Data Source:
City of Sherwood, TriMet GTFS,
Regional Land Information System (RLIS), Metro,
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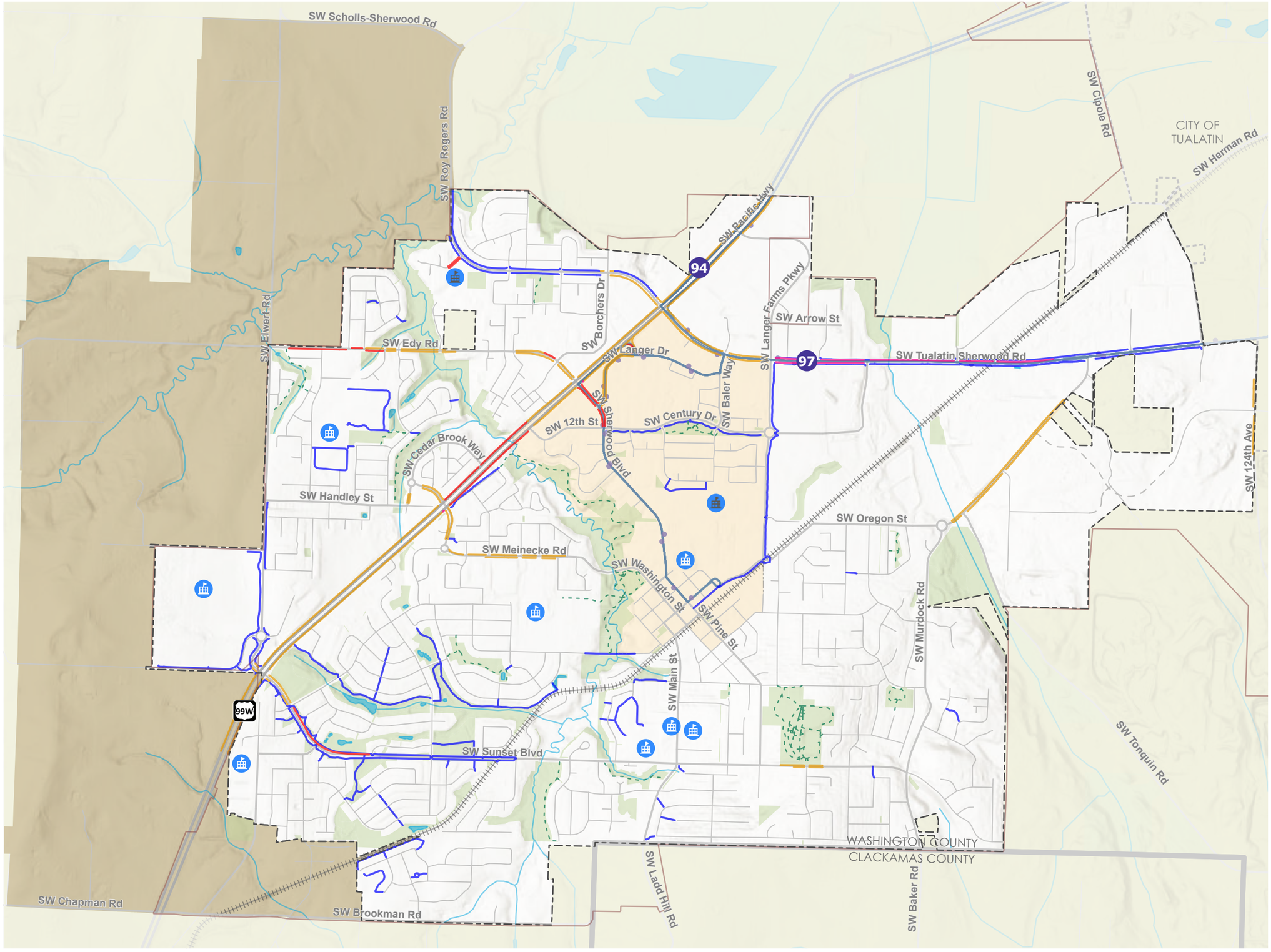

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Bicycle Level of Traffic Stress

A Bicycle Level of Traffic Stress (BLTS) analysis was completed for all road classifications within the planning area. The BLTS method evaluates the comfort level of bicycling based on factors such as vehicle speed, traffic volume, number of lanes, and separation between bicyclists and motorists. Compared with the bicycle system inventory, this analysis includes local streets that are assumed to be shared facilities for people on bikes.

As shown in Figure 7 and Table 7, the majority of bicycle facilities within Sherwood operate at LTS 1 or 2.

Table 7. Bicycle Level of Traffic Stress Summary

BLTS	Description	Length (mi)	Percent of Network
1	Suitable for all ages and abilities; separated or traffic-calmed streets	53.8	58%
2	Comfortable for most adults; low-speed, low-volume streets	5.7	6%
3	Moderate stress; higher speeds or limited separation	24.2	26%
4	High stress; high volumes and speeds, minimal separation	8.7	10%

The concentration of BLTS 3 and 4 facilities along major arterials and regional corridors indicates that while neighborhood streets and shared-use paths provide comfortable conditions, key connections to schools, employment centers, and transit require improvements.

Comfort levels vary significantly by roadway classification (Table 8). Arterial and collector corridors exhibit higher stress levels, while local and neighborhood streets provide comfortable, low-stress connections.

Table 8. BLTS Distribution by Road Classification

Road Classification	BLTS 1	BLTS 2	BLTS 3	BLTS 4	Key Observations
Principal Arterial	0%	0%	44%	56%	OR 99W and SW Roy Rogers Rd lack separation; high speeds reduce comfort.
Arterial	71%	0%	25%	4%	Facilities include bike lanes and shared-use paths; good coverage along SW Langer Farms Pkwy.
Collector	22%	7%	50%	22%	Conditions vary; inconsistent separation and abrupt transitions.
Local	90%	5%	5%	0%	Mostly low-stress streets suitable for all users.
Neighborhood	31%	26%	43%	0%	Minor stress on connectors like SW Washington and SW Murdock St.

These BLTS 1 or 2 low-stress corridors include SW Sunset Boulevard, SW Oregon Street, SW Pinehurst Drive, and many neighborhood collector streets. Higher-stress segments (LTS 3 or 4) are concentrated along major arterials such as OR 99W, SW Roy Rogers Road, SW Edy Road and portions of SW Tualatin-Sherwood Road, where higher vehicle speeds and limited separation from traffic reduce rider comfort.

Within Climate-Friendly Areas, approximately 75 percent of bicycle facilities function at LTS 1 or 2, reflecting the presence of shared-use paths, connected local street networks, and traffic-calmed downtown streets.

Key low-stress corridors include:

- SW Sunset Boulevard – SW Cedar Brook Way – SW Edy Road, connecting southern neighborhoods to Sherwood High School and downtown.
- SW Oregon Street – SW Meinecke Parkway – SW Main Street, linking schools, downtown, and residential areas east of OR 99W.
- SW Langer Farms Parkway, providing connections between residential neighborhoods and employment areas north of OR 99W.

High-stress corridors include:

- **OR 99W**, which lacks continuous bicycle facilities, physical separation and presents high speeds and volumes.
- **SW Tualatin Sherwood Road**, where wide crossings, high speeds, and lack of physical separation reduce comfort.
- **SW Edy Road** which lacks continuous bicycle facilities and physical separation.

Portions of Washington Street and SW Murdock Street, which function as moderate- to high-stress routes due to constrained widths and limited separation.

Figure 7

Bicycle LTS

LEGEND

Bike LTS

- 1
- 2
- 3
- 4
- Public Schools
- Private Schools
- Upcoming City Roadways
- Rail Line
- Town Center
- Sherwood West Area
- City Boundaries
- Urban Growth Boundary
- County Boundaries

Data Source:
City of Sherwood,
Regional Land Information System (RLIS), Metro,
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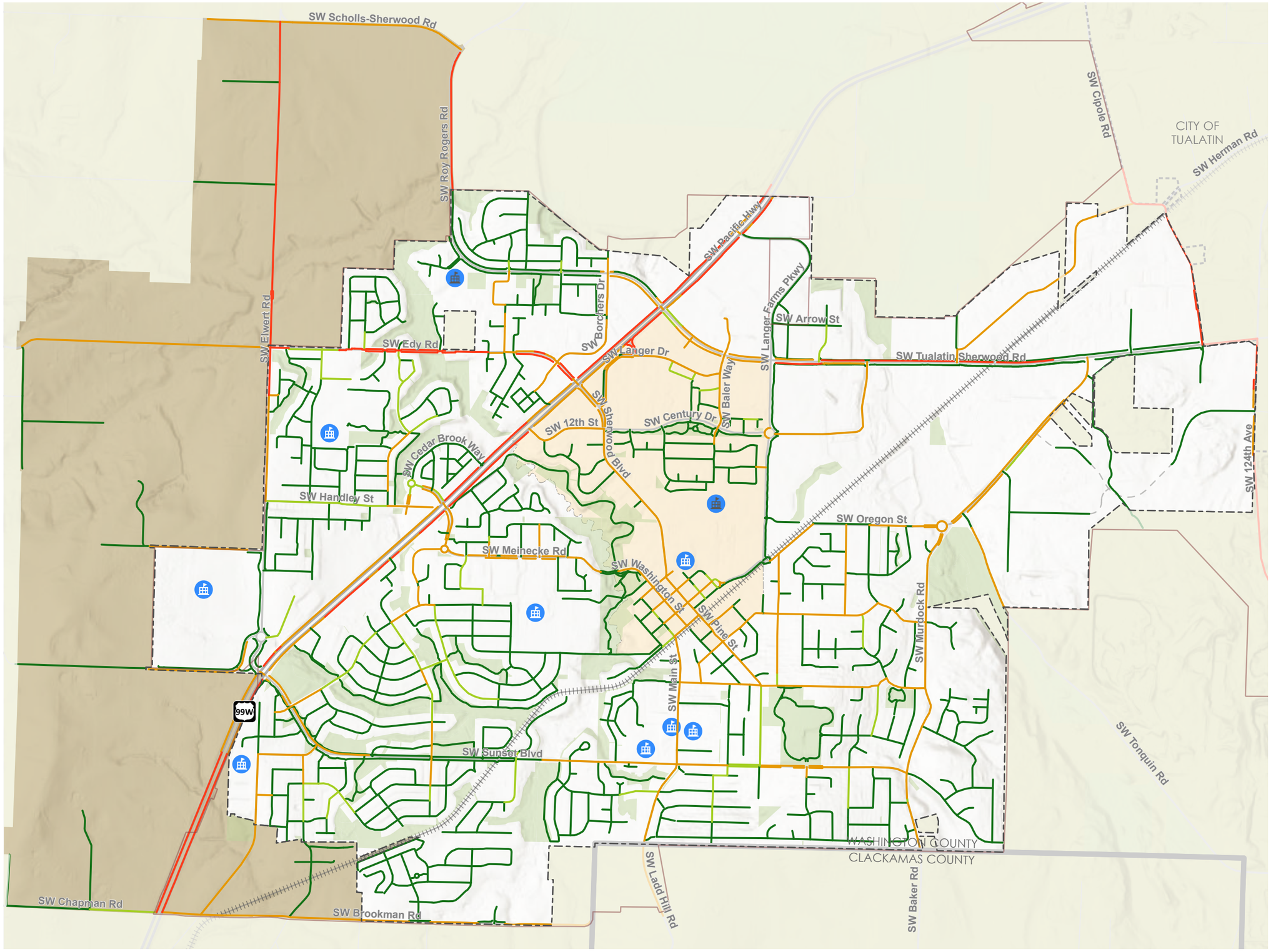
0 0.1 0.2 0.3 Miles



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Network Gaps and Deficiencies

The bicycle network provides moderate citywide coverage but includes several connectivity and comfort gaps:

- **Missing Links**: Gaps exist along SW Roy Rogers Road and OR 99W, where discontinuous or missing bike lanes create barriers between neighborhoods and regional destinations.
- **Moderate-Stress Links in the Core**: SW Washington Street, SW Oregon Street (north), and SW Murdock Street function as LTS 3 corridors within otherwise low-stress neighborhoods, indicating a need for improved markings, traffic calming, or separation to align with the City's all-ages-and-abilities goals.
- **Inconsistent Facility Types**: Several key corridors transition abruptly between shared-use paths, striped bike lanes, and unmarked shoulders, creating discontinuities in user comfort and predictability.
    - Along SW Oregon Street, the bicycle facility type changes multiple times—transitioning from striped bike lanes near downtown to shared-lane markings and then to shoulder segments without dedicated bicycle space near SW Tualatin-Sherwood Road.
    - SW Tualatin-Sherwood Road includes a combination of shared-use paths, buffered lanes, and sections without any designated bicycle facility, particularly near commercial driveways and intersections.
    - Similarly, SW Langer Farms Parkway and SW Meinecke Parkway exhibit gaps where striped lanes end abruptly or merge into general traffic lanes at intersections, reducing continuity for through-riders.

Targeted improvements to close network gaps, enhance separation along high-stress corridors, and provide consistent facility types will be necessary to achieve a low-stress, connected bicycle network that serves people of all ages and abilities and supports the city's climate-friendly goals.

Public Transportation System Analysis

The public transportation (transit) system can play an important role in reducing the reliance on private vehicle ownership. This section provides a summary of the transit system inventory available in the city of Sherwood.

Fixed-route public transit in the city is provided by TriMet and the Yamhill County Transit Area (YCTA). TriMet operates within the greater Portland region, and YCTA links Sherwood to Tigard and Yamhill County communities. Additionally, the City of Sherwood operates a senior shuttle, a dial-a-ride service available to individuals aged 62 and older, operating three days a week from 9:30 AM to 4:00 PM. Table 9 provides the detailed information of the existing transit services in the city

TriMet maintains two park-and-ride facilities in Sherwood: one located in Old Town along Railroad Avenue and another adjacent to the Sherwood Cinema Center on Tualatin-Sherwood Road. The bus stops located Old Town are ADA accessible but those on Sherwood Boulevard are not. No intercity passenger rail, bus rapid transit, frequent transit, or priority and non-priority transit corridors are available in the city. There are no planned changes or improvements to public transportation routes, stops, stations, and other transit facilities at this time.

Key destinations accessible by the fixed-route service transit include commercial and employment centers in Tigard, Tualatin, Newberg, Dundee, and McMinnville. Passengers can also transfer to other buses to access the city of Portland. However, public transportation within Sherwood itself is limited. Most areas of the city, including the recently relocated high school, are more than a 20-minute walk from the nearest bus stop, leaving residents without convenient options for traveling within the city.

Table 9. Public transportation in Sherwood

Transit Provider	Route Name	Times of Operation	Service Span	Headway	Notes
TriMet	Line 94 – Pacific Highway/Sherwood	Daily	~15 hours/day	20 min (peak), 30 min (evening), 40 min (late night)	Connects downtown Sherwood to downtown Tigard via Highway 99W; regional connections to Portland; standard service route.
TriMet	Line 97 – Tualatin-Sherwood Road	Weekdays	6:30 AM – 9:30 AM; 3:00 PM – 6:40 PM	60–70 min	Peak-hour route between Sherwood Plaza and downtown Tualatin; limited trips (7 per day total).
Yamhill County Transit Area (YCTA)	Line 44 – McMinnville–Tigard Transit Center	Weekdays	~12 hours/day	30 min – 3 hours	Two stops in Sherwood; connects McMinnville, Dundee, Newberg, Sherwood, and Tigard; Saturday service currently suspended.
City of Sherwood	Senior Shuttle (Dial-a-Ride)	Tuesday, Wednesday, Thursday	9:30 AM – 4:00 PM	On demand	Available to residents aged 62+; provides access to local destinations within Sherwood.

Source: TriMet, YCTA, City of Sherwood

Network Gaps and Deficiencies

The existing transit system in Sherwood provides basic regional connectivity but lacks local circulation and coverage. Potential needs and opportunities for improvement include:

- **Bus Stop Accessibility and Amenities**: Upgrade non-ADA-compliant stops with accessible landing pads, sidewalks, shelters, benches, lighting, and wayfinding signage.
- **Service Expansion Areas:** Extend fixed-route service to serve key growth areas such as Sherwood West and community destinations including Sherwood High School, City of Sherwood City Hall, and major employment areas.
- **Local Circulator or On-Demand Service:** Evaluate the feasibility of a local circulator shuttle or micro transit service to improve intra-city connectivity and first/last-mile access to regional routes.
- **Park-and-Ride Capacity and Utilization:** Assess usage and potential expansion needs of the existing park-and-ride facilities.
- **Coordination with TriMet and YCTA:** Continue coordination with TriMet and YCTA to explore opportunities for service frequency improvements, route extensions, and integration of Sherwood's senior shuttle with regional mobility programs.

Roadway Inventory Analysis

Motor vehicle operations remain a critical determinant of roadway capacity and reliability. This section evaluates the performance of Sherwood's roadway network under existing conditions, focusing on intersections and segments identified in Final TM#4. The analysis assesses operational efficiency during the weekday evening peak period, identifying locations where congestion or queuing may constrain overall system performance.

Roadway Inventory Overview

The roadway system within the study area serves the majority of trips across all travel modes. In addition to motor vehicles, pedestrians, bicyclists and others use the roadway system to travel to and from essential destinations and neighboring cities. This section describes the existing Sherwood roadway system.

The roadway system within the study area was inventoried based on Geographic Information System (GIS) data obtained from Metro's RLIS, Oregon Department of Transportation (ODOT) TransGIS database and the Washington County GIS database, as well as a review of recent aerial imagery. The inventory was supplemented by information provided in the previous 2014 Sherwood TSP and by the City staff.

Roadway Jurisdiction

Streets within study area are owned and operated by three jurisdictions: ODOT, Washington County (County), and the City. There are also a number of streets that are privately owned and maintained. Each jurisdiction is responsible for determining the functional classification of the streets, defining major design and multimodal features, and approving construction and access permits. Coordination is required among the jurisdictions to ensure that the streets are planned, operated, maintained, and improved to safely meet public needs. Figure 8 illustrates the jurisdiction of streets within the study area. The following summarizes information on the ODOT, County, City and privately owned facilities within study area.

- ODOT Facilities - OR 99W is the only facility within the study area under ODOT's jurisdiction. Washinton County Facilities - County owns and operates nine roads within the study area, including:
    - SW Tualatin Sherwood Road
    - SW Roy Rogers Road
    - SW Elwert Road
    - SW Edy Road
    - SW Oregon Street (from SW Tualatin Sherwood Road to SW Murdock Road)
    - SW Brookman Road
    - SW Chapman Road
    - SW Kruger Road
    - SW Scholls-Sherwood Road (in Sherwood West Expansion Area)
- City Facilities - The City owns and operates all other major facilities within Sherwood.

Figure 8

Roadway Jurisdiction

LEGEND

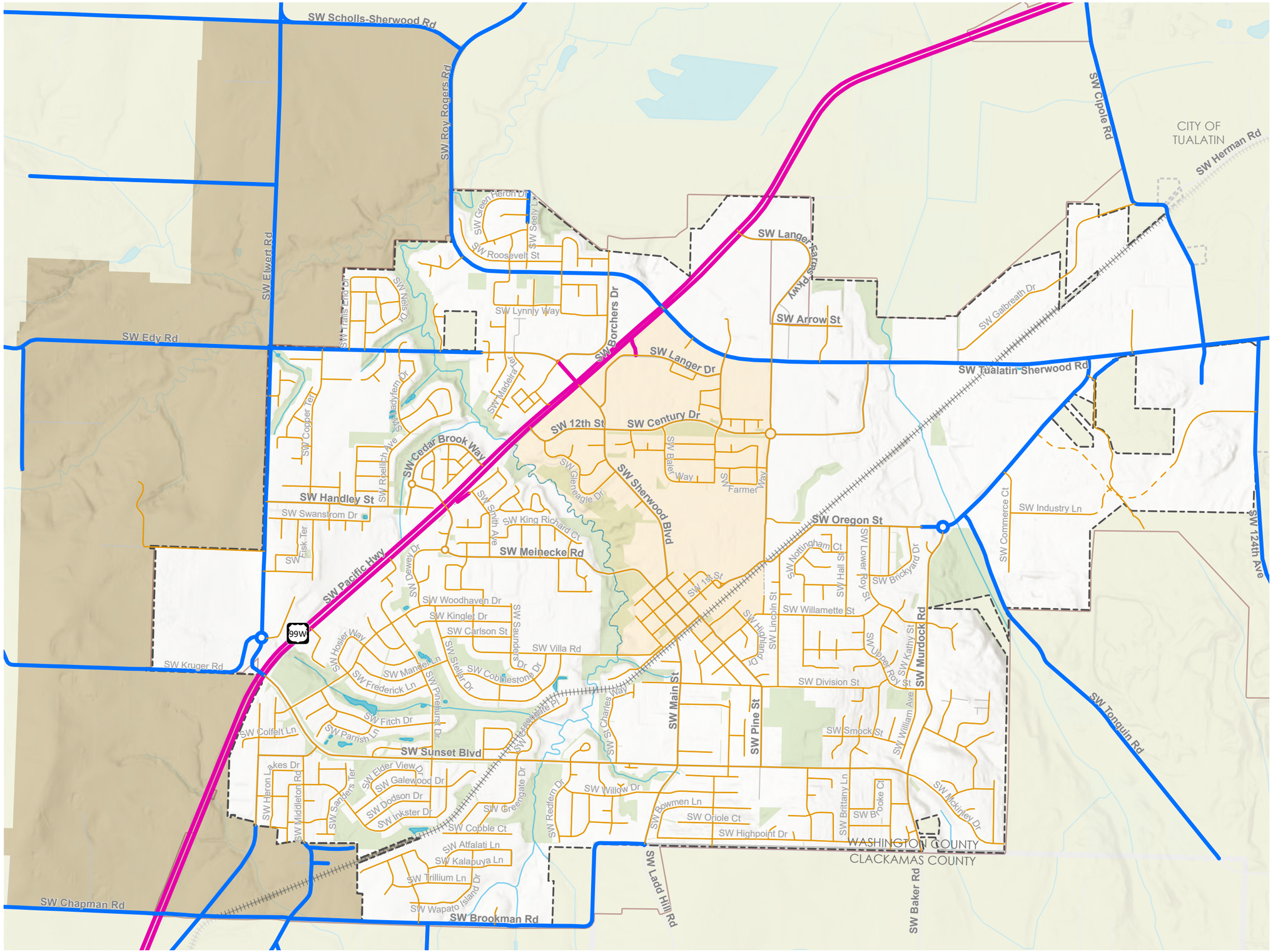
JRSDCT_TYP

- City
- County
- ODOT
- Upcoming City Roadways
- Rail Line
- Town Center
- Sherwood West Area
- City Boundaries
- Urban Growth Boundary
- County Boundaries

Data Source:
Regional Land Information System (RLIS), Metro, July 2025

City of Sherwood Oregon
Home of the Tualatin River National Wildlife Refuge

0 0.1 0.2 0.3 Miles



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Functional Classification

A street's functional classification defines its role in the transportation system and reflects desired operational and design characteristics such as right-of-way requirements, pavement widths, pedestrian and bicycle features, and driveway (access) spacing standards. Figure 9 illustrates the functional classification of streets within the study area as shown in the City's previous TSP.

Sherwood has five functional classes for streets:

- Principal Arterials are access controlled highways that span several jurisdictions and provide a high level of mobility. They generally have four or more travel lanes, bicycle lanes (or shoulders), and limited access (preferably connecting primarily with arterials).
- Arterials serve as the major roadways within Sherwood and link major commercial, residential, industrial and institutional areas. Many of these roadways also extend beyond Sherwood and connect to other nearby cities. Limited access is a key feature of arterials to ensure increased mobility through town.
- Collectors have the primary role of facilitating circulation within Sherwood by funneling traffic from residential, commercial, and industrial areas to the arterial street network. They do not require as extensive control of access (compared to arterials).
- Neighborhood Routes are the primary roadways used to access residential neighborhoods. They serve a similar function as collector roadways but are designed to feel more like a neighborhood street.
- Local Streets have the sole function of providing access to immediate adjacent land. Service to "through traffic movement" on local streets is deliberately discouraged by design.

The primary regional roadway providing mobility to residents and connecting the City of Sherwood with the surrounding area is Highway 99W, which is classified as a Principal Arterial. Highway 99W runs northeast-southwest through the northern half of the City and connects to the Portland Metropolitan Area to the northeast and Newberg, McMinnville, and other areas of Yamhill County to the southwest. Through Sherwood, Highway 99W has limited access, including five signalized intersections, which serve as the primary crossing locations between land uses on either side of the highway. There are only a few other accesses with local roads and private driveways, and these are all limited to right-in/right-out movements except Bookman Road.

The other major roadways within Sherwood (classified as Arterials) are the primary mobility routes that provide regional connections through Sherwood. These arterials include Tualatin-Sherwood Road (connecting to Tualatin), Roy Rogers Road (connecting to Beaverton), Oregon Street, Murdock Road, Sherwood Boulevard, Main Street, Sunset Boulevard, and Elwert Road.

Figure 9

Sherwood Roadway Functional Class

LEGEND

Functional Class

- Principal Arterial
- Arterial
- Collector
- Neighborhood
- Local
- Upcoming City Roadways
- Rail Line
- Town Center
- Sherwood West Area
- City Boundaries
- Urban Growth Boundary
- County Boundaries

Data Source:
Regional Land Information System (RLIS), Metro, July 2025

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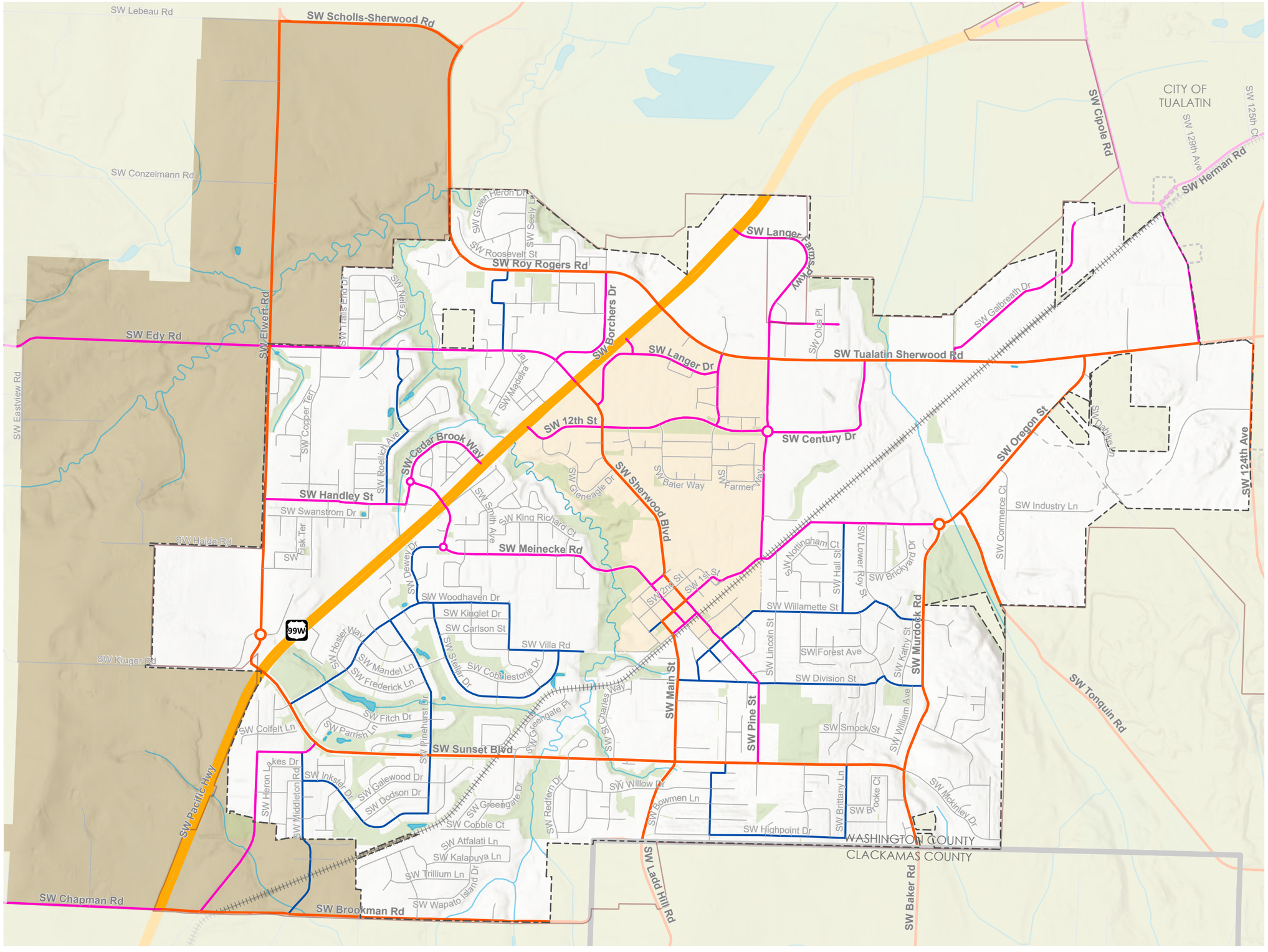

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System Connectivity

An evaluation of Sherwood's roadway system using Metro's Regional Transportation Functional Plan (RTFP) guidelines reveals several connectivity gaps that limit network efficiency, resiliency, and mobility options for all users. The standard stipulate that Arterial streets should be spaced approximately one mile apart, and collector streets approximately half a mile apart to provide a highly connected, resilient roadway network.
These gaps primarily affect the local street network and the integration of new developments with existing roadways.
The existing gaps are particularly in the eastern and western portions of the city. Cul-de-sacs, limited through streets, and large block patterns restrict connectivity and force local trips onto arterial roads, reducing network efficiency and increasing congestion.

- Tonquin Employment Area / West Industrial (SW Tonquin Rd, SW Cipole Rd): Wide spacing between collector streets creates large blocks and limited alternative routes. Limited alternatives for local trips force more vehicles onto SW Tualatin Sherwood Road, and SW Oregon Street.

Functional Class Comparison

In addition to functional classification in local TSPs, the Federal government establishes functional classifications of streets for the purpose of allocating Federal Aid funds to state and local governments and to specific projects. Figure 9 shows the functional classification of streets in Sherwood based on Figure 3 of the City's previous 2014 TSP. Streets that do not have a Functional Classification in the previous 2014 TSP are assumed to have a Local Street classification. Table 10 shows the roadways whose functional classifications in the City's previous 2014 TSP differs to the Federal functional classification as reported by ODOT.

Table 10. Functional Classifications Comparison of Streets by Jurisdiction

Roadway	Jurisdiction	City Functional Class	Federal Functional Class
SW Baker Rd	City	Arterial	Major Collector
SW Brookman Rd	City	Arterial	Major Collector
SW Ladd Hill Rd	City	Arterial	Major Collector
SW Lebeau Rd*	City	Arterial	-
SW Arrow St	City	Collector	-
SW Baler Way	City	Collector	-
SW Gerda Ln	City	Collector	-
SW Edy Rd (Elwert Rd to UGB) *	County	Collector	Minor Collector
SW Washington St (Willamette St to Tualatin Rd)	City	Neighborhood	-
SW Lincoln St	City	-	Minor Collector
SW Copper Terrace	City	-	Minor Collector

*Located in Sherwood West Expansion Area. Federal classifications from ODOT TransGIS (https://gisintra.odot.state.or.us/TransGIS). City classifications from the Sherwood Transportation System Plan (2014)

Roadway Characteristics

The City of Sherwood's roadway network consists of state, county, and city-maintained facilities that serve regional and local travel needs. This section summarizes existing roadway characteristics, including posted speed limits, traffic control devices, and pavement conditions, to describe how the network currently functions.

Posted Speed Limits

Speed limits normally correspond with the functional classification of the street. Streets with higher functional classifications (e.g. arterials and collectors) typically have higher speeds than streets with lower classifications (e.g. local streets). The posted street limits vary throughout the City with most local roadways having 25 MPH posted speed. Posted speed limits on arterial and collector streets in Sherwood include the following:

- **Pacific Highway 99W**: The speed limit on these facilities is 55 MPH, except where it is reduced to 45 MPH on OR 99W between the city limits.
- **SW Elwert Road & SW Edy Road**- The speed limit is 45 MPH
- **SW Tualatin Sherwood Road, SW Roy Rogers Road, SW Oregon Street, SW Murdock Road & SW Sunset Boulevard**: The speed limit is 35 MPH.

Traffic Control

As shown in Figure 10, there are seven signalized intersections in the study area, most of which are along OR 99W which is a state facility maintained by ODOT and SW Tualatin Sherwood Road which a county facility maintained by Washington County.

Across the rest of the City and at the TSP study intersections, most intersections are two-way stop-control, where the higher volume or higher classification street can travel freely through the intersection and the lower volume or lower classification street has a stop sign. The majority of the City's traffic signals are also on the arterial roadways, while roundabouts are located at various intersections around town. Old Town Sherwood has a large concentration of the City's all-way stops, and there are also a number of all-way stops on Sunset Boulevard.

Figure 10

Traffic Signals and AADT Volumes

LEGEND

- ## Posted Speed (MPH)
- Traffic Signals

Annual Avg Daily Traffic (AADT)

- Less than 2,500
- 2,500- 5,000
- 5,001- 10,000
- 10,001 - 15,000
- 15,001 - 20,000
- 20,001 - 25,000
- More than 25,000
- Highway
- Arterial
- Collector
- Local
- Upcoming City Roadways
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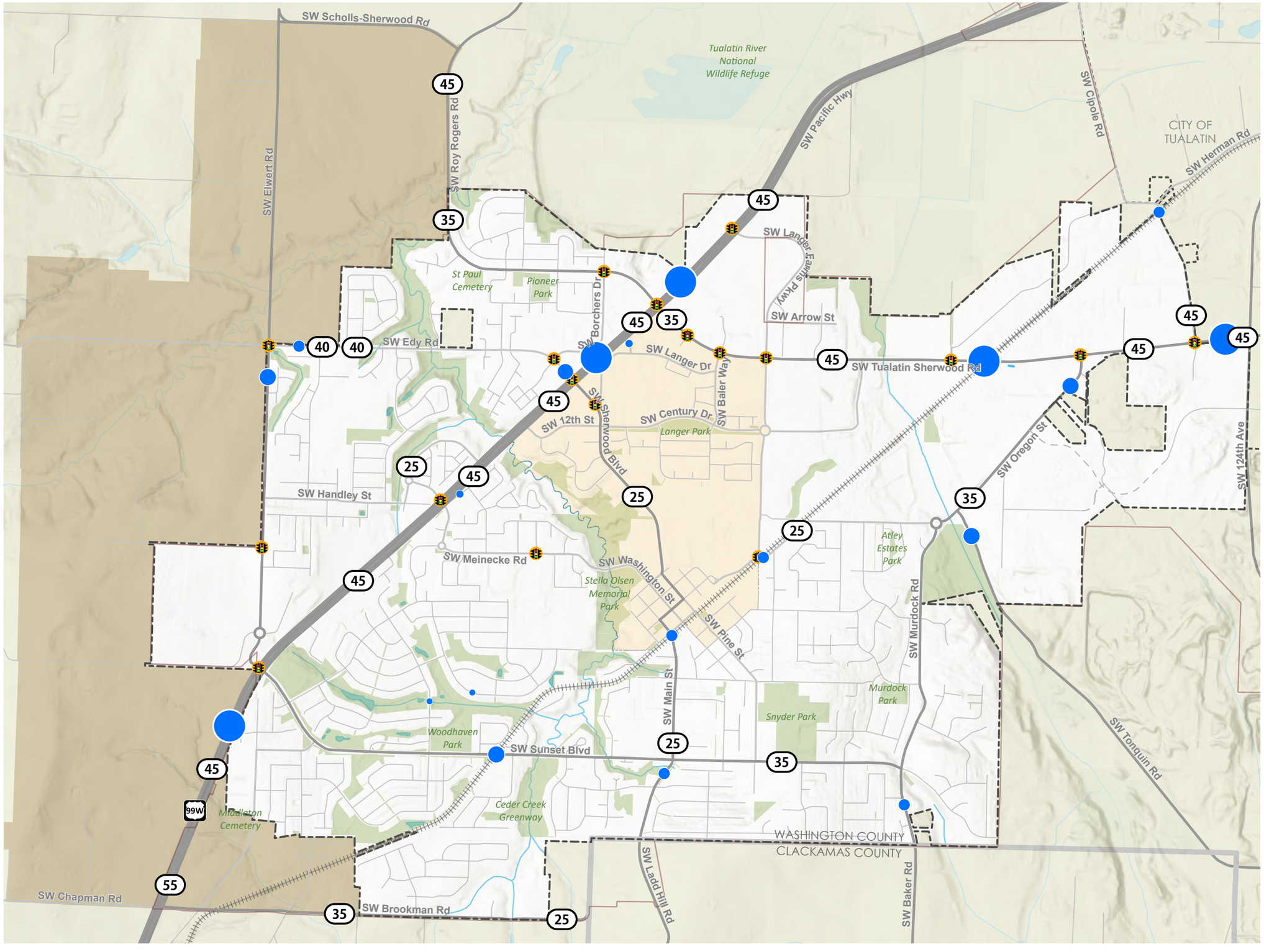
Data Sources:
ODOT TransGIS;
Washington County Traffic Engineering Plans, July 2025

City of Sherwood Oregon
Home of the Tualatin River National Wildlife Refuge

0 0.1 0.2 0.3 Miles



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Pavement Conditions

At the time of this draft, pavement condition data are available only for state-maintained facilities under ODOT jurisdiction. Pavement condition information for city-maintained roadways is not yet available and will be incorporated into this section when data become available for the final report.

Bridge Conditions

Bridges are critical elements in the transportation system for conveying vehicular and freight traffic across barriers in the road network, such as rivers, streams, ditches, etc. They are particularly vital for freight movement and the overall economy.

Sherwood's bridge network is in generally good condition and provides essential connectivity for vehicles and freight movement across streams and other natural barriers. The inventory includes seven bridges within the city limits, representing a mix of city, county, and state-owned structures. Figure 11 identifies the locations of the city's bridges and Table 11 provides a complete list of bridges as reported on the ODOT TransGIS.

Of the seven bridges identified within the city:

- Three bridges are included in the National Bridge Inventory System (NBIS) and are inspected biennially in accordance with federal standards.
- Two structures are classified as culverts, which typically serve smaller water crossings and are not eligible for NBIS inspection.
- Two bridges fall outside NBIS classification but remain important components of the city's roadway network.
- There are no bridges with posted load limits or weight restrictions within the study area.

Bridge inspectors evaluate these bridges once every two years to rate them based on multiple criteria and assign them with a score referred to as a 'sufficiency rating.' This rating is a numeric evaluation of a bridge's sufficiency to remain in service. Sufficiency ratings range from zero to 100, with zero being entirely insufficient and 100 being entirely sufficient. The sufficiency rating considers structural adequacy, serviceability, functional obsolescence, importance for public use, eligibility for federal replacement funds, and a few lesser factors. Bridges receiving a low score are posted to restrict allowable maximum vehicle weight, rehabilitated, or replaced, depending on the reason for the low score.

A bridge with a sufficiency rating below 50 indicates that the bridge is in poor condition and is eligible for replacement. Bridges rated between 50 and 80 indicate that the bridge is in fair condition, and that rehabilitation, if cost-effective, will bring the bridge up to current standards. Bridges with sufficiency ratings above 80 may have specific elements that do not meet current minimum standards but overall are in good or adequate condition and are not eligible for federal funding.

Inspection data indicate that Sherwood's bridges are overall in good to fair condition. Two bridges, the Cedar Creek Bridge on SW Washington Street and the Chicken Creek Bridge on Roy Rogers Road, have sufficiency ratings above 80, signifying good structural integrity and adequate functionality. Two other bridges, the Rock Creek Bridge on SW Tualatin–Sherwood Road and the Cedar Creek Bridge on Highway 99W, have ratings between 50 and 80, indicating fair condition and the potential need for maintenance or rehabilitation in the future. There are

currently no bridges within the city that have sufficiency ratings below 50, and none are subject to load restrictions or weight postings, suggesting that all bridges are capable of safely carrying legal vehicle loads.

Figure 11

Bridge and Pavement Conditions

LEGEND

- Weight Restricted Bridges

Bridge Condition

- Good
- Fair

Pavement Conditions

- Good
- Fair
- Poor
- Arterial
- Collector
- Local
- Upcoming City Roadways
- Rail Line
- Town Center
- Sherwood West Area
- City Boundaries
- Urban Growth Boundary
- County Boundaries

Data Source: ODOT TransGIS, July 2025

City of Sherwood Oregon
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0 0.1 0.2 0.3 Miles

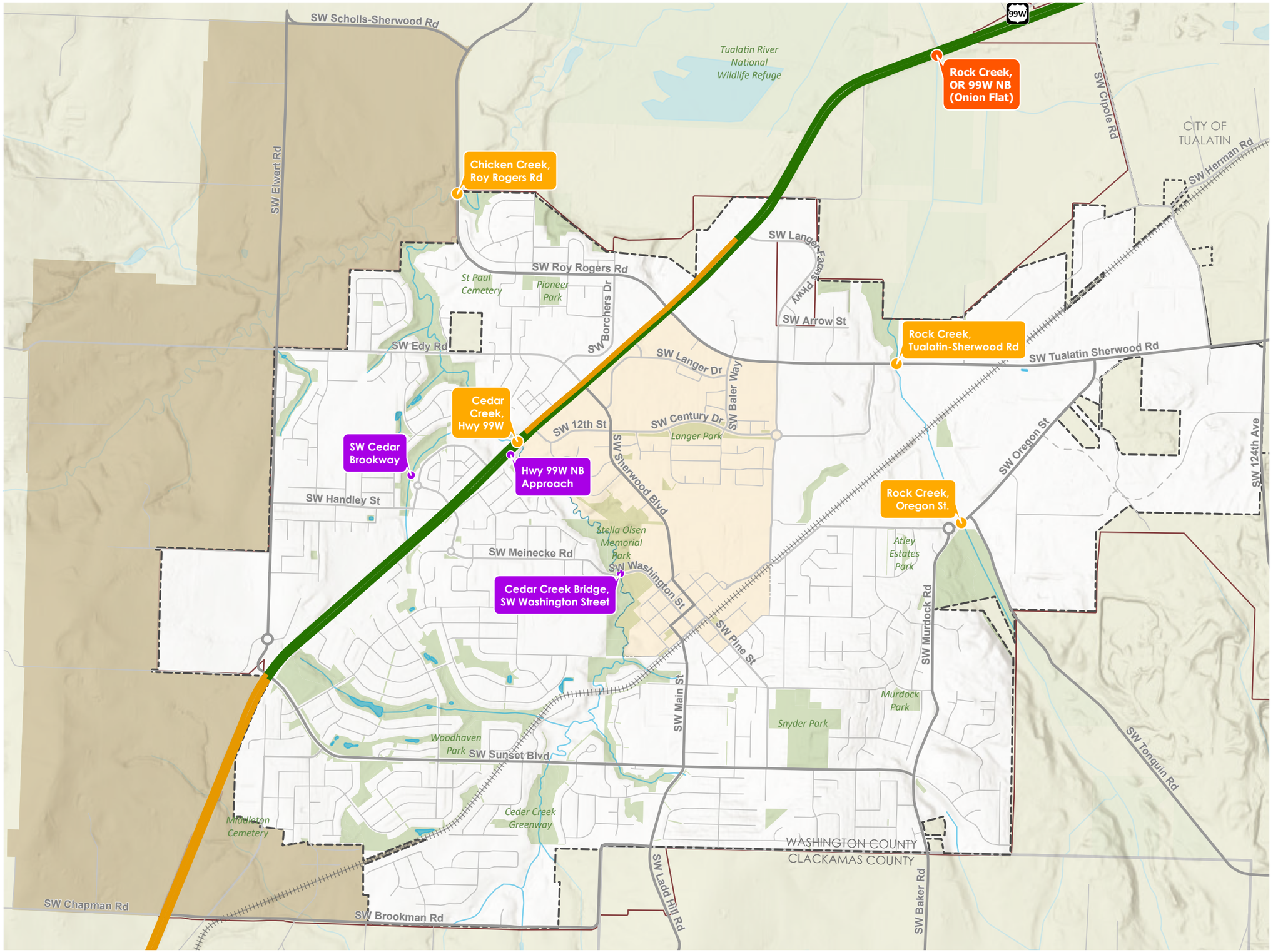

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Table 11. List of Bridges in Sherwood

Bridge ID	Name	Crosses	Design	Owner	NBI Bridge	Posting	Sufficiency Rating	Year	Bridge Condition	Road Use
20808	Cedar Creek Bridge - SW Washington Street	Cedar Creek	Tee Beam	City	Yes	Open, no restriction	98	2008	Good	Highway
24012	Rock Creek Bridge – SW Tualatin-Sherwood Rd	Rock Creek	Culvert	County Hwy Agency	Yes	Posting Recommended	53.6	1990	Fair	Highway-pedestrian
19032	Chicken Creek Bridge - Roy Rogers Rd	Chicken Creek	Stringer/ Girder	County Hwy Agency	Yes	Open, no restriction	92.8	2000	Fair	Highway-pedestrian

Bridge ID	Name	Crosses	Design	Owner	NBI Bridge	Posting	Sufficiency Rating	Year	Bridge Condition	Road Use
21832	OR 99W Bridge	Hwy 091 (OR 99W)	Other	State Highway Agency	No	Open, no restriction	N/A	2018	Good	Other
01417A	Cedar Creek Bridge - Hwy 99W	Cedar Creek	Culvert	State Highway Agency	No	Open, no restriction	70.1	1929	Fair	Highway
-	Pedestrian Bridge[1]	Cedarbrook way	-	City	No	-	-	-	Good	-

Source: ODOT TransGIS, City of Sherwood

[1] As per information provided by Sherwood City staff.

Existing Traffic Operations

As identified in Figure 12, there are a total of 15 study intersections located along state and local facilities, including seven signalized intersections (intersections 1, 2, 3, 4, 5, 12 and 15) and eight unsignalized intersections. The study intersections for the Sherwood TSP update were determined based on direction provided by the City in coordination with ODOT.

- State Intersections
  - OR 99W at SW Langer Farms Parkway
  - OR 99W at Tualatin-Sherwood Road
  - OR 99W at SW Edy Road/SW Sherwood Boulevard
  - OR 99W at SW Meinecke Parkway
  - OR 99W at SW Elwert Road/SW Sunset Boulevard
  - OR 99W at SW Chapman Road/SW Brookman Road
- City intersection
  - SW Timbrel Lane at SW Sunset Boulevard
  - SW Pinehurst Drive at SW Sunset Boulevard
  - SW Main Street/SW Ladd Hill Road at Sunset Boulevard
  - SW Murdock Road/SW Baker Road at SW Sunset Boulevard /SW McKinley Drive
  - SW Oregon Street at SW Tonquin Road
  - SW Oregon Street at SW Tualatin-Sherwood Road
  - SW Sherwood Boulevard at SW 12th Street/SW Century Drive
  - SW Pine Street at SW 1st Street
  - SW Langer Farms Parkway at SW Oregon Street

Turning movement counts were conducted at the study intersections in May 2025. The counts were conducted on a typical mid-weekday when schools were in session. All the counts were conducted over a 16-hour period (6:00 AM to 10:00 PM) and include the total number of pedestrians, bicyclists, and motor vehicles that entered the intersections in 15-minute intervals. The traffic count worksheets are provided in Appendix E. The traffic counts were collected by Quality Counts, LLC.

The analysis utilized the system-wide peak hour for evaluating traffic operations across the study intersections. Using a consistent system peak hour ensures comparability of results and reflects overall network performance during the highest demand period.

Figure 13 summarizes the traffic operations at all the study intersections with their respective lane configurations.

Figure 12

Study Intersections

LEGEND

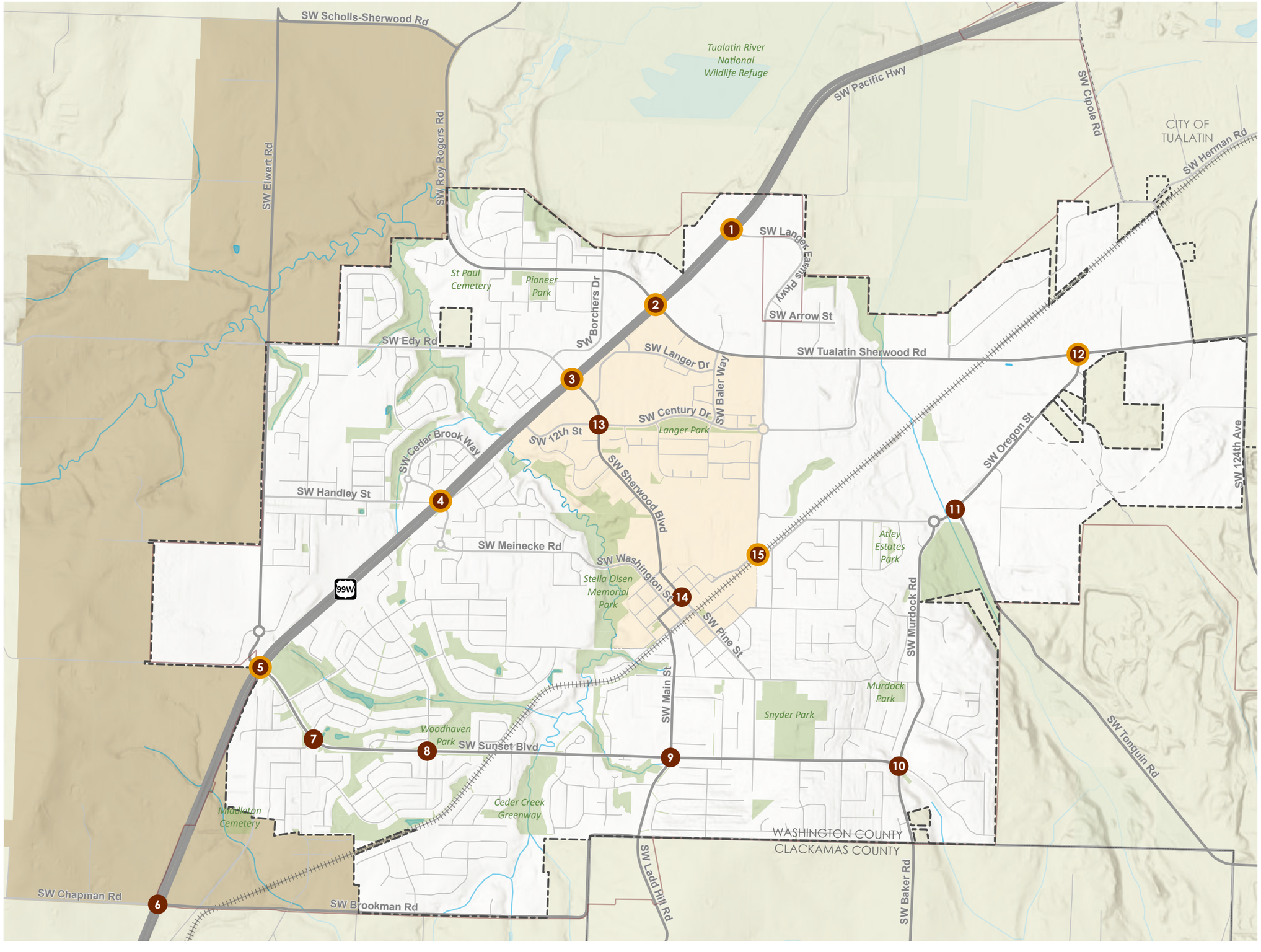
Study Intersections

- Signalized
- Unsignalized
- Highway
- Arterial
- Collector
- Local
- Upcoming City Roadways
- Rail Line
- Town Center
- Sherwood West Area
- City Boundaries
- Urban Growth Boundary
- County Boundaries

Data Source: City of Sherwood, July 2025

City of Sherwood Oregon
House of the Tualatin River National Wildlife Refuge

0 0.1 0.2 0.3 Miles



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Intersection Operations

The analysis identifies how the study intersections operate under existing traffic conditions during the weekday PM peak hour.

The intersection operations analysis was conducted using Vistro 2024, which is a software tool designed to assist with operations analyses in accordance with Highway Capacity Manual (HCM) methodologies. The analysis results include level of service (LOS), and volume-to-capacity (v/c) ratios at all intersections, regardless of jurisdiction. The LOS and v/c ratios are reported for the overall intersection at signalized intersections and the critical movement at unsignalized intersections in accordance with the methodologies outlined in ODOT's Analysis Procedures Manual (APM).

Table 12 and Figure 13 below summarize the results of the intersection operations analysis and compare the results to the applicable mobility standards and targets identified. Detailed VISTRO worksheets are provided in Appendix F.

Table 12. Existing Intersection Operations, Weekday PM Peak Hour

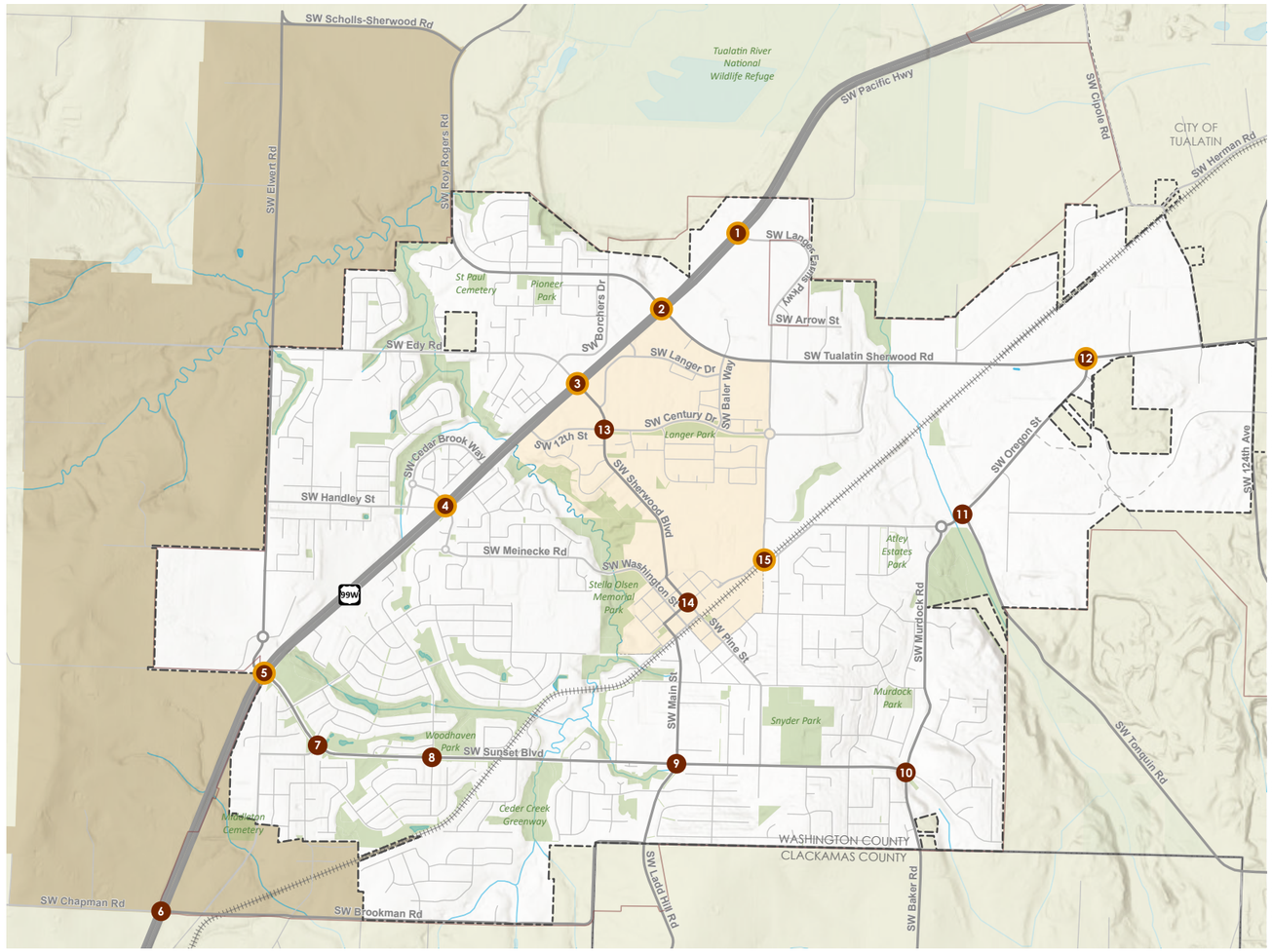
Map ID	Intersection	Control Type	ODOT Mobility Standard/ Target[3]	Intersection Operations		
				CM / CA	LOS	V/C
1	OR 99W at SW Langer Farms Parkway	Signalized	V/C = 0.99/ 0.99	-	B	0.71
2	OR 99W at Tualatin-Sherwood Road	Signalized	V/C = 0.99/ 0.99	-	D	0.80
3	OR 99W at SW Edy Road/SW Sherwood Boulevard	Signalized	V/C = 1.1/ 0.99	-	D	0.75
4	OR 99W at SW Meinecke Parkway	Signalized	V/C = 0.99/ 0.99	-	E	0.60
5	OR 99W at SW Elwert Road/SW Sunset Boulevard	Signalized	V/C = 0.99/ 0.99	-	E	1.08
6	OR 99W at SW Chapman Road/SW Brookman Road	TWSC[1]	V/C = 0.99/ 0.99	EB	F	1.27
7	SW Timbrel Lane at SW Sunset Boulevard	TWSC	V/C = 0.9 / LOS E	NBL	C	0.21
8	SW Pinehurst Drive at SW Sunset Boulevard	AWSC[2]	V/C = 0.85 / LOS D	WB	B	0.69
9	SW Main Street/SW Ladd Hill Road at Sunset Boulevard	AWSC	V/C = 0.85 / LOS D	WB	D	0.76

Map ID	Intersection	Control Type	ODOT Mobility Standard/ Target[3]	Intersection Operations		
				CM / CA	LOS	V/C
10	SW Murdock Road/SW Baker Road at SW Sunset Boulevard /SW McKinley Drive	AWSC	V/C = 0.85 / LOS D	NBL	C	0.64
11	SW Oregon Street at SW Tonquin Road	TWSC	V/C = 0.9 / LOS E	WBL	F	0.95
12	SW Oregon Street at SW Tualatin-Sherwood Road	Signalized	V/C = 0.85 / LOS D	-	B	0.57
13	SW Sherwood Boulevard at SW 12th Street/SW Century Drive	TWSC	V/C = 0.9 / LOS E	SB	C	0.72
14	SW Pine Street at SW 1st Street	AWSC	V/C = 0.9 / LOS E	WB	C	0.61
15	SW Langer Farms Parkway at SW Oregon Street	Signalized	V/C = 0.85 / LOS D	-	A	0.42

[1] TWSC = Two-way stop-control
[2] AWSC = All-way stop-control
[3] State Highway V/C Ratio / Side-Street V/C Ratio
CM = Critical movement; CA = Critical approach.
LOS = Intersection Level of Service (Signal); CM Level of Service (TWSC).
Delay = Intersection average vehicle delay (Signal); CM vehicle delay (TWSC).
v/c = Intersection v/c (Signal); CM v/c (TWSC).

Figure 13

2025 Existing Traffic Conditions - PM Peak Hour



LEGEND

Study Intersections

- Signalized
- Unsignalized
- Rail Line
- Town Center

- Sherwood West Area
- City Boundaries
- Urban Growth Boundary
- County Boundaries

CM = Critical Movement (AWSC/TWSC)
LOS = Critical Movement/ Intersection Level of Service
V/C = Critical Volume-to-Capacity ratio
Del = Critical Movement/ Intersection Control Delay
TWSC = Two-Way Stop Control
AWSC = All-Way Stop Control

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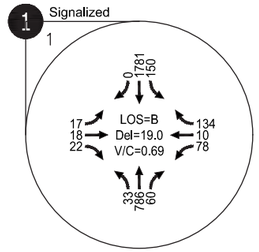
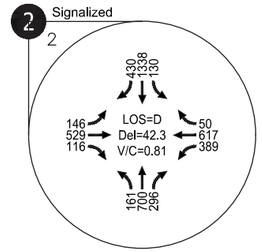
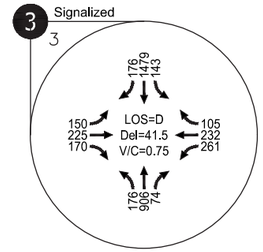
OR 99W / SW Langer Farms Pkwy



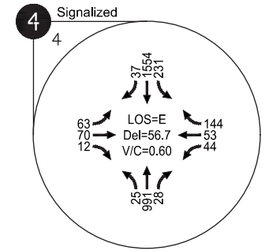
OR 99W / SW Roy Rogers Rd – SW Tualatin–Sherwood Rd



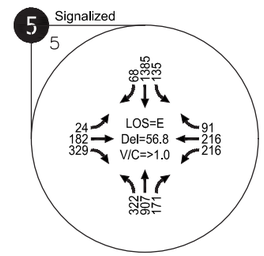
OR 99W / SW Edy Rd – SW Sherwood Blvd



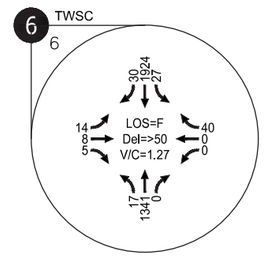
OR 99W / SW Meinecke Pkwy



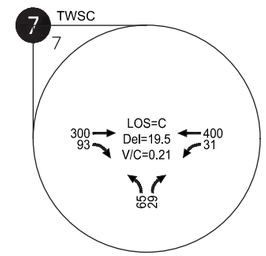
OR 99W / SW Elwert Rd.– SW Sunset Blvd



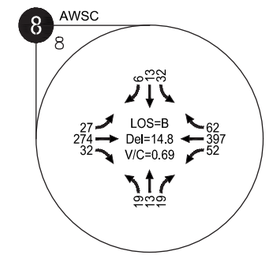
OR 99W / SW Chapman Rd – SW Brookman Rd



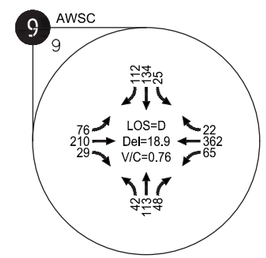
SW Sunset Blvd / SW Timbrel Ln



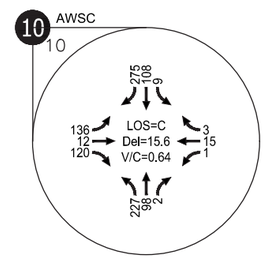
SW Pinehurst Dr / SW Sunset Blvd



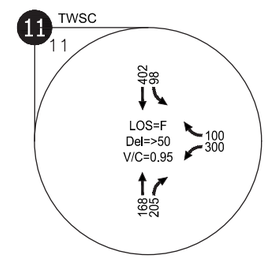
SW Main St – SW Ladd Hill Rd / SW Sunset Blvd



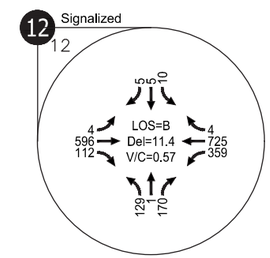
SW Murdock Rd–SW Baker Rd / SW Sunset Blvd–McKinley Dr



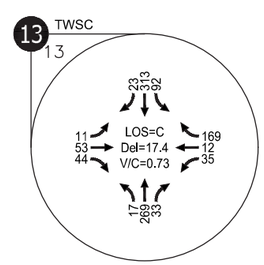
SW Oregon St / SW Tonquin Rd



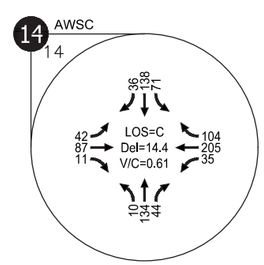
SW Oregon St / SW Tualatin–Sherwood Rd



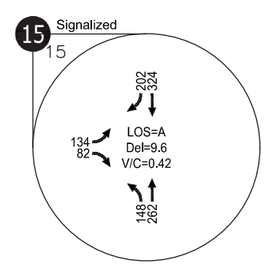
SW Sherwood Blvd / SW 12th St–SW Century Dr



SW 1st St / SW Pine St



SW Langer Farms Pkwy / SW Oregon St



Roadway Inventory Analysis Summary

The roadway network within Sherwood consists of facilities owned and maintained by ODOT, Washington County, and the City of Sherwood, with OR 99W serving as the principal regional corridor. The system includes a hierarchy of principal arterials, arterials, collectors, neighborhood routes, and local streets that together provide mobility and access for regional and local travel needs. While the arterial and collector network generally supports efficient circulation, several connectivity gaps—particularly in the eastern and western portions of the city—limit direct local travel options and increase reliance on major corridors such as OR 99W, Tualatin-Sherwood Road, and Roy Rogers Road.

Posted speed limits, traffic control types, and pavement conditions are consistent with functional classifications, though most intersections along major routes are signalized or two-way stop controlled. The city's bridge infrastructure is in overall good to fair condition, with no posted load restrictions and only minor maintenance needs identified for select county and state structures.

Existing traffic operations indicate that most intersections operate within acceptable mobility standards, with localized congestion observed along OR 99W and select side-street approaches during peak hours. Overall, Sherwood's roadway network provides a functional and well-maintained foundation for current travel demand but will require targeted improvements to address connectivity gaps, localized congestion, and future growth in the Sherwood West and Tonquin areas.

Safety Analysis

The safety analysis evaluates crash history and contributing factors to identify locations with elevated safety risks for all travel modes, including vehicles, pedestrians, and bicyclists. Crash data was obtained from ODOT's Crash Data Portal supplemented by Safety Priority Index System (SPIS) data for state and county facilities to identify trends and patterns that should be addressed in the TSP. The data includes the total number, type, and severity of crashes that occurred throughout the study area for the five-year period from January 1, 2019, through December 31, 2023 as shown in Figure 14 (see Appendix A for the complete crash data and data tables).

There were 894 reported crashes in the study area in 2019-2023 period, among which 810 (91%) were in the Sherwood city limits.

Crash Severity

Exhibit 1 shows the distribution of crashes in the study area by the highest severity. Three crashes resulted in fatalities and 26 resulted in serious injuries. Fatal and serious injury (FSI) crashes represent approximately 3% of all reported crashes in the study area and were observed across 19 locations. Eighteen of the FSI crashes occurred on City facilities, six on County facilities, and five on ODOT facilities, indicating that the majority of severe crashes took place on locally managed streets.

The highest concentration of FSI crashes occurred along OR 99W (five crashes), followed by SW Century Drive (three crashes) and several other arterial and collector roadways with two or fewer incidents. This spatial distribution underscores the need for a system-wide safety approach that addresses both regional corridors and neighborhood streets where serious crashes have occurred.

Exhibit 1. Crashes in study area by severity

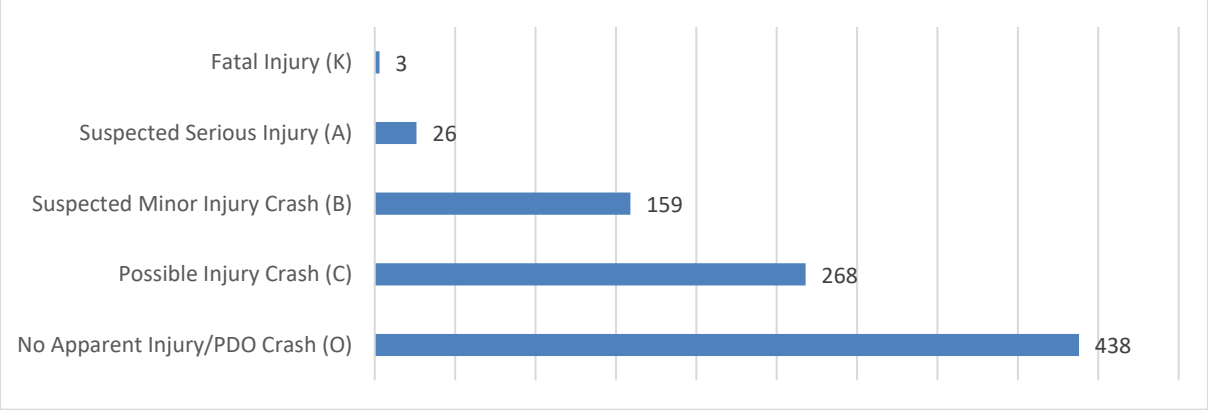


Figure 14

Fatal & Serious Injury Crashes 2019-2023

LEGEND

- Top 15% SPIS Sites (2023)

Pedestrian and Bicycle Crashes

- Fatal Injury (K)
- Suspected Serious Injury (A)

Motor Vehicle Crashes

- Fatal Injury (K)
- Suspected Serious Injury (A)
- Highway
- Arterial
- Collector
- Local
- Upcoming City Roadways
- Rail Line
- Town Center
- Sherwood West Area
- City Boundaries
- Urban Growth Boundary
- County Boundaries

Data Source: ODOT TransGIS, July 2025

City of Sherwood Oregon
Home of the Tualatin River National Wildlife Refuge

0 0.1 0.2 0.3 Miles

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Crash Types

Crash type, as defined by CARU, identifies the first harmful event while collision type identifies the first impact. Table 13 lists the collision type by year and the top five collision types are described in the list below.

- Across the five-year period, rear-end collisions consistently represented the highest proportion of crashes, at 47.5%, followed by turning movement crashes, angle collisions, and fixed object or other object collisions.
- Other types of crashes, including backing, pedestrian, miscellaneous, and non-collision crashes, remained relatively low (less than 3%).
- Turning movements were the most prevalent cause of FSI crashes, followed by rear end, and angle.

Table 13. All Crashes by Collision Type

Crash Type[3]	All Crashes		FSI Crashes	
	Count	Percentage	Count	Percentage
Rear-End	425	47.5%	5	18.5%
Turning Movement	155	17.3%	10	37.0%
Fixed Object or Other Object	88	9.8%	1	3.7%
Angle	87	9.7%	4	14.8%
Sideswipe - Overtaking	52	5.8%	1	3.7%
Backing	22	2.5%	0	0.0%
Pedestrian	18	2.0%	2	7.4%
Sideswipe - Meeting	14	1.6%	0	0.0%
Miscellaneous	13	1.5%	0	0.0%
Head-On	11	1.2%	2	7.4%
Non-collision	6	0.7%	2	7.4%
Parking Maneuver	3	0.3%	0	0.0%

Source: ODOT TransGIS Safety – Crashes 2019-23

Safety Priority Index System

The Safety Priority Index System (SPIS) was developed by ODOT to identify sites along state and local roads where potential safety issues warrant further investigation. SPIS compares the total number of crashes reported on city streets, county roads, and state highways and generates a list of sites (intersections and roadway segments) with calculated SPIS scores. The scores are based on crash frequency, crash rate, and crash severity. SPIS sites with scores in the top five percent are investigated by ODOT staff and reported to the Federal Highway Administration (FHWA).

Table 14. Top 15% SPIS locations in ODOT 2023 SPIS report

Road	Cross Road	Type*	Study Int ID	ADT	SPIS %	Score	Crashes	Fatalities
OR 99W	Sunset Blvd/ Elwert Rd	4SG	5	38,071	95	72.81	27	0
OR 99W	Tualatin Sherwood Road/ Roy Rogers Rd	4SG	2	23,309	95	55.91	14	0
OR 99W	Sherwood Blvd/ Edy Rd	4SG	3	34,608	90	51.09	13	0
SW Edy Rd	SW Trailblazer Pl	3ST	-	2,690	90	45.04	2	1
OR 99W	Meinecke Rd/ Cedar Brook Wy	4SG	4	34,608	85	44.03	9	0
SW Oregon St	SW Langer Farms Pkwy	3SG	15	4,199	85	43.15	2	1
SW Galbreath Dr	Gerda ln	3ST	-	1,851	85	42.79	4	0
SW Sherwood Blvd	Between 12th St and SW Century Dr	N/A	-	14,774	85	41.35	7	0
SW Langer Farms Pkwy	Tualatin Sherwood Road	4SG	-	3,492	85	40.45	4	0

Source: ODOT TransGIS Safety – Crashes 2019-23

*__3ST__=three leg intersection with stop controlled minor street, __4ST__=four leg intersection with stop controlled minor streets, __4SG__=four leg intersection controlled by a signal, __ADT__=Average daily Traffic Volume

There are several SPIS sites in the study area, as shown in Figure 14 (see Appendix B). Table 14 above lists locations that are identified as a top five and fifteen percent of all one-tenth mile segment for all state or non-state facilities for analysis years 2020, 2021 and 2022. Of the nine SPIS site locations, five are at study intersections.

Washington County Safety Priority Index System (SPIS) list includes intersections where Washington County has jurisdiction of at least one approach. Intersections with private road approaches are included and crashes are compiled at and up to 265 feet in each direction from the intersection. The following locations appear in the 2021- 2023 Washington County SPIS list:

OR 99W And Roy Rogers Rd / Tualatin - Sherwood Rd

Cipole Rd And Tualatin - Sherwood Rd

Elwert Rd / Sunset Blvd and OR 99W

Oregon St/ Tualatin-Sherwood Rd

Langer Farms Pkwy and Tualatin-Sherwood Rd

Edy Rd And Elwert Rd

Gerda Ln And Tualatin-Sherwood Rd

Elwert Rd And Haide Rd

Pedestrian & Bicycle involved Crashes

26 crashes in the study area involved vulnerable road users (VRUs) which includes people walking or bicycling, resulting in 3 pedestrian fatalities, 18 pedestrian injuries, and 5 bicycle injuries. These crashes represent a critical component of the city's overall safety profile, as even a small number of VRU crashes typically indicate disproportionately severe outcomes due to the lack of physical protection for these users.

Pedestrian-involved crashes occurred at 13 unique locations, with the highest concentrations observed along the following locations:

- SW Langer Farms Parkway (1 fatality and 4 injuries),
- SW Trailblazer Place (2 fatalities), and
- North Sherwood Boulevard (2 injuries).
- SW Edy Road, SW Elwert Road, SW Haide Road, SW Lincoln Street, SW Main Street, SW Pacific Highway (OR 99W), SW Pine Street, SW Pinehurst Drive, and SW Upper Roy Street, each reporting one injury crash.

These patterns suggest that pedestrian crashes are not isolated to a single corridor but are instead dispersed across a range of local and arterial streets, highlighting the need for systemic pedestrian safety improvements across the network.

Analysis of contributing factors indicates that failure to yield right-of-way was the leading cause, contributing to 1 pedestrian fatality and 10 pedestrian injuries. Other factors included non-motorist illegally in roadway (3 crashes), inattention (2 crashes), and driver fatigue (2 fatalities). Single incidents were attributed to disregarding traffic signals, passing a stop sign or red flasher, and view obscured.

Bicycle-involved crashes were less frequent, totaling five injury crashes and occurring at five separate locations:

- NW Gleneagle Drive,
- SW 124th Avenue,
- SW Century Drive,
- SW Gerda Lane, and
- SW Langer Drive.

Although no bicycle fatalities were reported, these injury crashes indicate exposure risks on both neighborhood and collector facilities.

Contributing factors included failure to yield right-of-way (2 crashes), careless driving (1 crash), disregarding a traffic signal (1 crash), and traveling too fast for conditions (1 crash).

Pedestrian and bicycle crashes are concentrated in areas with higher multimodal activity and mixed land uses, such as SW Langer Farms Parkway and SW Trailblazer Place, and along major corridors like OR 99W.

Intersection Crash Analysis

The intersection crash analysis includes an evaluation of intersection crash rates, critical crash rates, and excess proportion of specific crash types to identify the locations where existing safety issues may exist and may require mitigation.

Over-represented crash types were identified through the Highway Safety Manual Part B screening critical crash rate (CCR), and excess proportion of specific crash types (EP) methodologies[2]. The critical crash rate method calculates a statistical threshold to compare against observed crash rates (OCR) at a location to a group of similar locations known as reference populations—minimum of five sites for CCR and EP analysis, and two crashes per for EP analysis. Excess proportion suggests the likelihood that a site will benefit from countermeasures targeted at the collision type under consideration.

Crashes at Study Intersections

Among the 894 reported crashes 316 crashes were reported within 250 feet of the study intersections. Fatal and serious injury crashes made up 2.53% of all the crashes at study intersections. 43.3% were PDO crashes, 34.5% were possible injury crashes and 19.6% were minor injury crashes. Table 15 summarizes the crash type and severity for all reported crashes at the study intersections.

Table 15. Intersection Crashes by Severity

Intersection		Fatal Injury (K)	Suspected Serious Injury (A)	Suspected Minor Injury Crash (B)	Possible Injury Crash (C)	No Apparent Injury/ PDO Crash (O)	Total
1	OR 99W and SW Langer Farms Pkwy	-	-	5	6	14	25
2	OR 99W and SW Tualatin-Sherwood Rd	-	2	12	24	25	63
3	OR 99W and SW Edy Rd/SW Sherwood Blvd	-	-	7	16	10	33
4	OR 99W and SW Meinecke Pkwy	-	1	5	10	14	30

[2] Highway Safety Manual (HSM) 2010 4-52

Intersection		Fatal Injury (K)	Suspected Serious Injury (A)	Suspected Minor Injury Crash (B)	Possible Injury Crash (C)	No Apparent Injury/ PDO Crash (O)	Total
5	OR 99W and SW Elwert Rd/SW Sunset Blvd	-	1	13	23	25	62
6	OR 99W and SW Chapman Rd/SW Brookman Rd	-	-	5	4	6	15
7	SW Timbrel Ln and SW Sunset Blvd	-	-	1	1	2	4
8	SW Pinehurst Dr and SW Sunset Blvd	-	-	2	-	1	3
9	SW Main St/SW Ladd Hill Rd and Sunset Blvd	-	-	3	-	-	3
10	SW Murdock Rd/SW Baker Rd and SW Sunset Blvd/SW McKinley Dr	-	1	1		2	4
10	SW Oregon St and SW Tonquin Rd	-	-	-	2	3	5
12	SW Oregon St and SW Tualatin-Sherwood Rd	-	-	5	17	20	42
13	SW Sherwood Blvd and SW 12th St/SW Century Dr	-	1	3	5	8	17
14	SW Pine St and SW 1st St	-	-	-	1	4	5

Intersection		Fatal Injury (K)	Suspected Serious Injury (A)	Suspected Minor Injury Crash (B)	Possible Injury Crash (C)	No Apparent Injury/ PDO Crash (O)	Total
15	SW Langer Farms Pkwy and SW Oregon St	1	1	-	-	3	5

Intersection Crash Rates

Intersection crash rates were developed for the study intersections based on the total number of reported crashes per million entering vehicles (MEV) at the study intersections over the five-year period. Intersection crash rates were compared to the 90th percentile crash rates by type and/or critical crash rates per reference populations when applicable. Table 16 summarizes the total number of crashes reported at the study intersections over the five-year period, the intersection crash rates, and the corresponding 90th percentile crash rates as identified in the APM.

As shown in Table 16, two of the study intersection crash rates exceed the 90th percentile crash rates by type.

Table 16. Intersection Crash Rates

Int ID	Intersection	Total Crashes	Intersection Crash Rate	Intersection Population Type	90th Percentile Crash rate	Exceeds 90th Percentile Rate?
1	OR 99W and SW Langer Farms Pkwy	25	0.441	Urban 3SG	0.509	No
2	OR 99W and SW Tualatin-Sherwood Rd	63	0.704	Urban 4SG	0.860	No
3	OR 99W and SW Edy Rd/SW Sherwood Blvd	33	0.441	Urban 4SG	0.860	No
4	OR 99W and SW Meinecke Pkwy	30	0.505	Urban 4SG	0.860	No
5	OR 99W and	62	0.840	Urban 4SG	0.860	No

	SW Elwert Rd/SW Sunset Blvd					
6	OR 99W and SW Chapman Rd/SW Brookman Rd	15	0.237	Urban 4ST	0.408	No
7	SW Timbrel Ln and SW Sunset Blvd	4	0.239	Urban 3ST	0.293	No
8	SW Pinehurst Dr and SW Sunset Blvd	3	0.174	Urban 4ST	0.408	No
9	SW Main St/SW Ladd Hill Rd and Sunset Blvd	3	0.133	Urban 4ST	0.408	No
10	SW Murdock Rd/SW Baker Rd and SW Sunset Blvd/SW McKinley Dr	4	0.218	Urban 4ST	0.408	No
11	SW Oregon St and SW Tonquin Rd	5	0.215	Urban 3ST	0.293	No
12	SW Oregon St and SW Tualatin-Sherwood Rd	**42**	**1.086**	Urban 3SG	0.509	**Yes**
13	SW Sherwood Blvd and SW 12th St/SW Century Dr	17	0.870	Urban 4ST	0.408	No
14	SW Pine St and SW 1st St	5	0.299	Urban 4ST	0.408	No
15	SW Langer Farms Pkwy and SW Oregon St	5	0.238	Urban 3SG	0.509	No

Source: Appendix A

Critical Crash Rates

Per the APM, a critical crash rate analysis requires five or more intersection types to create a reference population. For Sherwood, six study intersections that have four-way stop control, the intersection type that meets this threshold. Table 17 below shows the intersection and critical crash rates. As shown, the intersection crash rates exceed their corresponding critical crash rates for only one of the study intersection - SW Sherwood Blvd and SW 12th St/SW Century Dr. Appendix C contains the critical crash rate analysis worksheet.

Table 17. Intersections Flagged for Critical Crash Rate (CCR)

Int ID	Intersection	Total Crashes	Intersection Crash Rate	Critical Crash Rate	Over Critical Crash Rate
6	OR 99W And SW Chapman Rd/SW Brookman Rd	15	0.237	0.418	Under
8	SW Pinehurst Dr And SW Sunset Blvd	3	0.174	0.543	Under
9	SW Main St/SW Ladd Hill Rd And Sunset Blvd	3	0.133	0.509	Under
10	SW Murdock Rd/SW Baker Rd And SW Sunset Blvd/SW McKinley Dr	4	0.218	0.534	Under
13	SW Sherwood Blvd And SW 12th St/SW Century Dr	**17**	**0.870**	**0.526**	**Over**
14	SW Pine St And SW 1st St	5	0.299	0.547	Under

Source: Appendix A

Excess Proportion of Specific Crash Types

The Excess Proportion of Specific Crash Types analysis method quantifies the extent to which a specific crash type is overrepresented at an intersection when compared to the average representation within a reference population (five or more intersections with the same configuration). The analysis method does not consider the overall frequency or rate of crashes; instead, it considers only the types of crashes observed. It is useful for identifying locations that may benefit from targeted countermeasures. The APM requires a minimum of five sites, where at least two of those sites have two or more crashes. Five of the study intersections were flagged for excess proportion as shown in Table 18.

Table 18. Study Intersections Flagged for Excess Proportion of Specific Crash Types (EP)

Int ID	Street 1	Street 2	Ref Pop	Probability (Excess Proportion)			
				Angle	SS-O	Turn	Rear
2	OR 99W	SW Tualatin-Sherwood Rd	4SG	0.08	0.06	-	-
5	OR 99W	SW Elwert Rd/ SW Sunset Blvd	4SG	-	-	-	0.10
6	OR 99W	SW Chapman Rd/ SW Brookman Rd	4ST	0.16	-	0.10	-
9	SW Main St/ SW Ladd Hill Rd	Sunset Blvd	4ST	-	-	0.50	-
10	SW Murdock Rd/ SW Baker Rd	SW Sunset Blvd/ SW McKinley Dr	4ST	-	-	-	0.58

Source: Appendix A

The Excess Proportion (EP) analysis identified several intersections where specific crash types were overrepresented relative to their reference populations, indicating potential opportunities for targeted safety improvements. The most frequently overrepresented crash types included rear-end, angle, and turning (same/opposite direction) collisions.

Rear-end crashes were overrepresented at OR 99W & SW Elwert Rd/SW Sunset Blvd and SW Murdock Rd/SW Baker Rd & SW Sunset Blvd/SW McKinley Dr. These crash types are often indicative of congestion, insufficient signal timing, limited sight distance, or inadequate driver expectancy.

Angle crashes were overrepresented at OR 99W & SW Tualatin-Sherwood Rd and SW Chapman Rd/SW Brookman Rd, while turning crashes were elevated at SW Main St/SW Ladd Hill Rd & Sunset Blvd and SW Chapman Rd/SW Brookman Rd. These patterns suggest issues with sight distance, intersection geometry, or driver confusion at complex approaches.

Safety Analysis Summary

All the flagged locations identified in this report are considered safety issue areas and should be further investigated and countermeasures identified. See Appendix D for the complete CCR and EP analysis results. Table 19 highlights the study intersections with the flagged, safety concerns.

Table 19. Locations with safety concerns

Location	Study Int ID	Analysis Type(s) Flagged
OR 99W And SW Tualatin-Sherwood Rd	2	Excess Proportion, 95th percentile in 2023 ODOT & present in Washington County SPIS list
OR 99W And SW Edy Rd/SW Sherwood Blvd	3	90th percentile in ODOT SPIS list
OR 99W And SW Meinecke Pkwy	4	85th percentile in 2023 SPIS list
OR 99W And SW Elwert Rd/SW Sunset Blvd	5	Excess Proportion, 95th percentile in 2023 ODOT & present in Washington County SPIS list
OR 99W And SW Chapman Rd/SW Brookman Rd	6	Excess Proportion
SW Main St/SW Ladd Hill Rd and Sunset Blvd	9	Excess Proportion
SW Murdock Rd/SW Baker Rd and SW Sunset Blvd/SW McKinley Dr	10	Excess Proportion
SW Oregon St And SW Tualatin-Sherwood Rd	12	Observed Crash Rate greater that 90th percentile Crash Rate, present in 2023 Washington County SPIS list
SW Sherwood Blvd And SW 12th St/SW Century Dr	13	Observed Crash Rate greater that Critical Crash Rate
SW Langer Farms Pkwy And SW Oregon St	15	85th percentile in 2023 ODOT & present in Washington County SPIS list
Cipole Rd And SW Tualatin – SW Sherwood Rd	-	present in Washington County SPIS list

Location	Study Int ID	Analysis Type(s) Flagged
Edy Rd And SW Elwert Rd	-	present in Washington County SPIS list
Gerda Ln And SW Tualatin-Sherwood Rd	-	present in Washington County SPIS list, bicycle involved crash
Elwert Rd And Haide Rd	-	present in Washington County SPIS list
SW Langer Farms Parkway	-	Multiple pedestrian-involved crashes
North Sherwood Boulevard	-	Multiple pedestrian-involved crashes

The most common overrepresented crash patterns across these locations include rear-end, angle, turning movement, and sideswipe – overtaking collisions. Notably, intersections along Pacific Highway 99W, including SW Tualatin-Sherwood Road, SW Elwert Road/SW Sunset Boulevard, and SW Chapman Road/SW Brookman Road, were flagged for multiple safety concerns, indicating a higher likelihood of conflicts related to intersection geometry, turning movements, and signalized approaches. Other high-priority intersections include SW Sherwood Boulevard & SW 12th Street/SW Century Drive and SW Oregon Street & SW Tualatin-Sherwood Road, where crash rates exceed critical thresholds. Table 20 lists the potential countermeasure for identified safety issues in the study area.

Table 20. Potential countermeasures

Crash Pattern(s) Identified	Potential Countermeasures
Angle crashes	■ Evaluation of sight distance and intersection skew; consider geometric improvements or approach realignment where feasible. ■ Protected-only or protected-permissive left-turn phasing to reduce opposing conflicts. ■ Installation of enhanced pavement markings, retroreflective backplates, or intersection lighting to improve visibility and nighttime safety.

Crash Pattern(s) Identified	Potential Countermeasures
	▪ For minor-street approaches (e.g., SW Chapman Rd and SW Brookman Rd), evaluate the need for supplemental stop signs or advance warning signage.
Sideswipe – Overtake	• Improved Intersection Warning Signs and lighting
Rear-End crashes	• Review and optimization of signal timing and phasing, especially yellow and all-red clearance intervals. • Access management measures (e.g., driveway consolidation or restrictions) to reduce turning conflicts. • Installation of advance warning signs or flashing beacons where queues may extend into through lanes.
Turning Movement crashes	• Enhanced signage, pavement markings, and intersection lighting • Evaluate opportunities for pedestrian and bicycle safety improvements
Non-infrastructure countermeasures	• Monitoring traffic operations and implement access management strategies, including driveway consolidation or restrictions, to reduce turning conflicts. • Evaluating opportunities for pedestrian and bicycle safety improvements at locations with frequent vulnerable road user crashes, such as high-visibility crosswalks and advance warning signs.

Freight, Rail & Utilities Systems

Sherwood's transportation network supports not only everyday travel for residents and visitors but also the movement of goods and services that are vital to the local and regional economy. This section evaluates the city's freight routes, rail infrastructure, pipelines, and high-voltage utility corridors to identify operational constraints, safety considerations, and opportunities for improvements. Understanding these systems is essential to ensure that Sherwood can accommodate freight movements efficiently, maintain safety at rail crossings, and plan roadway and utility projects in a manner that supports long-term growth while minimizing conflicts with existing infrastructure.

Truck Freight System

Freight Route Inventory

Freight plays an important role in Sherwood's economy, supporting the transport of raw materials and finished products. The Washington County Transportation System Plan (TSP) identifies OR 99W and Tualatin–Sherwood Road/Roy Rogers Road as designated over-dimensional truck routes serving Sherwood. Herman Road, Cipole Road, Oregon Street, and Tonquin Road are also designated truck routes within the TSP.

In addition, OR 99W is a Statewide Highway with multiple freight-related designations, including National Highway System, National Network, Freight Route, and Reduction Review Route. These designations subject any proposed roadway capacity reductions to review under Oregon Revised Statute 366.215.

Figure 15 shows the existing freight routes within Sherwood.

Freight Generators

Sherwood's freight activity is largely driven by manufacturing, warehousing, and distribution operations within northeast areas of the city. These activity generators rely upon the freight connections to OR 99W and the broader regional freight network. Key generators for freight traffic include:

- **Tonquin Employment Area:** Located in the northeastern most region of Sherwood, this region contains a concentration of light industrial, warehouse, and logistics uses.
- **Other Commercial and Industrial Sites:** Additional freight activity occurs along Tualatin–Sherwood Road, Oregon Street, and Cipole Road where smaller industrial and service businesses are located.

Figure 15

Rail and Freight Networks

LEGEND

- Rail Crossings
- Rail Line

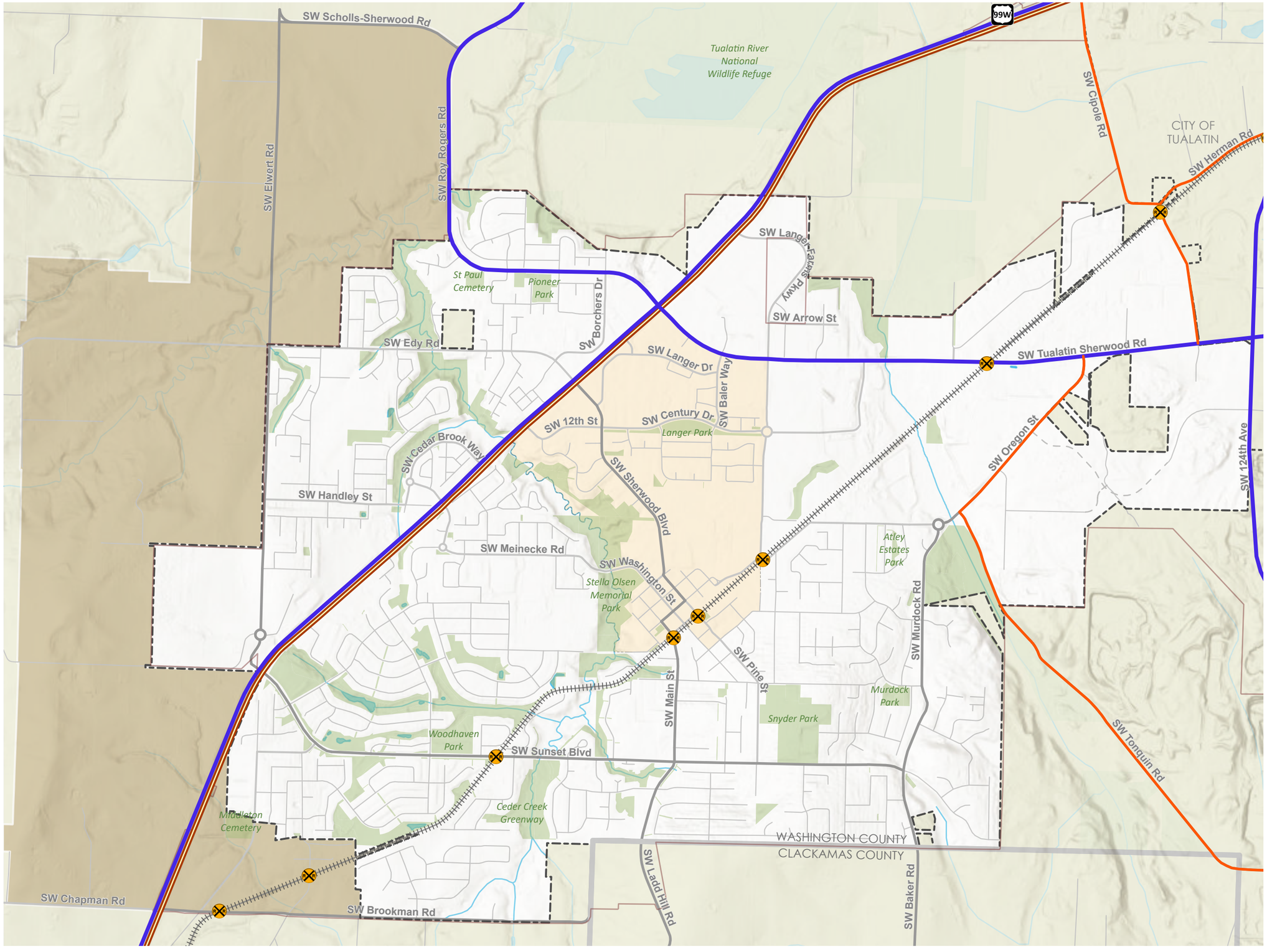
Washington County TSP - Truck Routes

- Over Dimensional Truck Route
- Truck Route
- OHP Freight Route & Reduction Review Route
- Arterial
- Collector
- Local
- Upcoming City Roadways
- Town Center
- Sherwood West Expansion Area
- City Boundaries
- Urban Growth Boundary
- County Boundaries

Data Source: Washington County TSP 2024, ODOT TransGIS, July 2025

City of Sherwood Oregon
Home of the Tualatin River National Wildlife Refuge

0 0.1 0.2 0.3 Miles



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Rail System

This section describes the rail system within Sherwood, including types of rail traffic, rail owners and operators, and roadway crossings. Figure 15 presents the rail system in Sherwood.

Rail System Inventory

The rail line within Sherwood is owned by Union Pacific Railroad (UPRR) and is operated by Portland & Western Railroad (PNWR), a subsidiary of Genesee & Wyoming Inc. The PNWR line runs in a northeast–southwest direction through Sherwood, generally parallel to OR 99W, between McMinnville and Tigard. The line is part of a regional short-line (Class II) network that provides access to the UPRR and BNSF mainlines in the Portland metropolitan area.

This rail line primarily carries freight such as lumber, aggregates, agricultural products, and manufactured goods. There are no active rail terminals or intermodal freight facilities located within Sherwood.

Passenger rail service does not operate on this line, and Sherwood does not have an Amtrak station. The nearest Amtrak rail stations are in Oregon City and Portland. Tualatin has an Amtrak Connection bus stop.

Rail Crossings

The PNWR rail line includes several at-grade crossings within the Sherwood urban growth boundary (UGB). Most are equipped with gates and flashing lights. Two crossings, one at Brookman Road and another at Middleton Road, are located outside the city limits but within the UGB. These two crossings are ungated at-grade crossings with crossbucks and stop signs. South of Sherwood, the rail line crosses OR 99W via a grade-separated structure.

Table 21 lists known rail crossings within the Sherwood area based on ODOT inventory data.

Table 21. Rail Crossings within the Sherwood UGB (north to south)

Street Name	Type	ODOT Crossing No.	Protection Type
SW Cipole Rd	At-Grade Crossing	P-759.50	Gated
SW Tualatin-Sherwood Rd	At-Grade Crossing	P-758.90	Gated
NE Oregon St	At-Grade Crossing	P-757.90	Gated
NW Pine St	At-Grade Crossing	P-757.65	Gated
SW Main St	At-Grade Crossing	P-757.55	Gated
SW Sunset Blvd	At-Grade Crossing	P-756.90	Gated
Brookman Rd	At-Grade Crossing	P-756.20	Ungated
Middleton Rd	At-Grade Crossing	P-755.90	Ungated

Source: ODOT TransGIS

Pipelines

The National Pipeline Mapping System (NPMS) was reviewed to identify existing pipeline infrastructure in Sherwood. NW Natural and Kinder Morgan are the two primary operators of transmission pipelines within the city:

- **NW Natural:** Operates several high-pressure natural gas transmission lines running along Elwert Road, Cipole Road, Tualatin–Sherwood Road, and Oregon Street.
- **Kinder Morgan:** Operates a petroleum products (gasoline and diesel) pipeline extending from the Port of Portland to Eugene that passes through the eastern portion of Sherwood.

Additionally, Bonneville Power Administration (BPA) and Portland General Electric (PGE) operate high-voltage electrical transmission corridors traversing Sherwood, generally running from Wilsonville northwest towards OR 99W then continuing north towards Rockcreek. These transmission lines are primarily concentrated in the northeast region of the city. These lines cross Oregon Street and Tualatin–Sherwood Road east of Langer Farms Parkway. These lines constrain future roadway network layout and connections.

Pipelines and transmission lines are shown in Figure 16.

Freight, Rail & Utilities Systems Summary

Key corridors in Sherwood require consideration for Transportation System Plan (TSP), signal improvements, or operational enhancements to accommodate freight, rail, and utilities constraints are:

- **OR 99W and Tualatin–Sherwood Road/Roy Rogers Road**: Maintain as primary freight corridors, optimize signal timing, and coordinate with freight regulations. Evaluate roadway geometry for safe over-dimensional truck movements.
- **SW Elwert Rd, SW Cipole Rd, Oregon St, Tonquin Rd**: Maintain truck route designation, implement operational improvements such as turn lanes and intersection clearance adjustments to enhance freight flow.
- **Rail Crossings**: Upgrade ungated at-grade crossings at Brookman Road and Middleton Road with enhanced warning devices or consider grade separation to improve safety and reduce freight-vehicle conflicts.
- **Areas with High-Voltage Transmission Lines**: Plan roadway improvements and new connections to minimize conflicts with utility corridors, ensuring safe clearances for trucks and emergency access.
- **Tonquin Employment Area and Industrial Streets**: Coordinate freight operations with traffic management, including signage, queuing, and restricted turn movements to minimize conflicts with local traffic.

These measures support safe and efficient movement of freight through Sherwood while accounting for rail and utility infrastructure constraints.

Figure 16

Utilities Network

LEGEND

Pipeline Corridors

- Natural Gas Pipeline Corridor
- Propane Pipeline Corridor

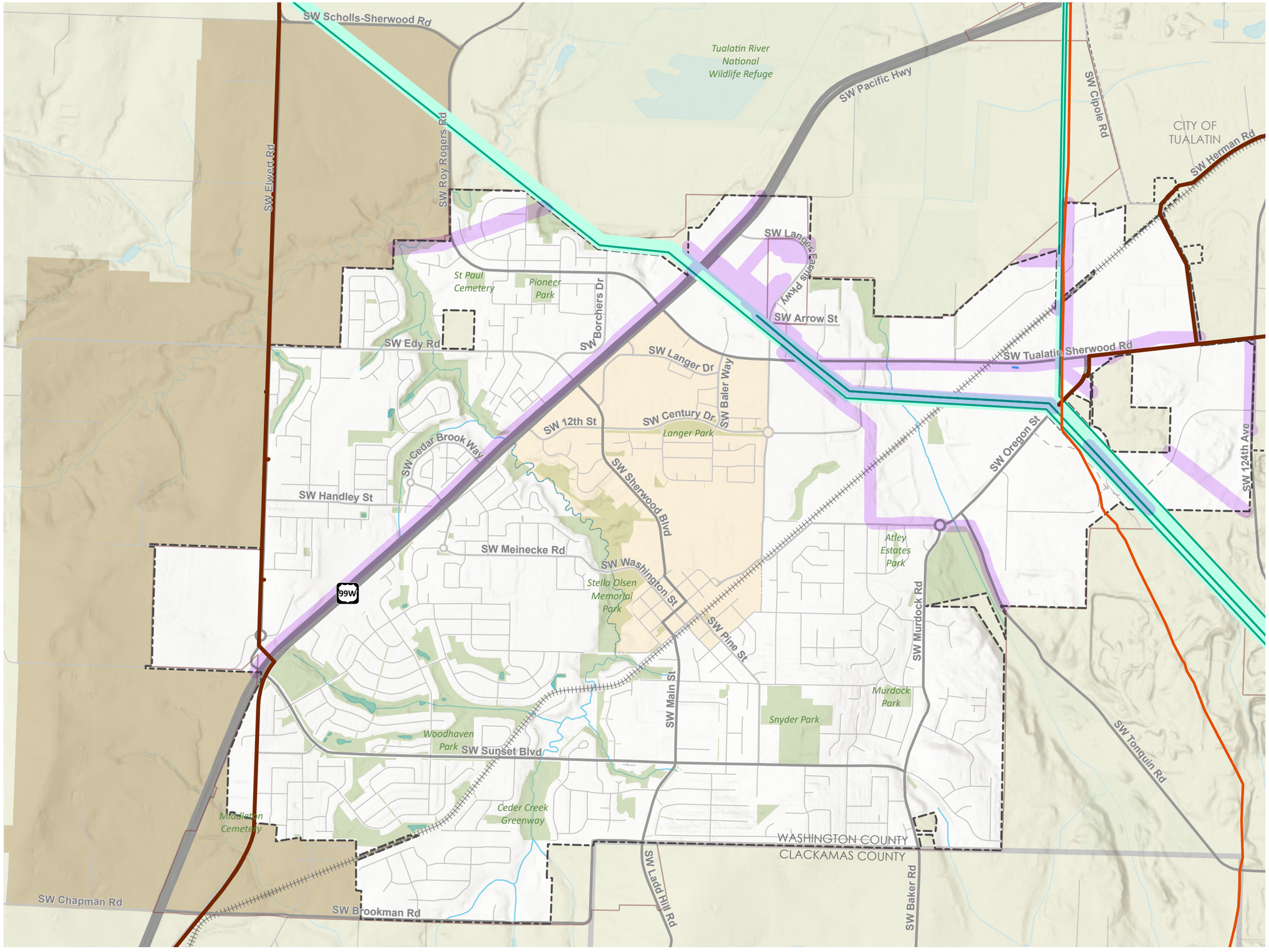
Transmission Lines & ROW

- BPA Transmission Lines
- BPA Right-of-Way
- PGE Transmission Right-of-Way
- Highway
- Arterial
- Collector
- Local
- Upcoming City Roadways
- Rail Line
- Town Center
- Sherwood West Area
- City Boundaries
- Urban Growth Boundary
- County Boundaries

Data Source: Washington County TSP 2024, City of Sherwood, July 2025

City of Sherwood Oregon
Home of the Tualatin River National Wildlife Refuge

0 0.1 0.2 0.3 Miles



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Transportation System Needs in Climate Friendly Areas (CFA)

Sherwood's Climate Friendly Areas (CFAs), also known as a Town Center is located between Old Town and OR 99W, bordered by Cedar Creek to the West and Langer Farms Parkway to the East. The following sections summarize identified transportation system needs within the CFA:

Safety Needs

The town center is predominantly low in crashes with the exception of SW Sherwood Boulevard and SW 12th Street/SW Century Drive. Additional safety concerns exist along 99W adjacent to the Town Center, and at the intersection of SW Tualatin Sherwood Road and SW Langer Farms Parkway. No crashes involving pedestrians or bicycles were reported within the CFA during the 2019-2023 analysis period.

Pedestrian & Public Transit System Needs

The pedestrian network within the Town Center is generally well-developed, supporting the area's designation as a transit-supportive, walkable district, however connectivity to the Town Center is limited by crossing 99W, SW Tualatin Sherwood Road, or the railroad tracks.

Bicycle System Needs

The bicycle network within the Town Center provides generally good connectivity but includes segments requiring improvement to achieve true low-stress, all-ages-and-abilities bicycling conditions.

Higher stress (LTS 3) corridors in the Town Center include:

- SW Sherwood Boulevard
- SW Langer Drive
- SW 12th street west of SW Sherwood Boulevard
- SW Washington and Main Street
- SW 1st, 2nd and 3rd Streets in Old Town

Roadway & Freight System Needs

The roadway network within the Town Center maintains good street connectivity with SW Sherwood Boulevard designated as an arterial, and the additional collectors SW 12th Street, SW Langer Drive, SW Century Drive, and SW Langer Farms Parkway. The area is bounded by transportation barriers including the railroad to the south and 99W to the north, which does not impact travel within the Town Center, but could pose challenges to connecting to destinations outside the Town Center.