2040 SHERWOOD COMPREHENSIVE PLAN

COORDINATED AND CONNECTED INFRASTRUCTURE

DRAFT BACKGROUND REPORT

OCTOBER 21, 2020

I. Introduction

Context

In past years, Sherwood has been one of the fastest growing cities in Oregon. While a bedroom community in the Portland/Vancouver Metropolitan Region, Sherwood's population grew from about 3,000 residents in 1990 to nearly 20,000 residents in 2019. Despite this record growth, Sherwood maintains an exceptional quality of life, driven by access to renowned schools, quality medical services, high level of public safety, a unique park and recreation system, a revived central business district, and excellent cultural facilities and community events.

Community Vision and Goals

In 2018, the City conducted a visioning process for the Comprehensive Plan Update, and the community identified the desire for "*coordinated and connected infrastructure*." This theme will constitute a section of the City's updated Comprehensive Plan. The vision states:

> *"By 2040, Sherwood's city-wide transportation system will be efficient and safe and will provide transportation options. The town will have an active and connected transportation network where residents enjoy walking and bicycle paths between neighborhoods, parks, schools, the Tualatin National Wildlife Refuge and Old Town. Sherwood can provide a high-quality life to residents with quality public facilities, services and utilities. Sherwood strives for an excellent school system, an asset that draws families to the community. Sherwood residents of all ages will enjoy the city's robust park system, community centers and state-of-the-art athletic and recreation facilities."*

Purpose

The City of Sherwood is preparing a series of background reports intended to inform community conversations about Sherwood's future. This report primarily explores the topic of transportation as it relates to Statewide Planning Goal 12 (Transportation), as well as a portion of Goal 11 (Public Facilities and Services) and Goal 13 (Energy Conservation).

Goal 11 (Public Facilities and Services) is a broad topic spanning a wide range of issues, many of which are already covered in previous comprehensive plan blocks, including the *Strong Community, Culture and Heritage* block and the *Strategic and Collaborative Governance* block. To avoid duplication, this background report will primarily address infrastructure such as water, sewer and stormwater.

Goal 13 (Energy Conservation) will primarily be covered in the subsequent and final comprehensive plan block, *Healthy and Valued Ecosystems*, though many Goal 13 guidelines are also addressed in the goals, policies and objectives of prior comprehensive plan blocks, such as *Strategic and Collaborative Governance*. The purpose of including the topic of energy in this block is to acknowledge the relationship between transportation, infrastructure and energy use.

II. Current Assets, Practices and Conditions

Transportation

Transportation infrastructure within City limits is provided and maintained by several jurisdictions:

- Oregon Department of Transportation owns and maintains certain highways and major arterials (e.g. Highway 99W)
- Washington County is responsible for certain major arterials such as SW Tualatin-Sherwood Road and SW Roy Rogers Road..
- City of Sherwood is responsible for most remaining roads with the exception of private streets and drives.
- Portland & Western owns and maintains the rail line on the south side of Hwy 99W.
- TriMet is responsible for the light rail, bus, and public shuttle facilities and services.

Streets

Highway 99W is the primary regional roadway that provides mobility to residents and connects the City of Sherwood with the surrounding area. 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.

The other major roadways within Sherwood that provide regional connections include Tualatin-Sherwood Road (connecting to Tualatin), Roy Rogers Road (connecting to Tigard and Beaverton), Oregon Street, Murdock Road, Sherwood Boulevard, Main Street, Sunset Boulevard, and Elwert Road.

Pedestrian Facilities

Sidewalk connectivity is provided on a majority of the arterials, collectors, and local roadways including Tualatin-Sherwood Road and Sherwood Boulevard. In addition, connectivity and pedestrian linkages are relatively good for parks and schools. Roadways lacking sidewalk connectivity in key locations include Highway 99W, Edy Road, Division Street, Oregon Street, 12th Street as well as within the Glen Eagle Neighborhood.

Bicycle Facilities

Besides Highway 99W and Tualatin-Sherwood Road, most of Sherwood's roadways do not provide bike lanes. The current barriers to pedestrian travel (e.g., Highway 99W crossing opportunities, lack of connectivity north of Old Town, etc.) also affect bicyclists. Currently, Sherwood has existing trail facilities along Langer Farms Parkway, Century Drive, and Sunset Boulevard. Future trails are planned both within Sherwood and connecting to the southeast. The proposed Ice Age Tonquin Trail will connect Old Town to Highway 99W as well as Tonquin Road, the City of Tualatin, the City of Wilsonville, and the Willamette River to the east. This new trail will provide opportunities for bicycle

users and pedestrians to make long distance commutes or recreational travel to nearby communities.

Transit

Transit service is provided by the Tri-County Metropolitan District of Oregon (TriMet) and the Yamhill County Transit Area District (YCTA). TriMet provides service and connections within the Portland Metro region (such as to Tigard, Beaverton, Portland, etc.), while YCTA connects Sherwood to Yamhill County and Tigard. TriMet provides park-and-ride lots at two of its stops in Sherwood, including Old Town Sherwood on Railroad Avenue and off Tualatin-Sherwood Road at the Regal Cinemas parking lot.

Freight

Efficient truck movement plays a vital role in the transportation of materials and products. The designation of through truck routes provides for efficient movement while at the same time maintaining neighborhood livability, public safety, and minimizing maintenance costs of the roadway system. Highway 99W and Tualatin-Sherwood Road/Roy Rogers Road are identified as Sherwood's major through-truck routes by the Washington County TSP. In addition, Highway 99W has several designations related to mobility and goods movements, including National Highway System, National Network, Freight Route, and Reduction Review Route. These designations can limit reductions to vehicle-carrying capacity.

Safety

The Oregon Department of Transportation (ODOT) and Washington County rank locations by collision frequency and severity. In Sherwood, collisions are most frequent at the following intersections:

- Highway 99W/Tualatin-Sherwood Road/Roy Rogers Road
- Tualatin-Sherwood Road/Cipole Road
- Highway 99W/Elwert Road/Sunset Boulevard:
- Tualatin-Sherwood Road/Oregon Street
- Tualatin-Sherwood Road/Gerda Lane
- Highway 99W/Meinecke Road

Infrastructure

Water

The City operates and maintains a municipal water system that provides potable drinking water to residents within the City limits. The City owns water rights to the Willamette River through their participation in the Willamette River Water Coalition. The municipal water treatment is performed

through a partnership with the City of Wilsonville, the source of which is treated surface water withdrawals from the Willamette River to the Willamette River Water Treatment Plant (WRWTP). This state-of-the-art facility produces high-quality finish water which is pumped into transmission mains for distribution throughout the City. The majority of the City's dry weather wastewater comes from customers' use of the municipal water system. Thus, wastewater flows and municipal water demand follow a similar diurnal cycle throughout the day. The municipal water system experiences a much higher demand in the summer, due to irrigation.

Sanitary Sewer

Developed areas within the City are presently served by sewer facilities operated through an Intergovernmental Agreement (IGA) between the City and Clean Water Services (CWS). Under the IGA, the City maintains conveyance facilities smaller than 24-inches in diameter, while CWS maintains the piping 24-inches in diameter and larger, pump stations, and force mains. CWS is also responsible for wastewater treatment. Operating within the Public Works Department, the City's sanitary sewer system provides utility service to approximately 6,000 customers.

The existing collection system includes approximately 70 miles of gravity sewer, more than 1,700 manholes, and one public pump station. Wastewater collects from smaller service pipelines into two larger trunk sewers, the Sherwood Trunk and the Rock Creek Trunk which discharge to the downstream Sherwood Pump Station located on the northern side of Highway 99. Wastewater is conveyed to the Durham Advanced Wastewater Treatment Facility (AWWTF), located along the Tualatin River, via the Sherwood Pump Station and Upper Tualatin Interceptor.

Stormwater

Developed areas within the City are presently served by publicly owned stormwater collection and conveyance facilities, operated through an Intergovernmental Agreement (IGA) between the City and CWS. Under the IGA, the City owns, maintains, and operates the stormwater collection and conveyance system within the City limits. The City maintains the public creeks and open-channels, while CWS is responsible for water quality within the creeks. Additionally, the City maintains and operates local water quality facilities and local water quantity facilities while CWS maintains and operates all regional water quality or quantity facilities both within and outside of the City limits. All of the stormwater conveyance facilities within the City limits flow by gravity. There are no pumps or pressurized pipes in the system. Many residential properties have direct connections between their roof drains and the public stormwater conveyance system. Many commercial and industrial properties have private stormwater collection and conveyance systems that provide drainage for their facilities including buildings and parking lots. These systems are generally connected directly to the public stormwater conveyance system. There may be limited interconnections between the stormwater and sanitary wastewater systems. In general, all developments built since 1991 include water quality facilities, and in some cases, water quantity or detention facilities. These stormwater quality and quantity facilities are owned and maintained by the City or by private property owners in

commercial and industrial developments. In limited areas, homeowner associations may maintain facilities in residential developments.

Broadband

High-speed broadband services are crucial to economic development, job creation, education, health care, civic engagement, government transparency, responsiveness, public safety, and emergency preparedness. Sherwood was rapidly growing in the mid-1990s, and the only broadband service at that time was the phone company's DSL service. This DSL services was sufficient for basic residential and business needs at the time but was felt it would not be to scale to meet the future needs of Sherwood and the growing demand for Internet based services. In 2001, Sherwood saw the value in building its own next generation broadband network utilizing fiber optics to connect city facilities together and provide Internet services to businesses and residents. After extensive discussions the City Council approved a resolution in 2004 to create the Sherwood Broadband utility.

In 2004, Sherwood began laying fiber optic cables within the City. As part of land use approvals, new developments are required to install conduits to support the expansion of this city-wide asset. This asset has allowed Sherwood to provide many benefits to the community. For instance, the City of Sherwood has now over 60 connections to the Sherwood Broadband network. These connections allow for smart control of irrigation systems, access control to park facilities, security cameras and free wireless internet in various community locations. Additionally, all the Sherwood school facilities are connected to Sherwood Broadband for an improved communication network between school facilities.

In 2009, the business model of Sherwood Broadband was refined to focus on Business-to-Business services. Today, Sherwood Broadband operates as a traditional Internet service provider focusing on services to businesses, government/public institutions, and some residents. In 2018, City Council approved a residential pilot project where Sherwood Broadband is providing residential Internet service in several existing and new neighborhoods. At the direction of the City Council, the City is actively focused to make continued investments to expand into the local residential market and provide high-speed internet service to its customers. Sherwood Broadband is dedicated to supporting community opportunities that foster business and enhance the livability of its residents.

III. Regulatory Context

Transportation

The aim of Statewide Planning Goal 12 and the State Transportation Planning Rule (TPR) are “to provide and encourage a safe, convenient and economic transportation system.” Collectively, they require the City to develop and maintain a Transportation System Plan (TSP) that balances the needs of walking, bicycling, driving, transit and freight into an equitable and efficient transportation

system. The TSP must assess local, regional and state needs and consider appropriate combinations of travel modes to avoid principal reliance upon any one mode of transportation. The TPR requires transportation and land use planning be done in a coordinated manner. The State rule also requires that the City's TSP maintain compliance with the TPR, the State of Oregon Transportation Plan (OTP), and Metro's Regional Transportation Plan (RTP). A TSP is also required to include a Transportation Financing Program consisting of a list of planned transportation facilities and major projects, timing and rough cost estimates, policies for selecting projects, and an allowance for phasing of major improvements.

Sherwood's TSP was updated in 2014 and evaluates the current transportation system and outlines strategies and projects that are important to protecting and enhancing the quality of life in Sherwood through 2035. The TSP also provides a foundation from which to evaluate and determine what improvements could or should be required as part of private development projects. Plan elements can be implemented by the City, private developers, and state or federal agencies. Typically, the goals and policies outlined in a City's TSP are mirrored in the City's Comprehensive Plan to ensure alignment between the two policy documents.

Infrastructure

Public facilities planning allows jurisdictions to create coordinated strategies for infrastructure and service provision over a longer-term horizon than is normally used in programs such as Capital Improvement Programs (CIPs), which plan for the short-term- typically 1-5 years. Without adequate planning for public facilities, utilities and services, coordination between multiple city departments, service providers, and districts can prove challenging and may result in gaps in service, inefficiencies and/or unnecessary expenses.

Statewide Planning Goal 11 directs communities with populations greater than 2,500 to plan for public facilities through Public Facilities Plans (PFPs). Pursuant to OAR 660-011-0005(5), such plans are required to address, "water, sewer, and transportation facilities". Public facilities planning is a necessary element of comprehensive planning and is required by Statewide Planning Goal 11. Goal 11 states that jurisdictions must "plan and develop a timely, orderly and efficient arrangement of public facilities and services to serve as a framework for urban and rural development." Nearly all service providers complete some form of infrastructure and/or service master plan. While some plans such as school facility plans are state-mandated, others are completed as a best practice in infrastructure and service planning, such as water, sewer, stormwater and utilities.

Water

Sherwood's Water System Master Plan was last updated in 2015. The plan provides an analysis of the City's water system and:

- Documents water system upgrades, including significant changes in water supply completed since the 2005 Master Plan;
- Estimates future water requirements including potential water system expansion areas;

- Identifies deficiencies and recommend water facility improvements that correct deficiencies and provide for growth;
- Updates the City's capital improvement program (CIP);
- Evaluates the City's existing water rates and system development charges (SDCs).

The City also has an ongoing Water Management and Conservation Plan (WMCP) in place, last updated in 2018. The WMCP aids the City in documenting current water conservation programs; identifying potential future conservation measures; reviewing and updating the City's water curtailment plan and analyzing future water needs; and evaluating the City's long-term water supply plan.

Sanitary Sewer and Stormwater

Both Sherwood's Sanitary Sewer Master Plan and Stormwater Master Plan were last updated in 2016. The primary goals of these updated plans include: (1) present criteria required for evaluating the system; (2) identify current and future system deficiencies and describe recommended improvements to correct them; and (3) provide planning-level cost information for general budgeting and the development of a prioritized Capital Improvement Plan (CIP).

Broadband

New development in Sherwood is required to install fiber optic cable or pay a fee-in-lieu for future installation. Developing a Sherwood Broadband Growth Plan is a FY2020-21 City Council priority. The plan will set goals and objectives for growth, develop funding sources and set policy direction. The plan will help answer questions such as: Where does the city focus broadband growth and how fast does it grow, what are the pricing strategies, is it fair and equitable?

Energy

Oregon Statewide Planning Goal 13 directs planning efforts to maximize the conservation of all forms of energy, based upon sound economic principles. The goal also encourages land conservation and development actions to utilize renewable energy sources whenever possible. There exists little enumeration on the implementation of Goal 13; however, it may provide the basis for state and local energy and climate change planning as these issues become more prominent. Goal 13 provides the following guidelines for energy conservation planning:

1. Priority consideration in land use planning should be given to methods of analysis and implementation measures that will assure achievement of maximum efficiency in energy utilization.
2. The allocation of land and uses permitted on the land should seek to minimize the depletion of non-renewable sources of energy.
3. Land use planning should, to the maximum extent possible, seek to recycle and re-use vacant land and those uses which are not energy efficient.

4. Land use planning should, to the maximum extent possible, combine increasing density gradients along high capacity transportation corridors to achieve greater energy efficiency.
5. Plans directed toward energy conservation within the planning area should consider as a major determinant the existing and potential capacity of the renewable energy sources to yield useful energy output. Renewable energy sources include sunshine, wind, geothermal heat, and municipal, forest, and farm waste. Whenever possible, land conservation and development actions provided for under such plans should utilize renewable energy sources.

IV. Current Trends and Drivers of Change

Transportation

- **More People and Jobs**: Today Sherwood is home to 7,220 households and accounts for over 8,340 jobs. By 2039, based on regional growth forecasts, the City of Sherwood is expected to be home to almost 8,949 households and 11,785 jobs. This does not include additional households and jobs in Sherwood West. With more people and more jobs in Sherwood, the transportation network will face increased demands.
- **More Walking, Biking and Transit Use:** Old Town and other areas of the Town Center continue to develop in ways that will support multimodal activity. Amenities such as Cannery Square and the Cedar Creek Trail will attract activity and the amount of pedestrian, bicycle, and transit use in the area is expected to grow. As locating housing close to services becomes more desirable, it will provide more opportunities for residents to walk and bike to nearby shops, restaurants and other services.
- **Construction of a new high school:** The new Sherwood High School has implications for the surrounding transportation facilities in terms of increased demand on the system, pedestrian and bicycle access and safety, particularly with HWY 99W crossings.

Infrastructure

1) **Service Planning and Delivery:** With an array of special districts, City departments, private franchises, and other jurisdictions providing facilities, utilities and services to City residents, the City must ensure effective collaboration and planning. Many facilities, utilities and services are subject to state and federal regulations and must be kept in compliance with these

requirements. Intergovernmental coordination can provide cost efficiencies and problem solving. Service providers can also benefit from collaborative planning for new and expanding facilities. Colocation of infrastructure and facilities can increase capacity and reduce gaps in service. The extension of public services to annexation areas or areas outside the UGB is another topic for which extensive planning and coordination is needed. This topic is addressed in detail in the *Governance and Growth Management* block.

2) **Expansion Areas:** The development of Sherwood's expansion areas will require the extension and increased capacity of municipal infrastructure systems as land is brought into the UGB and annexed to the City. For example, in areas of new development, particularly where concentrations of high-water industrial users are expected, CWS may consider local, rather than regional, treatment of wastewater. New industry could sponsor smaller, more efficient local treatment systems which do not transport the sewage long distances to regional facilities. The coordination and delivery of infrastructure will be a critical piece to the development of Sherwood's urban reserve areas.

3) **Infrastructure Condition:** As is the case with most municipal infrastructure, system deterioration through aging is a problem. Many wastewater pump stations, which are owned and operated by CWS, are also aging and require part replacements and upgrades. As the system gains more users, additional pump stations and trunk lines are needed, and existing pipes may require upsizing to accommodate the additional volumes. Installation of backup electrical power and elevation and/or floodproofing of critical infrastructure may also be needed. These repairs and upgrades can be costly.

4) **Broadband Expansion**: Recognizing that information and technology services are essential infrastructure, the roll out of Sherwood Broadband has the potential to develop an efficient and cost-effective wireless network for the community. With the provision of wireless infrastructure, the City can leverage technology solutions to improve city services, including utilities, transportation, and public services. These are sometimes know as "smart city" applications, Smart cities use wireless infrastructure to connect devices and sensors that promote efficiencies, improve sustainability, create economic development, and enhance quality of life.
Citizens engage with smart city applciations in various ways using smartphones and mobile devices and connected cars and homes. Pairing devices and data with a city's physical infrastructure and services can cut costs and improve energy distribution, streamline trash collection, decrease traffic congestion, and improve parking inefficencies.

Energy

5) **Aging infrastructure, a changing climate, and rising energy costs**: Opportunities to reduce greenhouse gas emissions, shift travel options from single occupancy vehicles to more energy efficient options and reduce fuel consumption are becoming more available to communities as technology and awareness of the issues advance. With major technological innovations on the horizon as noted above, the way people travel is expected to evolve significantly in the coming

decades, particularly through emerging technologies such as autonomous and connected vehicles. The funding and deployment of Intelligent Transportation Systems (ITS), such as adaptive traffic signals, will be a key component of vehicle-to-infrastructure technologies.

V. Key Policy Questions for Consideration

1. Should the City consider adopting a Complete Streets policy?
    a. Complete Streets emphasize designs that take the needs of all users into account during the planning, design and construction of transportation projects. Rather than prescriptive design criteria, Complete Streets solutions are based on context-sensitive application of engineering, architectural and urban design principles. Complete Streets policies would formalize this approach for new and retrofitted streets.
2. Should the City consider adopting a Traffic Safety policy?
    a. A Traffic Safety policy would emphasize the importance of designing traffic systems to account for human error and to protect people who walk, bike, and drive from the mistakes we can count on people making. This concept is closely related to the "Vision Zero" movement.
3. Should the City consider a goal or policy about Safe Routes to School?
    a. SRTS is a national movement that aims to make it safer and easier for students to walk and bike to school. State transportation departments receive federal funds and select projects through a competitive process open to local governments and school systems. At the local level, Safe Routes to School practitioners run education and encouragement programs with families and schools and push for strong municipal and district policies to support safe walking and bicycling.
4. Should the City consider policies for managing stormwater with Green Infrastructure practices?
    a. Green infrastructure is an approach to water management that protects, restores, or mimics the natural water cycle. Green infrastructure can include restoring wetlands, planting trees, constructing swales and installing pervious pavement, rather than building regional or local water treatment plants.
5. Should the City consider adopting a goal or policy about expanding broadband access and creating Smart City initiatives?
    a. A smart city is a framework, predominantly composed of information and communication technologies (ICT), to develop, deploy, and promote sustainable development practices to address growing urbanization challenges. A big part of this framework is essentially an intelligent network of connected objects and machines that transmit data using wireless technology and the cloud. Cloud-based applications receive, analyze, and manage data in real-time to help municipalities, enterprises, and citizens make better decisions, optimize infrastructure, and improve quality of life.

APPENDIX. EXISTING COMPREHENSIVE PLAN POLICIES

Transportation

Goal 1: Provide a supportive transportation network to the land use plan that provides opportunities for transportation choices and the use of alternative modes serving all neighborhoods and businesses.

Policy 1 – The City will ensure that public roads and streets are planned to provide safe, convenient, efficient and economic movement of persons, goods and services between and within the major land use activities. Existing rights of way shall be classified and improved and new streets built based on the type, origin, destination and volume of current and future traffic.

Policy 2 – Through traffic shall be provided with routes that do not congest local streets and impact residential areas. Outside traffic destined for Sherwood business and industrial areas shall have convenient and efficient access to commercial and industrial areas without the need to use residential streets.

Policy 3 – Local traffic routes within Sherwood shall be planned to provide convenient circulation between home, school, work, recreation and shopping. Convenient access to major out-of-town routes shall be provided from all areas of the city.

Policy 4 – The City shall encourage the use of more energy-efficient and environmentally-sound alternatives to the automobile by:

- The designation and construction of bike paths and pedestrian ways;
- The scheduling and routing of existing mass transit systems and the development of new systems to meet local resident needs; and
- Encouraging the development of self-contained neighborhoods, providing a wide range of land use activities within a single area.

(NO POLICY 5)

Policy 6 – The City shall work to ensure the transportation system is developed in a manner consistent with state and federal standards for the protection of air, land and water quality, including the State Implementation Plan for complying with the Clean Air Act and the Clean Water Act.

Policy 7 – The City of Sherwood shall foster transportation services to the transportation disadvantaged including the young, elderly, handicapped, and poor.

Policy 8 – The City of Sherwood shall consider infrastructure improvements with the least impact to the environment. Policy 9 – The City of Sherwood shall develop a transportation demand management program to complement investments in infrastructure (supply).

Goal 2: Develop a transportation system that is consistent with the City's adopted comprehensive land use plan and with the adopted plans of state, local, and regional jurisdictions.

Policy 1 – The City shall implement the transportation plan based on the functional classification of streets shown in Table 8-1.

Policy 2 – The City shall maintain a transportation plan map that shows the functional classification of all streets within the Sherwood urban growth area. Changes to the functional classification of streets must be approved through an amendment to the Sherwood Comprehensive Plan, Part 2, Chapter 6 - Transportation Element.

Policy 3 – The Sherwood transportation system plan shall be consistent with the city's adopted land use plan and with transportation plans and policies of other local jurisdictions, especially Washington County, Clackamas County, City of Wilsonville, and the City of Tualatin.

Policy 4 – The City will coordinate with Metro regarding implementation of the Regional Transportation Plan and related transportation sections of the Metro Functional Plan.

Policy 5 – The City shall adopt a street classification system that is compatible with Washington County Functional Classification System for areas inside the Washington County Urban Area Plan and with Washington County 2020 Transportation Plan (Ordinance 588).

Policy 6 — The City will work with Metro and other regional transportation partners to implement regional transportation demand management programs where appropriate.

Policy 7 — The City shall work cooperatively with the Port of Portland and local governments in the region to ensure sufficient air and marine passenger access for Sherwood residents.

Policy 8 - Establish local non-Single Occupant Vehicle (SOV) modal targets, subject to new data and methodology made available to local governments, for all relevant design types identified in the RTP. Targets must meet or exceed the regional modal targets for the 2040 Growth Concept land use design types as illustrated in the following table:

(DIDN'T COPY TABLE)

Goal 3: Establish a clear and objective set of transportation design and development regulations that addresses all elements of the city transportation system and that promote access to and utilization of a multi-modal transportation system.

Policy 1 – The City of Sherwood shall adopt requirements for land development that mitigate the adverse traffic impacts and ensure all new development contributes a fair share toward on-site and off-site transportation system improvement remedies.

Policy 2 – The City of Sherwood shall require dedication of land for future streets when development is approved. The property developer shall be required to make full street improvements for their portion of the street commensurate with the proportional benefit that the improvement provides the development.

Policy 3 – The City of Sherwood shall require applicable developments (as defined in the development code), to prepare a traffic impact analysis.

Policy 4 – The City of Sherwood shall adopt a uniform set of design guidelines that provide one or more typical cross section associated with each functional street classification. For example, the City may allow for a standard roadway cross-section and a boulevard cross-section for arterial and collector streets.

Policy 5 – The City shall adopt roadway design guidelines and standards that ensure sufficient right-of-way is provided for necessary roadway, bikeway, and pedestrian improvements.

Policy 6 – The City shall adopt roadway design guidelines and standards that ensure sidewalks and bikeways be provided on all arterial and collector streets for the safe and efficient movement of pedestrians and bicyclists between residential areas, schools, employment, commercial and recreational areas.

Policy 7 – The City of Sherwood will generally favor granting property access from the street with the lowest functional classification, including alleys. Additional access to arterials and collectors for single family units shall be prohibited and use access from frontage roads and local streets. Frontage roads shall be designed as local streets.

Policy 8: The City will adopt access control and spacing standards for all arterial and collector streets to improve safety and promote efficient through street movement. Access control measures shall be generally consistent with Washington County access guidelines to ensure consistency on city and county roads.

Policy 9 - The City will establish guidelines and standards for the use of medians and islands for regulating access and providing pedestrian refuge on arterial and collector streets.

Policy 10 – The City of Sherwood will establish a set of guidelines and standards for traffic calming measures to retrofit existing streets and as part of land use review.

Policy 11 - The City will develop uniform traffic control device standards (signs, signals, and pavement markings) and uniformly apply them throughout the city.

Policy 12 - The City of Sherwood will adopt parking control regulations for streets as needed. On-street parking shall not be permitted on any street designated as an arterial, unless allowed by special provision within the Town Center (Old Town) area or through the road modifications process outlined in the Sherwood Development Code.

Policy 13 – The City of Sherwood shall adopt new development codes to fill in gaps in existing sidewalks to achieve a consistent pedestrian system.

Goal 4: Develop complementary infrastructure for bicycles and pedestrian facilities to provide a diverse range of transportation choices for city residents.

Policy 1 – The City of Sherwood shall provide a supportive transportation network to the land use plan that provides opportunities for transportation choices and the use of alternative modes.

Policy 2 – Sidewalks and bikeways shall be provided on all arterial and collector streets for the safe and efficient movement of pedestrians and bicyclists between residential areas, schools, employment, commercial and recreational areas.

Policy 3 – The City of Sherwood will pursue development of local and regional pedestrian trail facilities, especially a trail system connection between the city and the Tualatin National Wildlife Refuge.

Policy 4—The City of Sherwood shall provide design standards for roadway traffic calming features such as traffic circles, curb extensions, bulb-outs, and speed humps.

Policy 5 – The City of Sherwood shall include requirements for the provision of bicycle parking on large commercial, industrial, and multi-family residential projects.

Policy 6 – The City of Sherwood will coordinate the bikeway system with adjacent jurisdictions, especially Tualatin, Wilsonville, Clackamas and Washington County.

Policy 7 – The City will work to eliminate architectural barriers from buildings and public improvements, which limit elderly and handicapped use of the transportation system.

Goal 5: Provide reliable convenient transit service to Sherwood residents and businesses as well as special transit options for the city's elderly and disabled residents.

Policy 1 – Public transportation shall be provided as an alternative means of transportation in Sherwood.

Policy 2 – The City of Sherwood will work with Tri-Met to expand transit services to all parts of the City through additional routes, more frequent service, and transit oriented street improvements.

Policy 3 – Park-and-ride facilities should be located with convenient access to the arterial system to facilitate rider transfer to transit and car pools.

Policy 4 – Encourage the construction of bus shelters and park-n-ride lots in the vicinity of planned transit corridors.

Policy 5 – The City of Sherwood will support the establishment of a "feeder" transit route from downtown Sherwood to Tualatin employment centers.

Policy 6 – The City of Sherwood will support park and ride facilities that are sited for the maximum convenience of commuters and transit riders.

Policy 7—The City of Sherwood will support regional efforts for the preservation and development of appropriate rail rights-of-way for passenger rail service, in particular for serving local and regional commuter rail needs in Washington County, Clackamas County, and Yamhill County.

Policy 8 – The City of Sherwood will encourage the provision of special transportation services (i.e., van pools, or car pools, dial-a-ride, etc.) to transportation disadvantaged by Tri-Met and community-based service providers.

Policy 9 – Fully integrate the City into the regional transit system by expanding hours and destinations served by transit providers.

Policy 10 – The City will meet RTP goals of providing a safe and convenient pedestrian circulation system.

Goal 6: Provide a convenient and safe transportation network within and between the Sherwood Old Town (Town Center) and Six Corners area that enables mixed use development and provides multi-modal access to area businesses and residents.

Policy 1 – The City of Sherwood shall continue to refine and develop existing and new design guidelines and special standards for the Old Town and Six Corners areas to facilitate more pedestrian and transit friendly development.

Policy 2 – The City of Sherwood shall work to provide connectivity, via the off-street trail system and public right-of-way acquisitions and dedications, to better achieve street spacing and connectivity standards.

Goal 7: Ensure that efficient and effective freight transportation infrastructure is developed and maintained to support local and regional economic expansion and diversification consistent with City economic plans and policies.

Policy 1 — The City of Sherwood will collaborate with federal, state and neighboring local governments and private business to ensure the investment in transportation infrastructure and services deemed necessary by the City to meet current and future demand for industrial and commercial freight movement.

Policy 2 — The City of Sherwood will adopt implementing regulations that provide for safe and convenient access to industrial and commercial areas for commercial vehicles, including freight loading and transfer facilities.

Policy 3 — The City of Sherwood will work cooperatively with local, regional and state agencies to protect the viability of truck and freight service routes within, through, and around the City of Sherwood, especially for Pacific Highway 99-W, the Tualatin-Sherwood Highway, and the planned I-5/Hwy 99-W Connector corridor.

Policy 4 — The City of Sherwood will work cooperatively with local, regional and state governments to ensure there is adequate air transportation infrastructure to serve local needs at regional airport facilities, including the Hillsboro Airport and Portland International airport.

Policy 5 — The City of Sherwood will strongly encourage the preservation of rail rights-of way for future rail uses, and will work with appropriate agencies to ensure the availability of rail services to its industrial lands.

Policy 6 — The City of Sherwood will cooperate with local, regional and state governments to provide for regional marine freight infrastructure sufficient to serve local needs.

Policy 7 — The City of Sherwood will cooperate with the Portland Development Commission, Port of Portland, Washington County, and other economic development agencies to ensure the availability of inter-modal connectivity facilities deemed necessary to facilitate seamless freight transfer between all transport modes.

Goal 8: The Sherwood transportation network will be managed in a manner that ensures the plan is implemented in a timely fashion and is kept up to date with respect to local and regional priorities.

Policy 1 – The City of Sherwood shall develop a systematic approach to implementing the transportation network.

Policy 2 – The City of Sherwood shall pursue a diversified funding strategy to implement the transportation system plan including private, public and regional sources.

Policy 3 – The City of Sherwood shall use its adopted capital improvement plan to prioritize and schedule transportation projects based upon need as shown in the Transportation System Plan. Incorporate the transportation system priorities from the TSP into the city's capital improvement planning process.

Policy 4 – Project scheduling shall be performed in a systematic manner based on the priority rating process outlined in the Transportation System Plan and available financial resources.

Policy 5 – The Transportation System Plan shall be periodically updated, preferably on a five-year cycle, to assure consistency with changing ideas, philosophies, and related policies.

Community Facilities and Services

Policy: To ensure the provisions of quality community services and facilities of a type, level and location which is adequate to support existing development and which encourage efficient and orderly growth at least public cost.

Objectives

1. Development and implement policies and plans to provide the following public facilities and services; public safety fire protection, sanitary facilities, water supply, governmental services, health services, energy and communication services, and recreation facilities.

2. Establish service areas and service area policies so as to provide the appropriate kinds of level of services and facilities to existing and future urban areas.

3. Coordinate public facility and service plans with established growth management policy as a means to achieve orderly growth.

4. Coordinate public facility and service provisions with future land use policy as a means to provide an appropriate mix of residential, industrial and commercial uses.

5. Develop and implement a five year capital improvements and service plan for City services which prioritizes and schedules major new improvements and services and identifies funding sources

6. The City will comply with MSD regional solid waste plan, and has entered into an intergovernmental agreement with Washington County to comply with the County's Solid Waste and Yard Debris Reduction Plan, 1990.

7. Based on the Sewer, Water and Transportation Plan updates in 1989, and 1990, the City shall prepare a prioritized list of capital improvements projects to those systems and determine funding sources to make the improvements by the end of 1991.

8. It shall be the policy of the City to seek the provision of a wide range of public facilities and services concurrent with urban growth. The City will make an effort to seek funding mechanisms to achieve concurrency.