



CITY OF TENINO

COMPREHENSIVE PLAN

2025 – 2045

Page intentionally left blank

Acknowledgments

The City would like to acknowledge the members of the community that participated in public meetings and helped inform our vision for our community. The City would also like to acknowledge the following:

Elected Officials

Mayor Dave Watterson
Councilmember Linda Gotovac
Councilmember Elaine Klamn
Councilmember John O’Callahan
Councilmember Jason Lawton
Councilmember Jeff Eisel

Planning Commission

William Bennett II
Adam Carney
William Rutherford
Matthew Rounsley
Valerie Roberts

Tenino Present & Former Staff

Troy Cannon, Public Works Director
Jessica Davis, Utility Clerk
Ronna Barnes, Court/Administrative Clerk
SCJ Alliance, City Planner

Other Acknowledgements

Washington State Department of Commerce
Thurston Regional Planning Council

Climate Policy Action Team

William Rutherford
Matthew Rounsley
Chanele Holbrook
Geraldine Maxfield
Cory Mounts

Page intentionally left blank

Contents

Acknowledgments	3
Executive Summary	9
Countywide Planning Policies.....	11
Chapter 1. Land Use	13
Community Character	13
Population	13
Land Capacity Analysis.....	15
Goals, Policies, And Actions.....	21
Chapter 2. Natural Resources	33
Environmentally Sensitive Areas	33
Goals, Policies, and Actions	39
Chapter 3. Housing.....	45
Housing Needs Assessment	46
Community Profile.....	46
Housing Affordability	49
Future Housing Needs by Income	50
Residential Displacement Risk	55
Goals, Policies, and Actions	57
Chapter 4. Economic Development	61
Economic Conditions.....	61
Business Licensing	66
Economic Development Resources.....	67
Grant Programs.....	69
Goals and Policies	71
Chapter 5. Transportation	75
Community Streets	75
Pedestrian Travel and Amenities	77
Goals, Policies, and Actions	93
Chapter 6. Capital Facilities	97
Community Buildings and Facilities.....	97
Existing Facilities & Forecasted Needs	97
Parks and Recreation Facilities	100

Existing Facilities & Forecasted Needs:	101
Stormwater Management.....	104
Existing Facilities & Forecasted Needs	104
Stormwater Management CIP and Funding Sources.....	104
Water System	105
Existing Facilities & Forecasted Needs	105
Wastewater Treatment System.....	109
Existing Facilities & Forecasted Needs	109
Wastewater Treatment System CIP and Funding Sources.....	111
Goals, Policies, and Actions	113
Chapter 7. Utilities.....	117
Electricity	117
Natural Gas.....	118
Telecommunications Services	118
Waste Disposal	119
Goals, Policies, and Actions	120
Chapter 8. Climate	123
Climate Change in Tenino.....	123
Conditions and Trends.....	124
Challenges and Opportunities	124
Climate Objectives	128
Climate Resources	130
Goals, Policies, and Actions	133
Greenhouse Gas Mitigation.....	133
Resilience.....	136
Appendix A. Downtown Tenino Concept Plan	139
Vision	141
Strategy	141
Goals	142
Appendix B. Adopted Housing Action Plan.....	151
Appendix B.2 TRPC Land Capacity Analysis.....	235
Appendix C. Public Participation.....	265
Appendix D. Street Tree Plan	345

Figure 1: Historic and Project Population, 1950-2045.....	14
Figure 2: Percent of County Population	14
Figure 3. Comparison of 2017 vs. Projected 2045 Residential Density in Tenino (2017)	16
Figure 4. Identified critical areas in Tenino	33
Figure 5. Mazama Pocket Gopher Areas	36
Figure 6. Tenino Housing Forecast, Total Housing Units.....	45
Figure 7. Tenino Historic and Future Population (1910-2045).....	46
Figure 8. Regional Comparison of Children in Households by Age-range (2021)	48
Figure 9. Year Residential Structure(s) Were Built.....	48
Figure 10. Housing Stock Comparison (2023)	49
Figure 11. Inflation-adjusted Tenino Household Income with Regional Comparison (2021)	49
Figure 12. Cost Burdened Households in Tenino (2019)	50
Figure 13. Renter Households and Affordable Rental Units by Income in Tenino (2021).....	50
Figure 14. Owner Households and Affordable Housing Units in Tenino (2021)	51
Figure 15. Displacement Risk Map	56
Figure 16. Household Income in Tenino and United States (2023)	62
Figure 17. Full-time Worker Earnings in Tenino.....	62
Figure 18. Population Distribution and Poverty Status (2023)	63
Figure 19. Employment Status, Total and by Gender (2023)	63
Figure 20. Occupation Type of Civilian Employed in Tenino (2023).....	64
Figure 21. Civilians employed by Industry in Tenino (2023).....	65
Figure 22. Tenino Sidewalks and Multiuse Trails.....	77
Figure 23: Artist Rendering of Old Highway 99/Sussex Intersection	85
Figure 24: Artist Rendering of Downtown Tenino Improvements	85
Figure 25: 2018 Baseline Travel Demand Model	88
Figure 26: 2045 Funded Projects Travel Demand Model.....	88
Figure 27: 2045 Regional Projects	89
Figure 28. City of Tenino Parks and Recreation Facilities.....	102
Figure 29. City of Tenino Existing Water System.....	107
Figure 30. City of Tenino Existing Wastewater Treatment System.....	110
Figure 31. Potential Locations for Housing Near Downtown	143
Table 1. Tenino Zoning Districts and Use Intent	15
Table 2. Existing Protected and Priority Species in Tenino	35
Table 3. Housing Tenure of Units in Tenino	47
Table 4. Owner and Renter-occupied Housing.....	47
Table 5. Households by Family Type in Tenino.....	47
Table 6. Estimated Housing Units Required in Tenino by Income (2030 - 2045).....	51
Table 7. Estimated New Housing Units Required in Tenino (2021, 2045)	52
Table 8. Estimated Housing Units Required in Tenino by Type (2030-2045)	52
Table 9. Estimates of Accessory Dwelling Units for Tenino	53

Table 10. Estimated Housing Units Required in Tenino by Income (2030-2045)	53
Table 11. Needed Pedestrian Improvements in Tenino	77
Table 12. Street Types	80
Table 13. Levels of Service	81
Table 14. Fatal and Suspected Serious Injury Crashes Reported within Tenino (2012-2025)	84
Table 15. Demand Management Strategies	89
Table 16. 2025 to 2030 TIP (in order of priority).....	91
Table 17. Community Buildings and Facilities CIP	100
Table 18. Tenino Parks and Recreation Facilities	101
Table 19. Parks and Recreation Facilities CIP.....	103
Table 20. Stormwater Management CIP	104
Table 21. Water Source Characteristics	106
Table 22. Lineal Feet of Pipe in Tenino	107
Table 23. Water System CIP	109
Table 24. Wastewater Treatment System CIP.....	111

Executive Summary

This plan lays out a guide for managing growth in Tenino and its surrounding area, helping shape the community's future. It serves as both a strategy for development and a joint effort between Tenino and Thurston County to ensure growth happens in an organized way. The plan is divided into six chapters, with six appendices covering key topics like public facilities, housing, demographics, the Main Street 507 project, community input, and legal regulations.

Land Use

The Land Use element evaluates trends in population growth, development patterns, and environmental conditions, translating them into official City policy. Its central objective is to chart a strategic path for Tenino that preserves its historic small-town charm and natural environment while facilitating thoughtful residential and commercial growth. This growth is essential to broaden the community's service offerings and employment opportunities. The City of Tenino has identified nine key goals to guide land use planning, ensuring a balanced and sustainable approach to future development.

Natural Resources

Located in a valley in South Thurston County, Tenino's geography is defined by its flat prairie lands and surrounding forested hills, wetlands, and sandstone formations. The city is home to critical wildlife habitats, particularly near Scatter Creek, and includes areas essential to the survival of sensitive species such as the Taylor's checkerspot butterfly and the Mazama pocket gopher. This chapter emphasizes the protection and stewardship of Tenino's unique environmental assets. The City has adopted nine strategic goals to manage and safeguard its natural resources for future generations.

Housing

Tenino's housing landscape reflects a rich history and a variety of architectural styles, from heritage homes to contemporary subdivisions. As population growth continues, housing demand is expected to double over the next two decades. The City must carefully plan for this expansion to preserve community character and livability. In response, Tenino has established seven housing goals focused on promoting diversity in housing types, affordability, sustainability, and high quality of life. These objectives are designed to meet current needs while accommodating future growth in an equitable and resilient manner.

Economic Development

A strong and diverse economy is key to Tenino's long-term prosperity and livability. The Economic Development element outlines a vision for fostering local business growth, supporting entrepreneurship, and attracting new investment while preserving the city's unique identity. This includes strengthening the downtown core, expanding employment opportunities, and leveraging regional partnerships to enhance economic competitiveness. The City will pursue strategies that promote innovation, workforce development, and sustainable land use to ensure that Tenino remains a vibrant and economically resilient community. The City is in the process of defining specific goals to support this vision and guide future initiatives.

Transportation

Ensuring safe and efficient mobility for residents, visitors, and businesses is a top priority for Tenino's long-term development. This chapter assesses current and future transportation needs across all modes, including personal vehicles, public transit, freight, bicycles, and pedestrians. A series of targeted improvements are

proposed to enhance connectivity and support economic growth. The City has outlined 12 transportation goals to guide infrastructure investment, system modernization, and integrated mobility planning over the next 20 years.

Capital Facilities

To support future development and meet the demands of a growing population, Tenino plans substantial investments in capital facilities. These include infrastructure improvements in public services, utilities, and municipal buildings. While financial and logistical challenges are anticipated, this plan provides a blueprint for coordinated and cost-effective development. Transportation-related capital projects are addressed in conjunction with the Transportation Element but are also included in the 6-Year Capital Improvement Program. The City has identified nine capital facilities goals to ensure efficient service delivery and infrastructure resilience.

Utilities

Reliable utility services are fundamental to Tenino's growth and quality of life. This chapter outlines existing infrastructure and future expansion plans for critical utilities, including electricity, natural gas, and telecommunications. Planning for utility capacity and modernization will ensure that the needs of residential, commercial, and industrial users are met as the city evolves. The City has defined nine utility-related goals to promote coordinated service delivery, long-term reliability, and sustainable growth.

Climate

Climate resilience is a critical component of Tenino's comprehensive planning. This element sets forth a proactive strategy to reduce greenhouse gas emissions, adapt to climate change impacts, and embed sustainability across all city functions. Rising temperatures, extreme weather, and shifting ecological conditions demand bold action to protect public health, infrastructure, and natural systems. The City has articulated 20 climate-related goals: nine focused on emission reductions and 11 on enhancing community resilience.

Public Engagement

The City of Tenino engaged the community early and continuously in the 2025 Comprehensive Plan update through a Public Participation Plan that included a project website, social media, printed materials, public meetings, community events, a community advisory board, and online/paper surveys, with attention to accessibility and inclusion. A citywide survey (83 responses) identified priorities such as safety, street improvements, downtown vitality, historic preservation, and infrastructure upgrades, along with barriers like funding and leadership capacity. This input shaped the plan's policies and vision for 2045, reflecting Tenino's values of history, walkability, local business, inclusivity, and sustainable growth.

Countywide Planning Policies

Relationship of the Tenino Comprehensive Plan to Thurston County Countywide Planning Policies

The City of Tenino’s Comprehensive Plan is guided by the Thurston County Countywide Planning Policies (CWPPs), which provide a regional framework to ensure consistency among the jurisdictions of Thurston County and promote coordinated planning for community health, safety, sustainability, and resilience. The CWPPs recognize the importance of integrating hazard mitigation, emergency preparedness, and community risk reduction across planning efforts, and call for local plans to align with relevant regional and countywide strategies to reduce vulnerability to natural and human-made hazards.

Tenino’s planning processes also align with the Thurston County Hazard Mitigation Plan (HMP), which is the County’s federally adopted strategy for reducing risk from floods, wildfires, seismic events, severe weather, and other hazards. Consistent with the HMP and the CWPPs, the Comprehensive Plan incorporates hazard identification, risk reduction measures, and policies that promote resilient infrastructure, public safety, and property protection. Where applicable, the City will consider mitigation actions identified in the HMP in its capital facilities planning, development regulations, and public outreach programs to strengthen community preparedness and minimize the potential for loss of life and property.

In addition to the CWPPs and the HMP, Tenino’s Comprehensive Plan reflects coordination with other regional plans that address overlapping safety and resilience objectives, including the Thurston Regional Planning Council’s Regional Transportation Plan 2050, the Target Zero strategic highway safety framework, and relevant emergency response and climate adaptation strategies. This integrated policy approach ensures that transportation, land use, hazard mitigation, and public safety planning are aligned with countywide priorities and regulatory requirements, and that Tenino leverages regional data, technical resources, and collaborative implementation mechanisms.

By embedding the goals and recommended actions from these countywide and regional plans into local policies, Tenino strengthens its capacity to guide growth, protect natural and built environments, and enhance community resilience in the face of evolving hazard challenges.

CW Goal 1: The City of Tenino should be prepared to accommodate change.

Policy 1.1 The City of Tenino will anticipate, facilitate, and affect positive change by identifying and coordinating public, private, and joint responsibilities to exploit change for the betterment of the community.

Policy 1.2 The City will identify and work with local and regional public and private agencies which monitor and report indicators of change.

CW Goal 2: Local resources should be used whenever possible in new development and expansion of existing development to encourage efficiency and to build on what already exists.

Policy 2.1 The City shall actively seek citizen involvement, volunteerism and activism in the public and private sectors, specifically in government, youth activities, historic preservation and others.

Policy 2.2 The City will encourage public and private involvement in community activities.

Policy 2.3 The City will educate the public about Tenino’s history and future.

CW Goal 3: Provide for health, safety, and welfare benefits through a combination of public and private services and programs that are accessible and affordable.

Policy 2.1 The City shall identify and provide health, safety, and welfare programs and benefits that are relevant to the needs of the Tenino community.

Action: Identify, catalogue, and assess the local, county, state, public and private programs and services presently available.

Action: Define the public and private responsibilities to provide quality benefits.

Action: Monitor the changes in health, welfare, and safety requirements of the Tenino community.

Action: Investigate and implement new funding sources and incentives for additional public and private benefits to all sectors of the population.

Action: Comply with the requirements of the Americans with Disabilities Act (ADA).

Chapter 1. Land Use

This chapter analyzes population, development, and environmental trends and sets official City land use policies that preserve the historic small city and natural character of the community. Tenino provides opportunities for residential and commercial development and supports the regional tourism economy to expand the service and employment base necessary for residents.

Community Character

The City of Tenino is a historic small community that grew because of natural resource industries such as logging and sandstone quarrying. The community's authentic small-town character, with its walkable downtown built of local stone, and surrounding natural and working lands are key components that Tenino desires to maintain and emphasize into the future. Strategies to enhance characteristics the community sees as integral to its development are described below:

Preserve the historic character of Tenino through the restoration of historic structures and the construction of new buildings that complement older buildings.

Showcase the industrial character of Tenino through the use of old industrial-feeling materials such as steel, wood, and stone.

Emphasize the natural character of Tenino and its natural amenities by preserving views and retaining the appearance of the surrounding natural lands, including treed hillsides.

Accentuate the artisan/handmade character of Tenino through the use of handmade design elements such as carved sandstone, hand-painted signs and art, and local metalwork.

Provide context-sensitive development opportunities by adopting regulations that expand housing options and commercial activity while protecting the form and scale of existing neighborhoods.

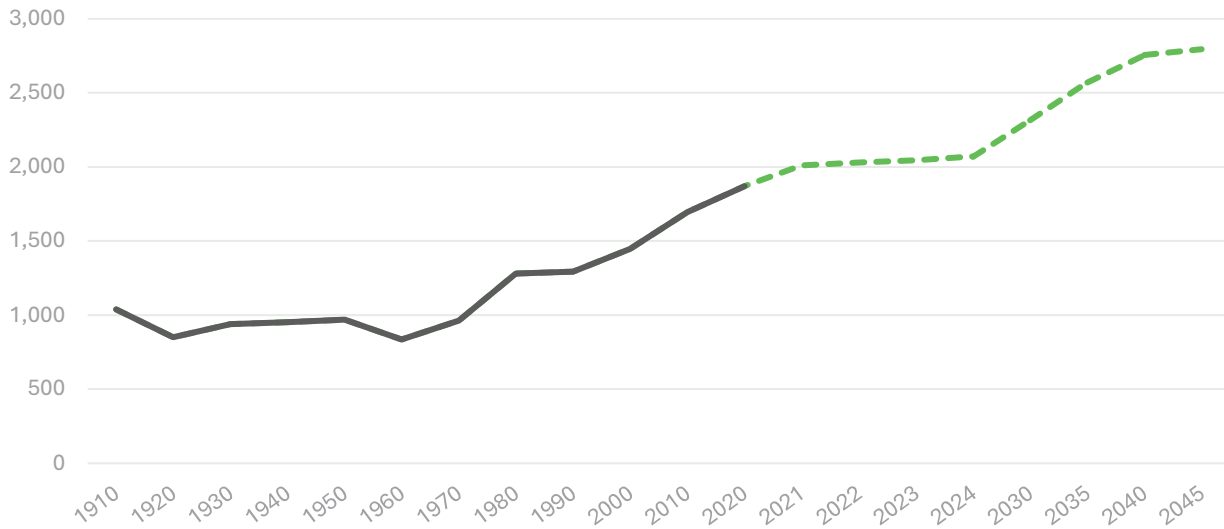
Participate in regional tourism to bolster the local economy by coordinating with regional entities involved in agritourism and ecotourism, including leveraging the Southwest Washington Agricultural Business & Innovation Park.

The City will work to emphasize Tenino's small-town character, walkability, and proximity to rural and natural south Thurston County throughout the community to strengthen Tenino's appeal.

Population

Figure 1 illustrates Tenino's population growth, from 1950 and projected into 2045, while Figure 2 illustrates the City's population as a percentage of Thurston County's population over the same period. Tenino's share of the County population has decreased since 1950 because the County population increased about 6 times since 1950 census whilst Tenino growth remains steady, accounting for around 0.6% of the County's population. In 2020 Tenino's increased by 10% from the 2010 census whilst the County's overall population increase by 16.8%.

Figure 1: Historic and Project Population, 1950-2045



Source: Office of Financial Management, Thurston Regional Planning Council

OFM issues annual population estimates for all cities and counties in Washington, which are the state’s official population counts for long-range planning purposes. These annual estimates are based on the most recent decennial Census counts. OFM’s official 2023 population estimates indicate Tenino currently has a population of 2,045¹. The population estimate for Thurston County is 303,400; Tenino accounts for 0.67% of the County’s population.

Figure 2: Percent of County Population

Year	Tenino Population	Thurston County Population	% of County Population
1950	969	44,884	2.2%
1960	836	55,049	1.5%
1970	962	76,894	1.3%
1980	1,280	124,264	1.0%
1990	1,292	161,238	0.8%
2000	1,447	207,355	0.7%
2010	1,695	252,264	0.7%
2020	1,870	294,793	0.6%
2030	2,315	336,000	0.7%
2035	2,570	354,400	0.7%
2040	2,755	370,700	0.7%
2045	2,795	383,500	0.7%

Source: U.S. Census Bureau, Decennial Census Data, Thurston Regional Planning Council

¹ Office of Financial Management, Thurston Regional Planning Council

Land Capacity Analysis

This section analyzes existing and potential capacity for housing production based on Tenino’s current zoning code and correlates the results with the number of housing units the City will need based on population and household forecasts. This section also discusses other opportunities and constraints to development, including availability of water, sewer, and other municipal services, environmental constraints, zoning, and other factors.

Zoning

Tenino’s zoning code contains four commercial and three residential districts, not including the West Tenino as shown in Figure 24, in light yellow. The City’s C-1 Commercial District covers historic downtown Tenino and is meant to “build on the historic and walkable nature of the area” (TMC 106.40.010). This model ensures that the downtown core stays vibrant and walkable with a variety of commercial offerings such as retail stores, service-oriented establishments, and apartments – with other residential uses allowed provided development occurs off ground level.

The City of Tenino is 1,485 acres (2.32 square miles) not including the UGA, and a large portion of the land within city limits is designated West Tenino for master planned development proposals for residential units. While the land designated for the West Tenino is considered developable, the development would be slow as much of the encompassed area is home to the Mazama Pocket Gopher and therefore environmentally protected.

Table 1. Tenino Zoning Districts and Use Intent

Zoning District		Residential Use Allowance
Non-Residential		
C-1	Commercial 1	Some residential units allowed off ground level.
C-2	Commercial 2	Primarily commercial uses, with some residential units allowed off ground level.
C-3	Commercial 3	Mix of existing single-family uses, new and existing multifamily buildings, mixed use structures, and commercial uses.
I	Industrial	Commercial and Utilities activities and large-scale industrial. No residential units.
Residential		
SF-ES	Single Family, Environmentally Sensitive	Larger lots to allow for environmental constraints. Lots are in proximity to critical areas.
SF	Single Family	Single-family residential units. Low-density residential area.
SFD	Single family, Duplex	Single-family and Duplex units. Low-density residential area.
MF	Multi-Family Residential	Small-lot detached dwellings and attached structures such as apartments, condominiums, and townhouses. The mix can take form on a single site or mixed within a general area.
Special Purpose		
P/SP	Public/Semi-Public	No residential units.
WT	West Tenino	Intent is to allow for the land to be developed in a planned and structured capacity through the adoption of a master plan unless otherwise applicable.

Source: Tenino Housing Action Plan (2023)

Environmental Constraints

Environmental considerations are continued in further detail in Chapter 2. Natural Resources.

While the recreational opportunities within and surrounding Tenino are plentiful, this also means that there are constraints to development that must be considered. Environmental regulations are codified under the city's Shoreline Master Program (Title 109), Critical Areas Ordinance (Title 112), the State Environmental Policy Act (Title 110) and Floodplain Management standards (Chapter 5.24).

Critical Areas

Tenino defines a critical area to include frequently flooded areas, wetlands, fish and wildlife habitats and geologically hazardous areas. These areas can also overlap with Shoreline jurisdiction, as outlined in the next section.

Development within a critical area or its buffer requires an environmental review, including a critical area report to evaluate the proposal and all probable impacts to the critical area(s).

Shoreline Jurisdiction

Proposed development within shoreline jurisdiction (those lands which extend landward two hundred (200) feet as measured on a horizontal plane from the ordinary high-water mark (OHWM)) are regulated by the Shoreline Master Program, and Critical Areas Ordinance. The city has worked with the Washington State Department of Ecology to develop these regulations and ensure no net loss of ecological functions.

Scatter Creek, a protected shoreline runs along the northeast border and down through the middle of the city. The creek's shoreline designation is "Conservancy" and is defined as a Type S stream, which has a minimum environmental buffer of 150 feet landward from the OHWM. No development or alteration of the habitat or land is permitted without prior approval through the shoreline permit processes. However, uses aligned with single-family residences and their development are permitted, but may require a Substantial Development Permit or statement of exemption approval. These permits and processes add increased costs to development while.

Additionally, streams within the area, especially larger streams such as Scatter Creek, present a flood hazard. Proposed residential development within flood hazard areas are required to build one to three feet above "Base Flood Elevation" and follow floodplain management regulations in Tenino's Critical Areas Ordinance and Floodplain Management standards and which can increase the cost of development.

Future Land Use Designations

Tenino preserves and enhances its authentic and walkable small-town character that embraces a connection to rural Thurston County. This plan establishes seven future land use designations (see Map 2) to incorporate different aspects of the desired community character vary as to what land uses are allowed. The future land use designations indicate the predominant land use anticipated in each of the areas but are intended to allow for some mixing of uses (housing and commercial for example) in certain instances.

Focusing on the predominant character of land uses is meant to complement the historic development of the community. In Tenino's hundred plus years, residential neighborhoods have grown adjacent to the downtown core and have related effectively to the commercial area. Similarly, multifamily residential has been placed on residential or commercial streets and do not detract from the development of those future land use

designations. The future land use designations are intended to continue this compatible mixing of land uses, and a brief description of each of the future land use designations is provided below.

Commercial (COM)

This designation promotes commercial development within the city. Land intensities within the commercial zone ranges from stand-alone, single-story buildings to multistory structures that encompass an entire lot. A mix of commercial and residential uses is appropriate.

Industrial (IND)

The industrial designation applies to properties that have good access to rail and the highway, or properties that currently have an industrial-type use on them. The designation is meant to promote further industrial development, and intensities will range from stand-alone structures to developments that cover the entire lot.

Mixed Use (MU)

The mixed-use designation applies to properties anticipated to include a mix of commercial and residential uses in the future. Development intensities will vary depending on the type of buildings constructed.

Master Planned Community (MPC)

The Master Planned Community (MPC) designation covers about 264 acres in West Tenino, currently used for agriculture. While development is limited by Mazama pocket gopher habitat and other environmental constraints, the site offers potential for a carefully designed mixed-use neighborhood.

Any proposal must go through a master planning process to coordinate land uses, infrastructure, and habitat protection. Future plans should include a mix of commercial, industrial, office, and residential uses on flatter areas, and a range of housing types and densities on Lemon Hill. The community should feature parks, trails, and open spaces that highlight natural features such as prairie habitat and hillside views, along with a connection to the Yelm–Tenino Trail, a walkable commercial area, and a secondary access road for improved circulation.

Multifamily Residential (MF)

The multifamily residential designation promotes additional density, especially within the downtown area, through the inclusion of various housing types. Housing types that may be appropriate in the multifamily residential areas include attached dwellings, apartments, condominiums, and townhouses with densities up to 40 units per acre.

Residential (RES)

The residential future land use designation includes areas that are typified by single-family residential housing, and the designation is intended to complement this development pattern. Middle housing types that are compatible with the form and scale of single-family residential development, as well as accessory dwelling units, are allowed in this designation. This residential designation is also intended to allow a compatible mix of residential and nonresidential uses so long as the scale of the new development complements the size of neighboring units. Densities up to 25 units per acre may be allowed within the future land use designation; higher densities may also be appropriate.

Public/Semi-Public (P/SP)

The public/semi-public designation applies to land that is owned by the City of Tenino, the Tenino School District, or land that is part of the Burlington Northern Santa Fe mainline. Land in the designation is meant to be used for public utilities, schools, rail, and/or municipal activities, including recreational uses.

Historic Preservation Overlay (HP)

The historic preservation overlay is meant to preserve or protect the historic character of Tenino's downtown core. The downtown has been classified as a National Historic District on the National Register of Historic Places, and several of the properties within the overlay district have been submitted for listing on the National Historic Register as historic structures. The underlying commercial future land use designation still applies to these properties, but renovations or new buildings are intended to be subject to design review to ensure that the building enhancements preserve the character of the historic district and are compatible with the adjacent historic buildings or structures.

Urban Growth Area

Urban Growth Areas (UGA) are areas outside of the City of Tenino but located within connected proximity where growth and higher densities are expected and that can be supported by cost-effective urban services. By directing growth into the UGA, the City of Tenino can also protect critical areas, conserve the local natural resource lands (farms, forests, etc.), and maintain the rural character of their rural lands of Thurston County adjacent to the City.

When the City annexed West Tenino in 2007, it was expected that a good portion of the site would be comprised of residential development and master planning requirements reinforce this notion. In 2013, the Mazama pocket gopher became federally listed as a threatened species and is now protected under the Endangered Species Act. Approximately 89 acres of West Tenino has been identified as critical habitat for the Mazama pocket gopher and the Taylor's checkerspot butterfly, another federally listed endangered species. Taking into consideration land required for rights-of-way, open space, stormwater management facilities, and critical areas, it is estimated that between 192 and 236 dwelling units could have been located in this part of West Tenino but are now, due to mitigation requirements, assumed to be lost. In addition to this, approximately 24 acres of land that would have been used for nonresidential development has also been lost.

To account for the loss of commercial and residential development potential, the City is exploring the possibility of expanding the urban growth area (UGA) into the Mima Acres neighborhood on the south side of West Tenino. Map LU-2 shows the potential changes in the UGA. M i m a A c r e s is adjacent to the current city limits, has ready access to utilities in Old Highway 99, is near Tenino schools, and could leverage momentum from the development of the Southwest Washington Agricultural Business & Innovation Park (Ag Park). Any development of the land in this area will need to take into consideration its proximity to Scatter Creek and protected species habitat. With appropriate protections and buffers in place, however, this represents a location that could support additional residential development. Approximately 54.8 acres would be added to the Urban Growth Area, representing a capacity of approximately 253 new units. The potential future land use designation would be Residential.

The City will work with both Thurston Regional Planning Council and Thurston County to address any changes to the urban growth boundary.

Page intentionally left blank

Goals, Policies, And Actions

Goal LU 1: Manage land use with individual and community-wide quality of life interests in mind.

Policy LU 1.1 The rights of individual property owners shall be protected.

Policy LU 1.2 The maintenance and enhancement of community identity, including natural character, shall be considered in land use decisions.

Action: Encourage citizen participation in the land use planning and decision-making process.

Policy LU 1.3 Ensure that permit processing is fair and timely, and permit review procedures are consistent and predictable.

Policy LU 1.4 Ensure the City's land use policies and development regulations provide a fair and transparent process for the siting of essential public facilities (EPF) as defined in RCW 36.70A.200, and follow critical areas designation and protection as defined in RCW 36.70A.172. EPF siting shall be guided by the Countywide Planning Policies and the City's adopted siting criteria to prevent preclusion while mitigating local impacts.

Goal LU 2: Safeguard community-wide environmental conditions and resources of the landscape, critical areas, parks, open space, and views.

Policy LU 2.1 Upon annexation, new developments of ten acres or more shall be required to include adequate usable open space in the subdivision proposals. These open spaces shall be identified and mapped.

Action: Coordinate with Thurston County Parks Department for possible acquisition of open spaces in conjunction with annexation proposals.

Goal LU 3: Build excellent neighborhoods throughout Tenino.

Policy LU 3.1 Ensure that new residential and commercial developments include features such as trails, sidewalks, well-connected streets, and street trees.

Action: Establish street standards (especially for new streets within residential and commercial neighborhoods).

Policy LU 3.2 Require new developments to submit plans for streets, landscaping, stormwater, and pedestrian enhancements.

Action: Require new developments to plant and maintain trees as specified in the City of Tenino Downtown Tenino Concept Plan.

Policy LU 3.3 Work diligently to enhance existing neighborhoods through strategies such as traffic calming, pedestrian enhancements, and adding street trees and/or art.

Policy LU 3.4 Promote community projects/volunteerism to help build the local character of Tenino.

Goal LU 4: Expand the Urban Growth Area to accommodate future residential growth.

Policy LU 4.1 Work with Thurston Regional Planning Council and Thurston County to amend the Tenino UGA during future joint planning efforts or an annual comprehensive plan amendment.

Goal LU 5: New development and redevelopment complement the walkable and historic character of Tenino.

Policy LU 5.1 Require and conduct design review for all applicable development.

Policy LU 5.2 Consider and work to limit the potential negative impacts associated with development of commercial and industrial properties as part of the development review process.

Policy LU 5.3 Encourage adaptive reuse of existing structures where feasible or, for new development, encourage the use of building forms, ornamentation, materials, and colors that are reminiscent of historic buildings.

Policy LU 5.4 Encourage slower traffic areas, wider sidewalks, and a landscaped vegetative buffer between the sidewalk and street.

Policy LU 5.5 Create Gateways into Downtown and the Historic District that define each side of downtown, the historic downtown area, slow traffic and act as an amenity for future development of surrounding parcels.

Action: Create a series of gateways on each side of downtown close to or at Old Highway 99 and Sussex Roundabout, East Downtown Gateway, and Ritter and Sussex Square.

Goal LU 6: The character of existing historic buildings is retained and celebrated.

Policy LU 6.1 Encourage landowners to restore the historic character of their buildings, and to take full advantage of available historic preservation programs and funding opportunities in the process.

Policy LU 6.2 Evaluate proposed changes to historic structures or demolitions that may significantly adversely impact the character of the community under the auspices of the State Environmental Policy Act.

Goal LU 7: West Tenino is developed in a manner consistent with the community's vision for the area.

Policy LU 7.1 Ensure that any master plan for west Tenino adequately addresses utilities, transportation infrastructure, land use, and park and open space features.

Policy LU 7.2 Review future master plan(s) in accordance with the intent of the future land use designation and the standards of the Tenino Municipal Code.

Goal LU 8: Establish land use patterns that increase the resilience of the built environment, ecosystems, and communities to climate change.

Policy LU 8.1 Implement complimentary, mixed land uses versus traditional zoning, such as locating business districts, parks and schools in neighborhoods to promote cycling and walking and reduce driving.

Goal LU 9: Foster higher-intensity land uses in mixed-use urban villages and transit corridors.

Policy LU 9.1 Prioritize infill development through the zoning and permitting process.

Goal LU 10: Support the development of a resilient, low-carbon waste management system by enabling the siting of organic materials management facilities in appropriate locations.

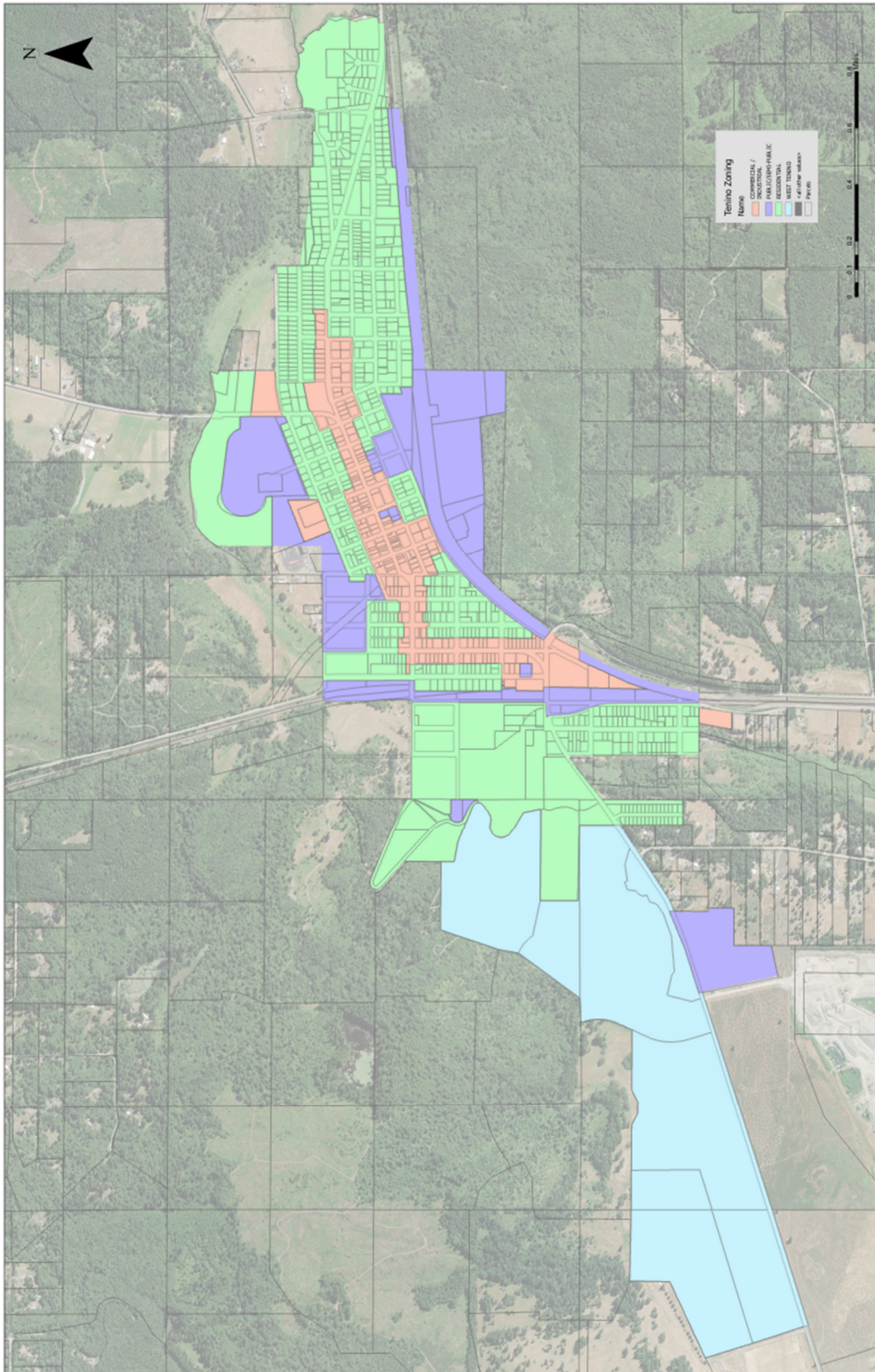
Policy LU 10.1 Allow organic materials management facilities, including composting, anaerobic digestion, and other state-recognized organic processing uses, to be sited in appropriate land use designations consistent with state legislation, provided such facilities are compatible with surrounding uses and meet applicable development standards.

Policy LU 10.2 Coordinate local planning and development regulations for organic materials management facilities with adopted solid waste management plans, regional waste reduction strategies, and state statutory requirements to ensure regulatory consistency and long-term system capacity.

Page intentionally left blank

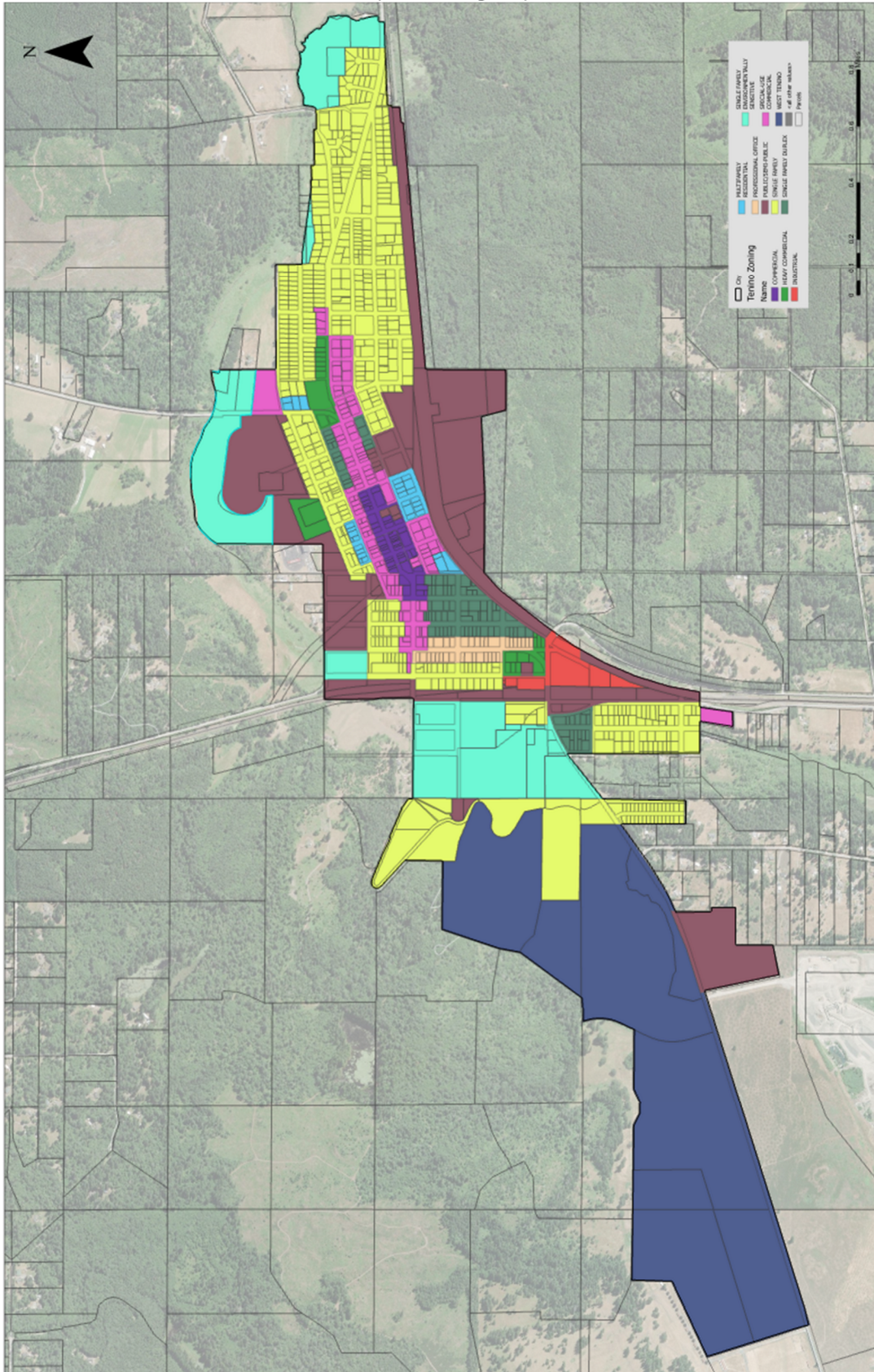
Page intentionally left blank

Map 2. Future Land Use



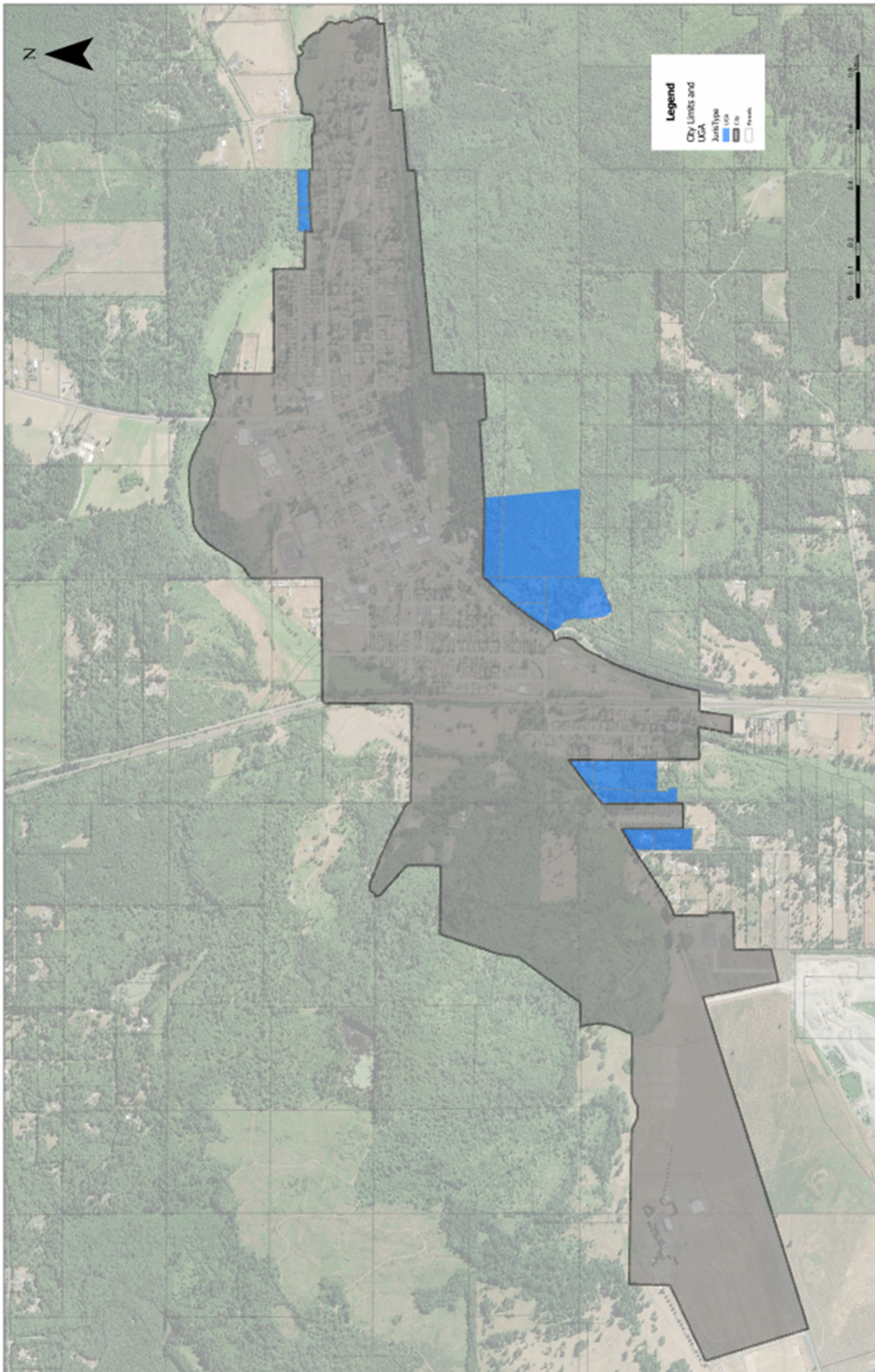
Page intentionally left blank

Map 3. Zoning Map



Page intentionally left blank

Map 4. City Limits and UGA Map



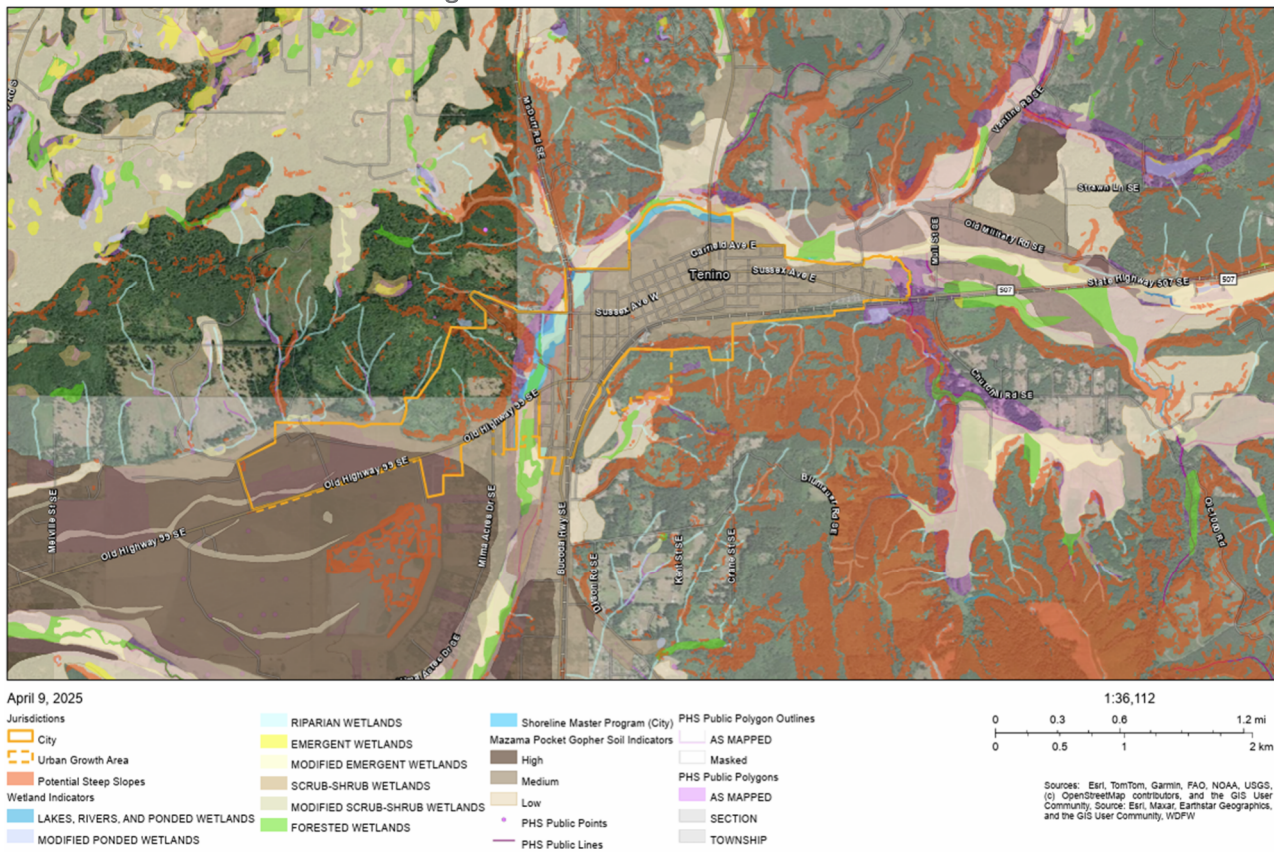
Page intentionally left blank

Chapter 2. Natural Resources

The City of Tenino is situated in a valley nestled amongst the hills of South Thurston County. The floor of the valley, where the bulk of the community sits, is typified by flat land and highly porous prairie soils, while the slopes to the northern, southern, and western portions tend to have steeper grades typified by forests, wetlands and sandstone outcroppings. Wetlands and the majority of the priority habitat present in the community are located along Scatter Creek. Recent westward expansion of the community has included a swath of land that acts as critical habitat for the Taylor’s checkerspot butterfly and the Mazama pocket gopher. This chapter presents these known environmentally sensitive areas in Tenino as well as a framework for the community to retain the character of the surrounding natural environments. Natural Resource Lands are regulated under WAC 365-196-485.

Environmentally Sensitive Areas

Figure 4. Identified critical areas in Tenino



Source: Thurston Regional Planning Council

A digital version of this map is available through [Thurston Regional Planning Council City of Tenino Web Map](#).

Environmentally sensitive or critical areas are located throughout Tenino including along Scatter Creek, the surrounding hillsides, and in the prairies of West Tenino. Critical areas, as defined in state law, include wetlands, critical aquifer recharge areas, frequently flooded areas, geologically hazardous areas, and fish and

wildlife conservation areas. The Growth Management Act mandates local governments that plan under RCW 36.70A.060, like Tenino, identify and adopt development regulations that protect critical areas from incompatible uses and development. When impacts to critical areas may occur, avoiding those impacts should be the first course of action. If impacts are unavoidable, then minimizing those impacts and mitigating them is essential. This is known as mitigation sequencing and is a tool that can be used to protect critical areas from incompatible uses and development. Where avoiding and minimizing impacts is possible but are limited by zoning requirements (such as required front, side and rear yard setbacks), the City should encourage reasonable reductions in the zoning requirements to help preserve critical areas.

The maps shown and discussed throughout this chapter show many of the areas of Tenino identified as potential critical areas. These maps are for informational purposes only and are intended to alert the development community, appraisers, and current or prospective property owners about the possible presence of critical areas on a site. The presence of a critical area on these maps is sufficient foundation for the City to require an analysis of the area prior to the acceptance of a development application for review. Fish and wildlife conservation areas are presented with State Priority Habitat and Species data, as well as on federal Endangered Species listings. Due to the changing nature of these listings and habitat and species priorities, a map of known conservation areas is not included as part of this chapter.

Groundwater and Critical Aquifer Recharge Areas

An extreme critical aquifer recharge area underlies the majority of the flat portion of the City of Tenino (see Map 4). Characteristics of this aquifer recharge area are:

- ◆ **Porous Soils with No Confining Layer.** Soils are exceptionally porous, and pollutants can easily enter the underlying groundwater as a result. Because the City relies on groundwater from an unconfined aquifer as its only source of potable water and the well depth is relatively shallow, protection of this aquifer from potential pollutants is particularly important.
- ◆ **Small Contributing Watershed Upstream of the Water Source.** Scatter Creek's watershed upstream from municipal wells is relatively small in area and offers a limited recharge capability for groundwater supplies. Capturing or slowing water upstream from the community's wells may be accomplished through wetland preservation and construction and will ensure that drinking water supplies are recharged. This is essential, especially during the dry summer months. Wetland preservation and creation will also contribute to in-stream flows in Scatter Creek, improving the quality of water and riparian habitat.

Frequently Flooded Areas

Frequently flooded areas, or areas that often experience surface or groundwater flooding, are primarily located near Scatter Creek and in Tenino City Park. Scatter Creek often experiences low flows in the summer months but floods in winter; surrounding land has been defined as a floodplain as a result (see Map 4). Areas of localized flooding and high groundwater hazards also occur as a result of winter storms. Key areas that experience local flooding include the Tenino City Park and the Huston Street area and known high groundwater areas, as documented during the 1997 flood. These areas are also shown on Map 4.

Wetlands

Wetlands in and around Tenino are located primarily along Scatter Creek, south of the Yelm-Tenino Trail in City Park, and on lands near the park (see Map 4). In their natural state, these wetlands perform a number of functions that are difficult, costly, and sometimes impossible to replace. Wetlands in Tenino:

- Provide erosion and sediment control.
- Stabilize streambanks, floodplains, and shorelines as a result of the extensive root systems of wetland vegetation.
- Improve water quality by decreasing the velocity of water flow as well as physically intercepting and filtering waterborne sediments, excess nutrients, heavy metals, and other pollutants.
- Provide food, shelter and essential breeding, spawning, nesting and wintering habitats for fish and wildlife, including migratory birds, anadromous fish, and other species.
- Store and slowly release stormwater.

Fish and Wildlife Conservation Areas

Fish and wildlife conservation areas protected under the Growth Management Act are primarily located along Scatter Creek and in West Tenino. High quality habitat is also adjacent to Tenino City Park due to the nearby forest and Creekside Conservancy lands. Known fish and wildlife priority habitat and species areas are documented on the Washington Department of Fish and Wildlife’s website and in Washington State’s Priority Habitat and Species data. Existing protected and priority species known to be present in Tenino include the Mazama pocket gopher (a species listed as threatened under the Endangered Species Act) in West Tenino and coho salmon and cutthroat trout in Scatter Creek.

Populations of the Taylor’s Checkerspot Butterfly (a federal endangered species) and the Mardon Skipper Butterfly (a state endangered species) also historically existed in the western portion of the community though no populations of Taylor’s Checkerspot are currently known to exist in the area (though the land has been designated as critical habitat to recover the species), and the present status of the Mardon Skipper in Tenino is unknown. Protected and priority species are shown in Table 2.

Table 2. Existing Protected and Priority Species in Tenino

Species	Occurrence	Critical Habitat	Listing Status	
			Federal	State
Fish				
Coho Salmon	X		--	--
Cutthroat Trout	X		--	--
Insects				
Taylor’s Checkerspot Butterfly	X (Historic)	X	Endangered	Endangered
Mardon Skipper Butterfly	X		Candidate Species	Endangered
Mammals				
Mazama Pocket Gopher	X	X	Threatened	Threatened

Source: WDFW Priority Habitats and Species Maps, City of Tenino

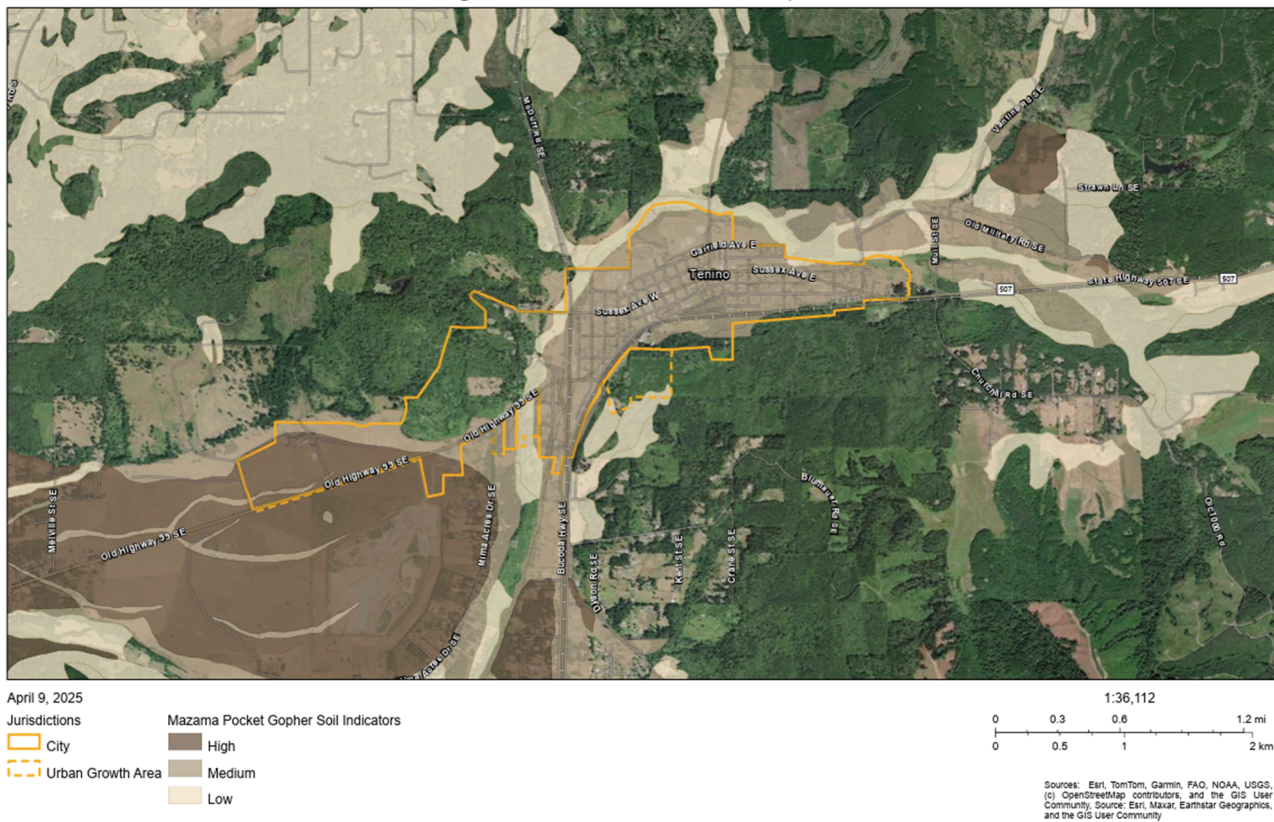
Key habitats in the community include prairie lands designated as critical habitat for the both the Mazama pocket gopher and Taylor’s checkerspot butterfly, and state-designated Oregon White Oak priority habitat that primarily

borders Scatter Creek. The functions and values of critical resources, including threatened and endangered species and habitats, can be protected through a variety of strategies, including educating the public about the value of the resource or species; supporting community, non-profit, and governmental efforts to conserve the species or habitat; having a proactive permit review process, and ongoing code enforcement efforts.

Mazama Pocket Gopher

Much of West Tenino remains undeveloped due to high levels of Mazama Pocket Gopher activity and habitat. According to the U.S. Department of Fish and Wildlife, the name Mazama Pocket Gopher encompasses four subspecies that are only found in Thurston and south Pierce County, Washington. All four subspecies have been listed as threatened under the Endangered Species Act since April 2014. Their primary threat is degradation and loss of their habitat due to conversion of prairie land to agriculture, commercial and residential development.

Figure 5. Mazama Pocket Gopher Areas



Source: Thurston Regional Planning Council

A digital version of this map is available through [Thurston Regional Planning Council City of Tenino Web Map](#).

Landslide and Erosion Hazards (Geologically Hazardous Areas)

Geologically Hazardous Areas are defined in the Washington Administrative Code (WAC) 365-190-120 as areas susceptible to erosion, sliding, earthquake, or other geological events. These events pose a threat to the health and safety of citizens when incompatible commercial, residential, or industrial development is sited in areas of significant hazard.

Areas within the City that exhibit steep slopes, unstable soils, groundwater seepage, or other geologic conditions may be subject to landslide and erosion hazards. Slopes of 40 percent or greater with at least ten feet of vertical relief are identified as landslide hazard areas under the City’s Critical Areas Ordinance, as are areas with historic slope failures, colluvial or alluvial deposits at the base of steep slopes, or subsurface geologic conditions that increase susceptibility to mass wasting or erosion.

Development proposed within or adjacent to landslide or erosion hazard areas is subject to review under the Tenino Critical Areas Ordinance to ensure that site alterations do not increase risks to public safety, adjacent properties, or critical infrastructure. Where such hazards are present, applicants may be required to submit a geologic hazards analysis prepared by a qualified geologist or engineer. The analysis must demonstrate that proposed development, grading, drainage, and vegetation removal will not exacerbate existing hazard conditions or create new risks beyond pre-development conditions.

To reduce the potential for slope instability and erosion, the City requires the use of buffers around landslide hazard areas, limits the placement of structures and septic systems in hazardous locations, and prohibits point discharges of stormwater onto or upslope from unstable slopes. Development standards emphasize avoidance and minimization of impacts through site design, maintenance of native vegetation, and appropriate stormwater management practices. Where impacts cannot be fully avoided, mitigation measures must be implemented consistent with best available science and the City’s mitigation sequencing requirements to ensure no net loss of critical area functions and values.

For more information on geologic hazards within the City of Tenino, see the [Washington Geologic Information Portal](#) (DNR)

Through application of these standards, the City seeks to protect life and property while allowing reasonable use of land in areas affected by geologic hazards, recognizing that inappropriate development in landslide or erosion hazard areas can increase risks both on-site and downstream or downslope.

Open Space Framework

While natural areas surround the City of Tenino, the primary open space and habitat areas present in the community are associated with Tenino City Park and the adjacent Creekside Conservancy properties, Scatter Creek and its surrounding riparian areas, and the prairie lands in West Tenino. Map 5 illustrates these open space and habitat areas as well as areas the Shoreline Master Program has jurisdiction over. Lands within 200 feet of the Ordinary High-Water Mark or floodway of Scatter Creek, as well as any wetlands associated with the creek, are subject to the Tenino Shoreline Master Program. Shoreline areas contain key habitat for fish and the bulk of the community’s wetlands.

Page intentionally left blank

Goals, Policies, and Actions

In reviewing each of the critical areas, Tenino has identified the following goals and policies to protect and maintain environmentally sensitive areas; protect groundwater and critical aquifer recharge areas; help defend the community from frequently flooded areas; preserve and protect wetland functions; conserve habitat for fish and wildlife; protect the public from landslide and erosion hazards; and maintain open space corridors. Additional goals and policies for development along Scatter Creek are presented in the Shoreline Master Program for Tenino (adopted herein by reference).

Goal NR 1: Natural resources and the environment are conserved.

- Policy NR 1.1** Follow the mitigation sequence minimize impacts to critical areas. Unavoidable impacts must be mitigated.
- Policy NR 1.2** Ensure attributes, functions, and amenities of the natural environment are protected.
- Policy NR 1.3** Use Best Available Science in the creation of ordinances and other development regulations and in making land use decisions to protect the functions and values of critical areas.
- Policy NR 1.4** Where a development proposal is to be located within the boundary of one or more critical area, require site-specific analyses that is completed at an appropriate timing for each critical area.
- Policy NR 1.5** Ensure all development (including clearing and grading) that could potentially impact a critical area is reviewed under the Tenino Critical Areas Ordinance.
- Policy NR 1.6** Require mitigation sequencing in the development of mitigation plans.

Goal NR 2: Land uses are compatible with topography, geology, underlying soils, surface water, ground water, frequently flooded areas, wetlands, and other geological or biological factors.

- Policy NR 2.1** Protect members of the public and community resources and facilities from injury, loss of life, or property damage due to landslides and steep slope failures, erosion, seismic events, volcanic eruptions, and flooding.
- Policy NR 2.2** Encourage the use of native plantings to help prevent erosion and other environmental impacts during and after construction.
- Policy NR 2.3** Identify and protect any fish and wildlife habitat conservation areas with which endangered, threatened, or sensitive species have a primary association.
- Policy NR 2.4** Identify and follow the mitigation sequence for the impact of new development activities on fish and wildlife habitat conservation areas containing species of local importance, naturally occurring ponds, waters of the state, and lakes, ponds, streams or rivers planted with game fish by a governmental agency or tribal entity.
- Policy NR 2.5** Adopt Thurston County's Shorelines Master Program goals and policies by reference, as part of this Comprehensive Plan and include subsequent amendments

Goal NR 3: Tenino maintains a high quality of drinking water with minimal contaminants and limited need to treat the water.

- Policy NR 3.1** Continue to monitor the quality of the drinking water to understand if and when potential contamination occurs.
- Policy NR 3.2** Clarify the extent of the wellhead protection area and continue to review projects in accordance with wellhead protection standards.
- Policy NR 3.3** Incorporate flood plain considerations and flood damage protection measures in the location, design, and construction of new development including public facilities, utilities and other public improvements, where appropriate.
- Policy NR 3.4** Promote the preservation, restoration, and expansion of wetlands to aid in water filtration and recharge capabilities.
- Policy NR 3.5** Encourage the infiltration of water into the soil near where it falls to help replenish the aquifer.
- Policy NR 3.6** Continue to adopt and enforce standards and policies that limit unnecessary impervious surfaces, especially in critical aquifer recharge areas.

Goal NR 4: Development in geologically hazardous areas is consistent with maintaining public health and safety.

- Policy NR 4.1** Identify potential geologically hazardous areas and require engineering, architectural or geotechnical investigations and certifications be made prior to approval of development permits or authorizations to proceed.
- Policy NR 4.2** Adopt standards governing excavation and grading.
- Policy NR 4.3** Consider soil instability, slopes, shrink/swell potential and other limitations for building and road construction in the processing of development applications.
- Policy NR 4.4** Adopt standards for the restoration and protection of critical areas impacted by excavation and surface disturbance.
- Policy NR 4.5** Adopt standards for relating lot area and density of development to the degree of slope and soil capability.
- Policy NR 4.6** Require revegetation and restoration of hillsides disturbed during development activities, consistent with the best available science.

Goal NR 5: Public property, private property, and natural resources are protected from losses associated with flooding.

- Policy NR 5.1** Minimize development within the Tenino floodplain and known high groundwater hazard areas.
- Policy NR 5.2** Preserve the size and function of natural water storage areas, including wetlands, along Scatter Creek especially upstream from the City's wells.

- Policy NR 5.3** Maintain flood standards, including building, mechanical and other codes, that are consistent with most recent FEMA standards and utilize best available science for floodplain construction practices.
- Policy NR 5.4** Incorporate floodplain considerations and flood damage protection measures in the location, design, and construction of new development including public and infrastructure projects.
- Policy NR 5.5** Develop a comprehensive stormwater management plan to better understand how stormwater flows through the community.
- Policy NR 5.6** Consider adopting standards to assist in the review of stormwater treatment for construction projects.
- Policy NR 5.7** Support the benefits and ecosystem services provided by healthy, connected floodplains and riparian systems, such as water attenuation, pollution filtration, flooding resilience, and drought resistance.

Goal NR 6: No net loss in the function and values of critical areas in Tenino.

- Policy NR 6.1** Make standards for critical area protection easy to understand and consistent with best available science.
- Policy NR 6.2** Where a critical area may be impacted, require developers/property owners to perform a delineation and to mitigate impacts that will occur as a result of the development proposal.
- Policy NR 6.3** Promote the clustering of homes away from critical areas.

Goal NR 7: Protect and enhance critical resources and habitats.

- Policy NR 7.1** Use best available science in preserving and enhancing resources for anadromous fish and other local endangered, threatened or sensitive species.
- Policy NR 7.2** Monitor state and federal discussions regarding endangered, threatened, and protected species and habitats.
- Policy NR 7.3** Take proactive steps to protect species and prepare for limitations on development associated with their protection.
- Policy NR 7.4** Require a habitat assessment to evaluate potential impacts to endangered, threatened or priority species as a result of any future development in West Tenino.
- Policy NR 7.5** Prohibit habitat fragmentation wherever possible and practical and encourage clustered development patterns.

Goal NR 8: Significant open space in Tenino is preserved and will always be part of the City.

- Policy NR 8.1** Work with non-profits, governmental agencies and other interested parties to preserve, connect, and enhance natural lands within Tenino.
- Policy NR 8.2** Partner with adjacent landowners to best preserve natural lands around Tenino City Park.
- Policy NR 8.3** Strive to appropriately manage habitat and the growth of any invasive species within the park, given limited available City maintenance budgets.

Policy NR 8.4 Improve connections between Tenino City Park and adjacent properties through better signage and trails.

Policy NR 8.5 Improve and maintain the health of Scatter Creek. Consider using the Shoreline Master Program’s restoration plan to identify potential habitat restoration projects.

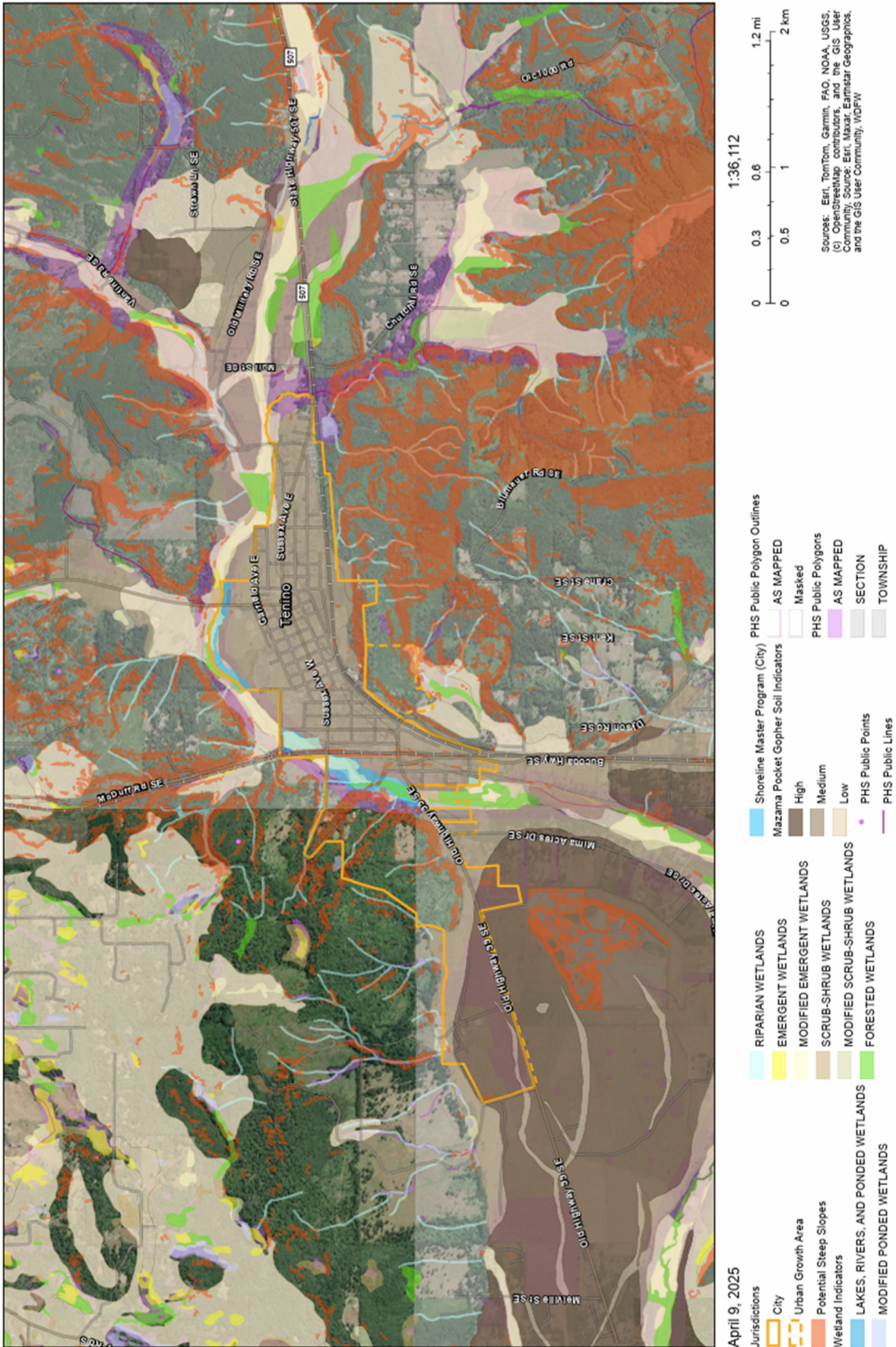
Policy NR 8.6 Strive to create a trail adjacent to the creek or riparian areas near the creek. Require the construction of the trail as part of future developments to create an amenity for residents.

Goal NR 9: Tenino’s scenic hillsides are protected.

Policy NR 9.1 Encourage hillside developments to preserve trees.

Policy NR 9.2 Consider developing standards for preserving treed skylines on Tenino’s hills.

Map 5. Critical Areas



A digital version of this map is available through [Thurston Regional Planning Council City of Tenino Web Map](#).

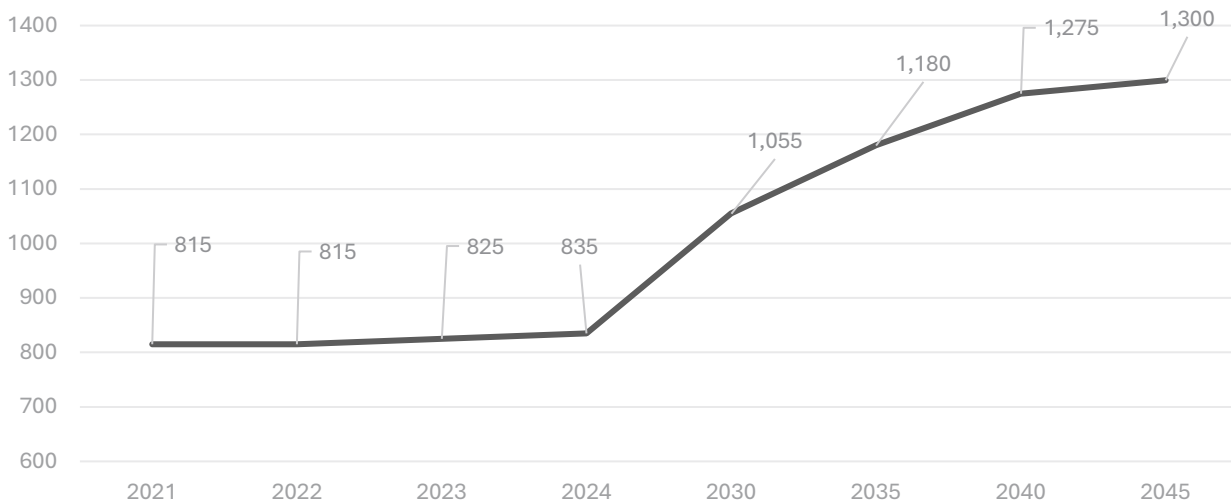
Page intentionally left blank

Chapter 3. Housing

In 2024, Tenino adopted a Housing Action Plan (HAP) with support from the Washington State Department of Commerce, under House Bill 1923 which was enacted to encourage cities which plan under the Growth Management Act (GMA) to complete specific actions that can increase housing options and support housing affordability. The HAP was an optional early step to gather data and community input that saved the city time and effort in preparing the State-mandated major periodic update of the Tenino Comprehensive Plan.

Tenino has a mix of housing types that have been built throughout the history of the community. During the next 20 years, it is estimated that the number of housing units in Tenino will increase by just under 50% (see Figure 7 below). To evaluate housing needs and goals over the 20-year planning period, the community conducted an inventory of existing housing conditions as part of the 2016-2036 Comprehensive Plan update; findings of the inventory are presented below, and additional information is provided in Appendix B, Housing Types.

Figure 6. Tenino Housing Forecast, Total Housing Units



Source: 2024 Thurston Regional Planning Council

The HAP provided a variety of community-led initiatives that encourage the provision of housing at process attainable to all residents, now and in the future. The Objectives listed below were developed through outreach efforts and the results of the housing needs assessment. The objectives drive the recommended actions and strategies. The strategies proposed in this plan aim to address six overall objectives for housing in Tenino based on primary housing needs and outreach. These objectives are:

- Increase the supply and variety of housing to serve identified housing needs.
- Reduce displacement of low-income residents resulting from redevelopment.
- Ensure opportunities for housing affordability are provided for residents at all income levels.
- Create opportunities for accessible housing for residents, especially low- and moderate-income households.
- Encourage development of a variety of housing types to create diversity in the community.
- Accommodate moderate-density options within urban growth areas and the city.

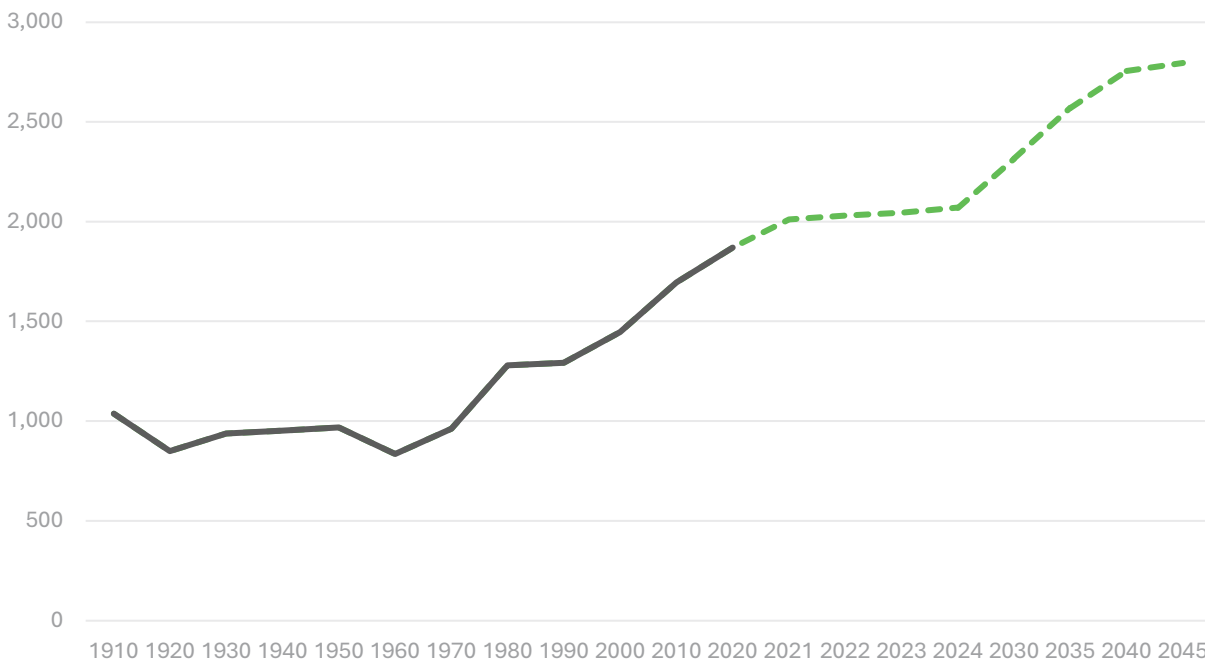
Housing Needs Assessment

Community Profile

The Community Profile discusses Tenino’s current and future population and the age, race, and ethnicity of residents. It also discusses the size, income, and characteristics of the City’s households, as well as households with specific needs and risks including cost-burdened households. These demographic and household characteristics provide background and context for the types of housing required to better serve all Tenino’s current and future residents.

Population and Demographics

Figure 7. Tenino Historic and Future Population (1910-2045)



Source: 2024 Thurston Regional Planning Council, Office of Financial Management (OFM)

The city’s population is expected to increase by more than 25% by 2045 with an estimated population growth to around 2,790 residents. Population projections are based on additional housing units that have been or are projected to be permitted within the next 20 years.

Occupancy

Table 3 outlines the tenure of housing units in Tenino at the 2010 Census. Table 4 identifies the occupancy status of dwellings based on the age of the householder. 68.6% of the occupied housing units in Tenino were owner-occupied. Rentals accounted for approximately one third of the occupied homes in Tenino and provided an important housing option for younger individuals and families. Rentals represented 57.1% of the housing units for individuals aged 15 to 25 and 38.6% of the units for individuals aged 25 to 34. Older householders tended to own their homes.

Table 3. Housing Tenure of Units in Tenino

Type of Housing	Total	Proportion
Occupied Housing Units	749	96.0%
Owner-occupied	491	62.9%
Renter-occupied	258	33.1%
Vacant Housing Unit	26	3.33%
Total Housing Units	780	

Source: American Community Survey, S2502, 2023

Table 4. Owner and Renter-occupied Housing

Age of Householder	Occupancy Status (Total)		Occupancy Status (Proportion of Age Group)	
	Owner	Renter	Owner	Renter
Under 35	91	80	53.2%	46.8%
35 to 44	137	35	79.7%	20.3%
45 to 54	103	49	67.8%	32.2%
55 to 64	77	58	57.0%	43.0%
65 to 74	55	19	74.3%	25.7%
75 to 84	25	3	89.3%	10.7%
85 and over	3	14	17.6%	82.4%
Total	474	217	65.6%	34.45%

Source: American Community Survey, S2502, 2023

Family Type

Approximately 34% of the families in Tenino had children in the home (see Table 5 below), a rate significantly higher than Thurston County as a whole (27%). Nonfamily households – households composed of a single individual or a group of unrelated individuals – accounted for a lower proportion of households than the larger County. Nonfamily households are anticipated to grow in Tenino over the next 20 years, consistent with trends the County has seen since 1970.

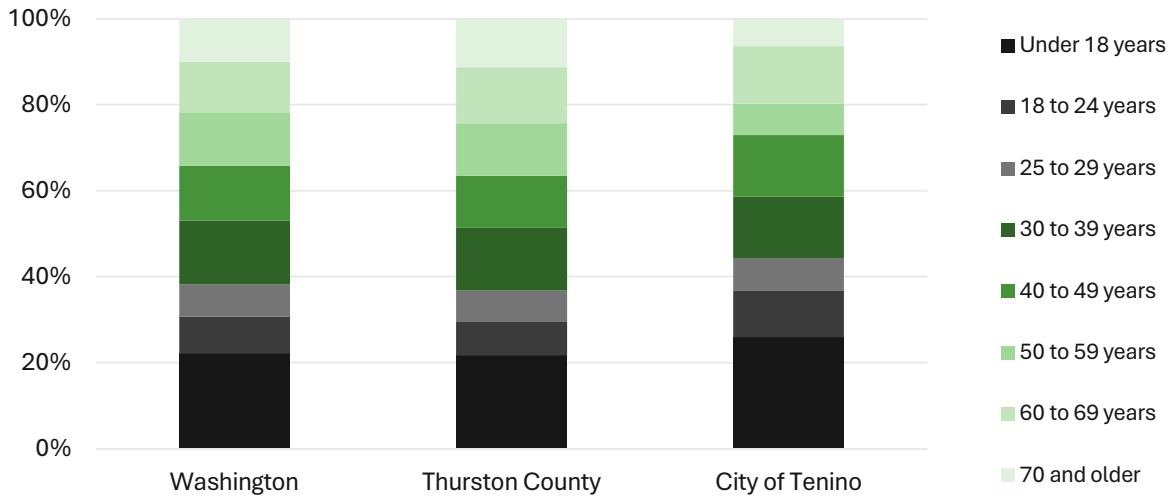
Table 5. Households by Family Type in Tenino

	Tenino			Thurston County		
	All	Renter-occupied	Owner-occupied	All	Renter-occupied	Owner-occupied
Total Households	749	34%	66%	117,172	32%	68%
Married-couple family	363	9%	91%	59,401	17%	83%
W/Own Children under 18	153	7%	93%	22,373	21%	79%
No Own Children under 18	210	10%	90%	37,028	14%	86%
Male or female householder, no spouse present	162	40%	60%	17,218	42%	58%
W/Own Children under 18	101	44%	56%	8,962	54%	46%
No Own Children under 18	51	39%	61%	8,256	28%	72%
Nonfamily	234	69%	31%	40,553	51%	49%

Source: American Community Survey, B25115, 2023

The population of Tenino is slightly younger than Thurston County or Statewide demographics. Just under 45% of the population is below 29 years of age. Tenino also has a smaller percentage of individuals 50 years or older, with 27% of the population compared to the County and State, at 36% and 34% respectively. Reflected in Figure 9, the city sees a higher number of families looking for a tight-knit community with close recreational opportunities.

Figure 8. Regional Comparison of Children in Households by Age-range (2021)

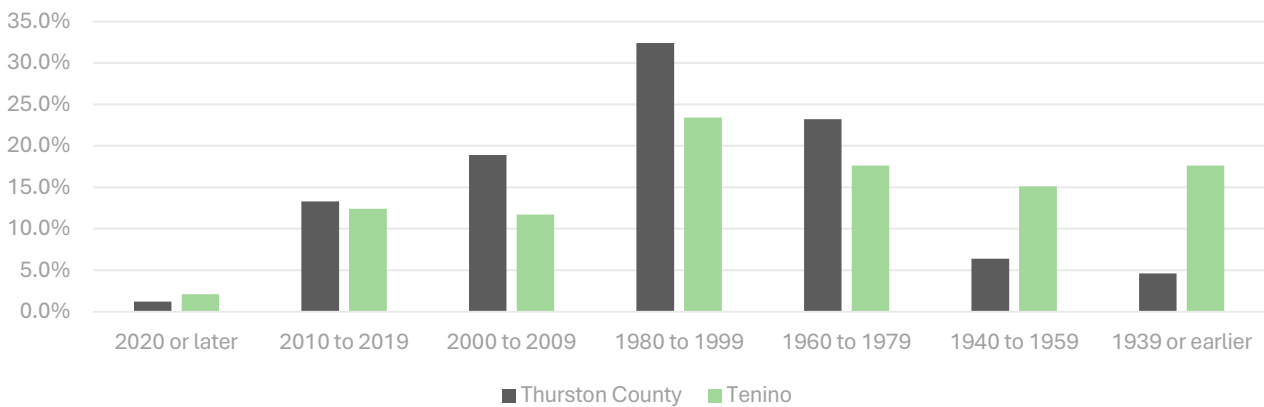


Source: American Community Survey, B25115, 2023

Housing Age and Quality

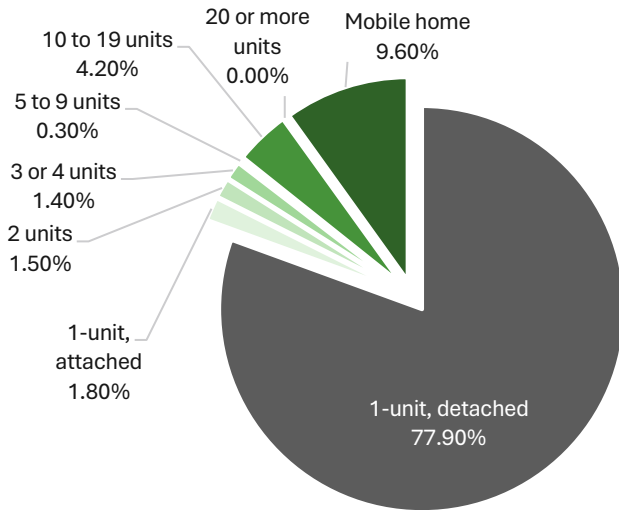
Table 10 lists the year of home construction for dwellings in Tenino. According to the Thurston County Assessor, nearly 33% of the homes in Tenino (with known or estimated construction dates) were built before 1960. The majority of these homes are located near the historic downtown in the Hodgden’s Addition and Snyder and Stevens Addition plats. Acknowledging the age of many of the structures in the community, the City of Tenino considers home restoration a key priority.

Figure 9. Year Residential Structure(s) Were Built



Source: American Community Survey, S2504, 2023

Figure 10. Housing Stock Comparison (2023)



Source: American Community Survey, S2504, 2023

Tenino’s housing stock is comprised primarily of single-family homes, as shown in Figure 1, making up more than 78% of the total stock. A majority of the remaining 22% are mobile homes and apartment buildings with 10 or more units along with a smaller share of duplexes, triplexes, and quadplexes. This housing mix reflects the growth of the single-individual and family-oriented population and its demand on the housing market.

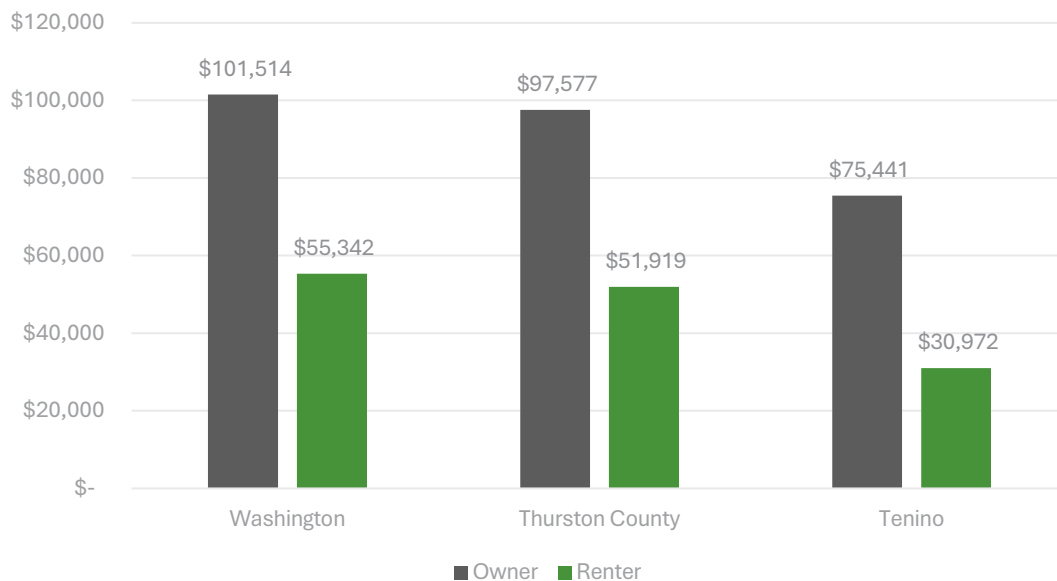
The housing in Tenino is largely considered historic (more than 50 years old) with a mix of more recently constructed homes, as explained in the HNA. Just under 63% of the buildings in Tenino were built more than 50 years ago. While older buildings may contain lead paint and present ongoing maintenance

problems, they can also provide a source of naturally occurring affordable housing units. The city’s housing stock has not developed in the same capacity as compared to the region; this is likely because Tenino has a preference to keep and revitalize historic structures rather than redevelop.

Housing Affordability

In Tenino, the Median Household Income (MHI) has not kept pace with the region, rising only 20% between 2010 and 2021, to \$55,202, when adjusted for inflation. While this is smaller than regionally, the MHI in Tenino fluctuates greatly with any variance in households.

Figure 11. Inflation-adjusted Tenino Household Income with Regional Comparison (2021)

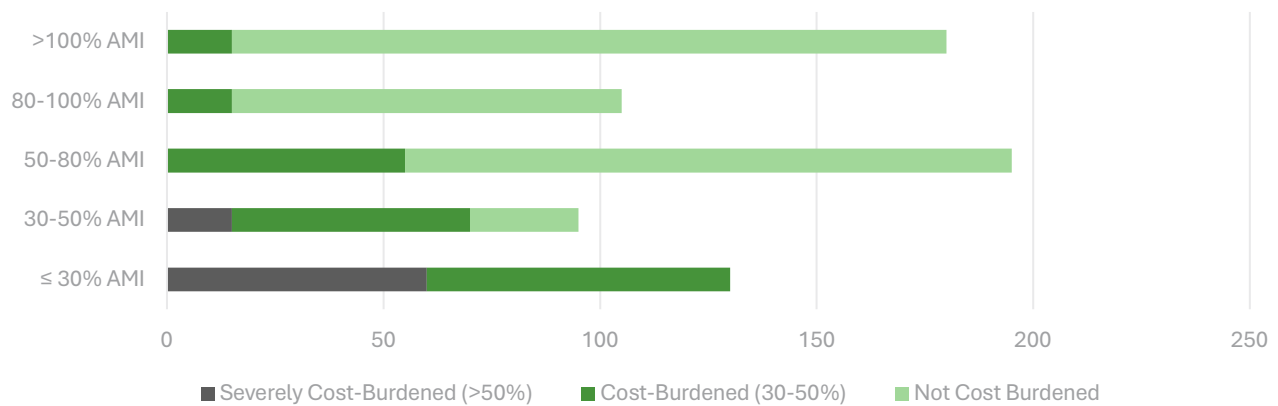


Source: City of Tenino Housing Needs Assessment (2023)

Analysis of the housing prices, values, and supply indicate that Tenino’s residents face an issue of housing availability and affordability.

Figure 13 shows that Tenino’s most cost-burdened households are also those earning the lowest incomes. The majority of households earning less than 30% AMI are also severely cost-burdened. Overall, nearly 11% of Tenino’s households are severely cost-burdened. Those residents fall in the lower end of the income spectrum, and they are typically renters, rather than homeowners. Cost-burdened residents can face difficult choices between prioritizing whether money is spent on housing and other household needs, or on food, clothing, transportation, and medical care, in addition to housing instability.

Figure 12. Cost Burdened Households in Tenino (2019)

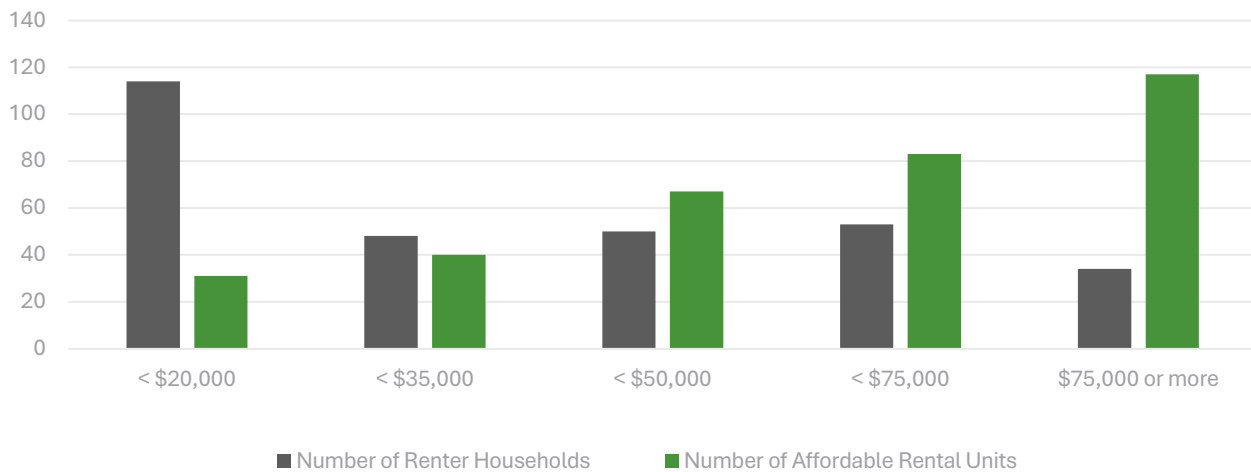


Source: HUD Comprehensive Housing Affordability Strategy (CHAS)

Future Housing Needs by Income

The housing market is typically thought of as two pieces: the rental market and the sales market. While there is overlap in household income levels between these two markets, affordable rental units and lower prices are always in demand.

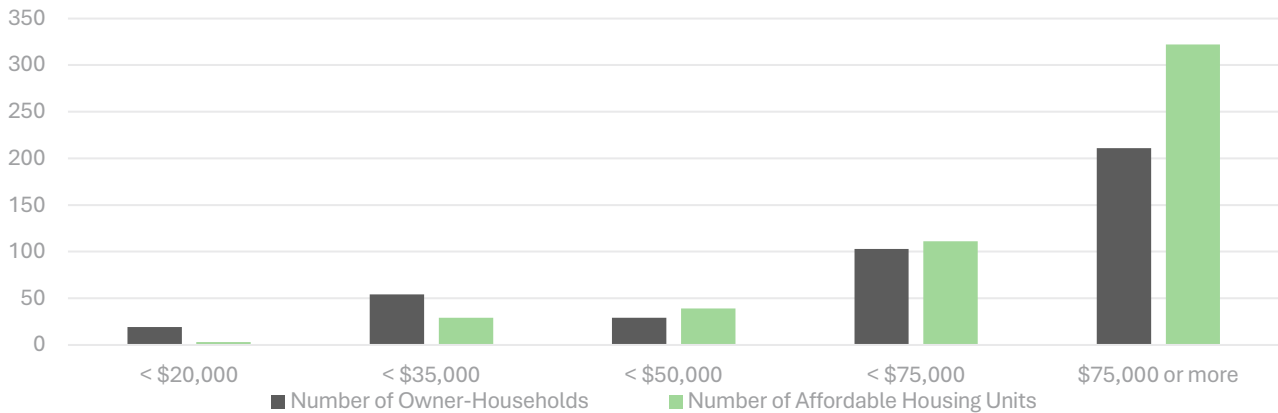
Figure 13. Renter Households and Affordable Rental Units by Income in Tenino (2021)



Source: City of Tenino Housing Needs Assessment (2023)

This same idea is reflected in the data in Figure 14 and Figure 15, where households making less than \$50,000 in annual income have a higher burden of cost due to lack of available affordable housing choices. The data shown below can help to better clarify where the City’s housing supply needs a boost. In this case, the gap between number of renters and number of affordable units would benefit from an increased supply of lower priced units. This may take the form of subsidized housing or rental assistance programs.

Figure 14. Owner Households and Affordable Housing Units in Tenino (2021)



Source: City of Tenino Housing Needs Assessment (2023)

Table 6 below shows a projection of the number of housing units required by income if the percentage of housing units per income were consistent through 2030, 2040, and 2045. With the information gleaned from Figures 14 and 15, it can be ascertained that the households making under \$50,000 annually, or under 48% of the Area Median Income, are in need of additional available units and that the percentage of housing units available to extremely low-, very low-, and low-income households should be increased.

Table 6. Estimated Housing Units Required in Tenino by Income (2030 - 2045)

		2021	2030	2040	2045	
% of Area Median Income		Total Housing Units	772	1,001	1,082	1,091
		Occupied Housing Units	725	953	1,029	1,038
Less than	19%	Less than \$20,000	18.3%	174	188	190
19%	to 34%	\$20,000 to \$34,999	14.1%	134	145	146
34%	to 48%	\$35,000 to \$49,999	10.9%	104	112	113
48%	to 72%	\$50,000 to \$74,999	21.5%	205	221	223
72%	or more	\$75,000 or more	33.8%	322	348	351
0%		Zero or negative income	1.4%	13	14	15

Source: 2021 American Community Survey 5-Year Estimates Table S2503, Thurston Regional Planning Council

Housing Units Needed to Accommodate Projected Population

Thurston County and the City of Tenino expect a population growth to reach 2,790 residents within city limits by 2045, as discussed in the Historic and Future Populations, previously. Using this projection, and ACS population data from 2021, the projection would account for an additional 832 residents over the course of

twenty-four years. This projection can be used to estimate the number of housing units that will be needed in Tenino by 2045, as shown below.

Table 7. Estimated New Housing Units Required in Tenino (2021, 2045)

	2021 Estimates	2045 Projection
Population	1,870	2,790
People Per Household	2.53	2.53
Households	725	1068
(5% Vacancy Rate)	-	53
Total Housing Units	772	1,168
New Housing Units Required	-	396

Source: 2023 Tenino Housing Action Plan

Another way of breaking down the housing unit projections is by type of structure. Table 8 represents the projections of housing unit needs if the City chose to keep the statistical proportions of 2021. Just over 65% of the City’s housing units were 1-unit, detached (also known as Single Family residences (SFR)). If the same ratio is applied to growth by 2045, there would be a projected need of 712 SFRs by 2045 (an additional 208 units). The City’s current zoning requirements use lot size area minimums and regulate residential density by site area and availability of utilities (such as sewer and water).

Table 8. Estimated Housing Units Required in Tenino by Type (2030-2045)

Units in Structure	2021	2030	2040	2045
Total Housing Units	772	%	1002	1082
1-unit, detached	504	65.3%	654	707
1-unit, attached	5	0.6%	6	6
2 units	68	8.8%	88	95
3 or 4 units	11	1.4%	14	15
5 to 9 units	3	0.4%	4	4
10 to 19 units	108	14.0%	140	151
20 or more units	0	0.0%	0	0
Mobile home	70	9.1%	91	98
Boat, RV, van, etc.	3	0.4%	4	4

Source: 2021 American Community Survey 5-Year Estimates Table DP04

This analysis does not consider other potential changes in the housing stock, particularly loss of housing stock due to age or poor condition, which could increase the number of new units required. The City’s average permit intake for housing units has fluctuated greatly over the last decade due to fluctuating need for multi-family structures. Though in recent years (aside from 2020, due to the onset of the COVID-19 pandemic) the overall number of permits has increased, the city will still likely see fluctuation based on demand from the increased population.

Table 9. Estimates of Accessory Dwelling Units for Tenino

Jurisdiction		Accessory Dwellings		Potential ADU Lots
		Adopted Forecast	Sustainable Thurston	
Tenino	City	19	28	395
	UGA	0	0	0
Total		19	28	395

Source: TRPC Land Capacity Memorandum

Table 10 presents a breakdown of projected housing units for 2030, 2040, and 2045. The calculations are based off the 2021 ACS listed household size and percentage of occupied housing units by income, with an added 5% to account for the standard vacancy rate. The table uses the projected population to break down the total housing units using the same method as Table 8, then assumes a 5% vacancy rate to obtain the projected occupied housing units and further breaks down the occupied housing units by 2021 percentage of housing units by income.

Table 10. Estimated Housing Units Required in Tenino by Income (2030-2045)

		2021	2030	2040	2045
% of Area Median Income	Total Housing Units	772	1,001	1,082	1,091
	Occupied Housing Units	725	953	1,029	1,038
Less than 19%	Less than \$20,000	18.30%	174	188	190
19% to 34%	\$20,000 to \$34,999	14.10%	134	145	146
34% to 48%	\$35,000 to \$49,999	10.90%	104	112	113
48% to 72%	\$50,000 to \$74,999	21.50%	205	221	223
72% or more	\$75,000 or more	33.80%	322	348	351
0%	Zero or negative income	1.40%	13	14	15

Source: 2021 American Community Survey 5-Year Estimates Table S2503, Thurston Regional Planning Council – 2024 Tenino Housing Action Plan

Housing Capacity Analysis Under Existing Zoning

The City evaluated whether sufficient land capacity exists to accommodate projected housing needs at all income levels, as identified in Table 9. This analysis is based on existing zoning regulations, currently permitted housing types, and available infrastructure within the City limits, and does not assume future zoning amendments, increased density allowances, or incorporation of Urban Growth Area lands.

This evaluation draws from the City’s adopted Housing Action Plan and Housing Needs Assessment, which include analysis of vacant and underutilized land, permitted residential densities, environmental constraints, and infrastructure service availability under current development regulations.

Under existing zoning designations, including Single-Family Residential, Single-Family Duplex, Multi-Family Residential, and commercial districts that allow residential uses, the City has an estimated residential capacity of approximately 1,168 dwelling units within the City limits. This capacity exceeds the projected need for 396 additional housing units by 2045, as identified in Table 10, and reflects development potential under current zoning standards and environmental constraints.

Projected housing needs across income levels are anticipated to be accommodated through the range of housing types already permitted under existing zoning. Multifamily housing, duplexes, accessory dwelling units, cottage housing, and small-scale infill development provide capacity for housing affordable to extremely low-, very low-, low-, and moderate-income households, while single-family and attached housing types continue to meet demand for above-moderate-income housing. This approach allows the City to plan for housing needs across income bands without reliance on future regulatory changes.

Emergency housing, emergency shelters, and permanent supportive housing may be accommodated within existing residential and commercial zoning districts. Based on the City's identified need for 11 emergency housing beds, sufficient capacity exists under current zoning and infrastructure conditions to accommodate these uses through adaptive reuse of existing buildings or small-scale new development within the City limits.

Areas identified as having residential capacity are generally served by existing water, sewer, transportation, and emergency services. No infrastructure constraints have been identified that would preclude development of housing at the scale necessary to meet projected needs under existing zoning.

Based on this analysis, the City has sufficient land capacity under existing zoning and infrastructure conditions to accommodate projected housing needs at all income levels, including emergency housing and permanent supportive housing, as identified in Table 10.

Housing Units Likely to Require Subsidies or Incentives

Based on the Housing Needs Assessment, housing units intended to serve extremely low-, very low-, and low-income households are the most likely to require subsidies, incentives, or public investment to achieve affordability. This includes a portion of the housing units identified in Table 10, as well as emergency housing and permanent supportive housing.

The Housing Action Plan recognizes that these housing types often depend on a combination of regulatory flexibility, financial incentives, and external funding sources. Units serving moderate-income households may also require incentives, such as density bonuses or reduced development costs, depending on market conditions.

Potential Funding Sources and Incentives

The Housing Action Plan identifies a range of funding sources and incentives that may be used to address affordability barriers, including:

- State and federal housing grants and loan programs
- Community Development Block Grant (CDBG) funding
- Partnerships with housing authorities, nonprofit housing providers, and regional housing organizations
- Fee reductions, density bonuses, and regulatory incentives to offset development costs
- Use of tax exemptions or other financial tools where applicable

These tools are intended to support housing development across income levels, with a particular focus on households most impacted by affordability constraints.

Local Barriers to Affordable Housing Development

The City recognizes that meeting projected housing needs across income levels will require addressing local barriers to affordable housing development. These barriers have been identified through the Housing Action Plan, Housing Needs Assessment, and associated policy and regulatory review, and are summarized below.

Regulatory and Zoning Constraints

Existing zoning regulations limit the range and scale of housing types that can be developed in certain residential districts. While multifamily housing is permitted in designated zones, lower-density residential areas allow a more limited range of housing types, which constrains opportunities for small-scale multifamily and middle housing that can be more attainable to lower- and moderate-income households. In addition, environmental constraints in portions of the city further limit the supply of buildable land, increasing development pressure on remaining sites.

Development Costs and Fees

Development costs, including utility connection fees, permitting costs, and site development requirements, present barriers to affordable housing production, particularly for nonprofit and small-scale developers. These costs can disproportionately affect housing intended to serve extremely low-, very low-, and low-income households, where project feasibility often depends on minimizing upfront expenses.

Limited Financial Feasibility for Lower-Income Housing

The Housing Needs Assessment identifies a gap between housing affordable to households earning below 50 percent of area median income and the existing housing supply. Housing serving these income levels typically requires public subsidy, financial incentives, or long-term affordability mechanisms to be feasible. Without such assistance, the private market alone is unlikely to produce sufficient units affordable to these households.

Infrastructure and Capacity Considerations

While the City has adequate overall infrastructure capacity to accommodate projected growth, the availability and timing of infrastructure improvements can affect where and when affordable housing can be developed. Coordinating infrastructure planning with housing goals remains an ongoing challenge, particularly for projects requiring higher density or supportive services.

Market and Community Factors

Community feedback documented in the Housing Action Plan indicates concerns about housing affordability, housing diversity, and the condition of older housing stock. These factors influence development patterns and highlight the need for strategies that support rehabilitation, infill development, and housing types that are compatible with existing neighborhoods while improving affordability.

Residential Displacement Risk

Residential displacement can occur when housing costs increase faster than household incomes, particularly in communities with a high proportion of renters, lower-income households, and older or more affordable housing stock. To support housing stability and equitable growth, the City evaluated areas within the City limits that may be at risk of residential displacement based on available data and adopted planning documents.

This evaluation draws on information from the City’s Housing Action Plan and Housing Needs Assessment, including household income patterns, cost-burdened households, renter concentrations, housing age, and affordability gaps. These factors are commonly associated with displacement risk and provide a reasonable basis for identifying areas of concern.

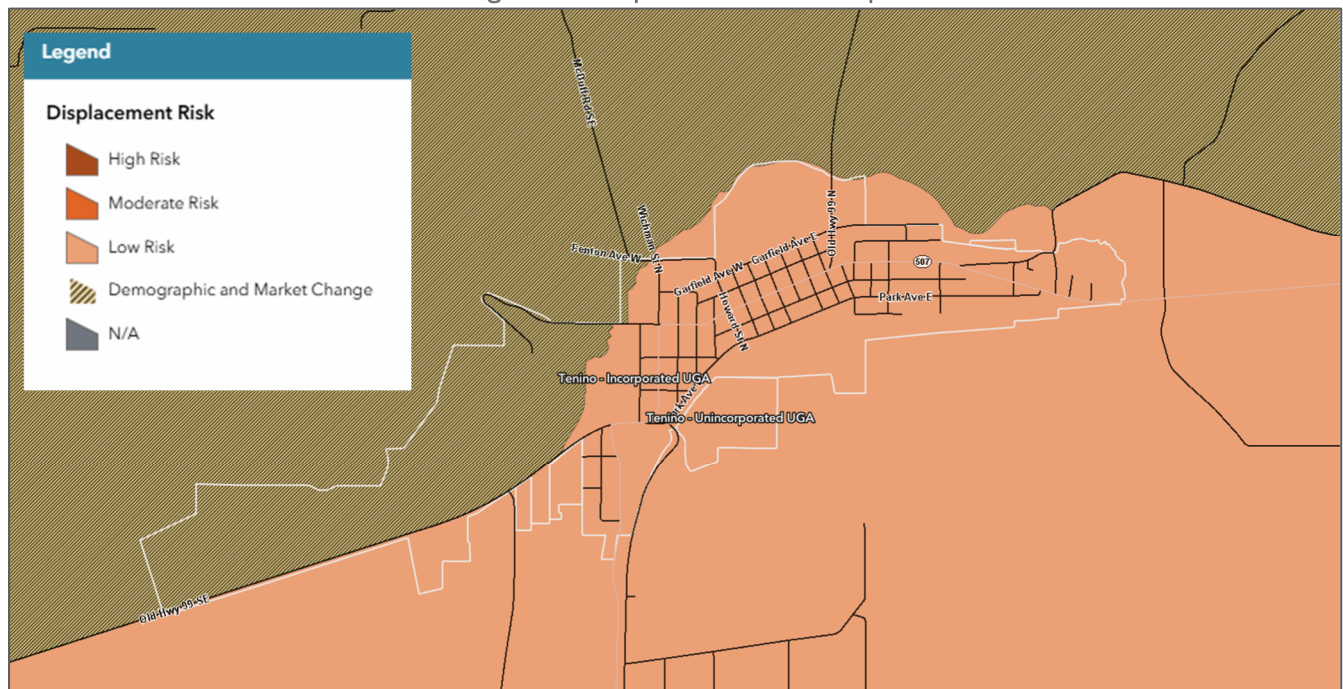
Areas Potentially at Risk of Displacement

The Department of Commerce completed an analysis of Displacement Risk areas across Washington State, Figure 15, below, reflects that there is a low risk of displacement within Tenino, however there are some areas that may be more vulnerable to residential displacement generally include:

- Neighborhoods with a higher concentration of renter households, particularly where rents have increased faster than incomes
- Areas with a high proportion of lower-income households and cost-burdened residents
- Locations containing older housing stock that may be more affordable today but vulnerable to reinvestment-driven rent increases or redevelopment
- Areas near downtown, employment centers, or public services, where increased development pressure and reinvestment may raise housing costs

These characteristics do not indicate that displacement is occurring, but they identify areas where residents may be more vulnerable to displacement pressures over time.

Figure 15. Displacement Risk Map



Source: Department of Commerce Draft Displacement Risk Map

Goals, Policies, and Actions

Goal HS 1: Encourage a variety of housing types, densities, and a range of affordable housing

Policy HS 1.1 Ensure that an adequate supply of land is zoned for a variety of housing types and budgets by periodically inventorying existing conditions and reviewing and amending the Comprehensive Plan and zoning code.

Action: Allow accessory dwelling units (ADUs) in all residential zones.

Action: Allow more housing types in commercial zones.

Action: Strategically allow live/work units in nonresidential zones.

Action: Allow single-room occupancy (SRO) housing in all multifamily zones.

Action: Mix market rate and low-income housing to avoid creating areas of concentrated low-income housing.

Action: Increase the types of housing allowed in low-density residential zones (duplexes, triplexes, small houses on small lots.).

Policy HS 1.2 Encourage new larger residential developments to include a mix of housing types.

Policy HS 1.3 Ensure that zoning requirements do not hinder new developments intended for elderly residents or individuals subject to the Fair Housing Act.

Action: Monitor state laws regarding housing and ensure these laws are addressed in local regulations.

Action: As part of comprehensive plan and development code changes, include an evaluation of the impact such changes will have on housing affordability, especially for low-income households.

Policy HS 1.4 Cooperate with public and private housing agencies to promote a fair and equitable distribution of housing for all income groups throughout the region.

Goal HS 2: The structural and aesthetic integrity of the existing housing stock is preserved and enhanced.

Policy HS 2.1 Actively review building permits for home remodels and enforce life- safety requirements of the City's regulations.

Action: Coordinate with the Thurston County Housing Authority and other agencies for funding and administration of home rehabilitation and construction.

Policy HS 2.2 Participate in federal, state, and regional rehabilitation programs and actively pursue Community Development Block Grant (CDBG) monies and other funding sources to rehabilitate the existing housing stock.

Policy HS 2.3 Maintain information about and connections to housing agencies and services to assist property owners and renters in the rehabilitation of the existing housing stock.

Policy HS 2.4 Promote adequate maintenance of the existing housing stock as a means of preserving more affordable housing options for individuals and families.

Goal HS 3: Utilize outside funding or assistance resources to pursue housing goals.

Policy HS 3.1 Partner with low-income housing developers (such as Habitat for Humanity, HomesFirst) to expand homeownership opportunities.

Action: Identify and develop partnerships with organizations that provide or support low-income, workforce, and senior housing as well as other populations with unique housing needs.

Action: Use Community Development Block Grant (CDBG), Section 108 loans and other federal resources for affordable housing.

Policy HS 3.2 Encourage local community groups, churches, and businesses to provide voluntary assistance with maintaining existing structures for the elderly, low-income, and those with special needs.

Policy HS 3.3 Encourage the Thurston Regional Housing Council to take greater advantage of State and Federal housing grants and tax incentives.

Goal HS 4: Housing is available for households at all income levels.

Policy HS 4.1 Add more permanent Supportive Housing

Action: Monitor the need for special housing and increase opportunities for such housing.

Policy HS 4.2 Explore barriers and policies that can increase access to housing for formally incarcerated individuals.

Policy HS 4.3 Encourage public, private, and non-profit associations and joint public-private partnerships to build low- to moderate- income housing.

Policy HS 4.4 Evaluate local development standards and regulations for their effects on housing costs, and modify development regulations that unnecessarily add to the price of homes.

Action: Offer density bonuses for low-income housing.

Action: Offer developers density and/or height incentives for desired unit types.

Action: Review fees/regulations to identify housing cost reductions.

Policy HS 4.5 Facilitate home ownership by low- and moderate-income families through federal, state and local programs.

Action: Discuss lower hook-up fees and other incentives for low-income affordable housing.

Action: Conduct education and outreach around city programs that support affordable housing.

Policy HS 4.6 Indirect costs associated with living in Tenino are minimized.

Action: Promote alternative means of transportation to help reduce the number of cost-burdened households in Tenino.

Action: Find ways to reduce sewer rates whenever possible without jeopardizing the maintenance and operation of the wastewater treatment system.

Goal HS 5: Increase accessibility throughout urban and transit corridors

Policy HS 5.1 Reduce parking requirements for residential uses, including for multifamily developments near frequent transit routes.

Policy HS 5.2 Lower transportation impact fees for multifamily developments near frequent transit service routes.

Policy HS 5.3 Develop partnership with transit providers to expand bus routes to additional areas of the city.

Policy HS 5.4 Expand the multifamily tax exemption to make it available in all transit corridors.

Goal HS 6: Increase housing diversity and supply within urban growth areas to reduce greenhouse gas emissions and support environmental justice.

Policy HS 6.1 Increase or remove density limits in areas well-served by transit and other services within the urban growth area.

Policy HS 6.2 Allow middle housing types, such as duplexes, triplexes, and ADUs, on all residential lots.

Policy HS 6.3 Plan for and invest in capital facilities to accommodate infill development.

Policy HS 6.4 Maintain a stable urban growth area to reduce development pressure on rural and resource lands.

Goal HS 7: New multifamily, middle housing, and attached housing units are constructed near downtown and add vitality to the downtown historic district

Policy HS 7.1 Ensure that sufficient lands are zoned to accommodate additional housing units near the downtown, and the zoning code does not unnecessarily limit the development of multifamily, middle housing, or attached housing types or accessory dwelling units.

Policy HS 7.2 Encourage landowners and developers to consider the construction of multifamily housing, middle housing, or options such as townhomes near downtown.

Policy HS 7.3 Ensure that multifamily housing projects located in high-priority areas for pedestrian activity are sited such that the building is located near the street and the parking is situated behind the structure.

Goal HS 8: Advance housing equity by identifying and reducing policies, regulations, and public investments that contribute to exclusion, displacement, or racially disparate housing outcomes, and by supporting inclusive housing opportunities and stability for existing and future residents.

Policy HS 8.1 Plan, prioritize, and phase public infrastructure and capital investments in a manner that supports equitable access to housing opportunity and avoids reinforcing patterns of exclusion or disinvestment. When major investments are planned, consider potential housing cost impacts and incorporate measures to reduce displacement risk.

Policy HS 8.2 Support anti-displacement strategies that help residents remain in the community, including preservation of existing affordable housing, rehabilitation of aging housing stock, and targeted support for housing types that are vulnerable to loss of affordability. Prioritize strategies that reduce economic displacement pressures for lower-income households and renters.

Chapter 4. Economic Development

This Economic Development Element serves as Tenino’s strategic policy guide for economic development over the next twenty years. It builds on an understanding of the city’s current economic conditions and future potential, providing a framework for decision-making that aligns with the goals outlined in Tenino’s vision statement.

The purpose of this element is to:

- Foster unity within the local business community
- Establish clear investment priorities
- Plan for a vibrant and sustainable economy
- Coordinate with existing plans and ongoing processes
- Promote, attract, and retain a diverse range of jobs and businesses to ensure a resilient employment base
- Celebrate and preserve Tenino’s historical and cultural heritage

The Growth Management Act’s (GMA) encourages jurisdictions to promote economic opportunity for all citizens, especially for unemployed and for disadvantages persons, promote the retention and expansion of existing businesses and recruitment of new businesses, recognize regional differences impacting economic development opportunities, and encourage growth in areas experiencing insufficient economic growth, all within the capacities of the jurisdictions natural resources, public services, and public facilities.

Defining Economic Development

Economic development is the process of enhancing the economic well-being and overall quality of life for Tenino’s residents. This is achieved through job creation and retention, support for local businesses, attraction of new investment, and improvements to public infrastructure and services.

In the context of a city like Tenino, effective economic development requires strategic planning and collaboration among the City, regional partners, businesses, and community stakeholders. Key focus areas include leveraging Tenino’s unique local assets, revitalizing and promoting the downtown core, encouraging entrepreneurship, and ensuring access to workforce development, quality education, and affordable housing. Together, these efforts aim to build a strong, inclusive, and sustainable local economy.

Sustainable Economic Development

The City recognizes sustainable economic development as a critical priority for long-term community vitality. It is the City’s policy to actively support and collaborate with the Thurston Economic Development Council, the Thurston Regional Planning Council, and local developers to expand and diversify economic opportunities. These efforts extend beyond the Tenino city limits and aim to promote regional prosperity throughout South Thurston County, wherever feasible.

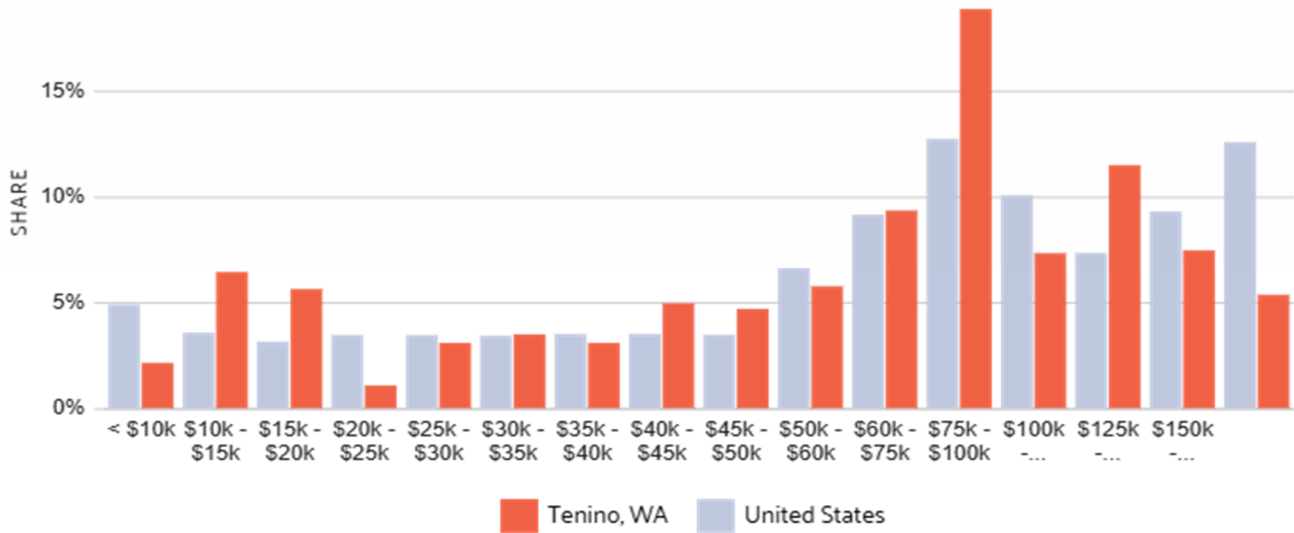
Economic Conditions

Income and Wages

In 2023, the median household income in Tenino, WA rose to \$75,438, up from \$63,654 the previous year, based on data from 749 households. Figure 9, below, illustrates how these households are distributed across

various income brackets compared to national averages, with the largest share falling within the \$75,000 to \$100,000 range.

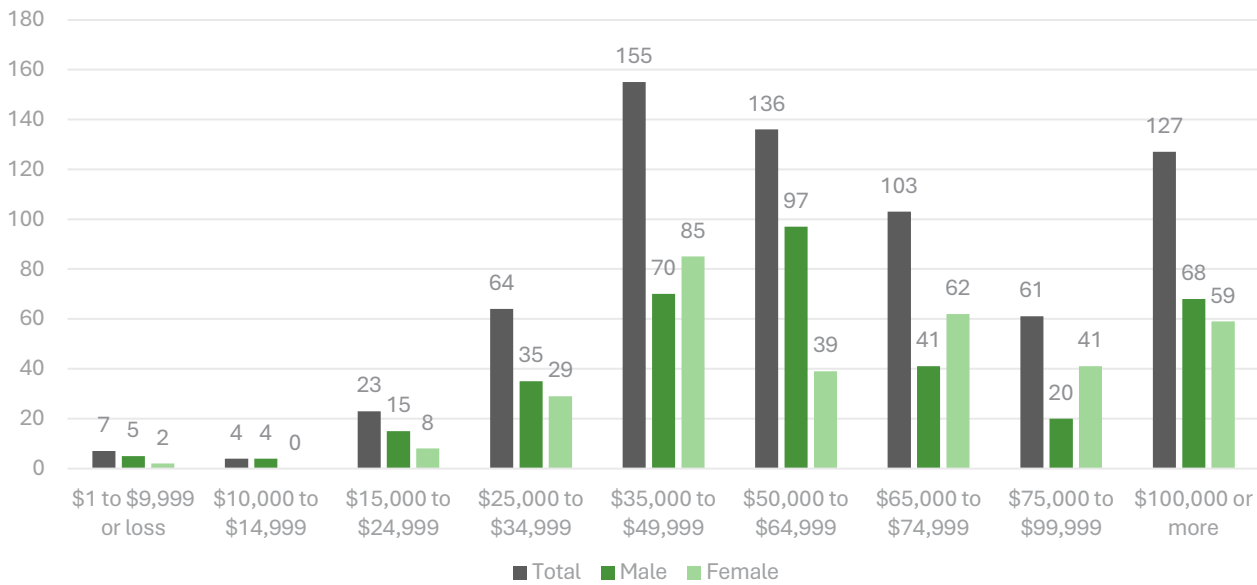
Figure 16. Household Income in Tenino and United States (2023)



Source: The Census Bureau, ACS 5-year Estimate, Datausa.io

In 2023, the median earnings for individuals in Tenino, WA aged 16 and over with earnings stood at \$44,207, according to the U.S. Census Bureau’s ACS 5-Year Estimates. Among full-time, year-round workers, 680 individuals were reported, with a notable gender gap in earnings. Male full-time workers had a median income of \$49,313, while female full-time workers earned a median of \$40,938. This reflects a difference of over \$8,000, highlighting a persistent disparity in wages between men and women in the community.

Figure 17. Full-time Worker Earnings in Tenino

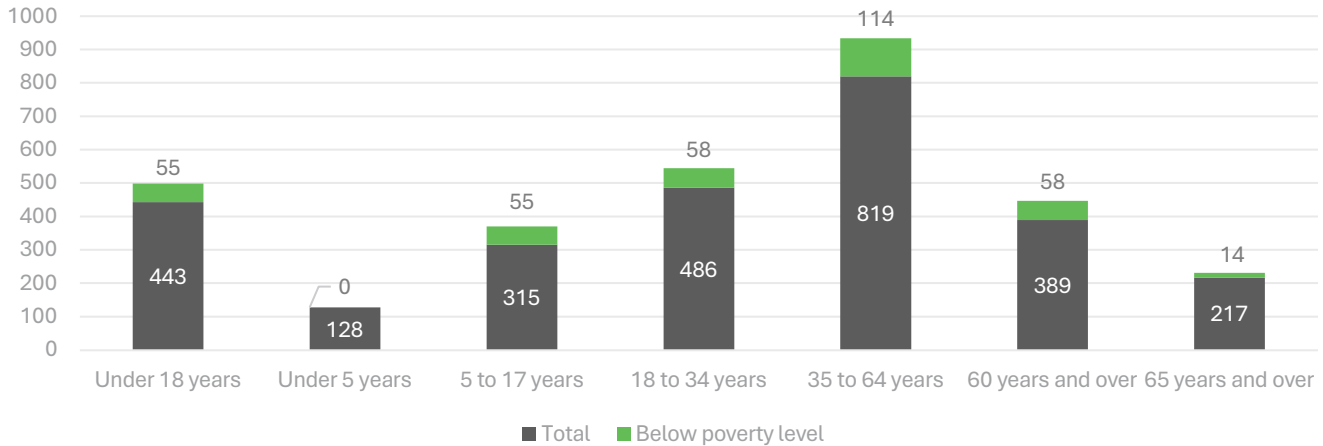


Source: The Census Bureau, ACS 5-year Estimate, S2001

Poverty and Unemployment

Out of 1,965 individuals in Tenino, WA for whom poverty status was determined, 241 were living below the poverty level in 2023—representing 12.3% of the population, according to the U.S. Census Bureau’s ACS 5-Year Estimates. Among children under 18, the poverty rate was slightly higher at 12.4%, with 55 individuals affected. This data indicates that poverty in Tenino affects both the general population and children at similar rates, underscoring the need for continued support and resources aimed at low-income families in the community.

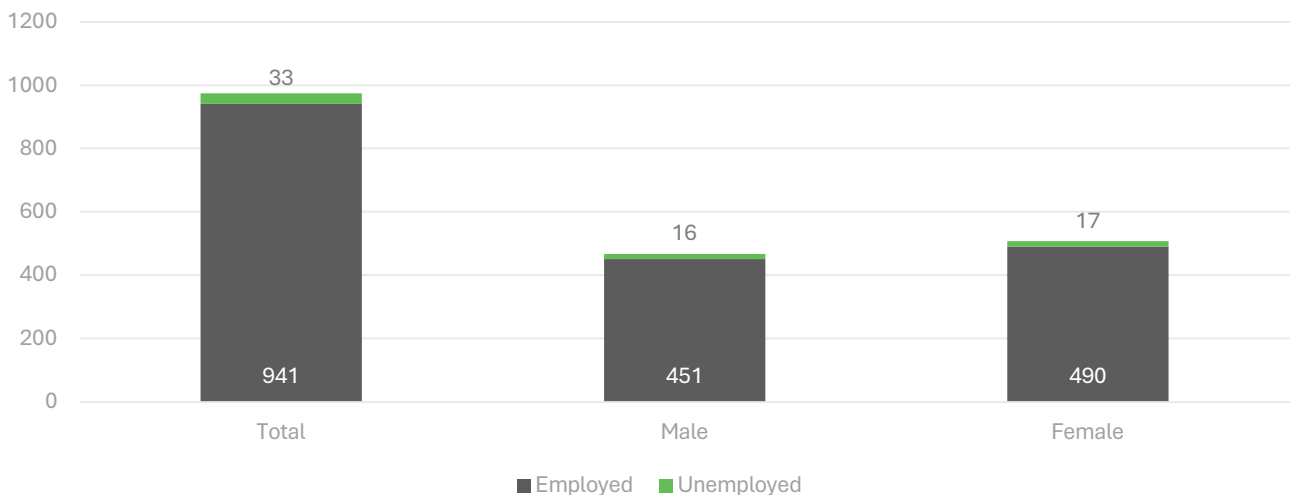
Figure 18. Population Distribution and Poverty Status (2023)



Source: The Census Bureau, ACS 5-year Estimate, S1701

According to Figure 19, approximately 974 individuals aged 16 years and over were identified as part of the civilian labor force in Tenino, WA. Of the 467 males in the labor force, 16 were reported as unemployed; none of these individuals were considered to be living below the poverty level. Among the 507 females in the labor force, 17 were reported as unemployed, with approximately 47% of them classified as living below the poverty level.

Figure 19. Employment Status, Total and by Gender (2023)



Source: The Census Bureau, ACS 5-year Estimate, S1701

Workforce Profile

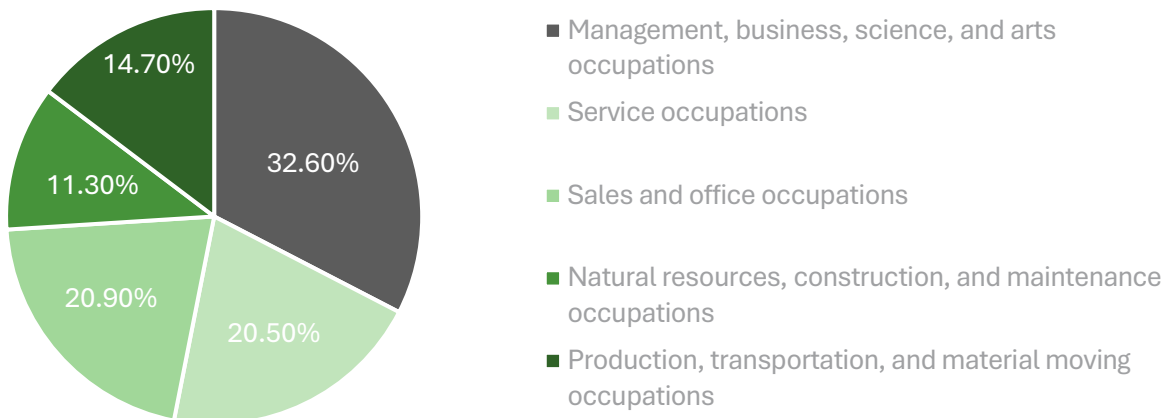
As reflected in Figure 20, the largest occupational group among Tenino’s employed population falls within the Management, Business, Science, and Arts category, which accounts for 32.6 percent of total employment. This category encompasses educators, managers, healthcare professionals, and other knowledge-based occupations. Individuals in this group are most commonly employed within the Elementary and Secondary Schools industry, consistent with Tenino’s role as a residential community where many residents commute to nearby employment centers such as Olympia, Tumwater, and Centralia. The prevalence of education-related employment highlights the importance of regional public institutions and professional service sectors in the local economy.

The second and third most common occupational categories are Sales and Office Occupations (20.9 percent) and Service Occupations (20.5 percent), respectively. Together, these sectors represent more than two-fifths of the local workforce and include retail, administrative, food service, and personal care roles. These occupations are typically associated with Tenino’s small business environment and service-based local economy, supporting both residents and visitors drawn to the city’s historic downtown and tourism-oriented amenities.

The remaining workforce is distributed among Natural Resources, Construction, and Maintenance Occupations (11.3 percent) and Production, Transportation, and Material Moving Occupations (14.7 percent). These categories reflect the city’s connection to the broader South Thurston County economy, which includes construction trades, manufacturing, logistics, and natural resource industries. Employment in these sectors also indicates the presence of skilled trades and infrastructure-related occupations critical to maintaining Tenino’s physical and built environment.

Overall, the city’s occupational composition demonstrates a balanced mix of professional, service, and trade-related employment, with a slight tilt toward education and knowledge-based roles. This balance supports a resilient workforce, though it also underscores the need to maintain regional transportation connectivity and affordable housing options for commuters. As Tenino continues to grow, workforce development strategies—such as partnerships with the Tenino School District, local businesses, and nearby technical and community colleges—could help align local skills training with emerging employment opportunities in clean energy, public infrastructure, and small-scale manufacturing.

Figure 20. Occupation Type of Civilian Employed in Tenino (2023)



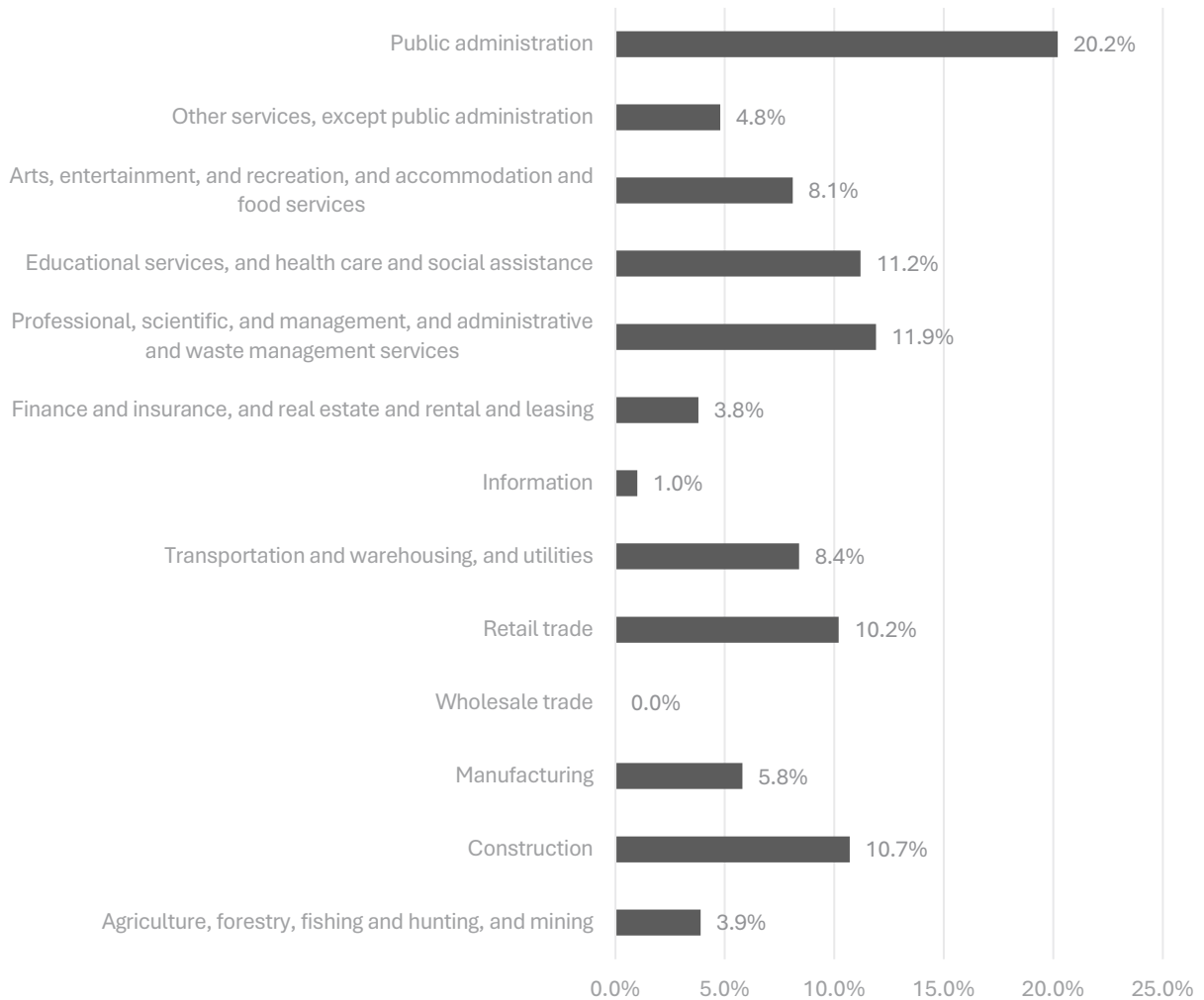
Source: The Census Bureau, ACS 5-year Estimate, DP03

Major Business Sectors

The City of Tenino’s largest share of industry employment is in Public Administration, accounting for 20.2% of the workforce. This is followed, at a significantly lower rate, by employment in Professional, Scientific, and Management Services, including Administrative and Waste Management Services (approximately 12%), and in Educational Services, Health Care, and Social Assistance (approximately 11%).

The City's Arts industry—comprising Arts, Entertainment, and Recreation, along with Accommodation and Food Services—accounts for a relatively modest 8.1% of overall employment. However, this figure does not fully reflect the broader impact and cultural significance of the arts and recreation sector in Tenino. The community is home to a rich and active arts scene that extends beyond traditional employment metrics, including local artists, artisans, and recreational opportunities that contribute significantly to the city's identity and vibrancy. As such, while the formal employment data may suggest a smaller industry presence, the arts and cultural sector in Tenino represents a far greater influence in terms of community value, visitor draw, and potential for future economic development.

Figure 21. Civilians employed by Industry in Tenino (2023)



Source: The Census Bureau, ACS 5-year Estimate, DP03

Business Licensing

To maintain compliance with municipal regulations and support equitable economic development, the City of Tenino requires all entities conducting business within its city limits to obtain a valid business license. This requirement applies to all types of businesses, including home-based enterprises, internet-based operations, and any business activity transacted within Tenino—regardless of whether the business maintains a physical presence in the city.

Business licenses for Tenino are issued through the Washington State Department of Revenue and are administered as a local "endorsement" to the State Business License. When applying for a new state license—or renewing an existing one—business owners will be prompted by the online licensing system to select all Washington jurisdictions in which they operate, including Tenino. This process ensures that businesses are properly registered and in compliance with local requirements.

Business and Occupation (B&O) Tax

In alignment with state practices, the City of Tenino imposes a Business and Occupation (B&O) tax on certain businesses operating within city limits. This tax is assessed directly on gross income generated by business activities conducted in Tenino and is not passed on to customers.

The B&O tax rate is 0.2% (two-tenths of one percent) of gross income. Businesses are subject to this tax if their gross revenue exceeds \$20,000 annually or \$5,000 per quarter. Businesses that meet or exceed these thresholds are required to file and remit the appropriate tax on a quarterly basis.

All businesses—regardless of whether tax is owed—must file a quarterly B&O tax return. Failure to submit a required return constitutes a misdemeanor under city ordinance.

Detailed filing instructions, forms, and additional resources are available in the supporting documents referenced in this plan. This tax structure helps ensure all businesses contribute equitably to the public services and infrastructure that support the local economy.

Economic Development Resources

Bountiful Byways

Tenino has the honor of being along the 60-mile loop within Thurston County called the Thurston Bountiful Byway. This loop provides authentic agritourism experiences, outstanding scenery, friendly towns, and existing recreational adventures.

<https://www.experienceolympia.com/things-to-do/roadtrippers/thurston-bountiful-byway/>

Experience Olympia & Beyond

Experience Olympia supports tourism, agri-innovation, and has regional marketing assets. Through its regional initiatives Experience Olympia elevates the city's profile, supports value-added food business growth, and attracts visitors and new enterprises to south Thurston County. This partnership helps Tenino broaden its economic base, increase visitor spending, and foster local business retention and expansion.

<https://www.experienceolympia.com/>

Small Business Development Center (SBDC)

The Small Business Development Center (SBDC) is a program dedicated to promoting economic growth in the community. They provide confidential one-on-one consulting to assist with business start-ups, growth, loans, marketing, government contracting, technology, and more. They have resources that can assist to start, grow, and manage a business, and their services are at no cost.

The SBDC also offers low-cost training events and workshops that help strengthen business knowledge and immediately apply it to business plans.

<https://wsbdc.ecenterdirect.com/>

South Thurston Economic Development Initiative (STEDI)

The South Thurston Economic Development Initiative or STEDI is a consortium focused on long-range economic and community development in the rural areas of Thurston County. The Initiative connects the collective strengths and resources of participating South Thurston communities with strategic community partners to identify and implement efforts that will meet South Thurston's economic and community development goals.

The City of Tenino is a participating community, STEDI meets on the third Friday of every month at 8:00 AM via Zoom. Other strategic partners include the Confederated Tribes of the Chehalis Reservation, Community Foundation of South Puget Sound, Experience Olympia & Beyond, Nisqually Indian Tribe, among others.

<https://thurstonedc.com/stedi/>

Tenino Area Chamber of Commerce

The Tenino Area Chamber of Commerce works with Tenino Businesses, non-profits, local, county, and state government agencies to create a strong sense of place, a resilient local economy, and a great community to live, work, play and visit.

<https://teninoacc.org/>

Thurston EDC

The Thurston EDC and Center for Business Innovation was created in 1982 and has a mission to create a dynamic and sustainable economy that supports the values of the people who live and work in Thurston County. At their foundation they support through three main principles: Recruit, Retain, and Expand.

<https://thurstonedc.com/>

Thurston Investment Network (ThINk)

ThINk is a membership-based network. Through the Thurston Investment Network (ThINk), people with a desire to have a local component to their investment portfolio have an opportunity to connect with local business owners who need capital.

<https://thurstonedc.com/think/>

Grant Programs

Community Development Block Grant (CDBG)

Administered by the Department of Commerce. Cities and towns with less than 50,000 in population. Projects must primarily benefit low-moderate income persons. For housing rehabilitation, economic development, infrastructure, community facilities, planning, and public services projects.

<http://www.commerce.wa.gov/serving-communities/current-opportunities/community-development-block-grants/>

Community Economic Revitalization Board (CERB)

CERB provides local governments with low-interest loans and some grants to help finance public facility projects needed for private sector expansion and job creation.

<http://www.commerce.wa.gov/building-infrastructure/community-economic-revitalization-board/>

Energy Saving Performance Contracting (ESPC)

Washington General Administration program that assists colleges, cities and towns, counties, school districts, hospital districts, library districts, port districts and more with selecting and financing solutions for building energy upgrades for energy saving projects such as: energy management systems, interior and exterior lighting, boiler replacement and repair of steam distribution systems, high efficiency HVAC systems, LED traffic systems, wastewater treatment plant pumps and motors.

<http://www.des.wa.gov/services/facilities/Energy/ESPC/Pages/default.aspx>

LOTT Clean Water Alliance

Washington General Administration program that assists colleges, cities and towns, counties, school districts, hospital districts, library districts, port districts and more with selecting and financing solutions for building energy upgrades for energy saving projects such as: energy management systems, interior and exterior lighting, boiler replacement and repair of steam distribution systems, high efficiency HVAC systems, LED traffic systems, wastewater treatment plant pumps and motors.

<https://www.lottcleanwater.org/rebate-programs/>

- ◆ LOTT Septic Conversion Incentive Program

<https://www.lottcleanwater.org/wp-content/uploads/2024/12/septic-rebate-information-and-application.pdf>

Public Works Board: Public Works Trust Fund (PWTF)

Provides financial and technical assistance to communities for critical public health, safety, and environmental infrastructure.

<http://www.pwb.wa.gov/>

Recreation and Conservation Funding Board (RCFB)

The Recreation and Conservation Office (RCO) is a small state agency that manages five boards and offices tasked with creating outdoor recreation opportunities, protecting the best of the state's wildlife habitat, conserving working farms and forests, recovering salmon from near extinction, and coordinating the state's response to invasive species.

This collection of boards and offices provides leadership, funding, and technical assistance to local communities, state and federal governments, and others.

<https://rco.wa.gov/recreation-and-conservation-office-grants/>

Transportation Improvement Board Urban and Rural Programs (TIB)

The TIB distributes grant funding to cities and counties for transportation projects.

<http://www.tib.wa.gov/>

Transportation Programs (WSDOT & FHA)

WSDOT administers funding for the following programs: Bridge, Transportation Enhancement, Pedestrian and Bicycle Safety, Safe Routes to School, Public Transportation and Mobility, and other transportation related programs.

<http://www.wsdot.wa.gov/localprograms/ProgramMgmt/funding.htm>

USDA Rural Development

Dedicated to improving the quality of life and expanding the economic opportunity for rural American by providing various loan and grant programs to help meet the diverse needs of small rural communities for housing, businesses, and critical infrastructure.

- ◆ Community Facilities Direct Loan & Grant Program
<http://www.rd.usda.gov/programs-services/community-facilities-direct-loan-grant-program/wa>
- ◆ Water & Waste Disposal Loan & Grant Program
<http://www.rd.usda.gov/programs-services/water-waste-disposal-loan-grant-program/wa>
- ◆ Business & Industry Loan Guarantees
<http://www.rd.usda.gov/programs-services/business-industry-loan-guarantees/wa>

Washington Department of Commerce

Growth Management Grants

Emerging Issues Grants are to provide financial assistance to local governments for projects that are critical to implementing their comprehensive plan under the Growth Management Act outside of other Growth Management Services grant funding cycles. Funding availability is contingent on allocation by the legislature.

<http://www.commerce.wa.gov/serving-communities/growth-management/>

Washington Department of Ecology

Ecology grants and loans include funding for: air quality, coastal zone management, environmental education, flood control, shoreline management, spill response, waste management, water quality, and watershed management.

<http://www.ecy.wa.gov/funding/explore-funding.html>

Goals and Policies

Goal ED 1: Promote Tenino’s identity and actively influence the future character of the City to enhance the available economic opportunities.

Policy ED 1.1 Ensure consistent comprehensive branding and marketing that highlights the unique identity, strengths, and offerings of the City of Tenino, fosters civic pride, attracts visitors, residents, and businesses while enhancing the city’s reputation and visibility.

Action: Develop and implement a comprehensive branding and marketing plan.

Policy ED 1.2 Maintain/implement programs for community improvement

Policy ED 1.3 Encourage preservation and adaptive reuse of the historic building inventory

Policy ED 1.4 Promote tourism/visitor opportunities throughout the community (especially in the central business district)

Policy ED 1.5 Encourage new businesses that cater to local residents’ needs; work with Thurston EDC, Bountiful Byways, and other organizations to promote these businesses

Goal ED 2: Support the development of small businesses and cottage industries, which can contribute to Tenino’s economic diversity.

Policy ED 2.1 Review regulations on home-based industries and provide for those industries in appropriate zoning districts.

Policy ED 2.3 Promote the concept that buying from local businesses is a way to strengthen the local economy.

Goal ED 3: Collaborate with other partners to maximize economic opportunity.

Policy ED 3.1 Collaborate with neighboring jurisdictions

Policy ED 3.2 Support local/regional economic development efforts

Policy ED 3.3 Collaborate with local economic development organizations to create new and maintain existing living-wage jobs

Goal ED 4: Broad variety of employment opportunities offering diverse retail, commercial, and entertainment options for the community

Policy ED 4.1 Identify and implement incentives to increase business diversity including offering tax breaks, grants, or reduced permitting fees or regulations to attract a wide range of businesses.

Policy ED 4.2 Encourage zoning policies that support a mix of commercial, retail, entertainment, and residential spaces to help create dynamic neighborhoods with local jobs.

Policy ED 4.3 Encourage incubators, coworking spaces, and seed funding programs to support local entrepreneurs in various sectors.

Policy ED 4.4 Streamline short-term permits for pop-up shops, local markets, or food trucks, lowering the barrier to entry for small business owners.

Goal ED 5: Trained/skilled local work force providing talent for local businesses

Policy ED 5.1 Partner with local colleges, trade schools, and nonprofits to provide training in retail management, hospitality, tech, trades, and creative fields.

Policy ED 5.2 Establish youth-focused job programs that connect students to internships or part-time work in commercial and entertainment sectors.

Policy ED 5.3 Encourage or require inclusive hiring practices for new businesses receiving city support or locating in city-sponsored developments.

Goal ED 6: Align local economic development with climate resilience and GHG reduction by supporting green industries, clean technologies, and low-carbon business practices.

Policy ED 6.1 Support small businesses and entrepreneurs that reduce emissions, enhance sustainability, or increase circular economy practices.

Policy ED 6.2 Promote purchasing from local businesses to support economic development and reduce emissions associated with the transportation, production, and distribution of goods and services.

Policy ED 6.3 Grow the local economy through low-impact tourism that supports natural resource conservation and climate goals.

Policy ED 6.4 Promote local industrial development to support a circular economy that increases demand for reused and recycled materials and reduces demand for new raw materials and their embodied carbon emissions.

Goal ED 7: Ensure that the local economy is resilient to climate disruptions and fosters business opportunities associate with climate mitigation and adaptation.

Policy ED 7.1 Ensure that the City of Tenino’s Comprehensive Emergency Management Plan responds to the impacts of climate change and identifies roles and responsibilities to support a sustainable economic recovery after a disaster.

Policy ED 7.2 Support local businesses’ efforts to bolster climate preparedness and continuity of operations.

Policy ED 7.3 Facilitate a green jobs pipeline for frontline communities.

Policy ED 7.4 Support workers displaced from carbon-intensive industries.

Goal ED 8: Downtown Tenino continues to be the historic and retail center of Tenino.

Policy ED 8.1 Encourage retail and service businesses to locate downtown, both in older buildings and newer structures.

Action: Work with business owners to understand challenges and needs and identify actions the City can take to support a healthy local economy and leverage local entrepreneurial spirit.

Policy ED 8.2 Encourage cosmetic improvements to the existing streetscape and structures within the area.

Action: Work to complete the Main Street concepts.

Action: Identify grant opportunities or invest in low-cost actions to fund façade improvement programs, art installations, street furnishings, and similar interventions to improve the quality of the pedestrian environment.

Goal ED 9: Draw people into downtown and historic district with events.

Policy ED 9.1 Encourage and support businesses through temporary events, such as markets, craft fairs, music shows, or community movie nights that bring people into the area.

Policy ED 9.2 Encourage outdoor cafes, pedestrian spaces, and seating on side streets, back alleys, and unique places on the front or sides of buildings.

Policy ED 9.3 Evaluate and encourage ways to connect the City Park to the downtown and historic district.

Action: Create a pedestrian friendly link to the Tenino City Park along Olympia Avenue that can double as a home for community events such as markets, fairs, concerts, or outdoor movies.

Policy ED 9.4 Develop a bike system that includes access points throughout downtown and the City Park.

Action: A bike network that leads people from the park to and from downtown and vice-versa with bike routes that showcase the community, bike route markers that point people into downtown, and bike markings that guide people to the best routes to travel.

Page intentionally left blank

Chapter 5. Transportation

In order to maintain and improve circulation, safety, and mobility for residents and businesses, the City of Tenino anticipates conducting several transportation improvements over the next 20 years. This chapter analyzes travel as a means to help identify these necessary mobility enhancements.

Community Streets

The City of Tenino's Street system includes a variety of local, collector and arterial streets that are essential in maintaining an effective multimodal transportation system. Significant streets that traverse the community include State Route 507, Old Highway 99, Park Avenue, and Lincoln Avenue.

State Routes

Washington State Route 507 (also known as SR 507 or Sussex/Wichman Avenue) accommodates the majority of automobile traffic that travels through the community. SR 507 sees significant regional and freight traffic in addition to local travel. The highway, which is maintained by the Washington State Department of Transportation (WSDOT), is physically in good condition. However, the highway would benefit from enhancements that increase safety for motorists and pedestrians. Enhancements would improve the function and aesthetics of the corridor to better support economic development, particularly as it travels through downtown.

Over the last few years, the city has conducted a study to identify methods to improve vehicular and pedestrian mobility and safety on SR 507 while enhancing the aesthetics and vibrancy of downtown Tenino. The project deliverables included the Downtown Plan (see Chapter 1 of this Plan), design standards, a street tree plan (Appendix D), and a preliminary layout plan and cost estimates for improvements to SR 507. The preliminary design and cost estimates have been included as Appendix A.

Potential downtown improvements include re-grading Highway 507 as it travels through downtown to accommodate wider sidewalks, street trees, and ADA accessible ramps; installing a gateway feature at the Ritter Street triangle; and constructing a roundabout at the Old Highway 99/SR 507 intersection. These improvements are projected to cost around \$7.4 million (in 2025 dollars (31.5% Inflation Rate) and will need to be funded by the City of Tenino in partnership with other agencies such as Thurston Regional Planning Council (TRPC), the Transportation Improvement Board (TIB), Washington State Department of Transportation (WSDOT), Washington State Department of Ecology, and the Federal Highway Administration. Although not included in the preliminary layout plan and cost estimates produced with the Main Street 507 effort, improvements at the Old Highway 99 and Wichman/McDuff intersections may also be necessary over the next 20 years in order to improve safety for pedestrians and motorists.

Local Roads

Tenino operates and maintains all other public roadways in the community. Garfield, Lincoln, Central, and Park are the major east/west routes for local traffic; other roads including Old Highway 99 and Wichman Avenue are the primary north/south routes in the community. East/west routes are generally in good condition, and several north/south routes have been repaired recently. Due to the limited transportation funding available and the sheer number of roadways in the City, several roadways still require repair and improvement.

Bridges

The City of Tenino owns and maintains three bridges. These bridges, which cross Scatter Creek, are located on Old Highway 99 west of downtown Tenino, Morningside Drive, and McDuff Road. Each bridge has a sufficiency rating. Bridge sufficiency is a method to rate a bridge's fitness for the duty it performs. The rating is a percentage in which 100% represents an entirely sufficient bridge and 0% represents an entirely deficient bridge. A low sufficiency rating may be due to structural defects, narrow lanes, low vertical clearance, etc.

Old Highway 99

The Old Highway 99 bridge west of downtown Tenino is Tenino's oldest bridge and has the lowest sufficiency rating of any of the community's structures (60.38%) due primarily to its narrow width. The bridge was constructed of concrete in 1923 as part of the early development of the Washington Highway System and has a curb-to-curb width of 24 feet. The bridge is 66 feet long and 27 feet wide.

Morningside Drive

The bridge at Morningside Drive, built in 1995, is in good condition but has a low to moderate sufficiency rating of 74.18% due to its constricted width. This rating will likely decrease as development occurs on the west side of Tenino. The bridge allows one lane of traffic and sees low traffic volumes at present; additional traffic as Lemon Hill develops is likely. These anticipated volumes, in conjunction with the existing width of the bridge and the reduction in travel speeds necessary for the bridge approach, will reduce the suitability of the structure. The bridge is 36 feet long and 16 feet wide and made from precast concrete panels.

McDuff Road

The McDuff Road Bridge has the highest sufficiency rating of Tenino's bridges at 99.4%. The facility, built in 1987, is constructed of precast concrete panels and is 62 feet long. The bridge is 37 feet wide and has a curb-to-curb width of 34 feet.

Railroads

BNSF Railway's mainline travels in a north-south direction near the western edge of Tenino between Lemon Hill and the historic city center. A high-speed two-track route, the line is heavily used for both freight and passengers with more than 48 trains passing through Tenino daily. According to WSDOT, rail traffic is projected to increase on the line over the next 20 years. Trains do not currently stop within the community.

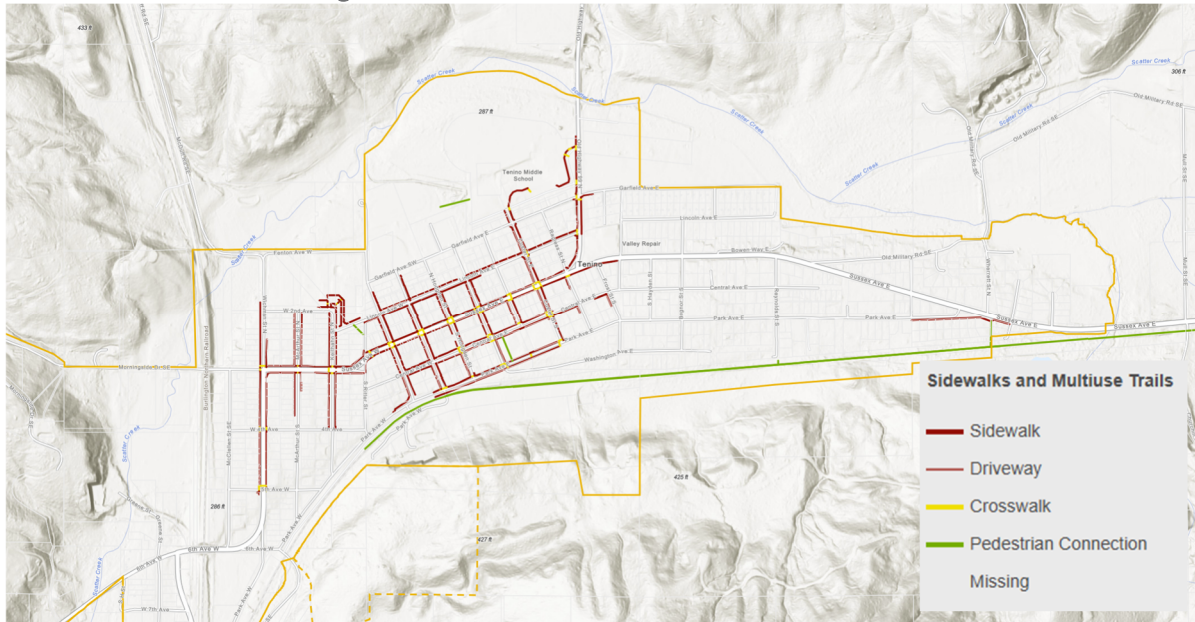
Industrial, residential, and commercial uses are all located near and/or adjacent to the rail corridor. The June 2016 derailment of an oil train in Mosier, Oregon has highlighted the importance of maintaining safe railway corridors; given the proximity of development adjacent to the rail corridor, a derailment would have serious negative impacts on Tenino.

The main vehicle crossing is an underpass on SR 507 that is approximately 35 feet wide with a 14' 3" vertical clearance. A second underpass also exists on Morningside Drive, though the crossing serves only one lane of traffic at this time. No other vehicle crossings exist in the community. While current crossings are adequate for existing traffic levels, development west of the tracks could strain the capacity of these crossings.

Pedestrian Travel and Amenities

The City of Tenino contains a variety of amenities for pedestrians and bicyclists. These amenities, along with the flat geography of the community, make Tenino ideal to explore by foot or bike.

Figure 22. Tenino Sidewalks and Multiuse Trails



Source: Thurston Regional Planning Council, Tenino Sidewalks and Multiuse Trail Map

Table 11. Needed Pedestrian Improvements in Tenino

Deficiency	Recommended/Action/Improvement
Sidewalk System	
Few sidewalks in existing neighborhoods east and west of downtown Tenino	Enhance connections/create gateways to the Yelm-Tenino Trail for neighborhoods without sidewalks
Severely degraded sidewalks in certain areas	Prioritize sidewalk improvements in areas most likely to experience pedestrian travel
Pedestrian amenities in the west portion of Tenino	Require new sidewalks, trails and bike paths as part of future development
Increase pedestrian safety and visibility	Flashing lights at crosswalks across high traffic roads
Trail System	
Neighborhoods without sidewalks, but close to the Yelm-Tenino trail	Enhance connections/create gateways to the trail
Downtown	
Inadequate sidewalks/pedestrian space along Sussex	Determine the feasibility of expanding the width of the sidewalk on Sussex and pursue grants to construct the improvements.
Unclear link between downtown and park, and limited spaces for pedestrians in downtown	Continue to improve Olympia Street as a downtown outdoor marketplace and pedestrian gateway between the park, regional trails and downtown.
Inadequate crosswalks along Sussex	Determine the feasibility of enhancing crosswalks downtown and at the Old Highway 99 and Sussex intersection.

Existing Sidewalks

Tenino contains a relatively well-developed sidewalk network that connects residential neighborhoods near the downtown to businesses on Sussex, the City Park, and nearby schools. The City's sidewalks vary significantly in condition with some in excellent condition and others considerably degraded. Sufficient curb ramps exist in several locations within the sidewalk network.

However, inadequate ramps, which limit the ability of elderly or handicapped pedestrians to navigate are present on some of the routes, particularly Lincoln Avenue.

Priorities for sidewalk improvements are reflected in Table 10. Tenino will identify and prioritize projects to improve degraded facilities, concentrating on areas where sidewalk connections can be made. The city will also seek to construct sidewalks in existing commercial areas and along key school/pedestrian routes. The city will also work to ensure that new sidewalk facilities are included as part of new development.

Shared Streets

Although sidewalks represent an important element in a multimodal transportation system, a sidewalk is not always necessary to meet the needs of nonmotorized transportation. The city contains several roads where residents walk in the roadway. The community believes that sharing roadways is an efficient use of resources, especially considering new sidewalk construction is not possible on every street within existing residential neighborhoods. The City will continue to encourage drivers and pedestrians to share certain roadways and will work to address any safety issues. To address speeding and safety concerns on shared roadways, the city will explore using features such as speedbumps, chicanes, and other traffic-calming solutions. When comparing overall project costs, these minor improvements will be more cost-effective than installing a complete sidewalk.

Yelm-Tenino Trail

A significant local and regional amenity for pedestrians and bicyclists as well as other forms of non-motorized transportation, the Yelm-Tenino Trail complements the City's existing sidewalk system. The trail covers 14.5 miles from Yelm to Tenino and connects to nearby Creekside Conservancy land. The Chehalis-Western Trail, a significant north-south trail located approximately 8.5 miles east of the community, offers connectivity for those coming to or from Lacey, Olympia, and Tumwater. The Yelm-Tenino Trail sits on the bed of the historic Northern Pacific Prairie Line and travels through south Tenino adjacent to City Park.

The City anticipates improving connectivity of the Yelm-Tenino Trail to the Creekside Conservancy properties and emphasizing Tenino's proximity to the existing natural trails and features. Additionally, Tenino anticipates increasing access to the trail (a County-owned and -maintained facility) from surrounding neighborhoods by establishing new trailheads in conjunction with walking paths, shared streets, sidewalks and bicycle lanes.

Existing Pedestrian Amenities in Downtown

The Yelm-Tenino Trail, the City's network of sidewalks, and the Tenino's flat topography make the community a great place to travel by foot. Emphasizing these strengths will aid downtown Tenino in its continued development as the City's economic and social heart and soul. Though it does not fully function in this manner at present, the downtown area features historic buildings designed in a time when travel by foot was common. The existing sidewalk system, parking arrangement, and speed of traffic on Sussex Avenue/SR 507 do not contribute to a welcoming experience for visitors. Existing crosswalks, which are unsignalized and dependent on stopping motorists and/or gaps in traffic on State Route 507, further diminish the pedestrian possibilities for

the area. To address the issues highlighted above, the City of Tenino should pursue the following projects outlined in Table 10.

Transit Service, Alternative Travel Modes, And Transportation Demand Management

Many residents in the City of Tenino commute to other communities for work. According to data collected by TRPC between 2011 and 2013, approximately 84% of survey respondents worked outside of the community with many traveling in their own vehicles north to Olympia or Tacoma. While these commutes do not significantly impact the roadways in Tenino itself, they do affect the road networks of other jurisdictions – especially facilities such as Old Highway 99 and SR 507. Commuting also contributes to the number of residents that are cost burdened.

To help reduce the need for new road construction in Tenino and the region as well as reduce the commuting costs for area residents, the City of Tenino will seek to enhance transportation demand management by increasing opportunities to utilize transit service, vanpools, carpools and teleworking in the community.

Transit Service

The City of Tenino is currently served by the Rural & Tribal Transit Program (RT), a program operated by Thurston Regional Planning Council and partners such as Together! RT runs two routes through Tenino and offers connections to Centralia and Tumwater. However, the service is currently underutilized by Tenino and area residents.

Vanpools

Vanpools may be available to residents for commute trips. Vanpools allows residents with similar origins and destinations to share a ride in a van provided by Intercity Transit or another transit agency. Intercity Transit has approximately 150 vanpool groups with origins and destinations throughout the Thurston County area. Vanpool trips must either begin or end within the transit system's Public Transportation Benefit Area. Vans travel an average of 73 miles per day (round-trip) with an average individual vanpool fare of approximately \$65 per month. Considered a premium service, vanpool riders pay most of the operating costs. No vanpools are currently known to operate in Tenino.

Carpools

Residents also carpool to destinations outside of the community. According to data collected by TRPC between 2001 and 2013, between 6% and 8% of commute trips by Tenino residents occurred by carpool. Carpools tend to be informal in nature, though some websites link people with similar origins and destinations. Carpooling can be encouraged by providing links to rideshare websites, creating a carpool board, or creating a carpool lot.

Telework

Working from home or an alternate location closer to home is also an option for residents in Tenino. According to the data from TRPC, few individuals telework at this time.

System Characteristics

Preparation of this plan has included consultation of Thurston County, Thurston Regional Planning Council and the State of Washington to ensure that policies are consistent across the jurisdictions.

Road Types

The City of Tenino’s roadway network consists primarily of minor arterials, major collectors, and local access roads, as summarized in Table 11. With the exception of State Route 507 (SR 507), which is maintained by the Washington State Department of Transportation (WSDOT), the City is responsible for maintaining and improving most streets within city limits. As areas are annexed from the Urban Growth Area, the City assumes responsibility for the maintenance of new public roads.

SR 507 serves as Tenino’s primary regional connection, linking the city with Olympia, Rainier, and Centralia. The City coordinates with WSDOT on future improvements to ensure safety, efficient traffic flow, and multimodal access. Other key corridors—such as Old Highway 99, Park Avenue, and 6th Street—function as major collectors, connecting neighborhoods, schools, and parks with downtown. Park Avenue is a priority for pedestrian and bicycle improvements due to its role in linking the downtown, Tenino City Park, and the Yelm–Tenino Trail.

Local access streets make up the majority of Tenino’s network (approximately 10 miles) and serve residential and commercial areas. Ongoing maintenance and safety enhancements will remain a priority as the city grows. Coordination with Thurston County and Thurston Regional Planning Council (TRPC) ensures consistent roadway classifications and supports regional mobility planning.

Table 12. Street Types

Street	Length (Miles)	Maintenance Responsibility	Improvement Responsibility
Minor Arterial			
SR 507 (Old Highway 99 to East city limits)	2.03	WSDOT	City/WSDOT
Old Highway 99 (West city limits to SR 507)	1.62	City	City
Major Collector			
Wichman (North City Limits to SR 507)	0.29	City	City
Old Highway 99 (North City Limits to SR 507)	0.30	City	City
Park Avenue (6 th Street to SR 507)	1.39	City	City
6 th Street (SR 507 to Park Avenue)	0.07	City	City
SR 507/Bucoda Highway (Old Highway 99 to South city limits)	0.37	WSDOT	City/WSDOT
Garfield (Old Highway 99 to Howard)	0.41	City	City
Howard (Garfield to SR 507/Sussex)	0.12	City	City
Local Access			
All Other Public Streets	10.1	City	City

Source: Washington State Department of Transportation Functional Classification Map and Thurston Regional Planning Council.

Truck Routes

Two locally maintained streets serve as key truck routes through Tenino. Old Highway 99, from SR 507 to the west city limits, carries most truck traffic connecting SR 507 to Interstate 5, supporting local businesses and regional freight movement. Wichman Street, north of SR 507, provides an additional connection to State Route 121 and the wider Thurston County network.

Oversized trucks are restricted north of Tenino due to a low-clearance trestle near Offut Lake Road, which limits heavy-haul movements on Old Highway 99. Continued coordination with WSDOT, Thurston County, and TRPC will help maintain safe, efficient freight routes while protecting residential streets and the pedestrian environment downtown.

Level of Service Standards

The City uses something called a Level of Service (LOS) system to measure how well streets handle traffic. LOS is rated from A to F, like a school report card:

- A means traffic moves easily and smoothly.
- F means traffic is very congested and slow.

The rating is based on how many cars a road is built to carry compared to how many actually use it—called the volume-to-capacity ratio (V/C ratio). When a road is close to full (a V/C ratio near 1.0), drivers experience more slowdowns and delays, especially during busy times. Traffic in Tenino and throughout Thurston County is usually measured during the afternoon rush hour (4:00–6:00 p.m.), when most people are driving home.

Tenino’s goal is to keep its main streets—arterials and major collectors—at Level of Service D or better. This means drivers may experience slower speeds and short delays during rush hour, but traffic generally keeps moving. This standard matches the regional goals set by the Thurston Regional Planning Council.

Table 13. Levels of Service

Level of Service (LOS)	V/C Ratio	Description
A	0.00-0.60	Highest driver comfort; free-flowing
B	0.60-0.70	High degree of driver comfort; little delay
C	0.70-0.80	Acceptable level of driver comfort; some delay
D	0.80-0.90	Some driver frustration; moderate delay
E	0.90-1.00	High level of driver frustration; high levels of delay
F	1.00+	Highest level of driver frustration; excessive delays

Funding Sufficiency and Level of Service

The City of Tenino is committed to maintaining adopted transportation Level of Service (LOS) standards in accordance with RCW 36.70A.070(6). The Transportation Element identifies projected system needs, planned improvements, and anticipated funding sources through the Transportation Improvement Program (TIP) and Capital Facilities Plan (CFP). However, the City recognizes that projected revenues may not always be sufficient to fully fund all identified transportation improvements within the planning horizon.

To ensure compliance with state law and to protect public safety and mobility, the City establishes the following policies and procedures to address potential funding shortfalls.

Monitoring and Annual Review

The City will annually review transportation revenues, expenditures, and project delivery progress through the six-year TIP update process. As part of this review, the City will evaluate whether anticipated funding remains adequate to maintain adopted LOS standards for roadway facilities and to support multimodal system performance objectives.

If the City determines that probable funding is insufficient to meet identified transportation needs necessary to maintain LOS standards, corrective action will be initiated within the timeframes required by state law.

Corrective Action Options

If a funding gap is identified, the City may pursue one or more of the following actions:

1	Identify and Secure Additional Funding Sources	<p>The City may seek additional funding through:</p> <ul style="list-style-type: none"> • Federal and state transportation grants • Transportation Benefit District revenues • Local option taxes or voter-approved measures • Impact fees consistent with adopted ordinances • Public-private partnerships • Reprioritization of existing capital funds
2	Reprioritize Capital Improvements	<p>The City may revise the Transportation Improvement Program to prioritize projects necessary to maintain LOS standards. Lower-priority or discretionary projects may be deferred to ensure that concurrency-related improvements are delivered first.</p>
3	Adjust Development Timing Through Concurrency	<p>If necessary, the City may delay or condition development approvals consistent with concurrency requirements until adequate transportation facilities or funding commitments are in place to maintain adopted LOS standards.</p>
4	Reassess Land Use Assumptions	<p>If funding limitations cannot be resolved through revenue adjustments or reprioritization, the City may reassess land use assumptions that affect travel demand. This may include:</p> <ul style="list-style-type: none"> • Adjusting projected growth allocations within specific land use designations • Phasing development to align with infrastructure capacity • Evaluating zoning capacity relative to transportation system constraints • Coordinating with Thurston County and the Thurston Regional Planning Council regarding regional growth allocations <p>Any land use reassessment would occur through a formal Comprehensive Plan amendment process with public participation.</p>
5	Amend Level of Service Standards (If Appropriate)	<p>As a last resort and only after evaluation of funding and land use options, the City may consider revising adopted LOS standards through a Comprehensive Plan amendment. Any such revision would require documentation demonstrating consistency with state law, concurrency requirements, and regional planning policies.</p>

Traffic Forecast

Traffic operations and level of service (LOS) information for Tenino’s arterial and collector network are informed by regional data from the Thurston Regional Planning Council (TRPC), including outputs from the Regional Transportation Demand Model. This model provides existing and forecasted traffic volumes that reflect projected regional growth and travel patterns based on locally adopted land use plans and regionally adopted population and employment forecasts.

As of 2015, most of the City’s arterials and major collectors operated at LOS A, indicating free-flowing traffic conditions during the evening commute. While traffic volumes are expected to increase significantly through 2050, regional forecasts suggest that the majority of Tenino’s roadway network will continue to operate at LOS A, with only isolated segments potentially falling below the City’s established standard.

One area of concern is Park Avenue, which is likely to experience increased through-traffic as congestion grows along SR 507 and Old Highway 99. Although Park Avenue is classified as a major collector, it was not originally designed to accommodate higher traffic volumes typical of an arterial road. To maintain safety and functionality, improvements will be needed to support anticipated demand and preserve pavement and multimodal infrastructure. Increased traffic along Park Avenue also has implications for pedestrian safety and connectivity, particularly between the historic downtown, Tenino City Park, and the Yelm-Tenino Trail. Elevated traffic volumes may intensify the barrier between these community destinations and Parkside Elementary School, emphasizing the need for pedestrian safety enhancements and potential traffic-calming measures.

Multimodal Transportation Forecast

The City of Tenino has prepared this 10-year multimodal transportation forecast to comply with RCW 36.70A.070(6)(a)(i) and RCW 36.70A.070(6)(a)(iii)(E). This forecast describes how people are expected to travel in, around, and through Tenino over the next decade and explains the land use assumptions used to estimate travel. The purpose of this section is to ensure the City plans responsibly for future growth while maintaining safety, mobility, and quality of life.

Land Use Assumptions and Growth Expectations

Tenino's transportation forecast is based on anticipated population and housing growth consistent with Thurston County allocations and Office of Financial Management projections. Over the next 10 years, the City expects steady, moderate growth, primarily through development within existing residential zones and limited infill in and around downtown. No major expansion of the Urban Growth Area is assumed during this planning period.

Residential development is expected to continue primarily as single-family housing, with some additional accessory dwelling units and small-scale infill near services. Commercial growth is anticipated to remain concentrated in downtown and along existing corridors, supporting local-serving businesses. Tenino is expected to continue functioning as a commuter community, with many residents traveling to Olympia, Tumwater, and other regional employment centers for work.

These land use patterns directly influence how and how often people travel. Housing location, job distribution, and access to services all affect vehicle trips, walking, bicycling, and transit use.

Walking and Bicycling

Over the next decade, Tenino anticipates gradual expansion of sidewalks and pedestrian connectivity, particularly near schools, parks, and downtown. Completing sidewalk gaps and improving crossings are key priorities. Bicycle connectivity is expected to improve incrementally through corridor upgrades and integration with regional trails where feasible.

As infrastructure improves, the City expects a modest increase in non-motorized trips, especially for short local travel such as trips to school, parks, and downtown businesses.

Transit and Regional Connections

Tenino will continue coordinating with Intercity Transit to maintain and potentially enhance service. While transit levels are expected to remain modest, opportunities for park-and-ride use, demand-responsive

services, and regional coordination will be explored. The City recognizes that regional commuting patterns significantly influence local travel behavior.

10-Year Multimodal Performance Objectives

To manage growth responsibly and improve mobility options, the City establishes the following objectives through 2035:

- Limit growth in total vehicle miles traveled relative to population growth.
- Reduce per capita VMT where feasible.
- Increase completion of sidewalk networks within city limits.
- Improve bicycle network connectivity and safety.
- Maintain concurrency standards for roadway performance.
- Improve safety outcomes for all users, including pedestrians and cyclists.

These objectives will guide transportation investments, grant applications, and capital planning decisions.

Safety

The Regional Transportation Plan 2050 (RTP) developed by the Thurston Regional Planning Council (TRPC) continues to require that the City of Tenino make strategic system investments that advance safety and work toward eliminating traffic fatalities and serious injuries across its roadway network. The RTP establishes regional targets and goals, including supporting the Target Zero objective of reducing all traffic fatalities and serious injuries to zero by 2030, consistent with state and federal safety priorities.

According to regional safety data and local crash trends, the last recorded fatal crash within the City of Tenino occurred in 2012, and the number of suspected serious injury crashes within the city has generally decreased over the past decade (2015–2025). While serious crashes have declined, Tenino continues to align local investments and planning with broader regional safety objectives to sustain these positive trends. To address both local and regional safety needs, the City integrates safety into its Six-Year Transportation Improvement Program (TIP) and cross-jurisdictional planning efforts. The TIP prioritizes capital projects that improve roadway visibility, upgrade pavement conditions, enhance intersection operation, support multimodal access, and reduce conflict points for pedestrians and vehicles. Coordination with TRPC, the Washington State Department of Transportation (WSDOT), and neighborhood stakeholders reinforces alignment with the Safe System Approach embedded in both Target Zero and the RTP safety framework.

Regional planning emphasizes a balanced multimodal transportation system that not only mitigates serious crashes but also increases opportunities for walking, bicycling, and transit use, consistent with regional goals to expand active transportation infrastructure and improve safety for all users. The City’s participation in regional programs such as Safe Routes to School, Complete Streets planning, and the ongoing TRPC Regional Safety Action Plan effort further strengthens local commitments to equity, accessibility, and systemic safety improvements.

Table 14. Fatal and Suspected Serious Injury Crashes Reported within Tenino (2012-2025)

Year	Fatal	Suspected Serious Injury	Total
2012 - 2016	1	5	6
2017 - 2021	0	2	2
2022 - 2025	0	1	1

Source: Washington State Department of Transportation Crash Data Portal, WSDOT TZ Fatal and Suspected Serious Injuries Report

Figure 23: Artist Rendering of Old Highway 99/Sussex Intersection



Source: KPG, Inc.

Figure 24: Artist Rendering of Downtown Tenino Improvements



Source: KPG, Inc.

System Deficiencies and Potential Projects

Underperforming Intersections

Over the planning period, the City of Tenino will work to improve the Old Highway 99 intersection with Sussex Avenue, and the intersection of Sussex Avenue and Wichman Avenue (especially if additional development occurs west of the intersection). The Main Street 507 project considered a number of goals for the intersection improvements and the downtown corridor, including improving safety, beauty, walkability, and traffic flow. Based on this effort, the City believes that the best option to balance these goals is through the construction of roundabouts at these key intersections.

The traffic forecast also suggest that the intersection of Old Highway 99 and SR 507 west of downtown Tenino may need to be improved. Additional intersection enhancements may be necessary on Old Highway 99 as West Tenino develops. The Crowder intersection with Park Avenue may also need to be improved if significant development occurs south of the community.

Street Connectivity

Tenino’s existing street grid provides strong connectivity between neighborhoods, businesses, and community destinations. This network helps distribute traffic evenly, improves emergency access, and supports walking and biking by offering multiple route choices. Maintaining and extending this level of connectivity will be essential as the city continues to grow.

Future residential and commercial developments should be designed with highly connected street networks that link to nearby local and collector streets, as well as roadways in adjacent developments. This approach reduces congestion at key intersections and prevents traffic from being funneled to only a few routes.

Where possible, the City should limit the use of cul-de-sacs and dead-end streets, favoring interconnected blocks, short loop roads, and pedestrian or bicycle connections that enhance overall accessibility. A connected network also supports more efficient utility and public service delivery, encourages active transportation, and strengthens neighborhood cohesion.

Road Maintenance

Maintaining Tenino’s existing streets remains one of the City’s most significant transportation challenges. Limited funding and rising material costs make it difficult to keep pace with pavement preservation needs. Over the next 20 years, the City will continue to seek cost-effective and sustainable maintenance strategies to extend the life of existing roads and maximize available funding.

Potential approaches include prioritizing pavement preservation on higher-volume corridors, reducing paving widths on local streets with low traffic, and closing or reclassifying underused roadways where appropriate. The City will also explore state and regional grant opportunities, shared service agreements, and innovative maintenance techniques—such as chip sealing and pavement recycling—to stretch limited dollars further.

By focusing on proactive maintenance and targeted investment, Tenino can preserve roadway safety and functionality while minimizing long-term repair costs.

Downtown Streetscape

Improvements to the Sussex Avenue corridor (SR 507) through downtown Tenino are a key priority for supporting local businesses and creating a safer, more attractive environment for residents and visitors. Currently, the

street is primarily designed for vehicle traffic, with limited pedestrian amenities, landscaping, or visual character that reflect Tenino’s historic downtown identity.

Over the planning period, the City will work with WSDOT, Thurston Regional Planning Council (TRPC), and local stakeholders to implement the streetscape enhancements identified in the Downtown Plan and the Main Street 507 Project (see Figures 23 and 24). These improvements may include sidewalk widening, street trees, lighting, curb extensions, crosswalk enhancements, on-street parking refinements, and gateway features to create a more comfortable, walkable, and visually cohesive downtown.

The City will pursue state, federal, and regional transportation grants to help fund design and construction, including opportunities through WSDOT’s Complete Streets, Safe Routes to School, and Transportation Alternatives programs. These investments will strengthen downtown Tenino’s role as the community’s cultural and commercial center while supporting economic vitality, tourism, and safety for all users.

Traffic Congestion

To address changes in traffic on city streets, the City should consider lowering the speed limit on Park Avenue so that SR 507 through-traffic does not divert from the highway in an effort to bypass congestion in the downtown corridor. Installation of traffic-calming devices may also be appropriate. The City will also need to address congestion on SR 507, particularly at the Wichman/Sussex and Old Highway 99/Sussex intersections. Improvements at the intersection of Old Highway 99 and SR 507 west of downtown Tenino should also be considered. Options that encourage use of Park Avenue as a high-capacity bypass route, such as widening the road or adding additional travel lanes, should be considered only as a solution of last resort.

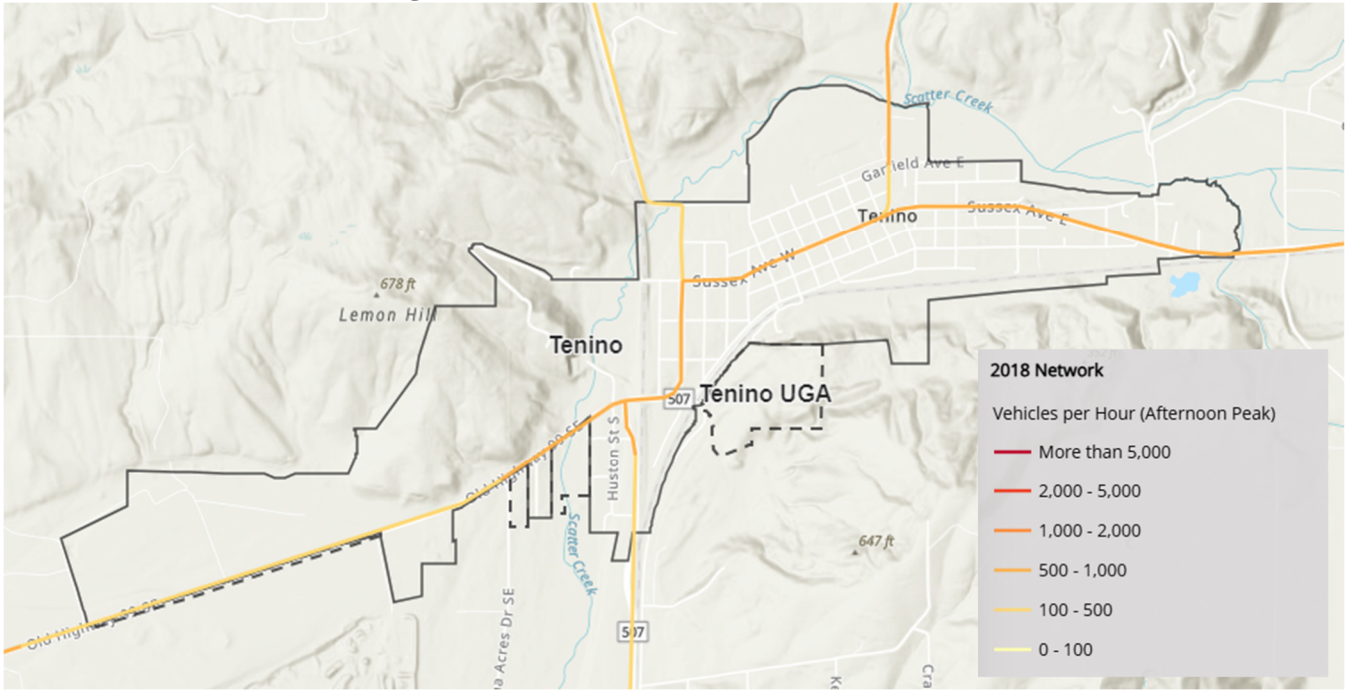
Regional Diversion Impacts on Local Traffic

The City of Tenino regularly experiences traffic congestion due to regional diversion patterns when accidents or major delays occur along Interstate 5, particularly between Centralia and Tumwater/Olympia. During these events, drivers seeking alternate routes frequently use SR 507 and Old Highway 99 through Tenino as a bypass. This increases traffic volumes on local corridors that are not designed to accommodate regional through-traffic.

These informal detours cause significant backups on Sussex Avenue, SR 507, and Old Highway 99, impacting both traffic flow and pedestrian safety, particularly near the downtown corridor and school zones. Increased traffic from large vehicles and unfamiliar drivers also puts added pressure on local infrastructure, contributing to faster roadway degradation and reduced quality of service at key intersections.

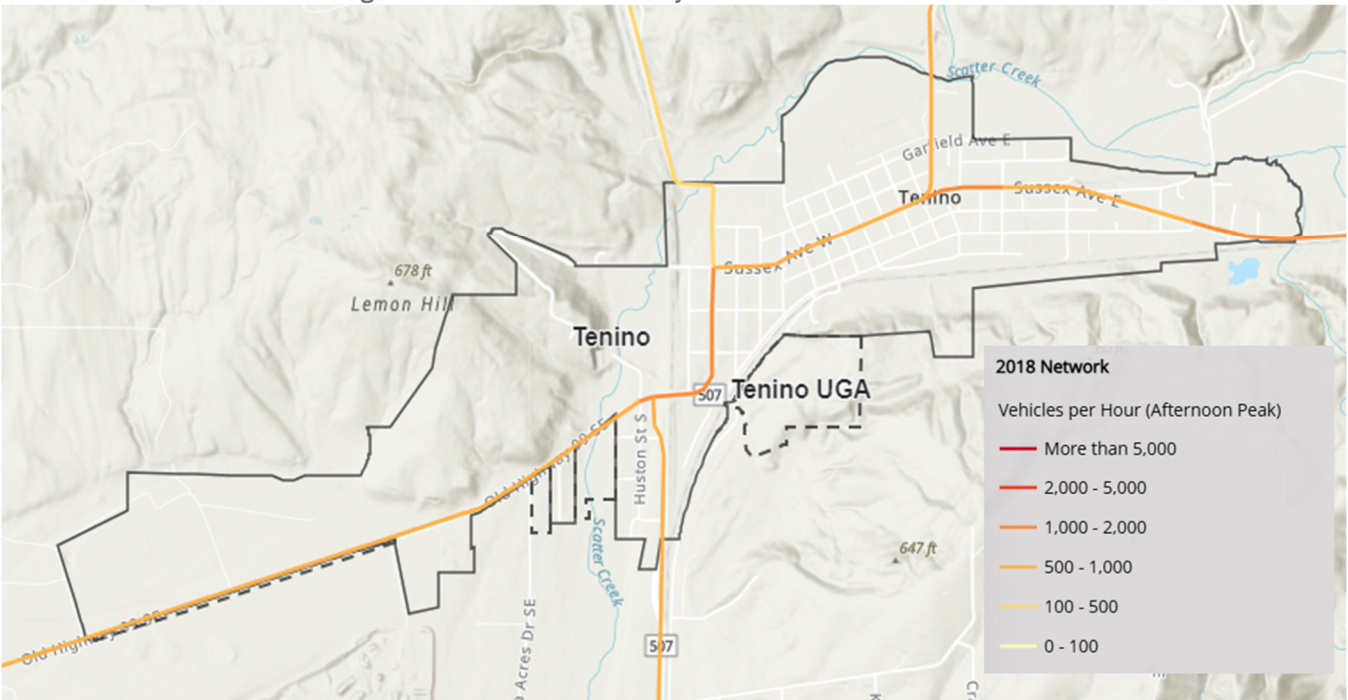
The City will continue to monitor diversion-related impacts and will evaluate improvements such as intersection upgrades, signal timing adjustments, and traffic calming measures where needed. The City may also pursue coordination with WSDOT and Thurston County to ensure that Tenino’s roadway network is considered during regional emergency traffic planning efforts.

Figure 25: 2018 Baseline Travel Demand Model



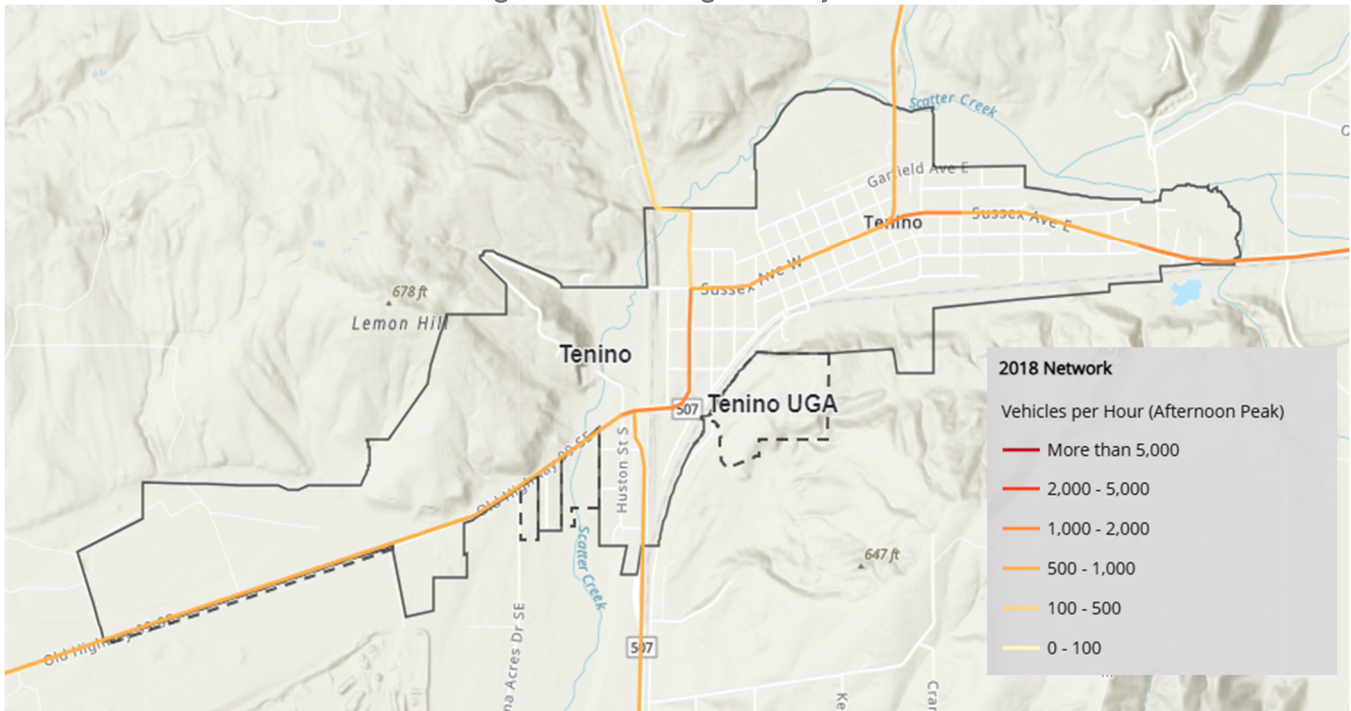
Source: Thurston Regional Planning Council, Travel Demand Model

Figure 26: 2045 Funded Projects Travel Demand Model



Source: Thurston Regional Planning Council, Travel Demand Model

Figure 27: 2045 Regional Projects



Source: Thurston Regional Planning Council, Travel Demand Model

Traffic forecasts for 2045 show a substantial increase in vehicle volumes through Tenino, particularly along Old Highway 99 SE, Sussex Avenue, Wichman Street, and SR 507. In 2018, approximately 510 vehicles per hour traveled north on Old Highway 99 SE during the afternoon peak. By 2045, volumes are projected to reach about 800 vehicles per hour—a 57% increase, even with all regionally funded transportation projects in place.

This projected growth highlights the need for targeted corridor improvements and travel demand management strategies to maintain acceptable levels of service and ensure the transportation network continues to operate safely and efficiently.

Table 15. Demand Management Strategies

Roadway Capacity Improvements	
Widening Old Highway 99 SE	Consider targeted widening of the corridor, such as adding a center turn lane or passing lanes at strategic locations, to reduce bottlenecks and improve flow.
Intersection Improvements	Upgrade key intersections (e.g., Old Highway 99 SE and SR 507) with additional turn lanes, improved signal timing, or roundabouts to reduce delays and increase throughput.
Shoulder Enhancements	Improve or pave shoulders to allow for safe vehicle recovery and potential use by bicycles or breakdowns, reducing disruptions.
Traffic Operations Optimization	
Signal Coordination and Adaptive Traffic Signals	If signalized intersections exist or are added, implementing adaptive signal control technology can optimize traffic flow during peak periods.
Access Management	Limit the number of driveways or direct access points along the corridor to reduce friction and conflict points, which can degrade traffic flow.
Incident Management Protocols	Improve coordination for clearing roadway incidents to minimize congestion and improve reliability.

Multimodal Improvements	
Transit Enhancements	Encourage the use of public transportation by improving service frequency, reliability, and stop amenities along the corridor. Consider park-and-ride facilities near Tenino to intercept commuters.
Bicycle and Pedestrian Infrastructure	Construct or improve sidewalks, bike lanes, and crosswalks to support safe non-motorized travel, potentially reducing vehicular trips.
Travel Demand Management	
Carpool and Vanpool Programs	Promote ride-sharing for commuters between Tumwater and Tenino through incentives or regional programs.
Land Use Coordination	Work with regional planning agencies to encourage compact, mixed-use development in Tenino that reduces reliance on long vehicle trips.
Long-Term Planning and Monitoring	
Corridor Study and Master Plan	Conduct a detailed corridor study to evaluate future land use and transportation needs comprehensively, considering freight, transit, and local access needs.
Ongoing Data Collection & Monitoring	Establish regular traffic count programs and performance monitoring to assess whether implemented strategies are effective and to guide future improvements.

ADA Accessibility

The City consistently incorporates Americans with Disabilities Act (ADA) standards into its transportation system design and continues to improve accessibility as part of routine maintenance and capital upgrades. All new transportation projects—including roadway reconstruction, sidewalk installation, and transit facility improvements—are designed to meet or exceed ADA design criteria. Features such as continuous sidewalks, curb ramps with tactile warnings, accessible pedestrian signals, and barrier-free access to bus stops are standard practice. In addition, the City’s engineering and planning staff apply universal design principles to ensure that infrastructure improvements serve all users, including individuals with mobility, visual, and auditory impairments.

While the City already designs and constructs transportation facilities with ADA compliance in mind, it also remains committed to continuous improvement. The City maintains and updates its ADA Transition Plan to identify accessibility gaps and prioritize upgrades to existing infrastructure. Coordination with the Thurston Regional Planning Council, Intercity Transit, and human services transportation providers ensures consistency and regional alignment in accessibility standards. By proactively integrating ADA compliance into every stage, from design through implementation and ongoing maintenance, the City reinforces its commitment to equitable mobility, safety, and access for all residents and visitors.

Funding

The City of Tenino is committed to providing the best transportation system for its citizens within its existing funding capabilities. The projects listed in the six-year transportation improvement program (TIP) (see Table 15) represent investments that will improve the transportation system’s function. These projects are also included in the Capital Improvement Program in the Capital Facilities Element. The TIP assumes that existing funding sources including the Rural Community Support Program and State and Federal funding opportunities will remain at the same level.

Securing adequate long-term funding for transportation projects is difficult. However, the City may consider a number of strategies, including encouraging public/private partnerships for financing transportation projects, taking advantage of state funds such as those offered through the Transportation Improvement Board (TIB) and the Public Works Trust Fund (PWTF); encouraging the use of Local Improvement Districts (LIDs) by property owners to upgrade roads; requiring impact mitigation payments or seeking voluntary contributions from developers; and seeking out federal funding opportunities.

The ability of some projects to proceed will depend on revenue from outside grants. Where funding is not available, the project is not done. If probable funding falls short of expectations, the City will work with partners such as the Washington State Department of Transportation and Thurston County to determine viable solutions to the issues.

Concurrency Management

Tenino does not currently have a concurrency management program that evaluates the adequacy of the City’s road network or a financial mechanism for new development and redevelopment to pay for their fair share of impacts to the transportation system. A concurrency management program could be implemented to address this gap. Such a program could monitor key transportation facilities, and assess current levels of service, and determine the impact of any new development proposals on adopted level of service standards. The concurrency management program could also identify any facility deficiencies and those impacts attributed to new development; review the Comprehensive Plan and other related studies for necessary improvements; secure appropriate commitment to ensure that level of service standards will be restored; and make appropriate revisions to the Six-Year TIP.

Table 16. 2025 to 2030 TIP (in order of priority)

ID	Project	Anticipated Funding Source(s)			
		Local	State	Federal	Total
1	Old Hwy 99 West (Hwy 507 to Mima Acres Drive SE) 2-inch asphalt grind, asphalt overlay using HMA that contains reinforcing fibers.	\$166,300	\$538,200	\$884,300	\$1,405,500
2	Old Military Road (Sussex St E to Old Military Road) Crack seal, and chipseal	\$77,300	\$103,000	-	\$180,300
3	McClellan Street (Sussex Ave W to Wichman Street S) Widen, install drainage, and chipseal	\$29,400	\$46,400	-	\$75,800
4	Morning Side Drive (McClellan Street to Morning Side Drive) Repair, chipseal, and safety improvements as needed	\$18,000	-	-	\$18,000
5	Eureka Street South (Sussex Ave E to Park Ave E) Widen, repair, chipseal, and safety improvements as needed	-	-	\$36,100	\$36,100
6	Tenino Trail Design (Old 99, Tenino City Limits to SR 507) Provide design engineering for the Yelm Tenino Trail (YTT) for feasibility segments G3 and G4, along Old 99 from the west City limits to the intersection of 6th Street with Park Avenue	-	-	\$225,000	\$225,000

Source: City of Tenino

Page intentionally left blank

Goals, Policies, and Actions

Community Streets

Goal TS 1: Maximizing limited funding, Tenino has a safe and well-maintained road system.

Policy TS 1.1 Pursue and utilize funding for road improvements strategically – seeking money for the highest priority projects first. Key factors to consider include: traffic volumes, safety issues, and overall hindrances to community economic development.

Policy TS 1.2 Identify creative methods to limit the costs associated with roadway construction and repair.

Action: Ensure that street improvements do not increase the width of existing roadways, especially for local access streets that run perpendicular to Sussex.

Policy TS 1.3 Evaluate and, where possible, implement alternative mechanisms to fund transportation projects, including transportation impact fees.

Policy TS 1.4 Require developers to fund their fair share of needed road improvements.

Policy TS 1.5 Partner with Thurston County and Thurston Regional Planning Council on projects of regional significance that are located within Tenino’s street network.

Policy TS 1.6 Evaluate improvement options for the intersection of Old Highway 99 and State Route 507 (just west of downtown Tenino).

Goal TS 2: New development supports the construction and expansion of complete streets.

Policy TS 2.1 Require road connections, half-street improvements and road stubs as part of new development.

Policy TS 2.2 Dead-end streets and cul-de-sacs should be used only on minor local streets where no other alternative design is possible.

Policy TS 2.3 Consider adopting a complete streets ordinance.

Policy TS 2.4 Provide adequate transportation facilities for the variety of acceptable housing types and densities outlined in the Housing Element.

Goal TS 3: Sussex Avenue (SR 507) is an aesthetically-pleasing streetscape that has enhanced safety features for people who walk, bike, and travel by car.

Policy TS 3.1 Implement the improvements proposed as part of the Main Street 507 project.

Action: Seek out and obtain funding for the design and acquisition of right-of-way for the project.

Action: Improve the streetscape in downtown Tenino.

Action: Install gateway improvements at the Ritter Street triangle.

Action: Construct a roundabout at the intersection of Old Highway 99 and Sussex Avenue.

Policy TS 3.2 Seek out funding to improve the Wichman/Sussex intersection.

Railroads

Goal TS 4: Increasing rail traffic does not detract from the quality of life in Tenino.

- Policy TS 4.1** Consider a variety of measures to minimize the impact of the railroad on Tenino including placing commercial or industrial land uses near the train tracks, sound proofing as part of future construction, and considering strategies for rail noise mitigation (given the proximity of the rail to nearby residences).
- Policy TS 4.2** Develop a plan to address safety concerns on the rail corridor.

Pedestrian Travel and Amenities

Goal TS 5: Tenino has a walking and bicycling system that makes it safe and easy for people to travel through Tenino without using their cars.

- Policy TS 5.1** Identify areas of deficient sidewalks (due to either size or condition) and prioritize improvements in those areas.
- Policy TS 5.2** Evaluate and, where possible, implement alternative mechanisms to fund transportation projects, including transportation impact fees.
- Policy TS 5.3** Require developers to fund their fair share of needed road improvements.
- Policy TS 5.4** Require new development to construct sidewalks unless the amenities are deemed unnecessary by the director of Public works and the City Planner.
- Policy TS 5.5** Establish neighborhood pathways to improve access to the Yelm-Tenino Trail.
- Policy TS 5.6** Install traffic-calming improvements on certain shared roadways to increase pedestrian safety.

Goal TS 6: Tenino has a highly walkable downtown with great pedestrian amenities including wide sidewalks, safe crossings, and opportunities to sit outside.

- Policy TS 6.1** Strive to implement the findings of the Main Street 507 study.
- Policy TS 6.2** Work to establish Olympia Street as a link between downtown and Tenino City Park, a location for community events, and an outdoor marketplace.
- Policy TS 6.3** Allow and encourage businesses to legally establish pedestrian amenities in the public right-of-way.

Transit Service, Alternate Travel Modes, and Transportation Demand Management

Goal TS 7: Rural & Tribal Transportation ridership by Tenino and area residents is robust and strong.

- Policy TS 7.1** Collaborate with Thurston Regional Planning Council and Thurston County to ensure that RT receives continued funding for operations and is adequately funded into the future.
- Policy TS 7.2** Explore options for constructing a transfer station in Tenino for RT riders.

- Policy TS 7.3** Continue to inform area residents about available bus routes.
- Policy TS 7.4** Continue to advocate for increased bus service to the Tenino area.
- Policy TS 7.5** Work with RT to ensure that low-income residents are well served by the system.

Goal TS 8: Tenino residents are carpoolers and vanpoolers.

- Policy TS 8.1** Work to partner with a community business or organization to utilize their parking lot/vacant land as a park and ride or park and pool facility.
- Policy TS 8.2** Distribute information about existing vanpool and carpool resources to encourage more shared trips.

Funding

Goal TS 9: Tenino anticipates needed transportation improvements and plans accordingly.

- Policy TS 9.1** Attempt to secure adequate long-term funding sources for transportation through a variety of methods.
- Policy TS 9.2** Ensure any transportation improvements or strategies that require impact mitigation are constructed and/or financed concurrently with development. This means that the necessary project will either be constructed at the time of development, or sufficient financial commitment will be available to ensure it will be constructed within six years.
- Policy TS 9.3** Adopt a concurrency management program to ensure that the impacts of development on infrastructure are sufficiently addressed.
- Policy TS 9.4** Require developers to contribute their fair share toward transportation improvements needed to mitigate the impacts of their development.
- Policy TS 9.5** When deemed appropriate by the City Council, enter into latecomer agreements where substantial investments by one party may be legitimately reimbursed by others.
- Policy TS 9.6** When necessary, adapt plans, policies, and projects if probable funding falls short of expectations.
- Policy TS 9.10** Assist residents and decision-makers quickly see how land use choices affect safety, access, congestion, costs, and transit viability through added information in staff reports, approval conditions, and presentations to the City.

Goal TS 10: Tenino partners with neighboring cities, Thurston County, Washington State, Thurston Regional Planning Council, Tenino School District, and other transportation providers to provide a holistic multi-modal transportation system.

- Policy TS 10.1** Thurston County’s Capital Facilities Plan and any applicable levels of service shall govern in the unincorporated UGA.

Goal TS 11: Equitable Transportation Investment

Policy TS 11.1 Apply universal design/ADA standards to every project phase (planning, design, construction, and maintenance) to build a barrier-free system for people of all ages, abilities, incomes, and language backgrounds.

Policy TS 11.2 During alternatives analysis, compare relocations, rights-of-way needs, construction impacts, and health/safety effects across neighborhoods; select options that minimize burdens.

Climate

Goal TS 12: Reduce vehicle miles traveled to achieve greenhouse gas reduction goals.

Policy TS 12.1 Implement multimodal transportation planning to reduce single-occupancy vehicle dependence and greenhouse gas emissions.

Action: Work with other jurisdictions to plan, fund, and implement multijurisdictional projects necessary to meet shared transportation needs.

Policy TS 12.2 Prioritize and promote public transit expansion and use through coordination of land use and transportation planning.

Policy TS 12.3 Implement travel demand management (TDM) programs and strategies.

Policy TS 12.4 Address active transportation and other multimodal types of transportation options in concurrency programs -both in assessment and mitigation.

Goal TS 13: Expand electric vehicle infrastructure.

Policy TS 13.1 Require electric vehicle charging infrastructure in all new and retrofitted buildings.

Chapter 6. Capital Facilities

The City of Tenino owns, maintains, and operates multiple Capital Facilities including community buildings and facilities, park and recreation facilities, stormwater management, water systems and wastewater treatment systems. To maintain and improve City services while also accommodating orderly growth, the City of Tenino anticipates significant investment in capital facilities into the next 20-year planning horizon. This chapter will provide an inventory of existing capital facilities, discuss a forecast of needed capital facilities needed to help accommodate future growth and provide the proposed locations and capacities of any expanded or new capital facilities. This chapter will also address any Capital Improvement Projects forecasted for the next 6-year planning period as well as any projects that extend up to the 20-year planning horizon with financing and potential funding sources provided.

Community streets and pedestrian facilities are addressed as part of Chapter 4 along with any Transportation Facilities related to Capital Improvement Projects.

Community Buildings and Facilities

Existing Facilities & Forecasted Needs

The City of Tenino contains a number of publicly owned buildings. These buildings are described below. Proposed expenditures for City buildings are presented in the Capital Improvement Program.

Tenino City Hall

Tenino City Hall occupies the former quarry house for the Hercules Sandstone Company. Built in 1907 with local Tenino sandstone, the building was donated to the City and moved to its current location in 1922. In 1950, a concrete block addition on the south side of the building was constructed. The building features rough-cut sandstone masonry on the first floor with smooth-cut sandstone on the second floor, and the hipped roof has broad eaves.

City Hall contains many of the public offices, as well as the City Council Chambers and the municipal court for the community. The building was extensively renovated in 1987 and brought into compliance with the American Disabilities Act in 2011 and 2012. Over the next 20 years, the building will likely require a new roof, carpets and flooring, as well as improvements/repairs to the sandstone masonry.

Tenino Police Station (John Dowies Memorial Building)

Located on McClellan Avenue, the Tenino Police station was constructed in 1996 and is in good condition. As of 2023, the Tenino Police Department consisted of one full-time Police Chief, four full-time Police Officers, one full-time Police Clerk, and three reserve Officers. Under the terms of an interlocal agreement with the Tenino School district, the Police Department provides a school resource officer to the district. The Police Station also contains an evidence storage building.

Tenino Library

The Tenino Timberland Regional Library building was donated to the city and remodeled for its current use in 1987. The city expanded the building around 1990, and the library went through several improvements and upgrades in 2021. The improvements included new shelving, office space, furniture, and interior paint.

Operational costs of the Tenino Timberland Regional Library, including staffing and materials, are funded by the Timberland Regional Library system. The City of Tenino owns the building and funds utilities, janitorial service, and maintenance of the structure.

Tenino Train Depot Museum

The Tenino Train Depot, a structure on the National Register of Historic Places, was constructed in 1914 along the Northern Pacific railroad line. The building was moved to its present location in City Park in 1975 and has been operated as a volunteer-run museum since 1979. The building was recently upgraded with a new electric heat pump and insulated flooring as part of a grant the City received.

The Tenino Train Depot is owned by the City of Tenino, and the museum is operated by a non-profit 501(c)3 organization. The City of Tenino funds building insurance and utilities for the structure and does not collect any rent for the use of the building.

Ticknor School

The historic Ticknor one-room schoolhouse was built in the Skookumchuck Valley in 1934. The building was moved near the Tenino Train Depot Museum in 2002 and was extensively renovated between 2002 and 2012. The historic school opened to visitors in 2012 and is available for tours by Tenino Train Depot Museum patrons.

Quarry House

The Quarry House, constructed as the office of the Tenino Sandstone Company (in approximately 1900), is located at the west end of Tenino City Park, near the Tenino Train Depot Museum and War Memorial (Quarry) Pool. The building is a rectangular one-story wood frame structure with a hipped roof that extends over the northwest portion of the building to cover a front porch. Stairs to the porch are made of sandstone and the roof of the entryway is supported by round rough-cut sandstone pillars.

The Quarry House functions as a community gathering space for Tenino and is rented by individuals interested in utilizing the space. The building went through a series of renovations and improvements in the early 2000s and in 2013.

Tenino Park Restrooms

Two restroom facilities serve Tenino City Park. These restrooms are not heated, are not designed for ADA accessibility, and are currently in poor condition. The facilities are small and insufficient to meet current needs. The City anticipates replacing the structures with facilities that contain additional toilet stalls, and shower facilities in the restroom nearest to the campground.

City Park Concession Stand

The City Park concession stand, constructed in 1995, offers a location to sell food to park patrons. The concession stand also houses some maintenance equipment and includes restroom facilities. The facility is rented out for a nominal price during the baseball and soccer season. Although it is in good condition, the roof will likely need to be replaced in the next 20 years. The City is considering converting an existing toilet stall to a shower facility to promote camping at the park should also be.

Public Works Shop on Park

The Park Avenue Public Works shop was constructed in 2007. The pole framed structure houses machinery and workspace for public works employees and is in good condition, though another building for equipment storage may be desirable in the future.

Food Warehouse

The food warehouse, constructed in 2007, offers space for non-profit organizations to store food in the community. The pole framed structure is in good condition, though the facility does not contain any water or bathroom facilities. The warehouse is located directly east of the Public Works Shop on Morningside, and experiences little use at present, though improvements such as bathrooms or a sink could encourage the further use of the facility. An asphalt parking lot may be desired in the future should the use of the facility increase or change.

Well and Pump Houses

Municipal wells and pumps are situated in buildings located near Tenino Middle School. These buildings are in good condition. Additional ventilation in areas where treatment chemicals are stored should also be considered.

Wastewater Treatment Buildings

Two buildings constructed in 2009 support the operation of the Tenino Wastewater Treatment Plant. One of the buildings houses the laboratory needed to test water treated at the wastewater treatment plant and the other houses the mechanical equipment necessary to run the plant. The structures are relatively new and are not anticipated to need significant upgrades over the next 20 years.

Dog Kennel at Reservoir

The dog kennel at the reservoir was constructed in the 1990s. The facility houses lost dogs and would benefit from better lighting, heat and potentially some outdoor kennels over the next couple of years. However, city staff have expressed interest in preferably constructing a new Dog Kennel near the Public Works building, and demolishing the existing Dog Kennel located at the Reservoir.

Facilities Provided by Other Entities.

In addition to these buildings and facilities, the following public agencies have facilities in the City of Tenino.

Fire and EMT Services

The City of Tenino joined the South Thurston Fire and EMS on January 1, 2018. The city is serviced by Station 41 of the South Thurston Fire and EMS. The district has 6 full time firefighters/EMT's and is supported by 28 volunteers. The South Thurston Fire & EMS has four stations serving a 76 square mile area, including a main station located directly south of Tenino City Hall. The district is approximately 75% volunteer firefighters and is overseen by three elected Fire Commissioners. The city does not provide any Fire or Emergency Medical Services.

Tenino Schools

The Tenino School District consists of Parkside Elementary (K-2), Tenino Elementary (3-5), Tenino Middle School (grades 6-8), and Tenino High School (grades 9-12). Parkside Elementary was built in the 1930s and

extensively remodeled in the late 1980s. The other three schools were built in the 1970s. The schools are in various states of disrepair and the school district passed a Capital Projects Replacement Levy in February of 2022 that will help cover needed maintenance to the facilities and any necessary enhancements to accommodate the anticipated growth of the school district.

Community Buildings and Facilities CIP and Funding Sources

The table below outlines the current proposed Capital Improvement Projects for Parks and Recreation Facilities for the 20-year planning horizon for the City of Tenino and potential funding sources.

Table 17. Community Buildings and Facilities CIP

Projects	Description	Schedule	Estimated Cost (\$2024)	Funding Source
Police Station Security Enhancements & Parking Lot Paving	Improvements to Police Station security and paving the police station parking lot	2026	\$26,000	General Fund CI Fund Grants/Loans
Train Depot Museum	Construction of a new Train Depot Museum	2030	\$2,000,000	General Fund CI Fund Grants/Loans
Quarry House Roof Replacement	Roof replacement on the Quarry House	2030	\$30,000	General Fund CI Fund Grants/Loans
Public Works Additional Storage Building	Construction of an additional Storage Building	2030	\$60,000	General fund CI fund Grants/Loans
New Dog Kennel	Construction of a new dog kennel near the public work building	2026	\$10,000	General fund CI fund Grants/Loans

Source: City of Tenino

Parks and Recreation Facilities

Parks, recreation, and open space are important community assets, and open space has been identified by its citizens as an important component of Tenino's small city. Changes in the community, especially the anticipated population growth associated with the sewer installation, will impact the community's needs for parks. It is therefore important to set a definite direction for the future development of parks to help preserve the character of the community.

Existing Facilities & Forecasted Needs:

The primary recreational amenity for the city is the Tenino City Park. Comprising approximately 115 acres the park includes the following facilities:

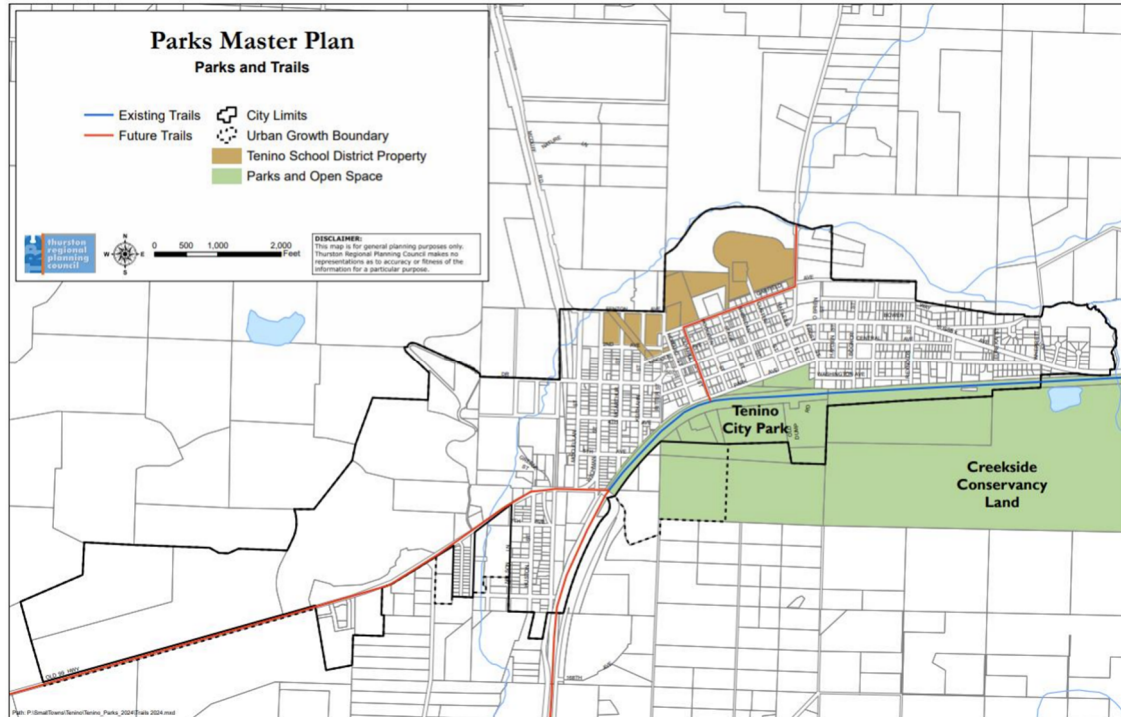
Table 18. Tenino Parks and Recreation Facilities

Facility / Feature	Description
Quarry Memorial Pool	A unique cold-water wading pool, splash pad, and “lake” set within a historic sandstone quarry. The site includes a small restroom building, picnic areas, and a natural pond that provides a scenic backdrop for family recreation. The facility is one of Tenino’s most recognizable community assets and a major summertime destination.
Tenino Depot Museum	Located in a restored former train depot, the museum preserves and interprets Tenino’s history, including sandstone quarrying, rail transport, and early settlement. The site includes auxiliary storage and display buildings.
Ticknor Schoolhouse	A preserved historic one-room schoolhouse relocated adjacent to the Depot Museum. It serves as an educational exhibit and heritage site showcasing early education in the Tenino area.
Quarry House (Community Center)	Former quarry office building now used as a community event and rental space. The building hosts local meetings, celebrations, and recreation programs, and includes kitchen and restroom facilities.
Campground	Offers multiple campsites with both designated and open-field camping options. Amenities include restrooms, picnic areas, and access to the nearby trail system and park facilities.
“Old Park” Playground	Original park play area designed for younger children, featuring age-appropriate equipment and shaded seating. Located near the ballfields and picnic areas.
Ball Field Facility	Includes Little League fields and a supporting building with restrooms and concessions. The site accommodates youth sports programs and community events.
Main Playground and Pump Track	Upgraded in 2023, this modern play area includes accessible playground equipment, a paved bicycle pump track, and a nearby restroom facility. Serves as a hub for families and recreation users of all ages.
New Park Addition (60+ Acres)	Recently acquired passive-use conservation area intended for low-impact recreation such as walking trails, wildlife observation, and environmental education. Preserves open space and habitat adjacent to existing parklands.
Yelm–Rainier–Tenino Trailhead	Trailhead facility with bicycle repair station, informational kiosk, and parking area providing direct access to the regional multi-use trail connecting Tenino to Yelm and Rainier.
Picnic Shelters (2)	Two covered picnic shelters equipped with tables and seating, available for family gatherings and community events. Located near the Quarry Pool and main playground areas.

Veterans Memorial Wall

Monument honoring local veterans from Tenino and surrounding communities. Serves as a reflective gathering space and site for annual memorial events.

Figure 28. City of Tenino Parks and Recreation Facilities



Source: City of Tenino

The forecasted needs for the City of Tenino Parks and Recreation Facilities will depend on Level of Service (LOS) goals that should be identified through strategic community planning and communication. Some areas outlined in the 2024 Parks and Recreation Plan that should be addressed in the future include:

- Development of a plan to provide sustainable funding for the Quarry Memorial Pool.
- Improve the campground by creating specific sites for tents and RVs and adding cabin rentals to offset the need for accommodations for visitors to Tenino.
- Development of a plan for the City Park to connect trails with adjacent properties such as the Creekside Conservancy Wildlife Preserve. These trails can be both recreational and educational in nature.
- Create trail maps and trailhead signage for the Kiosk and at trailheads.
- Pursue new projects such as, but not limited to, creation of pocket parks, or the opening of the Natural Area by the Quarry Pool
- Continue improvements at the Community Complex (Quarry House, Museum and Quarry Pool). Most notably create parking, drop-off areas, improve utilities, bathhouse addition, and opening of natural areas for recreation and private event rental (pool funding source).
- Identifying and pursuing potential funding sources to achieve the goals outlined in this plan.
- Enhancing and maintaining existing facilities to increase the likelihood of usability and thus revenue. For instance - the soccer fields, campground, and pool.

- Continue to improve recreational sport amenities like ballfields and facilities. Also, basketball in the area vacated by the old playground.
- Increasing public safety of the parks system by pursuing projects such as new fencing above the quarry pool, removing the switchback trail along the hillside and adding cameras.

Parks and Recreation Facilities CIP and Funding Sources

The table below outlines the current proposed Capital Improvement Projects for Parks and Recreation Facilities for the next 20-year planning horizon for the City of Tenino and potential funding sources.

Table 19. Parks and Recreation Facilities CIP

Projects	Description	Schedule	Estimated Cost (\$2025)	Funding Source
Tenino Park – Restroom Building & Gazebo	Restroom and Gazebo Improvements	2030	\$1,019,699	Grants/Loans
Tenino Park – Field 2 Skinned Infields & Natural Grass Fields	Drainage and Infield Dirt	2026	\$580,000	RCO
Cultural Area Improvements	Improvements to the Veterans Memorial, parking, and pathways	2030	\$970,000	Grants/Loans
Baseball & Pickleball Court	Construction of new baseball & pickleball courts	2026	\$47,000	RCO
Phase 1 Trail & Campground Restroom Improvements	Phase 1 Trail & Campground Restroom Improvements	2027	\$500,000	RCO
City Park Concession Stand Shower Stall Conversion	Converting existing bathroom stall into a shower stall	2030	\$150,000	Grants/Loans
City Park Campground Remodel	Campground improvements	2027	\$150,000	General fund, CI fund, grants/loans, RCO
City Park Quarry Pool Restroom Facility	Construction of restroom facility at the Quarry Pool	2027	\$150,000	General fund, CI fund, grants/loans, RCO

Source: City of Tenino

Stormwater Management

Existing Facilities & Forecasted Needs

Tenino sits lower in elevation than much of the surrounding area. Storms generate heavy runoff from the surrounding hillsides, straining the capacity of Scatter Creek, raising groundwater tables, and causing localized flooding. Flooding and drainage problems carry surface pollutants into Scatter Creek and Tenino’s aquifer as well as damage streets, sidewalks, and buildings.

The City maintains a variety of storm drainage facilities to address these issues, but additional improvements can be made. Flows along Scatter Creek are impeded at the Burlington Northern rail line, where an inadequate culvert causes water to flow above the stream bank and onto Morningside Drive. Drainage issues are also present at Huston Street, Park Avenue, and Fifth Street.

Level of Service

Tenino’s stormwater management standards do not provide clear guidance for the City or developers and property owners. While standards are being developed, all new housing, commercial developments, and major remodels in the City of Tenino are required to provide stormwater management on site. Stormwater collection and disposal systems are required to be capable of containing a water volume equivalent to a 25-year, 24-hour storm event.

Concurrency ensures consistency in land use approval and the development of adequate public facilities as plans are implemented. It also prevents development that is inconsistent with the public facilities necessary to support the development. Concurrency for stormwater purposes is established at the point in the development process when impervious street surfaces are installed. Best management practices for water quality are required for all new stormwater outfalls and systems.

Stormwater Management CIP and Funding Sources

The table below outlines the current proposed Capital Improvement Projects for Parks and Recreation Facilities for the 2025-2030 six-year planning horizon for the City of Tenino and potential funding sources.

Table 20. Stormwater Management CIP

Projects	Description	Schedule	Estimated Cost (\$2025)	Funding Source (Potential)
Stormwater Management Plan	Development of Stormwater Plan	2027	\$50,000	ECY Stormwater Planning Grants; USDA Rural Development Assistance; Community Development Block Grant
Stormwater Drainage Improvements - Morningside	Install drainage to accommodate stormwater along the roadway	TBD	\$900,000	Grants/Loans via CWSRF; Transportation Improvement Board (TIP); ECY Stormwater Construction Grants

Stormwater Drainage Improvements – Fifth and Park	Install a facility to store stormwater traveling from the hillside behind City Park to Fifth and Park.	TBD	\$1,200,000	Grants/Loans via CWSRF; Transportation Improvement Board (TIP); ECY Stormwater Construction Grants
Stormwater Drainage Improvements – Houston Street	Install a facility to reduce flooding in the area.	TBD	\$750,000	Grants/Loans via CWSRF; Transportation Improvement Board (TIP); ECY Stormwater Construction Grants
Stormwater Retention Facility Marion/Bognor to Scatter Creek	Add retention facility(s) to slow stormwater flows and allow pollutants to settle from the water.	TBD	\$2,000,000	Grants/Loans via CWSRF; Transportation Improvement Board (TIP); ECY Stormwater Construction Grants
Culvert Resizing Along Scatter Creek	Attempt to collaborate with BNSF to install an adequately sized culvert.	TBD	\$3,500,000	WDFW – Brian Abbott Fish Barrier Removal Board (FBRB) grants; RCO – Salmon Recovery Funding Board (SRFB); Chehalis Basin Strategy – ASRP (fish passage & hydrologic benefits) HMGP BNSF Capital Program / cost-share; Local: City match, REET 2
Scatter Creek Impediments Removal	Collaborate to remove impediments to Scatter Creek flows to help reduce flooding.	TBD	\$600,000	FBRB grants (WDFW); RCO; Chehalis Basin Strategy (Chehalis Basin projects); Floodplains by Design (FbD); Local/Partners: Thurston Conservation District, BNSF cost-share

Source: City of Tenino

In addition to these projects, the City of Tenino should consider the development of a stormwater management plan that identifies potential projects; this would represent a major component in establishing a stormwater utility should the City decide to pursue one. A Community Development Block Grant could be an appropriate source of funding for this type of project.

Water System

Existing Facilities & Forecasted Needs

The City of Tenino water system serves 710 customers and pumps roughly 4.1 million gallons of water per month. The community has groundwater rights for 270 acre-feet per year, with a maximum instantaneous pumping rate of 700 gallons per minute. Existing water rights are approved by the Department of Health to serve approximately 1,236 equivalent residential units (ERUs). An ERU represents the average amount of water used

by a single-family dwelling. The measurement permits the comparison between commercial and multi-family water usage to that of a typical detached single-family dwelling.

As discussed in Chapter 3 of this plan, the number of dwelling units is anticipated to double over the 20- year planning period, exceeding the City’s existing water rights. Without the acquisition of additional water, the City’s continued growth will be impacted.

Water Source

The City of Tenino currently owns and operates two wells (Well No. 1 and Well No. 3) located near Tenino Middle School. Well No. 2 is located in the vicinity of the other two wells but is no longer used due to excessive sand production. Information about the wells are provided in Table 5.3 and Map CF-1. The wells pump water associated with Tenino’s water rights which allow a maximum annual withdrawal of 270 acre-feet of water (approximately 87,979,886 gallons) at a maximum instantaneous withdrawal rate of 700 gallons per minute. The 2023 Water System Plan indicates that a new well site would improve source reliability and should be considered in conjunction with additional Water Rights Acquisition.

Table 21. Water Source Characteristics

	Well No. 1	Well No. 3
Installation Date	1967	1994
Depth	94 feet	93 feet
Installed Pump Capacity	300 gallons per minute	400 gallons per minute
Maximum Instantaneous Flow Rate	300 gallons per minute	400 gallons per minute
Maximum Annual Volume	196 acre-feet per year	74 acre-feet per year 196 secondary
Treatment	Sodium hypochlorite, pH adjustment for corrosion control	Sodium hypochlorite, pH adjustment for corrosion control

Source: City of Tenino

Water Storage

The City of Tenino has two existing glass-lined steel tanks located on Lemon Hill, west of downtown Tenino. The tanks, built in 1994, are in good condition and have a combined storage volume of approximately 550,000 gallons; storage capacity is likely adequate for the next 15 years. If a significant amount of development occurs in western Tenino as is anticipated additional storage capacity will likely be needed by 2028.

Water Distribution

The City of Tenino’s water system includes about 16.3 miles of distribution piping, ranging from less than 4 inches to 14 inches in diameter. As shown in Table 21 and Figure 29, approximately 70 percent (57,652 feet) of the network is asbestos cement (AC) pipe, 20 percent (17,590 feet) is PVC or HDPE, and 9 percent (7,441 feet) is ductile or cast iron. A small portion—less than one percent (3,580 feet)—consists of galvanized iron, typically under 4 inches in diameter and prone to corrosion and leaks.

Most of the distribution system consists of 6- and 8-inch pipes, which are typical for residential service and fire flow capacity in smaller cities. Larger 10- and 12-inch mains connect wells, reservoirs, and key portions of the system, as illustrated in Figure 29, which maps existing waterlines throughout the city and Urban Growth Area.

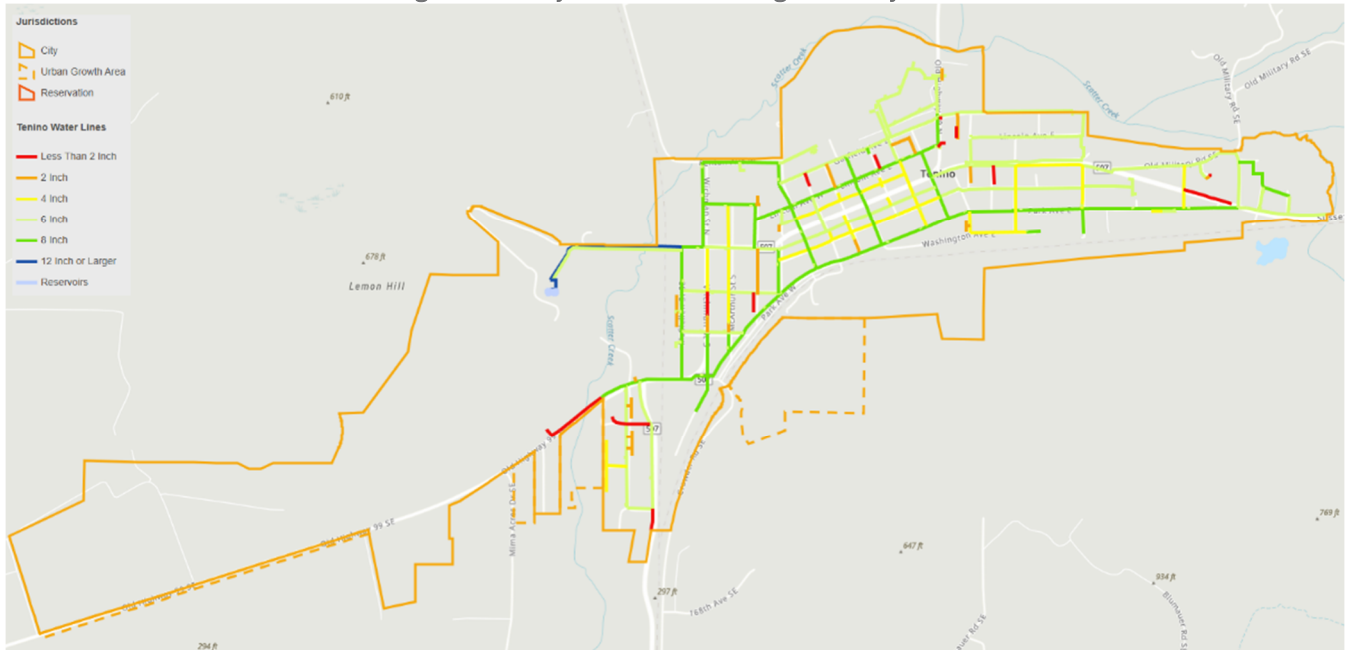
While the system is generally in good condition, the age and material of some segments, particularly older AC and galvanized lines, will require ongoing maintenance and phased replacement. Future improvements should focus on replacing aging materials with PVC or HDPE, upsizing undersized mains to maintain adequate pressure and fire flow, and extending service to support planned growth areas.

Table 22. Lineal Feet of Pipe in Tenino

Pipe Sizes (Inches)	PVC and HDPE	Type of Pipe (in lineal feet)			Total
		Asbestos Cement	Ductile Iron/Cast	Galvanized Iron	
14	-	-	280	-	280
12	-	-	1,964	-	1,964
10	-	-	-	-	-
8	7,856	20,775	774	-	29,405
6	6,259	24,550	4,239	-	35,048
4	2,740	12,204	114	-	12,592
<4	3,201	123	70	3,580	6,974
Total	17,590	57,652	7,441	3,580	82,263

Source: City of Tenino

Figure 29. City of Tenino Existing Water System



Source: Thurston Regional Planning Council

Projected Water Demand

Overall water use in Tenino has declined since 2004 due to conservation efforts and improved system efficiency. However, new residential and commercial growth and reduced housing vacancies are expected to increase demand, bringing total use close to the City’s current annual water right limit within the planning horizon.

While continued conservation measures can help extend the existing supply, they will not fully meet long-term needs. The City should pursue additional water rights and source capacity, especially in West Tenino, to ensure a reliable supply that supports projected growth through 2045.

Instantaneous Water Rights

Instantaneous water rights are sufficient for the next 15 years or so but are likely inadequate to address long term needs. Washington State law requires the instantaneous withdrawal rate (or total source capacity) to meet or exceed the estimated Maximum Day Demand for a community. According to the 2023 Comprehensive Water System Plan, the city of Tenino is anticipated to have an annual water right deficit starting in 2036. 2.1 gallons per minute more than the current water right.

Pursuing Additional Water Rights

The City of Tenino is located within the Upper Chehalis Watershed (Water Resource Inventory Area 23). According to the Washington State Department of Ecology (Ecology), “the Chehalis watershed is one of the most intensely farmed basins in Western Washington, and much of the water has already been spoken for.” (Ecology Publication Number 11-11-027). In order to maintain and ensure adequate water quality and fish migration, water usage has been further restricted. In 2015, a severe drought caused Ecology to limit water rights holders from withdrawing water from the Chehalis basin. Although this affected primarily agricultural users, it highlights the difficulty in obtaining new water rights, even in an urban environment. If water rights are not secured in time to serve the additional growth, the City will work with the Washington State Department of Ecology to identify a solution, which may include water conservation projects and system improvements that reduce water leakage. Development of west Tenino relies on the developer bringing water rights; this may slow the pace of the development.

Level of Service

The acceptable level of service for water utilities should be governed by the fire flow requirements found in the Uniform Fire Code. Concurrency for water supply purposes is established at the point in the development process when combustible materials are first introduced to the development site. In addition to these above projects, the Water System Plan contains additional information associated with water rates and conservation. These items are noted in the Goals and Policies for the City’s capital facilities.

UGA Expansion

The City of Tenino considered a potential UGA expansion to the south of the existing city boundary, but in working with Thurston County, the county has opted to not expand the UGA during this planning period. However, the city holds it as an option for future consideration.

Water System CIP and Funding Sources

The table below outlines the current proposed Capital Improvement Projects for the Water System to be completed over the next 20 years. For a complete explanation of these projects, please refer to the City of Tenino 2023 Water System Plan adopted herein by reference.

Table 23. Water System CIP

Projects	Description	Schedule	Estimated Cost (\$2024)	Funding Source
Water Rights Acquisition	Acquire new annual and instantaneous water rights. Implement at least 200 to 300 gallons per minute of additional source capacity as part of any significant development	2025-2030	\$10,000	General Fund
Small Diameter Pipe Replacement	Systematically replace all galvanized small diameter distribution pipes.	2025-2030	\$50,000	General Fund
200,000 Gallon Reinforced Concrete Water Reservoir	Construct a new reservoir to support UGA development.	TBD	\$1,660,000	Developer
Fire Hydrant Replacement Program	Annual Meter Replacement	2025-2030	\$7,500	General Fund
Water System Plan	Development of a water system plan	2033	\$100,000	General Fund
Drill New Well	Establish a fourth well	2035	\$200,000	General Fund

Source: City of Tenino

Wastewater Treatment System

Existing Facilities & Forecasted Needs

Wastewater treatment is provided to the majority of properties within the Tenino city limits. Grinder pumps, located on individual properties, grind the solids in the wastewater and pump the sewage to the wastewater treatment plant. Once the wastewater reaches the treatment facility, the sewage is filtered through the plant headworks to remove grit, an anoxic basin, aeration basins, and finally a series of membranes that separate the solid and liquid wastes and treat the water. Sludge is stored within a storage basin and hauled to an appropriate disposal area as necessary. Treated water is placed in groundwater recharge basins.

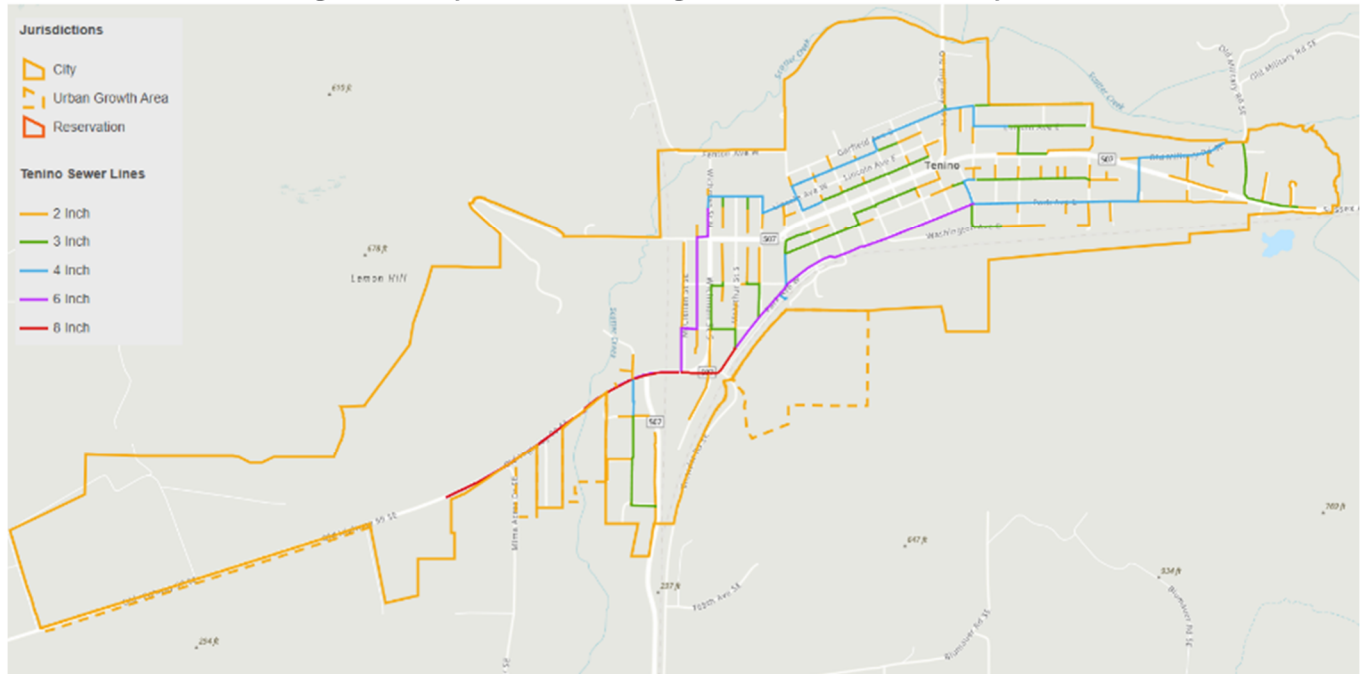
The wastewater treatment system is designed to treat inflows between 230,000 and 330,000 gallons per day (see Figure 5.2). Pumps and basins have been sized to handle 330,000 gallons per day, but existing membranes are only sufficient to handle 230,000 gallons per day, the anticipated maximum monthly average flow at the time of development of the system. In 2012, average inflows ranged from approximately 78,000 to 87,000 gallons per day, with the maximum day reaching approximately 103,000 gallons in December 2012.

As of February 26, 2013, the City of Tenino had 630 active sewer connections, including commercial and residential properties. Assuming a maximum day demand at the sewer treatment plant of 103,000 gallons, a similar proportion of future uses (when compared to existing uses), and a maximum day demand of 163.5

gallons per day (the maximum day demand/630), the system has the potential to add 777 connections before reaching the capacity of 230,000 gallons per day.

As inflows near 230,000 gallons per day, Tenino will need to purchase and install more membranes to increase the capacity of the wastewater system.

Figure 30. City of Tenino Existing Wastewater Treatment System



Source: Thurston Regional Planning Council

Deficiencies and Recommended Improvements

The City's wastewater system generally operates effectively and has sufficient capacity to accommodate projected growth during the 20-year planning period. However, as infrastructure ages and environmental standards evolve, the City should evaluate opportunities to enhance the performance and sustainability of its wastewater operations. In particular, future planning should address how to beneficially use the byproducts of wastewater treatment. This includes optimizing the use of Class A reclaimed water produced by the treatment facility—potentially for landscape irrigation, industrial uses, or aquifer recharge—and developing long-term, environmentally responsible methods for managing and disposing of biosolids generated through the treatment process. Implementing these strategies can reduce operational costs, improve resource recovery, and contribute to the City's overall sustainability and resilience goals.

Level of Service

The City defines its level of service (LOS) standards to ensure that the sanitary sewer collection and treatment systems continue to operate efficiently and protect public health and environmental quality. For the sanitary sewer collection system, the acceptable level of service is defined as a maximum flow of 75 percent of the system's design capacity. This threshold allows sufficient reserve capacity to accommodate peak flows during wet-weather events, provide for system maintenance and reliability, and support anticipated growth without causing system backups or overflows.

For the wastewater treatment plant, the acceptable level of service is defined as a maximum of 80 percent of the plant’s permitted treatment capacity. This standard ensures that the facility maintains adequate reserve capacity to meet regulatory requirements, accommodate new connections, and manage variations in flow and pollutant loading. Operating below this threshold also provides flexibility to respond to emergencies, upgrades, or unanticipated increases in demand.

Concurrency for wastewater treatment systems is achieved when infrastructure necessary to serve new development is installed and fully operational prior to occupancy. This means that the collection and treatment systems must have adequate capacity in place—either existing or constructed as part of the development project—at the time the use begins. Maintaining concurrency ensures that growth occurs in coordination with the availability of essential public services and that new development does not exceed the City’s ability to provide reliable and environmentally compliant wastewater service.

Wastewater Treatment System CIP and Funding Sources

The table below outlines the current proposed Capital Improvement Projects for the Wastewater Treatment System to be completed over the next 20 years.

Table 24. Wastewater Treatment System CIP

Projects	Description	Schedule	Estimated Cost (\$2024)	Funding Source
Wastewater Treatment Facility Fine Screen	Acquire fine screen for wastewater treatment	2028	\$2,000,000	City Funds - Wastewater Capital Improvement, Grants
Reclaimed Water Use	Implement reuse of reclaimed water	2032	\$500,000	Public Works Trust Fund, Ecology
Sludge Pumping	Investigate method to pump treated sludge instead of trucking off-site.	2026-2036	\$200,000	City Funds - Wastewater Capital Improvement, Grants
Sludge Removal	Pursue sludge removal	2028	\$150,000	City Funds - Wastewater Capital Improvement, Grants

Source: City of Tenino

Page intentionally left blank

Goals, Policies, and Actions

Goal CF 1: Coordinate the expansion and location of public facilities to meet present and future demand in a timely and cost-effective manner.

Policy CF 1.1 Prioritize capital improvements in areas where development is unlikely to fund infrastructure. Improvement priorities should consider the importance of each facility.

Action: Regularly update the Capital Facilities Plan and Capital Improvement Program to identify high-priority projects for the 6- and 20-year horizons.

Action: Use the Capital Improvement Program to guide City budget decisions and pursuit of grants.

Policy CF 1.2 Require new development to fund necessary infrastructure improvements, including roads, sidewalks, street lights, and utility connections.

Action: Require fair-share funding from developers for needed road improvements.

Action: Route development information to relevant agencies (e.g., Tenino School District, Fire District 12, WSDOT) for facility planning.

Action: Establish an Interlocal Agreement with the Tenino School District for collecting school impact fees.

Policy CF 1.3 Only allow new development when and where public facilities are adequate and do not compromise service levels elsewhere.

Policy CF 1.4 In the unincorporated UGA, apply Thurston County's Capital Facilities Plan and service levels.

Goal CF 2: Ensure facility upgrades are environmentally responsible and enhance community aesthetics.

Policy CF 2.1 All development and City projects must comply with the State Environmental Policy Act, the Critical Areas Ordinance, and environmental best practices.

Action: Route proposals to relevant agencies to assess impacts and mitigation.

Action: Verify compliance with the Critical Areas Ordinance.

Policy CF 2.2 Encourage utility and infrastructure upgrades that contribute positively to community aesthetics.

Action: Require the undergrounding of utilities in new developments where feasible.

Action: Encourage the underground of utilities in system upgrades.

Action: Encourage the planting of appropriate native street trees wherever possible.

Goal CF 3: Ensure the Capital Facilities Plan remains consistent with all elements of the Comprehensive Plan and regional planning efforts.

Policy CF 3.1 Update the Capital Improvement Program at least every six years.

- Policy CF 3.2** Review the Capital Facilities Plan whenever changes are made to other chapters of the Comprehensive Plan to maintain internal consistency.
- Policy CF 3.3** Reassess goals and priorities if probable funding falls short of meeting identified needs.
- Policy CF 3.4** Coordinate with Thurston County to maintain consistency across jurisdictional plans.
- Policy CF 3.5** The City shall participate in regional efforts to identify, evaluate, and site essential public facilities. Siting shall follow procedures consistent with WAC 365-196-550 and shall ensure that EPFs are located where infrastructure is adequate, environmental impacts are mitigated, and equitable access is provided.

Goal CF 4: Maintain and improve community facilities in a cost-effective manner.

- Policy CF 4.1** Make fiscally responsible decisions about City-owned community structures.
- Policy CF 4.2** Recognize the Quarry House, War Memorial Pool, and Tenino Train Depot Museum as key community assets and prioritize them for grant funding.
- Policy CF 4.3** Seek ways to increase revenue and reduce costs associated with community buildings.
 - Action:** Allocate funds for necessary improvements.
 - Action:** Actively pursue grants and alternative funding.
- Policy CF 4.4** Establish sustainable maintenance budgets and communicate the true cost of operations to the public.

Goal CF 5: Make cost-effective decisions regarding City-owned equipment.

- Policy CF 5.1** Maintain a database to track useful life and replacement costs of all City equipment.
- Policy CF 5.2** Explore interagency agreements to share equipment when practical.
- Policy CF 5.3** Budget for anticipated equipment needs.
- Policy CF 5.4** Evaluate rental or contracted services for infrequently used equipment where cost-effective.

Goal CF 6: Manage stormwater to prevent flooding and protect groundwater quality.

- Policy CF 6.1** Treat stormwater on-site or as close as possible to its source.
 - Action:** Clarify development standards and review processes for stormwater management.
 - Action:** Study water flow in Tenino to identify opportunities to slow or retain stormwater.
- Policy CF 6.2** Use best practices to reduce pollutants from stormwater infiltration.
- Policy CF 6.3** Require developers to provide adequate stormwater facilities in accordance with adopted service levels.
- Policy CF 6.4** Develop a stormwater management plan and evaluate the feasibility of creating a Stormwater Utility.
 - Action:** Research and apply for grant funding.

Policy CF 6.5 Use watershed planning, redevelopment, and low-impact development techniques to reduce stormwater impacts.

Goal CF 7: Fully implement the Tenino Comprehensive Water Plan.

Policy CF 7.1 Ensure consistency between the Comprehensive Plan and Water Plan through mutual updates.

Goal CF 8: Protect and preserve water quality and quantity from drought, extreme heat, and other hazards exacerbated by climate change.

Policy CF 8.1 Collaborate with Thurston County on groundwater monitoring and aquifer protection.

Action: Continue to monitor land use activities within the wellhead protection area.

Policy CF 8.2 Use sustainable water practices including water conservation, reuse, and climate-adaptive landscaping.

Policy CF 8.3 Develop a drought resilience strategy that includes triggers for drought stages and response actions.

Policy CF 8.4 Support collaborative pilot projects for water conservation and reuse (e.g., water banks, irrigation modernization).

Goal CF 9: Secure adequate water rights for projected growth.

Policy CF 9.1 Aggressively pursue new water rights to meet future residential and business needs.

Policy CF 9.2 Require annexing properties with water rights to transfer them to the City.

Policy CF 9.3 Promote water conservation to serve more residents and businesses with existing supplies.

Action: Implement a water conservation plan.

Action: Ensure rate structures incentivize conservation.

Action: Use reclaimed water to reduce reliance on potable supply.

Page intentionally left blank

Chapter 7. Utilities

This utilities chapter has been developed in accordance with Section 36.70A.070 of the Growth Management Act (GMA) to address utility services in the City of Tenino for the 20-year planning period. The Growth Management Act (GMA) defines electricity, gas, telecommunications, and cable TV as “utilities.” It defines water and sewer systems separately as “capital facilities.” As used in the Comprehensive Plan, “utility” and “capital facilities” are not interchangeable terms. Sewer and water are addressed in Chapter 5 of this Plan.

This chapter articulates policies for existing and future utility services and describes the location and capacity of significant existing and proposed utilities including electric, gas, and telecommunication facilities.

Electricity

Electricity is provided to the City of Tenino by Puget Sound Energy (PSE). PSE is a private investor-owned utility responsible for providing electrical service to approximately 1.2 million customers in parts of western and central Washington. PSE generates electricity from a diverse mix of resources. As of 2022 the PSE electricity generation resources included Coal (23%), hydroelectric (27%), natural gas (23%), biomass, non-biogenic and petroleum (10%), and wind (16%).

In accordance with State law, PSE has an obligation to provide electricity upon demand and in accordance with "tariffs" on file with the Washington Utilities Trade Commission (WUTC). PSE has a duty to serve, meaning it is required to provide service to customers within its service territory as service is requested. Consistent with its duty to serve, PSE will provide electrical service as needed for development both within and outside of the urban growth area of Tenino. Increased demand for electricity is expected within the community as development occurs.

System Inventory and Forecast of Future Needs

The Blumauer Distribution Substation on Garfield Street serves the City of Tenino. Three 115 kV transmission lines extend from the station to the north along Old Highway 99, east along SR 507, and southwest. The southwest line splits near the intersection of Crowder Road and 6th Street into two lines extending to the west along Old Highway 99 and south along SR 507. Existing transmission lines have the capacity to meet the current and projected demand for electricity in the Tenino service area. In 2019, the city of Tenino was selected for an innovative microgrid project with the Blumauer substation hosting the first utility scale solar array plus storage in PSE’s service area. The goal is to increase the reliability and resilience for Tenino High School using solar combined with new energy storage facilities and customer load controls. The installation will include an approximately 1MW/2MWh lithium battery at the Blumauer substation, new solar array with the intent to tie into the existing solar array located at Tenino High School. The project is expected to be completed by the end of 2025.

As growth occurs in the area served by the Blumauer Substation, power can be reallocated among the three feeders that distribute electricity to customers. A future fourth line will also help with distribution needs. According to demand forecasts made by PSE, the amount of new development projected within the next 20 years in the Tenino Urban Growth Area will not warrant new transmission facilities in the area. The three 115 kV lines are planned to be upgraded to a higher capacity in the next five years.

Energy Conservation Programs for Customers

To encourage efficient use of electricity among customers, PSE operates a variety of conservation programs. Conservation offerings and incentive levels change from time to time and interested businesses and residents can explore available programs on the PSE website. Additional programs through governmental agencies such as the Department of Commerce and organizations such as Thurston Energy and the Community Action Council also provide home weatherization assistance to local governments, business owners, and residents.

Natural Gas

The City of Tenino is not currently served by the regional natural gas distribution system operated by PSE. Unlike electricity or basic telephone service, PSE is not obligated to provide gas service to all customers upon request as natural gas is considered a convenience and not a necessity. PSE is also prohibited from passing on the cost of new distribution lines to existing customers, and only extends lines where demand warrants extension.

It is unlikely that an extension of natural gas service to Tenino will be feasible in the next 20 or more years. The cost of constructing a new gas main to Tenino would be in excess of \$10 million, (not including the price of connecting the service to each household), and it would involve the extension of a pipeline approximately 10 miles from the existing Rainer Gate Station located northeast of Tenino. Long-term factors that might influence the prospect of natural gas availability within the community include the relative costs of gas and electricity, regional power planning priorities, and trends in growth and economic development. Tenino residents rely on individual propane natural gas deliveries to meet their natural gas needs.

Telecommunications Services

Standard Telephone Service

Considered a necessity, basic telephone service providers have a duty to deliver service as requested within their service areas. Tenino Telephone Company provides basic telephone services to Tenino as well as Bucoda and the surrounding rural areas and has operated in the area since 1905.

Tenino Telephone has miles of fiber optics cables running through its service area as well as a number of other services and technologies available. Major fiber optic cables extend through Tenino along SR 507 and on the south side of Park Street, and feeder lines serve a number of homes and businesses. Internet service through Tenino Telephone is provided by Scatter Creek InfoNet, an affiliate of the Tenino Telephone Company, with locations in Cowlitz and Thurston counties. Long-distance services are offered by Scatter Creek Communications (another division of Tenino Telephone), as well as AT&T, Sprint and other providers.

Telecommunications and Cellular Telephone Service

The speed of technological advancements in the telecommunications industry makes it difficult to project how services will be provided in the future. The Federal Communications Commission (FCC) regulates internet and cellular providers in each geographic service area, and there are several FCC-licensed providers that serve Tenino.

At the state level, cellular telecommunication companies are regulated by the Washington Utilities and Transportation Commission. The Commission still considers cellular technology a utility of convenience and

not a necessity, and cellular providers are not required to provide service upon demand. Cellular technology is, however, used increasingly as a reliable backup communication system during emergencies.

Two cellular towers serve Tenino. Verizon maintains a tower in the old park; AT&T has a tower in the northwest corner of Tenino just outside the city limits.

Cable Service

Comcast is Tenino’s sole cable service provider. Customers can purchase service packages with a variety of options including access to various television channels and internet services. Comcast’s high speed Internet cables run through Tenino along SR 507 and Old Highway 99.

Waste Disposal

Overview

The City of Tenino partners with LeMay Pacific Disposal to provide comprehensive waste management services to its residents and businesses. As a full-service waste company operating throughout Thurston County, LeMay Pacific Disposal offers a range of services designed to promote environmental sustainability and meet the community's waste disposal needs.

Services Provided

LeMay Pacific Disposal offers the following services in Tenino:

Residential Garbage Collection: Weekly curbside pickup of household waste.

Recycling Services: Collection of recyclable materials to reduce landfill use.

Yard and Food Waste Collection: Eco-friendly disposal of organic waste.

Bulk Pickup: Scheduled collection of large items like furniture and appliances.

Temporary Dumpster Rentals: For remodels, construction, and special projects.

Commercial Waste Services: Tailored solutions for businesses, including roll-off dumpster rentals and compactors.

Residents can access their specific pickup schedules through LeMay Pacific Disposal's online tools, ensuring timely and efficient waste collection.

Sustainability Initiatives

LeMay Pacific Disposal is committed to environmental stewardship. Their sustainability efforts focus on:

Reducing Landfill Waste: Through comprehensive recycling and composting programs.

Green Waste Recycling: Transforming yard and food waste into compost, reducing methane emissions.

Recycling Programs: Collecting materials like cardboard, plastics, and metals to minimize landfill use.

Education and Outreach: Providing resources to residents and businesses on proper waste segregation and recycling practices.

Innovative Technologies: Implementing advanced systems to improve waste collection efficiency and reduce carbon emissions.

Goals, Policies, and Actions

Goal UT 1: Tenino coordinates with utility providers to ensure that sufficient service is available for development.

Policy UT 1.1 Share information about new developments with Puget Sound Energy, Tenino Telephone, Comcast, and other service providers to help them plan how they will serve the development.

Policy UT 1.2 Ensure that development regulations are consistent with and do not otherwise impair the fulfillment of public service obligations imposed upon utilities by State and Federal law.

Goal UT 2: Utilities for new development are placed underground wherever possible.

Policy UT 2.1 Assist in coordinating between developers and service providers during the development process so that the long-term aesthetics of the community are taken into consideration.

Policy UT 2.2 Review utility permits simultaneously with the proposal requesting the service.

Policy UT 2.3 Coordinate with Thurston County and utility providers to ensure consistency between utilities and planned growth.

Goal UT 3: Coordinate with providers on utility improvements in currently built out areas.

Policy UT 3.1 Encourage the joint use of transportation rights-of-way and easements for utilities.

Policy UT 3.2 Provide timely and effective notification about road construction and maintenance to facilitate coordination of public and private utility trenching activities in Tenino and its urban growth area.

Goal UT 4: Tenino maintains up-to-date information on existing and proposed utilities within the Tenino urban growth area.

Policy UT 4.1 Work to maintain up-to-date information about utility provider's plans for the future within the Tenino Comprehensive Plan.

Policy UT 4.2 Where possible, work with utility providers to understand their facility needs, recognizing that planning for utilities is primarily the responsibility of the provider.

Goal UT 5: Utility services are environmentally sensitive, safe, and reliable.

Policy UT 5.1 Consistent with their public service obligations, require utilities to be reasonably compatible with surrounding land uses and that their environmental impacts are minimized.

Goal UT 6: Tenino reduces its per capita energy use, with more renewable energy being produced locally.

Policy UT 6.1 Partner with Puget Sound Energy and other efficiency programs to weatherize existing buildings, install solar panels, and/or conduct other energy efficiency and renewable energy programs.

Goal UT 7: Puget Sound Energy extends natural gas service to Tenino.

Policy UT 7.1 Inform Puget Sound Energy as large-scale development occurs.

Goal UT 8: Tenino residents and businesses have equitable access to a variety of high-quality options for phone, internet, and cable services.

- Policy UT 8.1** Encourage competition among phone, internet and cable providers to get the best services available in Tenino.
- Policy UT 8.2** Promote the development of affordable, equitable internet access in Tenino.
- Policy UT 8.3** Promote additional teleworking opportunities among area residents.
- Policy UT 8.4** Consider internet as a facility that is as important as sewer and water for commercial and industrial development.
- Policy UT 8.5** Promote the construction of a high-quality internet infrastructure in downtown and major new employment areas.
- Policy UT 8.6** Work with organizations such as the Tenino Chamber of Commerce, the South Thurston Economic Development Initiative, and the Thurston Economic Development Council to build the capacity of area businesses to reach online markets.

Goal UT 9: Ensure that the community is able to reduce, reuse, and recycle waste materials sustainably.

- Policy UT 9.1** Increase participation in curbside recycling and food/yard waste collection to divert waste from landfills and reduce methane emissions.
 - Action:** Require all residential and commercial accounts to be enrolled in recycling and yard waste programs by default.
- Policy UT 9.2** Partner with LeMay Pacific Disposal to reduce emissions from waste collection operations.
 - Action:** Collaborate on route optimization to reduce vehicle miles traveled (VMT).
- Policy UT 9.3** Promote waste prevention, reuse, and sustainable consumption habits through education and community engagement. Provide multilingual outreach on recycling and composting services.
- Policy UT 9.4** Promote the purchase and use of products with low environmental impact across city operations and within the community.
 - Action:** Adopt a municipal sustainable procurement policy prioritizing recycled-content and reusable products.
- Policy UT 9.5** All new development within 200 feet of a public sewer line shall connect to the system; Existing development with a failing or substandard septic system, as verified by the County Health Officer or Department of Ecology, shall connect to the city sewer within 18 months of notification, provided sewer service is available within 200 feet.

Chapter 8. Climate

The current and future health of natural systems in Tenino is key to ensuring the broader health of the community. Tenino’s open spaces, trees, water, air quality, and scenic views are central to making it a remarkable place to live, work, and visit.

Pacific Northwest communities are already experiencing the economic and health impacts of changes to climate patterns, including warming temperatures, changes in rainfall, and reduced snowpack. Without coordinated and ambitious climate mitigation across the globe and climate adaptation at the local level, the impacts of climate change will undoubtedly worsen in the future. In recent years, Tenino has experienced firsthand a shift in the weather patterns impacting the Pacific Northwest, most notably with the increase in extreme temperature events and poor air quality. While there is no delusion that the relatively small actions of a small city like Tenino will solve the issues faced by the world, we can do our part and serve as a positive example for our community and fellow local governments. The City is committed to implementing the goals and policies in this Climate Element to safeguard our natural systems and mitigate the impacts of greenhouse gas emissions to create a more resilient Tenino.

What is climate change?

While weather is what we experience on a day-to-day basis, climate describes average weather conditions over a long period of time. As the climate changes, extreme weather conditions, such as extreme heat and precipitation, become more frequent and severe. Climate change is the result of increasing concentrations of greenhouse gases (GHGs) within our atmosphere. GHGs such as carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O) create a greenhouse effect, trapping heat within the atmosphere and causing the gradual increase of global average temperatures. Human activities, such as driving and heating or cooling homes and businesses, emit large amounts of GHGs due to the combustion of fossil fuels.

Climate Change in Tenino

Climate change represents an ever-increasing threat to the health and well-being of residents in the City of Tenino and beyond. GHG emissions from travel, energy for our homes and buildings, and land use within our community are changing our climate in ways that put the community at risk. Projected changes in temperature, snowpack, severe storms, and wildfire risk threaten Tenino’s infrastructure, economy, natural resources, and public health.

Tenino is experiencing climate impacts such as extreme heat, drought, and extreme precipitation. These changes lead to an increase in frequency and severity of natural disasters such as heat waves and flooding. Tenino already experiences these impacts through extreme weather events such as record-breaking heat waves and poor air quality days caused by wildfire smoke. These impacts are harmful to the natural environment, critical resources, and the overall health of our community.

Who and what are most vulnerable?

Tenino’s critical water resources—including the Scatter Creek—are vulnerable to flooding, summer low flows, water quality impairment, and loss of suitable habitat for local wildlife and fish. Certain areas in Tenino may be at increased risk for landslides with changes in rainfall. Agricultural lands adjacent to Tenino are particularly susceptible to drought and the associated economic impacts.

Conditions and Trends

Greenhouse Gas Emissions

Burning fossil fuels to support transportation and energy needs, solid waste decomposition, and other human led activities are the primary sources of increasing greenhouse gas (GHG) emissions in the atmosphere. These gases trap heat, warming the planet which directly contributes to climate change and increases related risks. Tenino is joining Thurston County cities, and communities around the world, in analyzing their carbon footprint and identifying strategies and actions that will reduce the City’s GHG emissions.

Community Resilience

Climate resilience means a community can anticipate, prepare for, respond to, and recover from extreme weather and climate-related events. In Tenino, this includes planning for hazards that threaten public health, local infrastructure, natural resources, and the economy.

One of the biggest challenges is drought. When rainfall is low, it reduces water available for farms, forests, and ecosystems that depend on steady water supplies. This can lead to lower crop yields, damage to natural areas, and more pressure on the city’s water system.

Extreme heat is another growing concern. Many homes and buildings in Tenino lack insulation or air conditioning, which makes it harder to stay safe during hot weather. Currently, the city does not have a designated cooling shelter, leaving vulnerable residents at risk during heatwaves.

Heavy rainfall and flooding also affect Tenino. Because the city sits in a valley with flat, low-lying terrain, rainwater tends to collect, causing flooding and erosion. When stormwater systems are overwhelmed, it can damage roads, delay emergency services, and increase recovery time after storms.

In dry years, wildfires pose serious risks too. The forests and open lands that define the area’s rural character can become highly flammable. Wildfires threaten homes, air quality, and safety, and stretch emergency response capacity.

To build a more resilient future, Tenino can take steps like:

- Expanding stormwater and drainage infrastructure
- Improving water conservation and drought planning
- Updating buildings to handle extreme temperatures
- Designing neighborhoods and land uses to reduce flood and fire risk
- Establishing cooling and clean air shelters for emergencies

By preparing for these challenges now, Tenino can better protect its people, economy, and environment—ensuring the city remains strong and adaptable in the face of a changing climate.

Challenges and Opportunities

The City of Tenino is experiencing increasing climate-related impacts—from drought and extreme heat to flooding, wildfire, and severe storms. These hazards affect public health, strain infrastructure, disrupt local ecosystems, and create economic uncertainty. As a small rural city with agricultural land, sensitive natural resources, and limited infrastructure capacity, Tenino faces unique vulnerabilities.

At the same time, these challenges offer a chance to strengthen the City's long-term resilience. By planning ahead (investing in adaptive infrastructure, improving land use policies, and preparing for future risks) Tenino can better protect its residents, support local agriculture, and ensure that new growth is sustainable and climate-smart. Strategic planning today will help build a safer, healthier, and more resilient community for the future.

Key Challenges

Drought and Water Supply Stress

Tenino's agricultural lands, forests, and ecosystems rely heavily on consistent water availability. Extended dry periods—combined with shallow aquifers and limited storage capacity—can reduce crop productivity, degrade habitat, and strain municipal water systems.

Extreme Heat

Hotter, drier summers are becoming more frequent. Many homes and public buildings lack insulation or cooling systems, increasing health risks—particularly for children, seniors, and low-income residents. The City of Tenino currently lacks a designated cooling center to serve vulnerable populations.

Flooding and Stormwater Overload

Due to Tenino's location in a valley with flat, low-lying topography, intense rainfall often overwhelms the stormwater system. This results in localized flooding, erosion, and damage to roads, buildings, and drainage infrastructure.

Wildfire Risk

Surrounding forests, dry grasslands, and agricultural fields can become highly flammable during drought conditions. Increased wildfire frequency threatens air quality, public safety, and emergency response capacity, especially during peak summer months.

Infrastructure Vulnerability

Many roads, culverts, and utilities were not designed for today's climate extremes. Without upgrades, Tenino's infrastructure remains susceptible to damage from heat, flooding, or storm events.

Landslides and Slope Stability

While most of Tenino is relatively flat, isolated areas with moderate slopes may experience localized landslides or soil instability during periods of heavy precipitation, especially where vegetation is cleared or soils are disturbed.

Transportation Disruption During Regional Emergencies

As discussed in the Transportation Element, I-5 accidents often reroute traffic through Tenino, adding congestion pressure. Climate hazards such as flooding or wildfire can further restrict access routes, complicating evacuation, supply chains, and emergency response.

Ecosystem and Habitat Decline

Climate stress—especially drought and streamflow disruption—can affect wetlands, fish habitat, and forest health. These changes reduce ecosystem services such as water filtration, carbon storage, and biodiversity.

Opportunities

Despite the risks posed by climate-related hazards, the City of Tenino has a valuable opportunity to proactively invest in strategies that reduce long-term vulnerability, protect residents, and support a sustainable future. By identifying key areas for adaptation and infrastructure upgrades, the City can improve public safety, safeguard natural resources, and build a stronger, more resilient community.

Water Conservation and Drought Resilience

To address growing drought risks and reduce pressure on municipal and agricultural water supplies, the City can:

- Promote efficient irrigation systems, including drip irrigation and smart controllers, particularly in agricultural areas and public landscapes.
- Encourage drought-tolerant landscaping and native vegetation through development guidelines, incentives, and educational programs.
- Explore small-scale water storage, greywater reuse, or rainwater harvesting programs to increase water availability during dry periods.
- Work with local water providers and regional partners to develop aquifer recharge strategies and improve water supply planning during multi-year droughts.

Reducing Heat Vulnerability

As extreme heat events increase, Tenino can take steps to protect vulnerable residents and improve community resilience by:

- Supporting weatherization and insulation upgrades in existing housing, especially for low-income or senior households.
- Encouraging the use of cool roofing, light-colored pavement, and shade trees in urban and residential developments.
- Establishing one or more community cooling centers with extended hours during extreme heat events, located in accessible public buildings.
- Raising public awareness around heat risks and emergency preparedness, including hydration, shelter options, and energy-saving tips.

Improving Stormwater Infrastructure

To reduce flooding and erosion risks from heavy precipitation, the City can:

- Upgrade culverts, pipes, and stormwater conveyance systems in known problem areas to handle larger storm events.
- Integrate green infrastructure—such as bioswales, rain gardens, and permeable surfaces—into public rights-of-way, parks, and redevelopment projects.
- Adopt or update stormwater design standards to reflect future rainfall projections and ensure new development does not exacerbate runoff.

- Monitor and maintain existing infrastructure to ensure performance during increasingly intense storms.

Flood Mitigation Through Land Use and Infrastructure

Tenino can reduce flood risk by applying targeted mitigation measures that prioritize public safety and protect critical infrastructure:

- Use updated floodplain maps and hazard assessments to guide zoning and site planning.
- Elevate or retrofit critical facilities such as pump stations, emergency shelters, and access routes that are located in low-lying or flood-prone areas.
- Preserve or restore flood storage areas, such as wetlands and open spaces, which help absorb excess water and reduce downstream impacts.
- Increase public awareness and education about flood insurance, flood risk, and emergency evacuation planning.

Strengthening Wildfire Preparedness

Given Tenino’s exposure to wildfire risk, particularly in areas with dense vegetation and agricultural fuel sources, the City can:

- Adopt defensible space requirements for new and existing development near high-risk areas.
- Support fuel reduction programs on public and private land, including thinning, prescribed burns, and greenbelt maintenance.
- Develop and share community wildfire response plans that include evacuation routes, shelter locations, and emergency communications.
- Expand public education on wildfire risk reduction, including safe landscaping practices and emergency kit preparation.

Integrating Climate Risk into Planning and Development

The City has the opportunity to embed climate resilience throughout its long-range planning and decision-making processes by:

- Requiring climate impact assessments for major infrastructure investments and capital improvement planning.
- Updating development codes, subdivision regulations, and comprehensive plan policies to reflect long-term climate projections.
- Coordinating with regional partners and state agencies to align land use decisions with hazard mitigation plans and resilience funding programs.
- Ensuring new growth areas are designed to minimize exposure to hazards like flooding, wildfire, or heat islands.

Climate Objectives

Challenge	Objectives	Measurable Target	Tool(s)
Drought	Reduce water consumption	15% reduction in municipal and agricultural use by 2030	EPA WaterSense Program: Tools for promoting water-efficient products and public awareness. https://www.epa.gov/watersense
	Expand water storage capacity	25% increase by 2030	NRCS EQIP (Environmental Quality Incentives Program): Technical and financial support for water-saving agricultural practices. https://www.nrcs.usda.gov
	Promote drought-tolerant agriculture	Two (2) demonstration projects by 2028	US Drought Monitor & NOAA’s National Integrated Drought Information System (NIDIS): Tools for drought tracking and response planning. https://droughtmonitor.unl.edu
Extreme Heat	Establish cooling infrastructure	1 permanent cooling center by 2028	CDC Heat & Health Tracker: Identifies heat-vulnerable populations and trends. https://www.cdc.gov/climateandhealth/heat.htm
	Improve building insulation and cooling	30% of public buildings upgraded by 2030	DOE Weatherization Assistance Program (WAP): Funding for low-income home insulation and cooling upgrades. https://www.energy.gov/scep/wap
	Community education on heat risks	Reach 80% of households by 2027	National Integrated Heat Health Information System (NIHHIS): Heat planning and education resources. https://nihhis.cpo.noaa.gov
Extreme Precipitation	Upgrade stormwater systems	Systems designed for 100-year storms by 2032	EPA Green Infrastructure Wizard (GIWiz): Interactive tool for selecting stormwater solutions. https://www.epa.gov/green-infrastructure/giwiz
	Implement green infrastructure	Install in 3 public spaces by 2030	NOAA Atlas 14: Precipitation frequency data for infrastructure design. https://hdsc.nws.noaa.gov/hdsc/pfds/
	Identify pooling-prone areas	Complete mapping by 2028	FEMA Hazus: GIS-based risk assessment software for flooding and storm events. https://www.fema.gov/flood-maps/tools-resources/hazus

Flooding	Protect critical infrastructure	100% elevated/floodproofed by 2030	<p>FEMA Community Rating System (CRS): Incentivizes flood mitigation with insurance discounts. https://www.fema.gov/national-flood-insurance-program/community-rating-system</p>
	Regulate floodplain development	Standards enforced for new builds by 2026	<p>National Flood Hazard Layer (NFHL): Interactive FEMA flood maps. https://msc.fema.gov/portal/home</p>
	Conduct flood risk outreach	Reach 90% of at-risk property owners by 2030	<p>Flood Resilience Checklist (EPA): Helps evaluate and improve local flood preparedness. https://www.epa.gov/smartgrowth/flood-resilience-checklist</p>
Wildfire	Create defensible space	100% of public facilities by 2028	<p>Ready, Set, Go! Wildfire Preparedness Program (International Association of Fire Chiefs): Community engagement toolkit. https://www.wildlandfirersg.org</p> <p>NFPA Firewise USA®: Community wildfire risk reduction planning and certification. https://www.nfpa.org/Firewise</p> <p>CAL FIRE’s Wildfire Risk Reduction Grants & CWPP Templates: Funding and planning tools for fuel treatment and community engagement. https://www.fire.ca.gov/grants</p>
	Increase emergency preparedness	10% annual increase in wildfire drill participation through 2030	
	Reduce fire-prone vegetation	Treat 14 acres annually through 2030	

Climate Resources

Chehalis River Basin Flood Authority

A regional coalition of cities, counties, tribes, and state agencies working to reduce flood damage and improve long-term resilience in the Chehalis River Basin. The Flood Authority coordinates flood-reduction projects, advances early-warning systems, supports basin-wide planning, and implements both structural and non-structural strategies to protect communities, infrastructure, and ecosystems.

<https://ecology.wa.gov/ecologys-work-near-you/river-basins-groundwater/chehalis-basin/strategy>

Climate Solutions

A Northwest-based nonprofit focused on accelerating clean energy solutions to reduce carbon pollution and advance climate policy. Climate Solutions works with state and local partners to support renewable energy, transportation electrification, climate-smart buildings, and equitable climate action across Washington and Oregon.

<https://www.climatesolutions.org/>

Front and Centered

A statewide coalition of organizations dedicated to environmental justice and equitable climate policy in Washington. Front and Centered elevates the voices of communities most impacted by pollution and climate change, supports community-led research, and advocates for policies that advance clean air, healthy neighborhoods, and fair access to climate investments.

<https://frontandcentered.org/>

ICLEI USA – Local Governments for Sustainability

A national network that provides technical assistance, tools, and data to help local governments reduce greenhouse gas emissions, strengthen climate resilience, and implement sustainability planning. ICLEI supports cities with climate inventories, modeling, adaptation guidance, and performance tracking.

<https://frontandcentered.org/>

Thurston Climate Action Team

A nonprofit organization that engages community members, provides greenhouse gas analysis, and advocates for science-based climate mitigation strategies in the Thurston region. TCAT supports local jurisdictions and residents through climate education, policy recommendations, and community-based climate action initiatives.

<https://icleiusa.org/>

Thurston Climate Mitigation Collaborative

A partnership between Thurston County and the cities of Lacey, Olympia, and Tumwater that coordinates the implementation of the regional climate mitigation plan. The Collaborative develops shared strategies, tracks progress toward emissions-reduction targets and facilitates inter-jurisdictional cooperation on climate policies and programs.

<https://thurstonclimatecollaborative.org/>

Thurston Conservation District

A local special-purpose district providing technical assistance, education, and cost-share programs that support soil health, water quality, habitat enhancement, and climate-resilient land management. TCD works with farmers, forestland owners, and residents to implement conservation practices that reduce climate impacts and strengthen local ecosystems.

<https://www.thurstoncd.com/>

UW Climate Impacts Group (CIG)

A research group at the University of Washington that provides rigorous, region-specific climate science to support planning, policy, and natural resource management. CIG develops climate projections, vulnerability assessments, and adaptation guidance tailored to communities and ecosystems across the Pacific Northwest.

<https://cig.uw.edu/our-programs/our-work-in-washington/>

Washington Climate Partnership (Dept. of Commerce/Ecology – CPRG)

A statewide collaboration using federal Climate Pollution Reduction Grant funds to develop a Priority Climate Action Plan and comprehensive climate action plans, centering work with tribes, local governments, and communities (including overburdened/vulnerable populations).

<https://waclimatepartnership.org/en/about/>

Washington Conservation Action

Formerly the Washington Environmental Council, this statewide advocacy organization is a coalition of businesses, labor groups, environmental organizations, and community advocates working to support Washington’s transition to a clean energy economy. The Partnership promotes policies and investments that reduce emissions, strengthen economic competitiveness, and advance equitable climate outcomes statewide.

<https://waconservationaction.org/>

Page intentionally left blank

Goals, Policies, and Actions

Greenhouse Gas Mitigation

Agriculture & Food Systems

Goal GG 1: Ensure that the local agricultural economy is resilient to the impacts of extreme weather and other natural hazards worsened by climate change.

Policy GG 1.1 Coordinate with local, regional and state partners to develop and implement a comprehensive strategy to increase water storage for agricultural purposes that will ensure storage has neutral or positive environmental benefits and does not negatively impact fish and other core environmental requirements.

Policy GG 1.2 Support the local agricultural sector's efforts to adapt to changing climate conditions and capitalize on sustainable business opportunities.

Policy GG 1.3 Promote environmentally sustainable water-storage and farming practices that help agricultural producers adapt to changing conditions and reduce production losses while balancing ecosystem needs.

Buildings & Energy

Goal GG 2: Ensure that energy infrastructure is able to accommodate renewable energy opportunities and to withstand and recover quickly from the impacts of extreme weather and other natural hazards worsened by climate change.

Policy GG 2.1 Plan and build facilities, utilities, and infrastructure projects to avoid or withstand flooding.

Policy GG 2.2 Work with energy utilities to improve the safety and reliability of infrastructure vulnerable to climate change.

Policy GG 2.3 Require new subdivisions to bury electricity transmission lines and associated infrastructure to reduce damage from storms and wildfire ignition risks.

Goal GG 3: Ensure that buildings are designed and built sustainably to reduce environmental impacts and remain resilient to extreme weather and other hazards worsened by climate change.

Policy GG 3.1 Adopt fire-resilience standards for new and redeveloped sites in high-risk wildfire areas.

Policy GG 3.2 Develop or modify design standards to integrate exterior building features that reduce the impacts of climate change and increase resilience.

Cultural Resources & Practices

Goal GG 4: Ensure that cultural resources and practices are resilient to the impacts of extreme weather and other natural hazards worsened by climate change.

Policy GG 4.1 Protect significant historic sites prone to floods or other hazards worsened by climate change.

Goal GG 5: Ensure environmental justice by providing all residents an equitable opportunity to learn about climate impacts, influence policy decisions, and take actions to enhance community resilience.

Policy GG 5.1 Build and support partnerships with community-based organizations with the capacity and relationships to convene diverse coalitions of residents and to educate and empower them to implement climate resilience actions.

Goal GG 6: Provide emissions-reduction educational workshops, activities, and engagement opportunities, especially those that prioritize equity and underrepresented communities.

Policy GG 6.1 Partner with schools, libraries, and local organizations to host regular community workshops and attend events to discuss emissions-reduction strategies, including energy efficiency, renewable energy, zero waste living, and clean transportation.

Policy GG 6.2 Ensure all educational materials and events are culturally and linguistically accessible to residents, with particular attention to historically underserved populations.

Ecosystems

Goal GG 7: Increase tree canopy cover to boost carbon sequestration, reduce heat islands, and improve air quality, prioritizing overburdened communities.

Policy GG 7.1 Require open space set-asides (such as parks) for new development of multifamily or single-family residential communities.

Policy GG 7.2 Maximize tree canopy coverage in surface parking lots.

Policy GG 7.3 Maintain and manage natural lands (forests, grasslands, wetlands) to maintain or increase their carbon concentrations and avoid conversion of carbon-rich ecosystems.

Emergency Management

Goal GG 8: Integrate GHG reduction strategies into emergency preparedness, response, recovery, and mitigation efforts to enhance climate resilience and reduce long-term emissions.

Policy GG 8.1 Encourage emergency management facilities and backup power systems to transition to low-carbon or renewable energy sources.

Policy GG 8.2 Ensure the Local Hazard Mitigation Plan (LHMP) includes specific strategies for GHG reduction and climate-smart emergency response infrastructure.

Policy GG 8.3 Reduce emissions from emergency evacuations and disaster-related transportation through efficient, multimodal, and low-carbon options.

Policy GG 8.4 Develop local resilience hubs powered by renewable energy to serve as cooling/warming centers, communication hubs, and emergency supply distribution points.

Health & Well-being

Goal GG 9: Improve community health and well-being through strategies that reduce greenhouse gas emissions and support equitable access to clean air, safe housing, active transportation, and healthy environments.

Policy GG 9.1 Expand infrastructure and programs that encourage walking, biking, and transit to reduce emissions and improve physical health.

Policy GG 9.2 Reduce emissions and improve respiratory health by promoting high-efficiency, low-emission home upgrades.

Policy GG 9.3 Increase tree canopy and access to green space to reduce urban heat, sequester carbon, and support mental and physical well-being.

Policy GG 9.4 Design all health-related climate mitigation programs to prioritize vulnerable populations most affected by climate and air pollution impacts.

Zoning and Development

Goal GG 10: Improve community health and well-being through strategies that reduce greenhouse gas emissions and support equitable access to clean air, safe housing, active transportation, and healthy environments.

Policy GG 10.1 Expand infrastructure and programs that encourage walking, biking, and transit to reduce emissions and improve physical health.

Policy GG 10.2 Reduce emissions and improve respiratory health by promoting high-efficiency, low-emission home upgrades.

Policy GG 10.3 Increase tree canopy and access to green space to reduce urban heat, sequester carbon, and support mental and physical well-being.

Action: Implement a tree canopy management plan that guides and benchmarks the City's goals in order to increase and protect the tree canopy's ability to provide shade, improve air quality, and increase carbon sequestration, contributing to climate resilience efforts.

Policy GG 10.4 Design all health-related climate mitigation programs to prioritize vulnerable populations most affected by climate and air pollution impacts.

Resilience

Agriculture & Food Systems

Goal RE 1: Ensure that the local agricultural economy – including food and materials producers, distributors, and sellers – is resilient to the impacts of extreme weather and other natural hazards worsened by climate change.

Policy RE 1.1 Coordinate with local, regional and state partners to develop and implement a comprehensive strategy to increase water storage for agricultural purposes that will ensure storage has neutral or positive environmental benefits and does not negatively impact fish and other core environmental requirements.

Policy RE 1.2 Support the local agricultural sector’s efforts to adapt to changing climate conditions and capitalize on sustainable business opportunities.

Policy RE 1.3 Support the local agricultural sector’s efforts to adapt to changing climate conditions and capitalize on sustainable business opportunities.

Goal RE 2: Reduce Greenhouse Gas emissions in rural areas.

Policy RE 2.1 Phase out the use of gas-powered landscaping equipment.

Policy RE 2.2 Promote the sale and use of agricultural supplies, pesticides, fertilizers, and fuels that are not derived from fossil fuels.

Buildings & Energy

Goal RE 3: Maximize solar access of site design, where practicable, for new solar-ready residential and commercial buildings.

Policy RE 3.1 Require solar panels on buildings with large rooftops, as well as within or over parking areas.

Policy RE 3.2 Install distributed renewable energy generation and battery infrastructure at public facilities to store renewable electricity generated on site and provide emergency power that ensures continuity of operations.

Goal RE 4: Ensure that buildings use renewable energy, conservation, and efficiency technologies and practices to reduce greenhouse gas emissions.

Policy RE 4.1 Require additional net-zero greenhouse gas emission features of all new residential and commercial structures.

Policy RE 4.2 Maximize renewable energy sources for the supply of electricity and heat to new and existing buildings.

Policy RE 4.3 Retrofit municipal buildings for energy efficiency.

Policy RE 4.4 Require all municipal buildings to be powered completely by renewable energy by 2045.

Cultural Resources & Practices

Goal RE 5: Ensure that cultural resources and practices – including significant historic sites and culturally important traditional foods and natural resources – are resilient to the impacts of extreme weather and other natural hazards worsened by climate change.

Policy RE 5.1 Protect significant historic sites prone to floods or other hazards worsened by climate change.

Goal RE 6: Ensure environmental justice by providing all residents an equitable opportunity to learn about climate impacts, influence policy decisions, and take actions to enhance community resilience.

Policy RE 6.1 Build and support partnerships with community-based organizations with the capacity and relationships to convene diverse coalitions of residents and to educate and empower them to implement climate resilience actions.

Ecosystems

Goal RE 7: Ensure the protection and restoration of streams, riparian zones, estuaries, wetlands, and floodplains to achieve healthy watersheds that are resilient to climate change.

Policy RE 7.1 Implement actions identified in restoration and salmon recovery plans to improve the climate resilience of streams and watershed.

Policy RE 7.2 Increase the climate resilience of native fish species and aquatic ecosystems by reducing the threat of aquatic invasive species (e.g., fish, plants, invertebrates).

Policy RE 7.3 Restore the structure and function of streams and floodplains to increase habitat resilience for cold-water fish.

Goal RE 8: Ensure the protection and recovery of ecosystems to provide healthy habitat in a changing climate.

Policy RE 8.1 Take inventory of and protect climate refugia and habitat connectivity needs for species under stress from climate change.

Policy RE 8.2 Ensure no net loss of ecosystem composition, structure, and functions, especially in priority habitats and critical areas, and strive for net ecological gain to enhance climate resilience.

Emergency Management

Goal RE 9: Develop and maintain local government staff members' technical expertise and skills related to climate change and environmental justice so as to improve communitywide policy implementation, equity, and resilience.

Policy RE 9.1 Create evacuation plans and outreach materials to help residents plan and practice actions that make evacuation quicker and safer

Policy RE 9.2 Provide private forestland owners and residents living in Wildland-Urban Interface (WUI) areas information about fire prevention (e.g., Firewise) practices, and support application of such practices via building code provisions.

Goal RE 10: Enhance emergency preparedness, response, and recovery efforts to mitigate risks and impacts associated with extreme weather and other hazards worsened by climate change.

Policy RE 10.1 Map transportation infrastructure that is vulnerable to repeated floods, landslides, and other natural hazards, and designate alternative travel routes for critical transportation corridors when roads must be closed.

Policy RE 10.2 Factor climate impacts into the planning of operations and coordination of preparedness, response, and recovery activities among first-responders and partners, including public health, law enforcement, fire, school, and emergency medical services (EMS) personnel.

Policy RE 10.3 Develop resilience hubs – community-serving facilities that are designed to support residents, coordinate communication, distribute resources, and reduce carbon pollution while enhancing quality of life.

Policy RE 10.4 Support enhanced data collection for hazard events of all magnitudes to provide fuller understanding of the community’s hazard characteristics – including those affected by climate change.

Policy RE 10.5 Develop and implement a strategy to expedite management of debris (e.g., downed tree limbs and buildings blocking roads and streams) after a disaster incident to reduce the risks of subsequent fire, flood, injury, and disease vectors.

Health & Well-being

Goal RE 11: Protect community health and well-being from the impacts of climate change-exacerbated hazards – prioritizing focus on overburdened communities – and ensure that the most vulnerable residents do not bear disproportionate health impacts.

Policy RE 11.1 Evaluate and implement habitat reduction and population control for arthropod disease vectors (e.g., mosquitos and ticks) and zoonotic disease reservoirs (e.g., rodents) using integrated pest-management methods.

Policy RE 11.2 Promote the use of health impact assessments and other tools to address the potential impacts of health, equity, and climate change on vulnerable populations.

Policy RE 11.3 Enhance emergency preparedness, response, and recovery efforts to mitigate risks and impacts associated with extreme weather and other hazards worsened by climate change.

Appendix A. Downtown Tenino Concept Plan

Page intentionally left blank

Tenino Downton Concept Plan

Tenino’s small-town charm and walkability are a defining characteristic of the downtown. However, downtown Tenino struggles to retain businesses, and pedestrians are often missing from the landscape. The following plan builds on downtown Tenino’s strengths and addresses its challenges.

The City of Tenino believes that the highest potential for economic development and business development in the short-term is in the historic downtown of the community. This Downtown Plan is meant to identify methods to attract more visitors to the downtown, encourage more business activity, and enhance the quality of place on the community’s main street.

While these concepts include a number of large projects, several are meant to illustrate small, simple concepts that could improve downtown through the efforts of interested citizens or businesses. These concepts (such as holding a temporary event in downtown, installing a wayfinding sign, or creating a place for a visitor or resident to sit) could be completed at minimal cost and contribute to the overall character and vitality of the area.

Vision

The vision behind each of these concepts is the creation of a vibrant pedestrian-oriented business district that respects and builds on the historic character of downtown Tenino.

Strategy

To reach this vision, the City of Tenino believes that it is essential to build on the distinct advantages of Tenino to encourage more residents near the downtown, more visitors to the downtown, and more businesses in the downtown. These distinct advantages (or things that are unlike any other community) include:

- Tenino’s historic sandstone architecture, some of which was quarried less than three blocks from the buildings where it was used.
- The City Park is large for a community the size of Tenino and is located a short distance from downtown. This park includes the Quarry Pool, the Tenino Depot Museum, large sandstone blocks quarried from the former Tenino Sandstone Company quarry and play equipment for children. The park also connects to miles of trails through property owned by the Creekside Conservancy (the organization formerly known as the Heernet Environmental Foundation).
- The Yelm-Tenino Trail, which is 14 miles long and connects to an additional 22 miles of dedicated trails and nearby rural roads appreciated by cyclists.



Goals

The Downtown Plan is guided by three key goals that shape its vision and strategies for revitalization. These goals aim to create a vibrant, attractive, and functional downtown that supports businesses, residents, and visitors alike.

Increase Downtown Activity and Foot Traffic.

A thriving downtown relies on people—residents, workers, and visitors—who shop, dine, and engage in the community. To encourage more people to spend time downtown, the plan emphasizes strategies such as:

- Expanding mixed-use development and housing to bring more housing and businesses into the downtown core.
- Supporting small businesses and attracting new retail, dining, and entertainment options.
- Hosting events, markets, and cultural activities to draw both locals and visitors.
- Improving pedestrian and bike access to make downtown more walkable and inviting.

By increasing foot traffic, downtown businesses will see greater support, and the area will become a more dynamic and economically sustainable district.

Enhance the Quality of Place.

A visually appealing and well-maintained downtown encourages people to visit, linger, and return. Improving the quality of place involves:

- Investing in streetscape improvements, including landscaping, lighting, and public seating.
- Preserving and highlighting historic buildings to maintain downtown’s unique character.
- Expanding public spaces such as plazas, parks, and gathering areas to create inviting social hubs.
- Encouraging high-quality design in new developments to maintain an aesthetically pleasing and cohesive downtown environment.

A well-designed and attractive downtown strengthens community identity and fosters civic pride while making the area a destination for both residents and tourists.

Plan for Future Parking Needs

As the downtown area grows and attracts more visitors, the demand for parking will increase. To address this, the plan anticipates future parking challenges and proposes solutions such as:

- Evaluating current parking availability and identifying areas for expansion or improved efficiency.
- Encouraging shared parking agreements between businesses and property owners to maximize existing parking resources.
- Exploring structured parking options, including parking garages, to support long-term growth.
- Promoting alternative transportation methods, such as public transit, biking, and walking, to reduce the overall need for parking.

By proactively addressing parking concerns, the City can ensure that downtown remains accessible and convenient while supporting continued economic and social activity.

Concept 1: Increase Housing Density

Expanding mixed-use development and housing to bring more housing and businesses into the downtown core.

Vision

Downtown businesses supported through permanent residents, including seniors in senior housing and residents in new mixed-use and apartment projects.

- Goals met:**
- Increase Downtown Activity and Foot Traffic
 - Enhance the Quality of Place
 - Plan for Future Parking Needs

Potential Housing Types and Locations

Figure 31. Potential Locations for Housing Near Downtown



Mixed-Use

Walkup Apartment

Townhouse



Concept 2: Support events, markets, and activities.

Supporting small businesses and attracting new retail, dining, and entertainment options and hosting events, markets, and cultural activities to draw both locals and visitors.

Vision

Downtown businesses supported through temporary events, such as markets, craft fairs, music shows, or community movie nights that bring people into the area. The closer the event is located to downtown the better.

- Goals met:
- Increase Downtown Activity and Foot Traffic
 - Enhance the Quality of Place
 - Plan for Future Parking Needs



Farmers' Market - Port Townsend, Washington

Potential Spaces for Temporary Events



Concept 3: Improve Pedestrian and Bike Accessibility

Improving pedestrian and bike access to make downtown more walkable and inviting.

Long-Term Vision

A pedestrian-friendly Sussex Avenue with slower traffic, areas of wider sidewalks, and business seating on the street.

Short-Term Vision

Outdoor cafes, pedestrian spaces, and seating on side streets, back alleys, and unique places on the front or sides of buildings.

- Goals met:**
- Increase Downtown Activity and Foot Traffic
 - Enhance the Quality of Place
 - Plan for Future Parking Needs

Potential Locations for Outdoor Seating in Historic Downtown



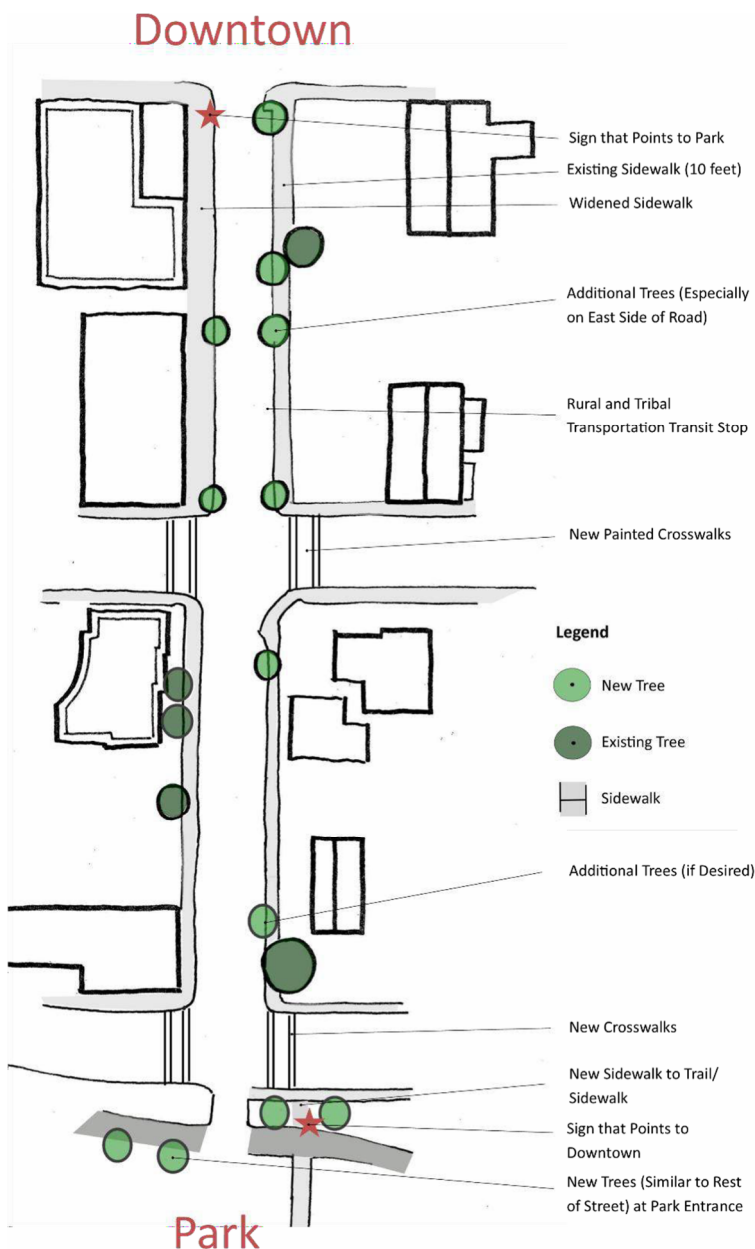
Concept 4: Connect the Park to Downtown

Vision

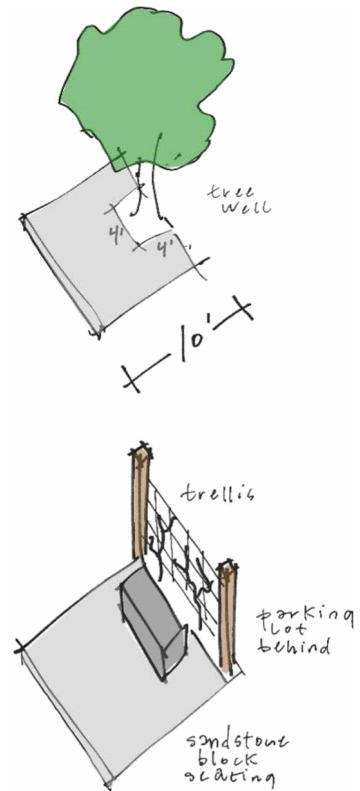
A pedestrian friendly link to the park along Olympia Avenue that can double as a home for community events such as markets, fairs, concerts, or outdoor movies.

- Goals met:
- Increase Downtown Activity and Foot Traffic
 - Enhance the Quality of Place
 - Plan for Future Parking Needs

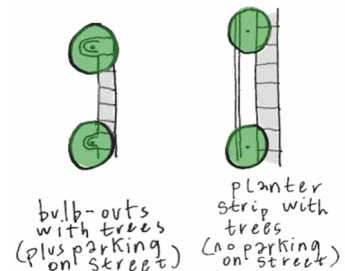
Conceptual Site Plan



Adding Vegetation to East Sidewalk



Potential Methods to Add Vegetation to Street



Concept 5: Bike Path/System through Downtown

Develop a bike system that leads bikers and pedestrians through downtown.

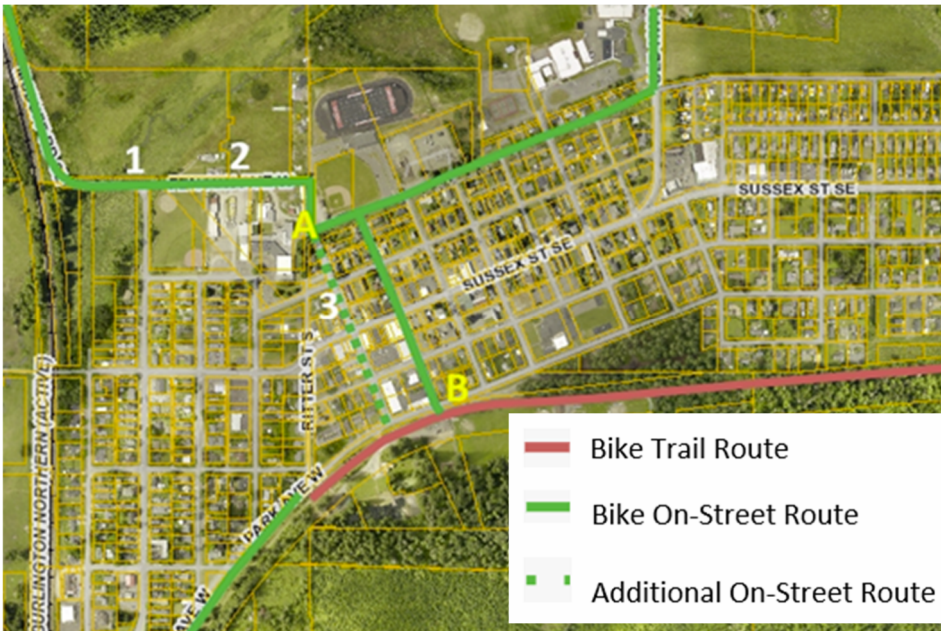
Vision

A bike network that leads people from the park to and from downtown and visa-versa with:

- Bike routes that showcase the community.
- Bike route markers that point people into downtown.
- Bike markings that guide people to the best routes to travel.

- Goals met:
- Increase Downtown Activity and Foot Traffic
 - Enhance the Quality of Place
 - Plan for Future Parking Needs

Potential Bike Routes



Wayfinding Approaches



A. Stencils on Bike/Car Roads



B. Wayfinding Signs

Views



1. Scatter Creek and Hill



2. Mount Rainier



3. Downtown

Concept 6: Build on Character of Downtown

Vision

New buildings that complement existing historic structures through features such as increased fenestration such as windows, three-dimensional facades, and similar roof lines. Additionally structures should be set at or near the front of the property line, include landscaping or other visual decoration, and use high quality materials.

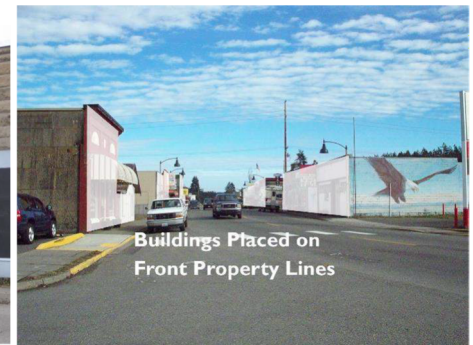
- Goals met:
- Increase Downtown Activity and Foot Traffic
 - Enhance the Quality of Place
 - Plan for Future Parking Needs



Lots of windows



Three-Dimensional Facades



Structures Set a/Near Front Property Line



Plants/Art



High Quality Materials



Similar Roof Lines

Concept 8: Better utilize areas for additional parking

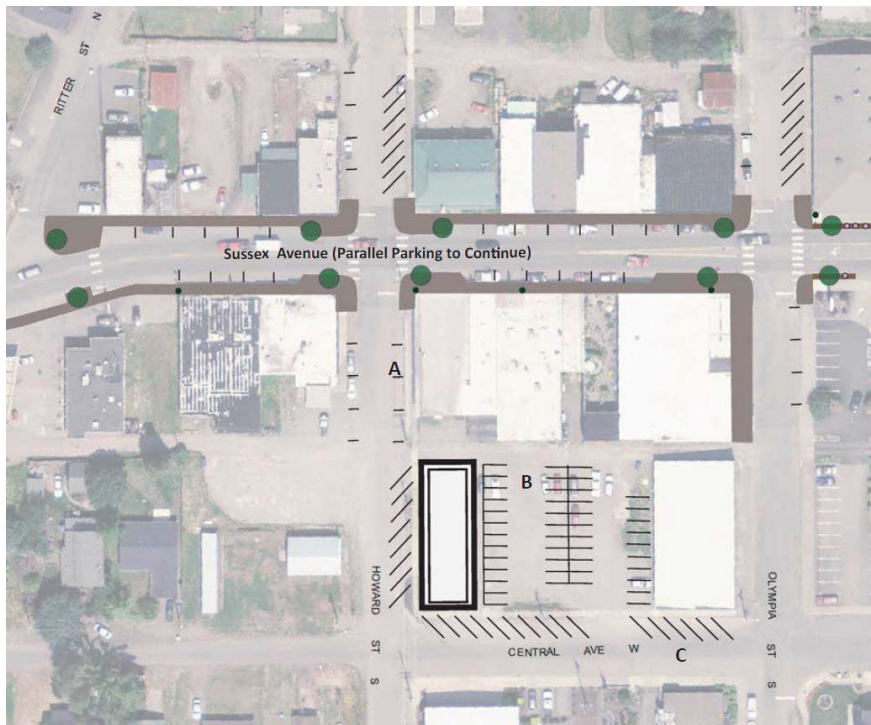
Better utilize side streets, back streets and alleys for parking.

Vision

Parking on Sussex, Olympia, Howard, Hodgden, and Central Avenue, and off the alleys. If necessary, additional parking agreements made with groups like the School District and the Tenino First Presbyterian Church.

- Goals met:**
- Increase Downtown Activity and Foot Traffic
 - Enhance the Quality of Place
 - Plan for Future Parking Needs

Potential Areas for Parking



- A. Parallel on-street parking on Olympia and Howard (south of Sussex) is considered the most feasible and desirable parking arrangement at this time.
- B. Creating defined parking spaces in the parking lot behind the Sandstone Café is desirable—as defining spaces would offer businesses the opportunity to have a similar number of spots as at present, while offering a space for a new building (a 40' by 112' foot structure is shown above). The existing parking arrangements are haphazard and inherently inefficient in their use of space.
- C. Angled parking on one side of the road will work with two lane traffic in certain areas.

It should be noted that one-way streets with angled parking on one side will not result in substantially more parking spaces than two-way streets with parallel parking on both sides. However, one-way streets with angled parking on both sides are generally not considered necessary, feasible, or desirable at this point in time.

Appendix B. Adopted Housing Action Plan

Page intentionally left blank



City of Tenino

Housing Action Plan

July 2023



City of Tenino
Washington



Project Information

Project: Housing Action Plan
Prepared for: City of Tenino
149 Hodgden Street S
Tenino, WA 98589
cityoftenino.us

Project Representative

Prepared by: SCJ Alliance
8730 Tallon Lane NE, Suite 200
Lacey, WA 98516
360.352.1465
scjalliance.com

Contact: Dan Penrose, SCJ Alliance

Acknowledgements

Mayor

Wayne Fournier

City Council

Linda Gotovac
Elaine Klamm
John O'Callahan
Jason Lawton
Rachel Davidson

Planning Commission

Alex Murray
Matthew Rounsley
William Rutherford
Darnella Stenzel
Dave Watterson

City Staff

Ronna Barnes, Court/Admin Clerk
Jen Scharber, Clerk/Treasurer
Courtney Sheldon, Utility Clerk

Consultant Team

SCJ Alliance Consulting Services

This plan was made possible by Department of Commerce funding to support planning to complete specific actions that can increase housing options and support housing affordability.

Table of Contents

- Overview 1
 - Relationship to Comprehensive Plan.....1
 - Tenino Housing Objectives 2
- Housing Glossary 3
- Introduction..... 7
 - Housing Needs And Findings 7
 - Summary Findings.....11
 - Summary Findings.....13
- Community And Stakeholder Participation.....14
- Policy and Regulations Evaluation.....15
 - Housing and Land Use Element Policy Review..... 15
 - Housing Goals & Policy Review 16
 - Housing Element Policies & the Community’s Needs16
 - Progress in meeting Housing Targets and/or Objectives16
 - Development Regulations Review18
 - Accessory Dwelling Units.....19
 - Cottage Housing 21
 - Rehabilitation and Maintenance Resources..... 21
 - Land Use Goals and Policies 23
- Housing Goals and Actions 24
- Implementation and Monitoring 29
- Appendix..... 32

Tables & Figures

Figure 1: Units in Structure (2021)	9
Figure 2. Comparison of Children in Households (2021)	9
Figure 3. Inflation-Adjusted Household Income (2021).....	10
Figure 4. Cost Burdened Households in Tenino (2019)	11
Figure 5. Renter Households & Rental Units (2021)	12
Figure 6. Owner Households & Housing Units (2021)	12
Table 1. Estimated Housing Units Required (2030 - 2045) ...	13
Table 2. Estimated New Units Required (2021, 2045)	17
Figure 7. Housing Units in Tenino (2010-2021).....	18
Table 3. Permitted Housing Types by District (2023)	20
Figure 8. What is an ADU?.....	21

Overview

The City of Tenino has prepared this Housing Action Plan (HAP) with support from the Washington Department of Commerce. In 2019, the Washington State Legislature enacted planning grants through House Bill 1923 to encourage cities which plan under the Growth Management Act (GMA) to complete specific actions that can increase housing options and support housing affordability.

The HAP provides a variety of community-led initiatives that encourage the provision of housing at prices attainable to all residents, now and in the future. This plan identifies immediate housing needs and associated tools to address the housing needs in Tenino.

Relationship to Comprehensive Plan

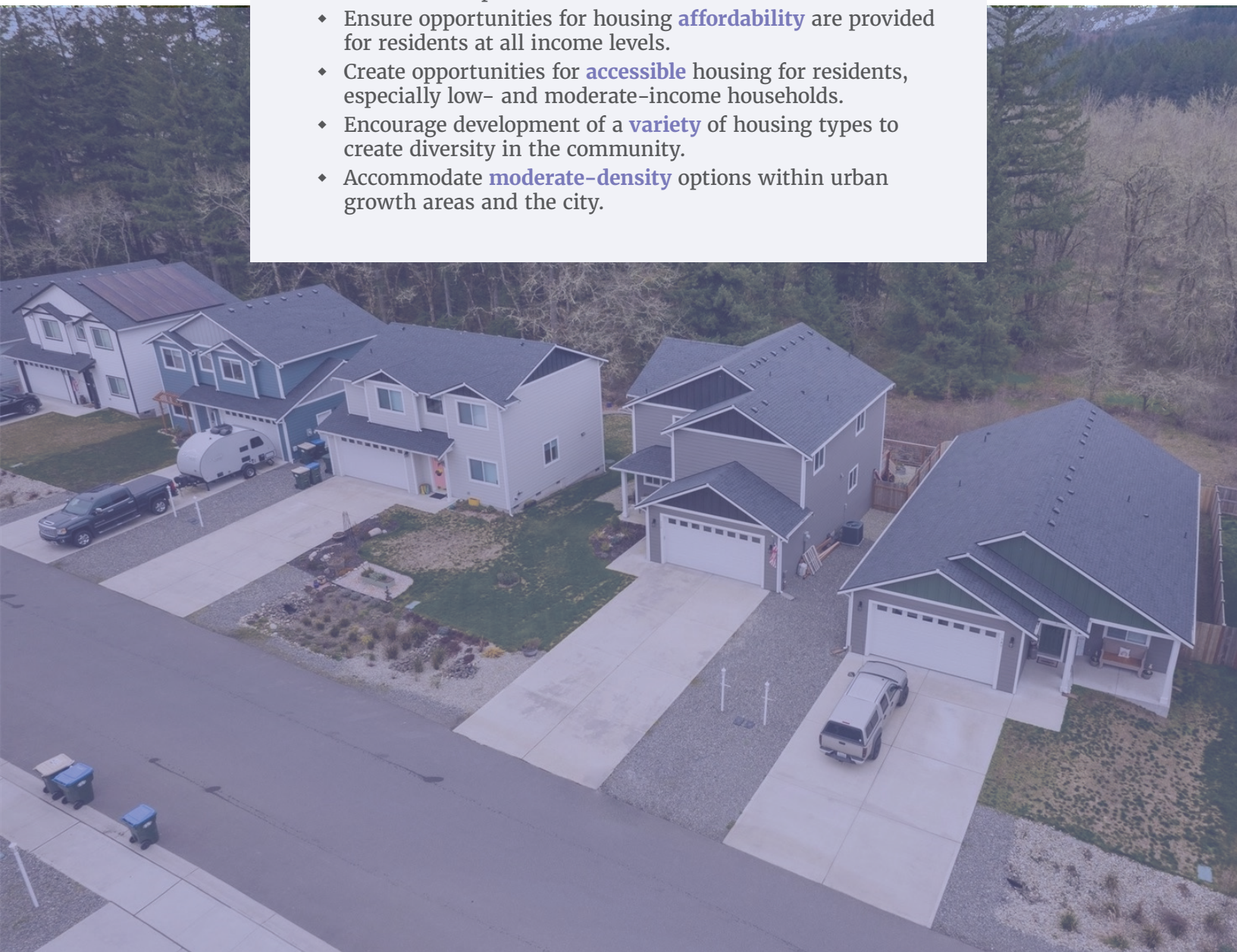
A HAP is a tool that defines strategies and implementing actions that promote greater housing diversity, affordability, and access to opportunity for residents of all income levels. It is an early step to gather data and community input that will save the city time and effort in preparing the upcoming State-mandated major periodic update of the Tenino Comprehensive Plan.

Photo Credit: Orin Blomberg

Tenino Housing Objectives

The HAP objectives listed below are the result of the housing needs assessment. The objectives drive the recommended actions and strategies. The strategies proposed in this plan aim to address six overall objectives for housing in Tenino based on primary housing needs and outreach. These objectives are:

- ◆ Increase the **supply** and **variety** of housing to serve identified housing needs.
- ◆ Reduce **displacement** of low-income residents resulting from redevelopment.
- ◆ Ensure opportunities for housing **affordability** are provided for residents at all income levels.
- ◆ Create opportunities for **accessible** housing for residents, especially low- and moderate-income households.
- ◆ Encourage development of a **variety** of housing types to create diversity in the community.
- ◆ Accommodate **moderate-density** options within urban growth areas and the city.



Housing Glossary

TERM

DEFINITION

Accessory Dwelling Unit (ADU)

Sometimes referred to as a mother-in-law unit; a secondary dwelling unit that shares a lot with a larger, primary single-family home. ADUs are smaller, independent residential dwelling units that can be attached or detached from the primary residence. Attached accessory dwelling units are referred to as AADUs, while detached accessory dwelling units are referred to as DADUs.

Affordable Housing

Residential housing whose monthly costs, including utilities other than telephone, do not exceed thirty percent of the monthly income of a household whose income is:

- a. **For rental housing**, sixty percent of the median household income adjusted for household size, for the county where the household is located, as reported by the United States Department of Housing and Urban Development (HUD); or
- b. **For owner-occupied housing**, eighty percent of the median household income adjusted for household size, for the county where the household is located, as reported by HUD.¹

Area Median Income (AMI)

The midpoint of a region's income distribution – half of families in a region earn more than the median and half earn less than the median. For housing policy, income thresholds set relative to the area median income—such as 50% of the area median income—identify households eligible to live in income-restricted housing units and the affordability of housing units to low-income households.

Comprehensive Housing Affordability Strategy (CHAS)

A data set provided by HUD that demonstrates the extent of housing problems and housing needs, particularly for low-income households.²

¹ Definitions are set by the Washington State Legislature, for the state housing definition; see <https://app.leg.wa.gov/RCW/default.aspx?cite=84.14.010>

² <https://www.huduser.gov/portal/datasets/cp.html>

Cost-Burdened Households

A household which spends more than 30 percent of their monthly income on housing costs, including rent and utilities. A severely cost-burdened household spends more than 50 percent of its monthly income on housing costs.

Cottage Housing

A group of small homes oriented around an open space that are pedestrian-oriented and minimize the visibility of off-street parking by providing a consolidated parking area.

Emergency Housing

Temporary indoor accommodations for individuals or families who are homeless or at imminent risk of becoming homeless that is intended to address the basic health, food, clothing, and personal hygiene needs of individuals or families. Emergency housing may or may not require occupants to enter into a lease or an occupancy agreement.¹

Emergency Shelter

A facility that provides a temporary shelter for individuals or families who are currently homeless. Emergency shelters may not require occupants to enter into a lease or an occupancy agreement. Emergency shelter facilities may include day and warming centers that do not provide overnight accommodations.¹

Extremely Low-Income Household

A single person, family, or unrelated persons living together whose adjusted income is at or below thirty percent of the median household income adjusted for household size, for the county where the household is located, as reported by HUD.

Household

All the people who occupy a housing unit, whether a single person, family, or unrelated persons living together.¹

Housing Unit

All the people who occupy a housing unit, whether a single person, family, or unrelated persons living together.¹



Household

A house, an apartment or other group of rooms, or a single room when it is occupied or intended for occupancy as separate living quarters.

Income-Restricted Housing

Housing units that are only available to households with incomes at or below a set income limit and are offered for rent or sale at a below-market rate.

Low-Income Household

A single person, family, or unrelated persons living together whose adjusted income is at or below 80 percent of the median family income adjusted for family size, for the county, city, or metropolitan statistical area where the project is located, as reported by HUD.¹

Median Family Income (MFI)

The median income based on the distribution of the total number of households and families, including those with no income.³

Moderate-Income Household

A single person, family, or unrelated persons living together whose adjusted income is more than 80 percent but is at or below 115 percent of the median household income adjusted for household size, for the county, city, or metropolitan statistical area where the household is located, as reported by HUD.¹

Permanent Supportive Housing

Permanent housing in which housing assistance (e.g., long-term leasing or rental assistance) and supportive services are provided to assist households with at least one member (adult or child) with a disability in achieving housing stability.

Tenure

Relates to the ownership status of a housing unit. A housing unit is “owned” if the owner or co-owner lives in the unit, even if it is mortgaged or not fully paid for. A cooperative or condominium unit is “owned” only if the owner or co-owner lives in it. All other occupied units are classified as “rented,” including units rented for cash rent and those occupied without payment of cash rent.

³ <https://www.census.gov/quickfacts/fact/note/US/INC110221>

⁴ <https://universaldesign.ie/What-is-Universal-Design/>

Universal Design

“The design and composition of an environment so that it can be accessed, understood, and used to the greatest extent possible by all people regardless of their age, size, or ability.” When integrated into the built environment, universal design principles ensure that residents who are aging or who have a disability are not blocked from accessing housing and services.⁴

Very-Low Income Household

A single person, family, or unrelated persons living together whose adjusted income is more than 30 percent but at or below 50 percent of the median household income adjusted for household size, for the county where the household is located, as reported by HUD.¹

Vouchers

Provided as part of the HUD housing choice program, also known as Section 8 housing. The housing choice voucher program is the federal government’s major program for assisting very low-income families, the elderly, and the disabled to afford decent, safe, and sanitary housing in the private market. Since housing assistance is provided on behalf of the family or individual, participants are able to find their own housing, including single-family homes, townhouses, and apartments.⁵

⁵ See https://www.hud.gov/topics/housing_choice_voucher_program_section_8 for more details on the Housing Choice Program

Introduction

This Housing Action Plan (HAP) is the City of Tenino’s comprehensive strategy to encourage construction of additional affordable and market rate housing in a greater variety of housing types and at prices that are accessible to a greater variety of incomes, including strategies aimed at the for-profit single-family home market. Consistent with RCW 36.70A.600 the housing action plan includes:

- ♦ A housing needs assessment that quantifies existing and projected housing needs for all income levels (Appendix A), to encourage construction of additional affordable and market rate housing in a greater variety of housing types and at prices that are accessible to a greater variety of incomes, including strategies aimed at the for-profit single-family home market;
- ♦ Analyzed population and employment trends with documentation of projections in the housing needs assessment;
- ♦ Strategies aimed to increase the supply of housing, and variety of housing types, needed to serve identified housing needs specific to Tenino;
- ♦ Strategies considered to minimize displacement of low-income residents resulting from redevelopment;
- ♦ A policy and regulation evaluation that reviews and evaluates the city’s current housing element adopted, including an evaluation of success in attaining planned housing types and units, achievement of goals and policies, and implementation of the schedule of programs and actions;
- ♦ Incorporates and provides for participation and input from community members, community groups, local builders, local realtors, nonprofit housing advocates, and local religious groups; and
- ♦ An implementation and monitoring plan that includes a schedule of programs and actions to implement the recommendations of the housing action plan.

The HAP provides actions that the city can take to facilitate the development of affordable and market-rate housing to support a variety of income levels for residents. The HAP also guides the implementation of the goals and policies outlined in the housing element of the Comprehensive Plan by identifying policy gaps and addressing those gaps in the strategies.

Housing Needs And Findings

The Housing Action Plan is informed by the analysis in the housing needs assessment (HNA), extensive community engagement and participation, and evaluation of existing policies and regulations. The full HNA (Appendix A) provides quantitative data of the city’s existing housing conditions, gaps, and projected needs. Community and stakeholder engagement results (Appendix C) lay out the community’s vision for housing and emphasize which housing gaps are most important to address in the strategies. Evaluating existing policies and regulations further highlights current barriers to housing development and opportunities to reduce these barriers.

The HNA was prepared for the City of Tenino by SCJ Alliance Consulting Services. It is a tool for communities to understand the ways in which their unique demographics, housing stock, economy, and available land determine current and future housing needs. By analyzing each of these components, the HNA can show important gaps between the housing needs of residents and the available housing in a community and create a plan to mitigate those gaps and ensure access to housing for all economic and demographic segments of a community. This is an overview of the key findings and housing needs identified in the HNA. This effort was driven by an issue statement developed as a result of stakeholder interviews:

Housing Issue Statement

Tenino is a predominately white, lower to middle-income community of 1,958 people with a core of small, older homes amongst a gridded network of short blocks that surround a historic business district and walkable destinations. As a bedroom community to other, more urbanized communities in Thurston County, Tenino faces exponential residential growth over the next 20 years, which indicates a need for higher density and additional housing units, including an increase in available rental units to balance the supply and demand of housing stock as the city grows.

Housing costs in Tenino continue to rise and are not attainable for a steadily growing population. Strategies need to be created to address the temporary and permanent housing gaps in the city. Key findings from the Tenino Housing Needs Assessment are as follows.

- ♦ **Tenino has a rapidly growing population.** The city's population is expected to increase by more than 25% by 2045 with an estimated population growth to around 2,790 residents. Population projections are based on additional housing units that have been or are projected to be permitted within the next 20 years.
- ♦ **The housing stock is comprised primarily of single-family detached homes.** Tenino's housing stock is comprised primarily of single-family homes, as shown in Figure 1, making up more than 78% of the total stock. A majority of the remaining 22% are mobile homes and apartment buildings with 10 or more units along with a smaller share of duplexes, triplexes, and quadplexes. This housing mix reflects the growth of the single-individual and family-oriented population and its demand on the housing market.
- ♦ **Much of the housing stock in Tenino is more than 50 years old.** The housing in Tenino is largely considered historic (more than 50 years old) with a mix of more recently constructed homes, as explained in the HNA. Just under 63% of the buildings in Tenino were built more than 50 years ago. While older buildings may contain lead paint and present ongoing maintenance problems, they can also provide a source of naturally occurring affordable housing units. The city's housing stock has not developed in the same capacity as compared to the region; this is likely because Tenino has a preference to keep and revitalize historic structures rather than redevelop.

Units in Structure, Tenino (2021)

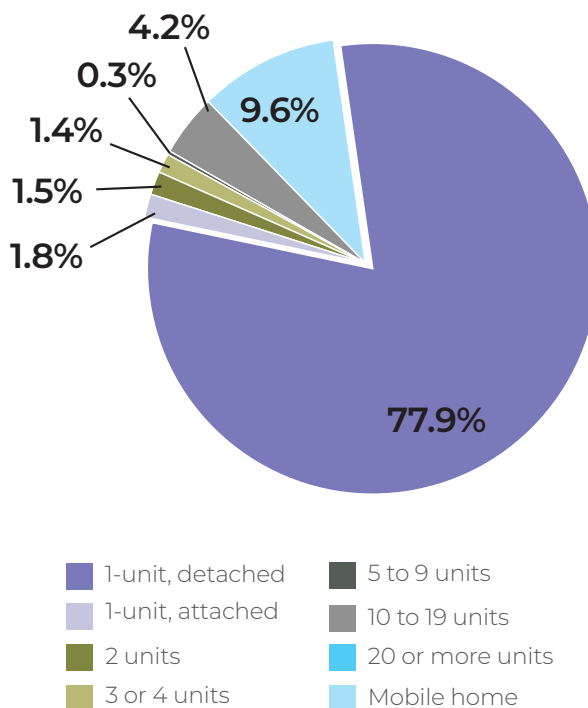


Figure 1: Units in Structure, Tenino (2021)

Regional Comparison of Children in Households by Age-Range (2021)

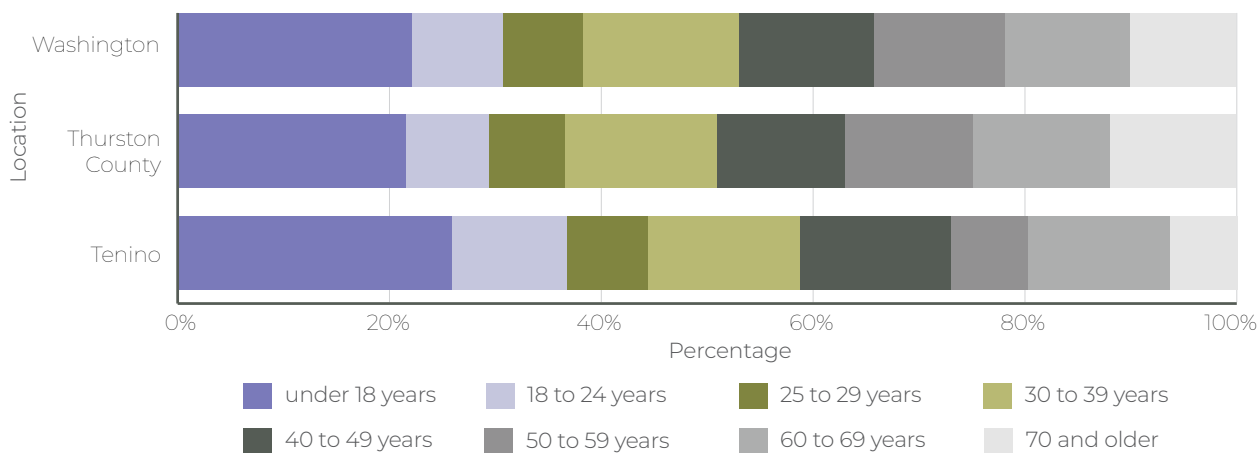


Figure 2. Regional Comparison of Children in Households by Age-Range (2021)



- ◆ **The city’s population skews younger than the countywide average.** The population of Tenino is slightly younger than Thurston County or Statewide demographics. Just under 45% of the population is below 29 years of age. Tenino also has a smaller percentage of individuals 50 years or older, with 27% of the population compared to the County and State, at 36% and 34% respectively. Reflected in Figure 2, the city sees a higher number of families looking for a tight-knit community with close recreational opportunities.
- ◆ **The Median Household Income (MHI) in Tenino is \$55,202.** In Tenino, MHI has not kept pace with the region, rising only 20% between 2010 and 2021, to \$55,202, when adjusted for inflation. While this is smaller than regionally, the MHI in Tenino fluctuates greatly with any variance in households.

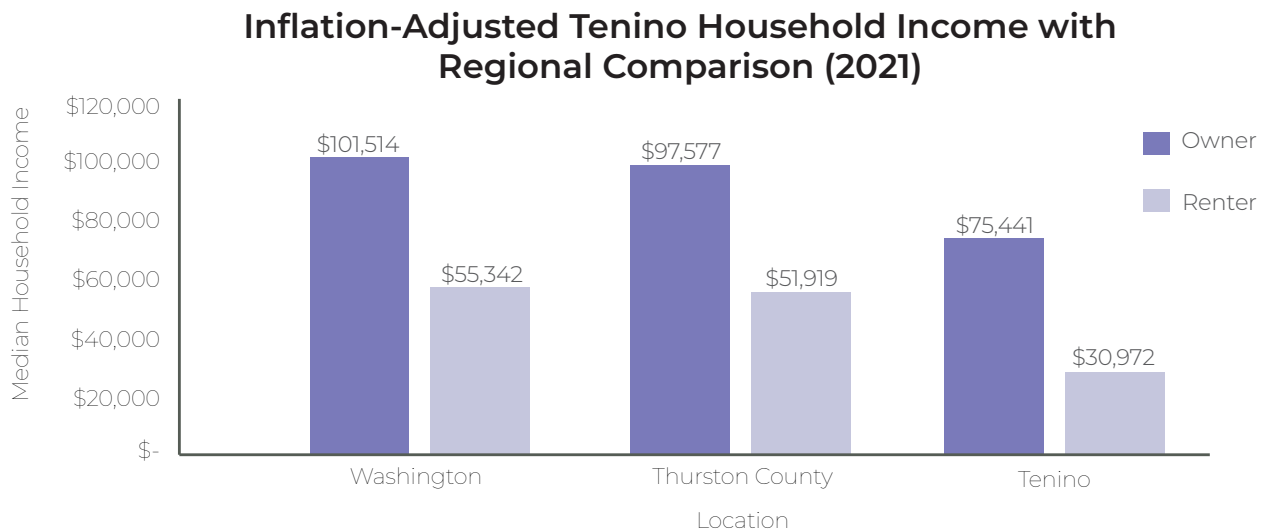


Figure 3. Inflation-adjusted Tenino Household Income with Regional Comparison (2021)
 Source: City of Tenino Housing Needs Assessment (2023)

Analysis of the housing prices, values, and supply indicate that Tenino’s residents face issues of housing availability and affordability.

- ♦ **Over 10% of Tenino’s households spend more than 30% of their income on housing.** Figure 4 shows that Tenino’s most cost-burdened households are also those earning the lowest incomes. The majority of households earning less than 30% AMI are also severely cost-burdened. Overall, nearly 11% of Tenino’s households are severely cost-burdened. Those residents fall in the lower end of the income spectrum, and they are typically renters, rather than homeowners. Cost-burdened residents can face difficult choices between prioritizing whether money is spent on housing and other household needs, or on food, clothing, transportation, and medical care, in addition to housing instability.

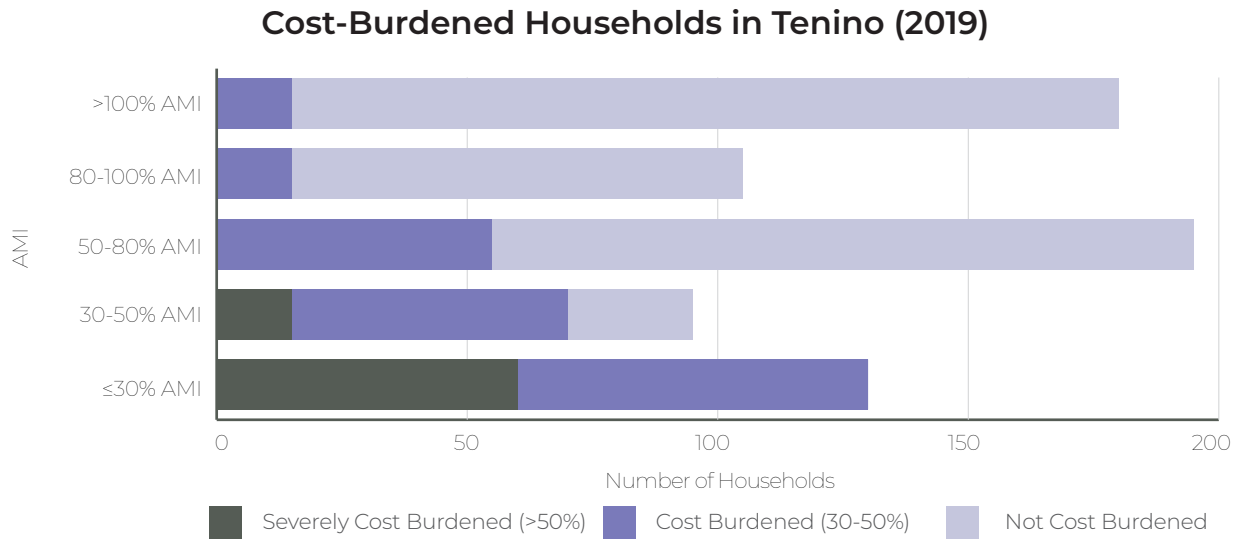


Figure 4. Cost-Burdened Households in Tenino (2019)

Source: HUD Comprehensive Housing Affordability Strategy (CHAS)

Summary Findings

Tenino is projected to grow in population over the next 20 years. While there is residential capacity for undeveloped areas and through infill of underdeveloped parcels, the city will need to consider areas to prioritize and ensure capacity does not expand too quickly and negatively impact the housing markets or vacancy rates. Currently, there is a shortage of low-income housing, senior housing, and nursing homes within the city. Some areas, particularly in the Master Planned Community in the western portion of the city, have additional environmental considerations. Reevaluating current zoning designations and density allowances, especially in the areas referenced above and for certain types of housing, will allow for increased density and development/redevelopment.

Renter Households and Affordable Rental Units by Income in Tenino (2021)

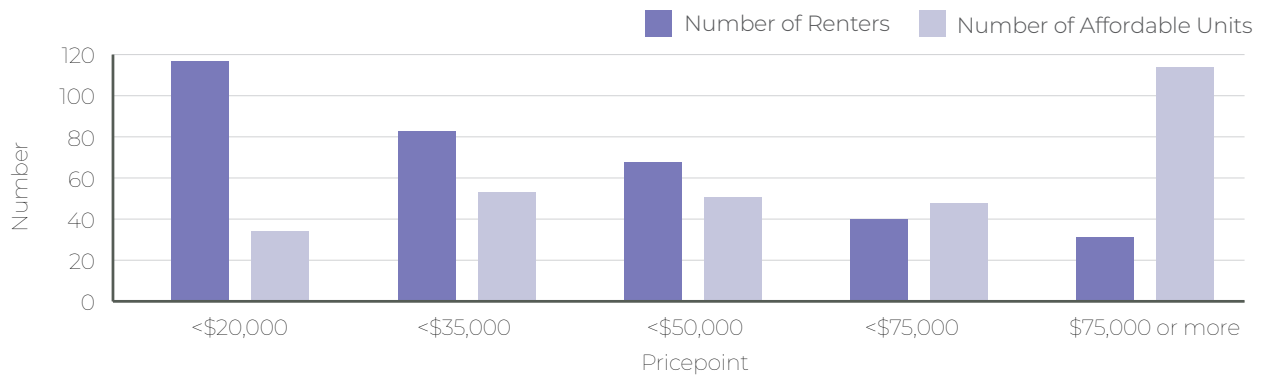


Figure 5. Renter Households and Affordable Rental Units by Income in Tenino (2021)

Source: City of Tenino Housing Needs Assessment (2023)

This same idea is reflected in the data in Figure 5 and Figure 6, where households making less than \$50,000 in annual income have a higher burden of cost due to lack of available affordable housing choices. The data shown below can help to better clarify where the City’s housing supply needs a boost. In this case, the gap between number of renters and number of affordable units would benefit from an increased supply of lower priced units. This may take the form of subsidized housing or rental assistance programs.

Owner Households and Affordable Housing Units in Tenino (2021)

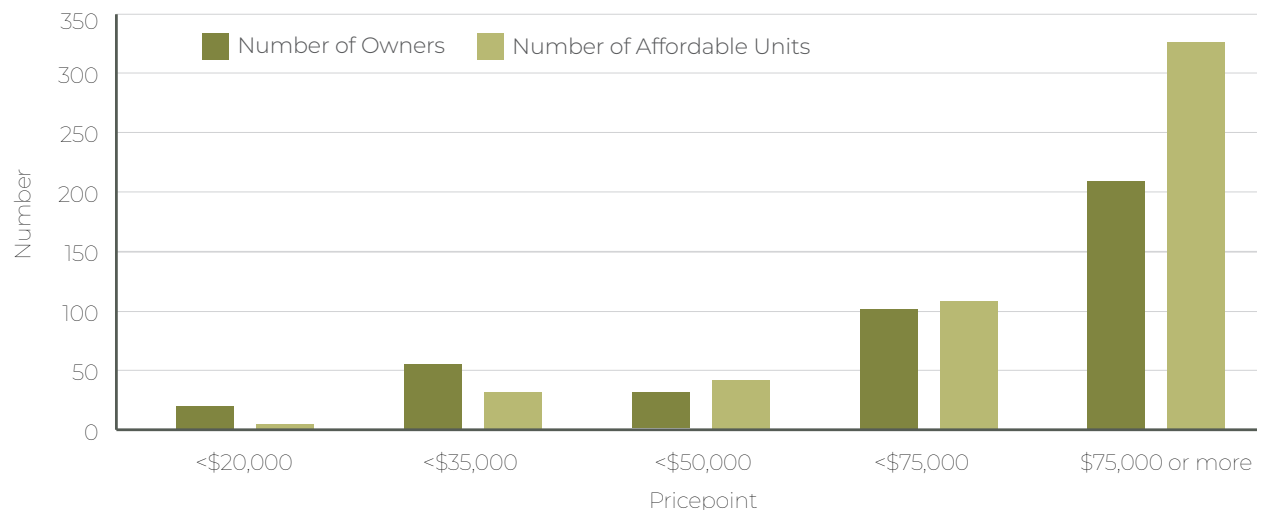


Figure 6. Owner Households and Affordable Housing Units in Tenino (2021)

Source: City of Tenino Housing Needs Assessment (2023)

Table 1. Estimated Housing Units Required in Tenino by Income (2030 - 2045)					
		2021	2030	2040	2045
% of Area Median Income	Total Housing Units	772	1,001	1,082	1,091
	Occupied Housing Units	725	953	1,029	1,038
Less than 19%	Less than \$20,000	18.3%	174	188	190
19% to 34%	\$20,000 to \$34,999	14.1%	134	145	146
34% to 48%	\$35,000 to \$49,999	10.9%	104	112	113
48% to 72%	\$50,000 to \$74,999	21.5%	205	221	223
72% or more	\$75,000 or more	33.8%	322	348	351
0%	Zero or negative income	1.4%	13	14	15

Source: 2021 American Community Survey 5-Year Estimates Table S2503, Thurston Regional Planning Council

Table 1 below shows a projection of the number of housing units required by income if the percentage of housing units per income were consistent through 2030, 2040, and 2045. With the information gleaned from Figures 6 and 7, it can be ascertained that the households making less than \$50,000 annually, or under 48% of the Area Median Income, are in need of additional available units, and that the percentage of housing units available to extremely low-, very low-, and low-income households should be increased.

Summary Findings

While Tenino is projected to grow in population, the environmental constraints on the City make expansion of city limits and development of residential housing difficult. Review of the housing prices, values, and stock show that Tenino residents face a housing availability issue more than that of affordability. This is not to say that affordable housing is not necessary; rather, Tenino residents statistically make less than regional comparisons when looking at Median Household Income. There is also limited or no availability of low-income, senior housing, or nursing homes located within the city.

Reevaluating current zoning designations and density allowances would help to increase density and allow for development or redevelopment of parcels in these areas. Remodel and/or demolition of older structures or underutilized parcels will be important to review as development within the West Tenino area would be difficult due to the Mazama Pocket Gopher habitat. Density is projected to increase to the south where the City has seen some annexations and new subdivisions, this will likely continue. Emphasis should be placed on accommodating affordable rental units, while encouraging developers to build various types of middle housing units, such as adding Accessory Dwelling Units to lots with Single-Family residences and bringing new concept ideas such as cottage style housing.



Community And Stakeholder Participation

Public comment was sought for the City of Tenino’s Housing Action Plan through stakeholder interviews and meetings with the City Council and Planning Commission. These outreach opportunities provided insight and a better understanding of the community’s interests and needs in terms of housing. The following themes were found throughout our discussions:

- ◆ **Affordability:** Residents and stakeholders stated that it’s not just about affordability but attainability for the overall community. Suggestions included waiving permitting fees for nonprofits and small developers, and for the city to promote a variety of housing types.
- ◆ **Smaller Homes, Condos, and Townhomes:** In support of the increase in variety of residential unit types, input showed support for promoting construction or rehabilitation of smaller single-family residential homes, condos, and townhomes, as opposed to low-income apartments. Smaller units would assist both lower-income and senior populations looking for smaller, more affordable options.
 - Low-income apartments specifically received negative feedback due to poor connotations with the perceived quality of homeowner. Attainable or affordable housing for the community was the preferred description.
- ◆ **Short-Term Housing:** A large majority of stakeholders mentioned a need for short-term housing to assist seniors or military families that need a short-term solution until a long-term option became available. The length of time that was meant by “short-term” seemed to vary, but was generally around three to nine months.
- ◆ **Housing Maintenance:** Many homes in Tenino are more than 50 years old. The community expressed concern for residential maintenance, remarking that older homes show more disrepair and maintenance is more difficult and costly.

Recommendations From Stakeholders

- ◆ Evaluate policies to better appeal to developers
- ◆ Increase density while promoting walkability
- ◆ Promote infill of residential properties close to downtown
- ◆ Adjust SEPA thresholds
- ◆ Reduce setbacks for ADUs
- ◆ Balanced growth by promoting:
 - Commercial/Industrial development
 - Mobility and Transportation

Policy and Regulations Evaluation

The purpose of the policy and regulations evaluation is to evaluate the City of Tenino’s housing element, last adopted Comprehensive Plan in 2016, and development regulations to determine the City’s successes and barriers to developing housing related to the achievement of goals, policies, and implementation consistent with RCW 36.70A.600 (2)(e).

Washington State has requirements and guidelines for Housing Planning and the Growth Management Act (GMA) includes specific requirements for how cities should plan for housing, including housing affordable to lower-income households. The GMA’s housing goal is “to encourage the availability of affordable housing to all economic segments of the population of this state, promote a variety of residential densities and housing types.

Housing and Land Use Element Policy Review

The policy evaluation analyzes housing related goals and policies from the city’s 2016 Comprehensive Plan. In addition to primarily reviewing the Housing Element, this document reviews other related Comprehensive Plan elements, including Land Use and Capital Facilities where policies related to housing are mentioned. This evaluation informs the strategies in the Housing Action Plan. This evaluation takes into consideration the findings of the Housing Needs Assessment including anticipated growth, permit issuance trends, and identified gaps concerning the city’s Comprehensive Plan policy implementation. The review considers the following evaluation criteria in terms of success in achieving housing unit needs as well as the achievement status of each goal and policy referenced. The full evaluation matrix and analysis is included in Appendix B, however, a condensed breakdown can be found below:

Connection to the HNA or HAP Objectives	Achievement of Goals, Policies, and Actions
C Continuing need for the goal/policy to meet identified gaps in the HNA or HAP objectives	E Early or not yet initiated
A Amend to address HNA gaps	M Moderate progress
N Not directly related to housing needs or objectives	C Completed

These goals and policies directly affect potential development regulations as they lay the groundwork for the support of new or altered regulations. The Comprehensive Plan is a visionary document that reflects goals to assist the City to realize their vision. In this way the policy and regulations are connected and there is crossover between the two.

Housing Goals & Policy Review

How well do the City of Tenino’s housing element policies meet the community’s needs for housing?

The housing element policies outlined in the 2016 City of Tenino Comprehensive Plan allow for many avenues to address the community’s needs for housing. Many of the policies encourage additional dwelling units through updates to the development code, allowing more accessory dwelling units per lot, or through a variety of housing types. One suggestion as part of the evaluation review was to consider updating housing policies to have an attainable, easily identifiable goal.

What is the City of Tenino’s progress in meeting housing targets or objectives for housing types and units?

According to the 2016 City of Tenino Comprehensive Plan, the projected housing units for 2021 within city limits was 785, whereas the estimated total according to the 2021 American Community Survey (ACS) was 725 – a difference of 60 units.

	2021 Estimates	2045 Projection
Population	1,870	2,790
People per Household	2.53	2.53
Households	725	1,068
(5% Vacancy Rate)		53
Total Housing Units	772	1,168
New Housing Units Required		396

Thurston County and the City of Tenino expect a population growth to 2,790 residents within city limits by 2045. Using this projection, and ACS population data from 2021, the projection would account for an additional 832 residents over the course of twenty-four years. This projection can be used to estimate the number of housing units that will be needed in Tenino by 2045, as shown on the left.

Source: SCJ Alliance, Washington Office of Financial Management (OFM), 2021 American Community Survey 5-Year Estimates Table DP04 and S1101, TRPC

The total number of housing units in Tenino has gradually increased over the past decade, while occupied units increased at a slightly higher rate, leading to a decrease in the housing vacancy rate over time (Figure 4). The vacancy rate was 6.62 in 2010 and has decreased every year until 2021, when it jumped back up to 6.09. While Tenino currently sits at a healthy vacancy rate, the city will need to increase the additional units per year to meet future demand and to keep the vacancy rate stable. Currently, the city averages 4 additional units per year, while the number of occupied units increases by 6 annually.

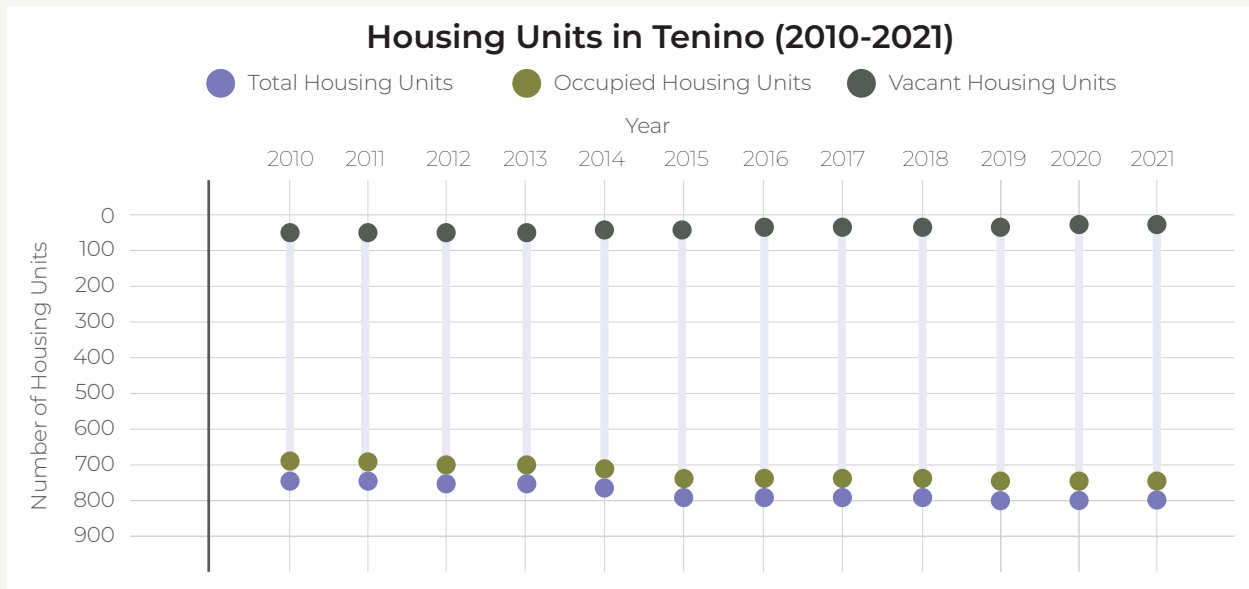


Figure 7. Housing Units in Tenino (2010–2021)

Source: 2010–2021 American Community Survey (ACS) 5-Year Estimates, Table DP04

Many of the policies have been implemented to allow for a variety of housing types and units in residential zones, including policies that consider the need for or encourage construction of special housing.

Permitting a variety of housing types and styles in both residential and commercial zoning districts allows developers to add more units and layout designs in their plans. Residential building developers typically look at the bottom line, cost, and try to include as many units as possible while still considering the marketability and demand for certain types of units. As both affordability and availability of residential units have dwindled, the need for increased density and smaller affordable units has risen. Tenino has done well in updating their development code to be consistent with the goals and policies outlined in the City’s 2016 Comprehensive Plan.

Special housing includes group homes and care facilities, income-restricted housing, and senior housing options (including independent and assisted living facilities). In 2021, more than 480 residents in Tenino earned less than the Median Renter Income of \$50,449, compared to only 292 total low-income rental units. Figure 5 on page 12 shows the disparity between the number of renter households and their income to the number of affordable units in their range.



Development Regulations Review

The city's development regulations can make or break housing production and supply specifically related to zoning, which regulates permitted uses. Zoning determines what can be built and where, including housing density, size, and type. As described in the Land Capacity Analysis of the HNA (Appendix A), Tenino's zoning code contains four residential and three commercial districts, not including the Master Planned West Tenino Zone: Single Family Environmentally Sensitive Residential (SF-ES), Single Family Residential (SF), Single Family Duplex (SFD), Multi-Family Residential (MF), Commercial 1 (C-1), Commercial 2 (C-2), and Commercial 3 (C-3). Additionally, some residential dwelling units are permitted in these zones as an accessory use or with a special use permit (for convalescent care, assisted living, and congregate care facilities). Overall, Tenino's zoning code is very straightforward and does not result in significant barriers to housing development. However, a code update could incentivize or facilitate intentional development that prioritizes housing, particularly in the SF and SFD Residential zones.

Tenino's permitted uses in both commercial and residential zones should be reviewed and updated to encourage a variety of dwelling units to accommodate an additional 396 dwelling units by 2045. According to the Thurston Regional Planning Council, the projected residential capacity within the City's commercial and residential zones is approximately 1,168 dwelling units. This number has been adjusted to reduce the amount of previously forecasted residential units within the West Tenino zone, which will need to be

redesignated during the Comprehensive Plan periodic Update due to the presence of Federally listed endangered species. To ensure projected capacity needs are met, the City will need to facilitate and incentivize housing development in all zones and also encourage higher densities in the residential zones.

Table 3 shows the permitted housing types within each zoning district, and whether they need a special permit or have considerations that further determine if the potential development of these dwelling units is permissible in each zone. The specific development regulation recommendations below were considered after careful review of the current regulations and use of the chart shown in Table 3:

1. Outright permit accessory dwelling units and/or secondary dwelling units across all residential zones, and on existing nonconforming residential lots within the commercial zones.
2. Raise SEPA thresholds for residential subdivisions
3. Expedite permitting for low- and moderate-income housing units to incentivize developers.
4. Permit longer-term (30 days to 6-months) transient lodging outright in residential districts.
5. Permit live-work structures throughout the commercial zones, remove the requirement for Mixed-Use Development for live-work structures, and reduce or eliminate density requirement in existing structures.
6. Add other innovative housing types (such as cottage style) to the permitted uses where appropriate.

Table 3. Permitted Housing Types by Zoning District (2023)

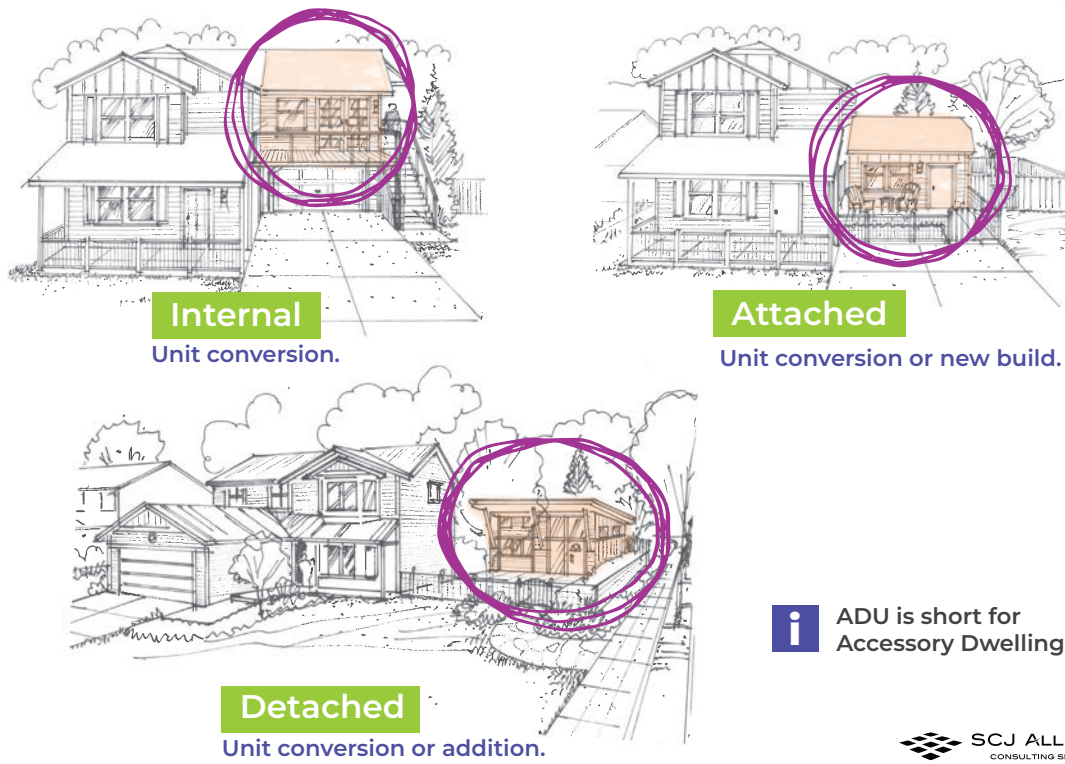
Residential Zone	Use	Detached Single Family	Duplex	Attached Single Family	ADU
SF-ES	Larger lots to allow for environmental constraints. Lots are in proximity to critical areas.	Permitted	X	X	Permitted
SF	Single-family residential units. Low-density residential area.	Permitted	X	X	Permitted
SFD	Single-family and Duplex units. Low-density residential area.	Permitted	Permitted	X	Permitted
MF	Small-lot detached dwellings and attached structures such as apartments, condominiums, and townhouses. The mix can take form on a single site or mixed within a general area.	Permitted	Permitted	Permitted	Permitted
C1	Some residential units allowed off ground level.	X	X	Administrative Use	X
C2	Primarily commercial uses, with some residential units allowed off ground level.	X	X	Administrative Use	X
C3	Mix of existing single-family uses, new and existing multifamily buildings, mixed use structures, and commercial uses.	Permitted if Existing	X	Administrative Use	X

Source: SCJ Alliance, City of Tenino

Accessory Dwelling Units

Accessory Dwelling Units (ADUs) create new housing opportunities while respecting the look and scale of single-family dwelling developments. ADUs provide a mix of housing options to support a variety of housing needs. For example, they provide a means for residents, particularly seniors, single parents, and families with grown children, to remain in their homes and neighborhoods, and obtain extra income, security, companionship, and care.

What is an ADU?



i ADU is short for Accessory Dwelling Unit.



Figure 8. What is an ADU?

Source: SCJ Alliance

During community interviews and Planning Commission meetings it was clear that the community desired to improve the supply of smaller affordable unit options such as ADUs. This sentiment was expressed by parents who felt their grown child(ren) could rent or use the space until they could afford to live on their own. This was a common example and included concerns for low-income seniors and individuals with developmental disabilities, as additional housing support is needed for those special populations.

As part of the update to the city’s ADU code standards, the City could offer density bonuses to infill ADUs and/or other types of middle housing options, such as cottage style and senior housing in all residential zones and in some low-intensity commercial zones. This can include permitting those types outright in all residential zones, increasing the number of accessory units allowed per lot, eliminating the parking minimum requirement for accessory units, reducing minimum lot area size requirements, and increasing maximum structure size requirements.



Cottage Housing

Cottage homes have historically served as working-class housing throughout the U.S. and are now being updated and reintroduced as an affordable alternative for a new generation of American families. Cottage developments are built in clusters designed to trade quantity of space for quality of life, while actively promoting a sense of community.



Cottages are typically clustered around a common open space, and depending on the lot size, can have anywhere from 4 to 20 units per development. These cottages are generally designed as one- or two-story detached housing units, with second storied built into the pitch of the roof.

Targeting singles, married couples, and empty nesters, this type of housing is considered moderate in size, but can be built smaller. Small cottages average 450 square feet on the main level, with a 100 square foot loft. Larger cottages can have up to 1,600 square feet and accommodate 2 bedrooms and 1.5 baths, though most cities limit the size of the units to approximately 800 to 1,000 square feet.⁶

Rehabilitation and Maintenance Resources for Homeowners and Landlords

Keeping a house in good shape requires time, money, and effort. Maintaining housing can be a stretch for many people, including low-income and elderly households.⁷ Just over 16% of the residential buildings in Tenino were built more than 50 years ago, and are now considered historic. This is far less than the countywide average and is likely due to Tenino's more recent growth and population boom since the 1990s.

The existing older housing stock can provide a source of naturally occurring affordable housing units, as they are smaller and often more centrally located to existing centers served by transit and commercial services. However, these buildings may also contain lead paint, and typically present ongoing maintenance problems which can be a source of financial burden on low- and moderate-income homeowners and senior residents.

Tenino can provide some resources, education, and incentives for homeowners and landlords to rehabilitate and maintain homes.

One possible resource to connect them with is the [USDA Rural Development division's Single Family Housing Repair Loans & Grants](#) (Section 504). This program provides loans to very-low-income homeowners to repair, improve, or modernize their homes, and grants to elderly very-low-income homeowners to remove health and safety hazards. As Tenino is in the eligible zone, homeowners should be aware of this opportunity. In other words, the City of Tenino can use its Comprehensive Plan as justification for code enforcement, making sure development aligns with the community goals and vision.

⁶ Regulatory Barriers Clearinghouse - Breakthroughs, Cutting Costs with Cottage Housing. Jan 2008. <https://archives.huduser.gov/rbc/archives/newsletter/vol7iss1more.html>

⁷ Brookings Institute - <https://www.brookings.edu/blog/the-avenue/2019/07/02/housing-affordability-and-quality-create-stress-for-heartland-families/>



Minimizing Displacement

Minimizing displacement has been an increasing concern and cities should look to support anti-displacement efforts to ensure that low- and moderate-income residents and special housing residents are not displaced by new development activities occurring in the area. Below are some considerations that the City and its residents might consider moving forward as the number of housing units and households in the City are projected to increase exponentially by 2045.

1. Ensure housing options remain affordable amongst new developments by requiring multifamily developments in certain overlay areas or zones to provide a certain percentage of affordable, market rate housing units.
2. Support aging-in-place services and goals that encourage development patterns that provide suitably scaled, daily needs services within walking distance of residential areas, allowing a measure of independence for those who cannot or choose not to drive. Connect homeowners with resources to adapt their homes to their needs as they age such as the [USDA's Single Family Housing Repair Loans & Grants](#) program, as mentioned above.
3. Support education programs on homeownership, such as the [NeighborWorks Center for Homeownership Education and Counseling \(NCHEC\)](#). The NCHEC program provides certifications in housing and financial counseling, which could be a beneficial resource for low- and moderate-income households in Tenino seeking help buying or staying in a home. The [Washington State Home Advantage Program](#) offers seminars and access to other resources for those buying their first home; the City of Tenino could partner with and participate in this program to make this statewide resource more accessible at the local level.
4. Explore grant programs to support the effort to reduce homelessness. Programs such as the [Washington State Department of Commerce's Consolidated Homeless Grant \(CHG\)](#) provide resources to fund homeless crisis response systems to support communities in ending homelessness.
5. Adopt local tenant protections that require an increase to the notice time from 10-60 days to 90-180 days before the effective date and place a cap on rent payment late fees.

Land Use Goals and Policies

Many of the goals and policies in the Land Use element encourage adoption and consideration of tools that foster sustainable development, variety of type, density, and affordability of housing units, and encourage consistent review of determining factors such as healthy vacancy rates or permit processing speeds and review. Many of the Land Use principles are beneficial to the public and potential residents and can contribute to community growth through smart design.

- ◆ **Land Use Policy 1.1** encourages the development of excellent neighborhoods throughout Tenino, using the Great Neighborhoods approach of connected developments. New proposed subdivision applications require improvements, such as trails, sidewalks, well-connected streets, and street trees. Developments for residential structures in single-family residential zones do not have required design standards. The City has maintained and updated their zoning code to ensure that single-family residences on existing lots are minimally impacted by development requirements. The City's development code encourages off-street alleys and side streets to connect to parking lots behind the structure, while the structure is placed closer to the street. This creates safer conditions for pedestrians and takes cars off the main arterial streets sooner.
- ◆ **Land Use Policy 2.2** requires most residential zones allow for accessory dwelling units, but not different dwelling types, such as bungalow courts, cottage house, and small multi-

family structures. The single-family/duplex (SFD) zone allows for duplexes but not triplexes, quadplexes, or small apartment buildings. The multi-family residential (MF) zone allows for duplexes, and attached single family units including townhomes, condos, tri/quadplexes, and apartments.

- ◆ **Land Use Policies 3.0 and 9.1** recommend that new residential development have a mix of housing type, especially near downtown. Some types of housing are limited in some residential zones. Density overlay shows urban densities are aligned with single family (SF) and single-family duplex (SFD) zones. During the next comp plan update, the zoning map should be revised to better align zones with urban density areas.



Housing Goals and Actions

This section discusses the specific local strategies that the City of Tenino will implement or further consider as part of the City’s review of development regulations and housing related policies, plans, and updates.















The City of Tenino has identified five goals for addressing housing needs within its community:

- ◆ Encourage a variety of housing types, densities, and a range of affordable housing.
- ◆ Utilize outside funding or assistance resources to pursue housing goals.
- ◆ Reduce costs to allow more low- and moderate-income housing options.
- ◆ Increase accessibility throughout urban and transit corridors.
- ◆ Add more permanent supportive housing.






The actions outlined for Tenino on the following tables are organized within each of the five goals. Each action also fills one or more of the six gaps identified through the Housing Needs Analysis and Public Outreach efforts.

LEGEND		
	Affordability	Reduce the cost of housing for low-income and cost-burdened households.
	Supply	Increase the inventory of housing for all households.
	Transit	Increase connectivity through accessible transit options to support housing.
	Middle Housing (Variety)	Increase the variety of housing sizes and types.
	Accessibility (Supportive Housing)	Increase permanent housing options for seniors, people with disabilities, and low- and extremely low-income households.
	Anti-Displacement	Managing neighborhood change resulting from new investment in housing.






**Goal: Encourage a variety of housing types, densities,
and a range of affordable housing**

<p>Action 1</p> 	<p>As part of comprehensive plan and development code changes, include an evaluation of the impact such changes will have on housing affordability, especially for low-income households.</p> 
<p>Action 2</p> 	<p>Mix market rate and low-income housing to avoid creating areas of concentrated low-income housing.</p> 
<p>Action 3</p> 	<p>Allow accessory dwelling units (ADUs) in all residential zones.</p> 
<p>Action 4</p> 	<p>Allow single-room occupancy (SRO) housing in all multifamily zones</p> 
<p>Action 5</p> 	<p>Strategically allow live-work units in nonresidential zones.</p> 
<p>Action 6</p> 	<p>Allow more housing types in commercial zones.</p> 
<p>Action 7</p> 	<p>Increase the types of housing allowed in low-density residential zones (duplexes, triplexes, small houses on small lots.).</p> 





Goal: Utilize outside funding or assistance resources to pursue housing goals.

Action 1	<p>Identify and develop partnerships with organizations that provide or support low-income, workforce, and senior housing as well as other populations with unique housing needs.</p> 
Action 2	<p>Identify and develop partnerships with organizations that provide or support low-income, workforce, and senior housing as well as other populations with unique housing needs.</p> 
Action 3	<p>Use Community Development Block Grant (CDBG), Section 108 loans, and other federal resources for affordable housing.</p> 
Action 4	<p>Encourage local community groups, churches, and businesses to provide voluntary assistance with maintaining existing structures for the elderly, low-income, and those with special needs.</p> 
Action 5	<p>Encourage the Housing Authority of Thurston County to take greater advantage of State and Federal housing grants and tax incentives.</p> 

Goal: Reduce costs to allow more low- and moderate-income housing options

Action 1	Offer density bonuses for low-income housing. 
Action 2	Review options to lower hook-up fees and other incentives for low-income affordable housing. 
Action 3	Offer developers density incentives for desired unit types. 
Action 4	Review fees/regulations to identify housing cost reductions. 
Action 5	Conduct education and outreach around city programs that support affordable housing 

Goal: Increase accessibility throughout urban and transit corridors




Action 1	Reduce parking requirements for residential uses, including for multifamily developments near frequent transit routes. 
Action 2	Lower transportation impact fees for multifamily developments near frequent transit service routes. 
Action 3	Develop partnership with transportation providers to expand services to additional areas of the city. 
Action 4	Expand the multifamily tax exemption to make it available in all transit corridors 

Goal: Add more permanent Supportive Housing

Action 1	Define income-restricted housing as a different use from other forms of housing in the zoning code. 
Action 2	Monitor the need for special housing and increase opportunities for such housing. 
Action 3	Explore barriers and policies that can increase access to housing for formally incarcerated individuals. 

Implementation and Monitoring

The City’s implementation of the five goals and accompanying actions will require coordinated efforts among City departments, staff, and local organizations. The majority of recommendations are intended to be achieved by the City with support from other organizations and entities. Each action is provided in the following implementation table to provide clear guidance on which department or entity is responsible for leading the implementation, the type of action process, and anticipated timing to complete the action.

LEGEND	
	Short-Term: Consider/ implement within 1-3 years from adoption of the plan
	Mid-Term: Consider/ implement within 6 years from adoption of the plan
	Long-Term: Consider/ implement within 10 years from adoption of the plan

This implementation table is meant to be reviewed and updated through the monitoring process to better meet the identified strategies.

The table of actions associated with each goal includes key information:

- ♦ Gaps or needs addressed by the action
- ♦ Timeframe for implementation




Table 4: Action and Implementation			
Action	Implementation Lead(s)	Type of Action	Proposed Timing
Goal: Encourage a variety of housing types, densities, and a range of affordable housing			
As part of the comprehensive plan and development code changes, include an evaluation of the impact such changes will have on housing affordability, especially for low-income households.	Community Development	Legislative	
Mix market rate and low-income housing to avoid creating concentrated areas of low-income housing.	Community Development	Legislative	
Allow accessory dwelling units (ADUs) in all residential zones.	Community Development	Legislative	

Table 4: Action and Implementation
























Action	Implementation Lead(s)	Type of Action	Proposed Timing
Strategically allow live-work units in nonresidential zones.	Community Development	Legislative	
Allow more housing types in commercial zones.	Community Development	Legislative	
Increase the types of housing allowed in low-density residential zones (duplexes, triplexes, small houses on small lots).	Community Development	Legislative	 
Goal: Reduce costs to allow more low- and moderate-income housing options			
Offer density bonuses for low-income housing.	Community Development	Legislative	
Review options to lower hook-up fees and other incentives for low-income affordable housing.	Community Development, Public Services	Administrative	 
Offer developers density incentives for desired unit types.	Community Development	Legislative	 
Review fees/regulations to identify housing cost reductions.	Community Development, Public Services	Administrative	 
Goal: Increase accessibility through transit corridors			
Reduce parking requirements for residential uses, including for multifamily developments near frequent transit routes.	Community Development	Legislative	 
Develop partnership with transportation providers to expand services to additional areas of the city.	Community Development	Administrative	
Goal: Utilize outside funding or assistance resources to pursue housing goals			
Partner with low-income housing developers (such as Habitat for Humanity, HomesFirst) to expand homeownership opportunities.	Community Development	Administrative	

Table 4: Action and Implementation

Action	Implementation Lead(s)	Type of Action	Proposed Timing
Identify and develop partnerships with organizations that provide or support low-income, workforce, and senior housing as well as other populations with unique housing needs.	Community Development	Administrative	
Use Community Development Block Grant (CDBG), Section 108 loans and other federal resources for affordable housing.	Community Development	Administrative	
Encourage local community groups, churches, and businesses to provide voluntary assistance with maintaining existing structures for the elderly, low-income, and those with special needs.	Community Development, Public Services	Administrative	
Encourage the Housing Authority of Thurston County to take greater advantage of state and federal housing grants and tax incentives.	Community Development	Administrative	
Work with the Thurston County Regional Housing Council to consider funding sources for a regional response to homelessness and affordable housing, and coordinate with existing funding programs.	Community Development	Administrative	
Goal: Add more permanent supportive housing			
Define income-restricted housing as a different use from other forms of housing in the zoning code.	Community Development	Legislative	
Explore barriers and policies that can increase access to housing for formally incarcerated individuals.	Community Development	Administrative	
Monitor the need for special housing and increase opportunities for such housing.	Community Development	Administrative	

Appendix



Appendix A: Housing Needs Assessment

Project Information

Project: Housing Action Plan
Prepared for: City of Tenino
149 Hodgden St S
Tenino, WA 98597

Project Representative

Prepared by: SCJ Alliance
8730 Tallon Lane NE
Lacey, WA 98516
360.352.1465
scjalliance.com

Contact: Malissa Paulsen, SCJ Alliance

Front Cover, Bottom Banner, and Section Covers Banner Photo Credit: Suzanne LaGasa

Table of Contents

- Introduction..... 1
- Issue Statement..... 1
- Community Profile 1
- Population and Demographics 2
 - Historic and Future Population..... 2
 - Age and Race/Ethnicity..... 3
 - Household Characteristics 4
 - Household Size, Type, and Tenure 4
 - Household Income..... 6
 - Household Needs and Risk 8
 - Low-Income and Cost-Burdened Households..... 8
- Housing Inventory 10
 - Housing Characteristics 10
 - Housing Units, Production and Vacancy Rates 10
 - Type, Size, and Age of Units..... 12
 - Housing Cost..... 13
 - Special Housing Inventory..... 16
 - Income-Restricted & Senior Housing 16
- Workforce Profile..... 17
 - Employment Projections 18
- Land Capacity Analysis 20
 - Zoning..... 20
 - Vacant and Underutilized Land 22
 - Environmental Constraints..... 23
 - Critical Areas 23
- Gap Analysis 26
 - Quantity of Housing Units to Income Levels..... 26
 - Housing Units Needed to Accommodate Projected Population 27
 - Conclusion 29

Tables & Figures

Figure 1: Tenino Historic Population (1910 – 2040) 2

Figure 2: Age Distribution in Tenino (2021) 3

Figure 3: Ethnicity in Tenino (2020) 3

Figure 4: Not Hispanic or Latino Ethnicity in Tenino (2020) 4

Table 1: Household Types in Tenino with Regional Comparison (2021).... 4

Figure 5: Tenino Household Size with Regional Comparison (2021)..... 5

Figure 6: Tenure in Tenino (2021)..... 6

Figure 7: Inflation-Adjusted Tenino Household Income with Regional Comparison (2021) 6

Figure 8: Inflation-Adjusted Tenino Household Income (2010-2021).... 7

Figure 9: Median Household Income by Tenure in Tenino (2021) 7

Table 2: Olympia-Tumwater Metro Area (Thurston County) 2022 HUD Income Limits (\$) 8

Figure 10: Household Incomes in Tenino (2019)..... 9

Figure 11: Cost-Burdened Households in Tenino (2019) 9

Figure 12: Housing Units in Tenino (2010-2021) 10

Figure 13: Housing Types by Tenure (2021)..... 11

Figure 14: Tenino Residential Permit Activity (2010-2021)..... 11

Figure 15: Units in Structure, Tenino (2021) 12

Figure 17: Age of Housing in Tenino (2021) 13

Figure 18: Median Sales Price vs Number of Sold Homes in Tenino (2012-2022) 14

Figure 19: Inflation-Adjusted Median Gross Rent in Tenino with Regional Comparison (2010-2021) 14

Figure 20: Change in Rent, Home Value, and Income in Tenino (2014-2021) 15

Table 3 :Low Income Housing Availability in Tenino (2022) 16

Table 4: Senior Housing Types Available in Tenino (2022) 16

Figure 21: Job Density in Tenino (2019) 17

Figure 22: Top Industries in Tenino, 2019 18

Table 5: Industry Growth Projections for Pacific Mountain Workforce Area (2022) 18

Table 6 :Tenino and Thurston County Job Earnings (2019) 19

Figure 23: Commuting Patterns in Tenino (2019) 19

Figure 24: City of Tenino Zoning (2022)..... 20

Table 7: Tenino Zoning Districts and Use Intent (2022) 21

Figure 25: Comparison of 2017 vs Projected 2045 Residential Density in Tenino (2017) 22

Figure 26: Environmentally Constrained Areas in Tenino (2022) 23

Figure 27: Water-based Environmental Constraints 24

Figure 28: Mazama Pocket Gopher Areas 25

Figure 29: Renter Households and Affordable Rental Units by Income in Tenino (2021) 26

Figure 30: Owner Households and Affordable Housing Units in Tenino (2021) 27

Table 8: Estimated New Housing Units Required in Tenino (2021, 2045)
27

Table 9: Estimated Housing Units Required in Tenino by Income (2030–2045) 28

Table 10: Estimated Housing Units Required in Tenino by Type (2030–2045) 29

Introduction

A Housing Needs Assessment (HNA) is a tool for communities to understand the way that their unique demographics, housing stock, economy, and available land determine current and future housing needs. By analyzing each of these components, the HNA can show important gaps between the housing needs of residents and the available housing in a community and help plan for mitigating those gaps and ensuring access to housing for all economic and demographic segments of a community.

Issue Statement

Tenino is a predominately white community of 1,958 people with unique housing needs and challenges stemming from its economy and demographics. Tenino faces a growth projection leading to a need for additional new housing units to balance the supply and demand of housing stock as the city grows.

Community Profile

The Community Profile discusses Tenino's current and future population and the age, race, and ethnicity of residents. It also discusses the size, income, and characteristics of the City's households, as well as households with specific needs and risks including cost-burdened households. These demographic and household characteristics provide background and context for the types of housing required to better serve all Tenino's current and future residents.

Photo Credit: Orin Blomberg

Population and Demographics

Historic and Future Populations

Tenino Historic Population (1910 – 2040)

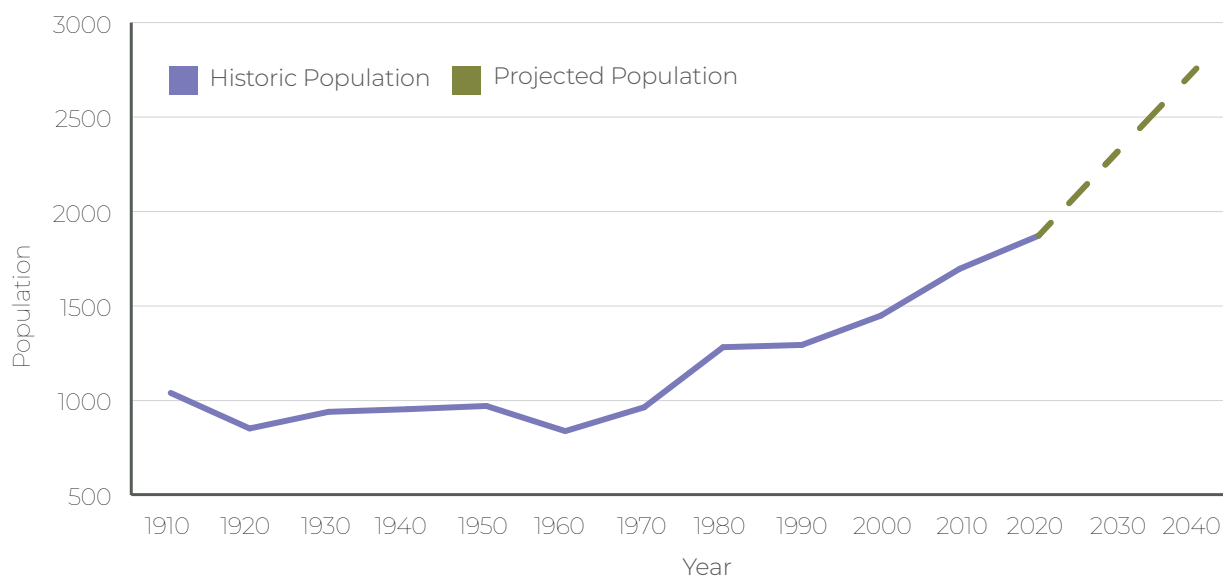


Figure 1: Tenino Historic Population (1910 – 2040)

Source: Washington Office of Financial Management (OFM), TRPC 2021 Statistical Profile

The City of Tenino was incorporated in 1906 and the 1910 Census showed a population of 1,038 people. The population dropped between 1910 and 1920, fluctuating but remaining below 1,000 until sometime in the 1970s when the city began to grow rapidly, as shown in Figure 1, with a 94% increase from 1970 to 2020. According to the Thurston County Historic Commission, the population had originally started to boom in the late 1800s with the construction of the Northern Pacific Railroad Depot and the opening of the sandstone quarries. Over the preceding decades the sandstone industry collapsed and by 1926 the quarry was closed leading to the decline of the population reflected above.

Currently, the population sits around 1,958, with a projected 25% increase by 2030, and a 33% increase by 2045 with an estimated population growth to around 2,790 residents. Population projections are based on additional housing units that have been or are projected to be permitted within the next twenty years.

Age and Race/Ethnicity

Age Distribution in Tenino (2021)

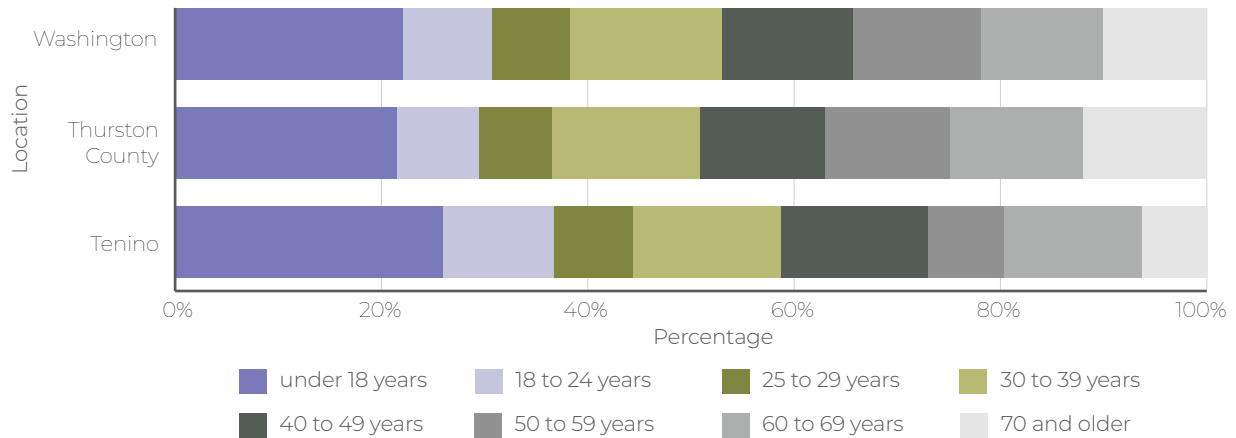


Figure 2: Age Distribution in Tenino (2021)

Source: 2021 American Community Survey (ACS) 5-year Estimates, Table S0101, 2020 U.S. Census

The population of Tenino is slightly younger than Thurston County or Statewide demographics. Just under 45% of the population is below 29 years of age. Tenino also has a smaller percentage of individuals 50 years or older, with 27% of the population compared to the County and State, at 36% and 34% respectively. Reflected in Figure 2, the city sees a higher number of families looking for a tight-knit community with close recreational opportunities.

Ethnicity in Tenino

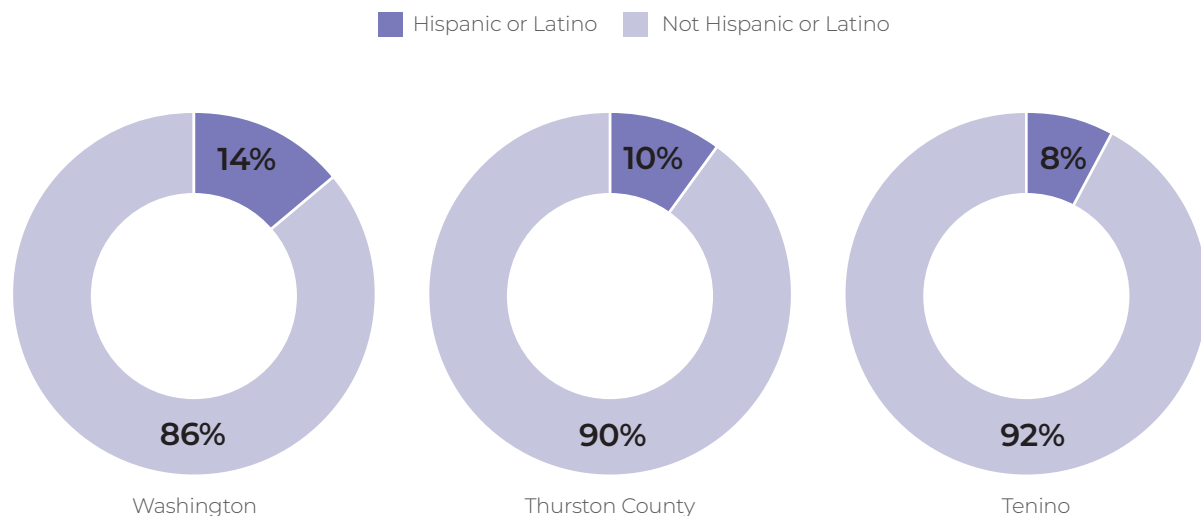


Figure 3: Ethnicity in Tenino (2020)

Source: 2020 American Community Survey (ACS) 5-year Estimates, Table P2, 2020 U.S. Census

As shown in Figures 3 and 4, Tenino’s population is predominately non-Hispanic, with approximately 80% of the population identifying as non-Hispanic white. Hispanic/Latino residents make up around 8% of the population.

Household Characteristics

Household Size, Type, and Tenure

The U.S. Census Bureau defines a household as “all the people who occupy a housing unit”. Households can be comprised of any combination of related family members, unrelated people, or individuals. The 2020 American Community Survey estimated 706 households in Tenino.

As shown above in Table 1, just shy of two-thirds Tenino’s households are family households with around half of those married couples.

Not Hispanic or Latino Ethnicity in Tenino (2021)

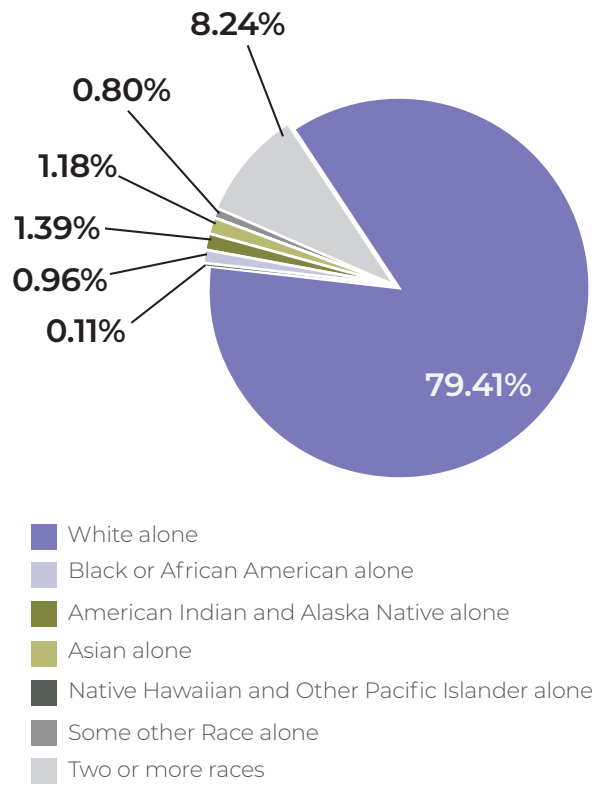


Figure 4: Not Hispanic or Latino Ethnicity in Tenino (2020)

Source: 2021 American Community Survey (ACS) 5-year Estimates, Table S0101, 2020 U.S. Census

Table 1: Household Types in Tenino with Regional Comparison (2021)				
Household Type	City of Tenino		Thurston County	
	Total	Percent	Total	Percent
Total Households	725	100%	114,556	100%
Family Households	425	66.0%	75,621	65.8%
Married-Couple Family	318	43.9%	58,376	51.0%
Other Family	107	14.8%	17,245	15.1%
Nonfamily Households	300	41.4%	38,935	34.0%
Householder living alone	208	28.7%	29,141	25.4%
Householder 65 years and over	71	9.8%	12,360	10.8%

Source: 2021 American Community Survey (ACS) 5-Year Estimates, Table S2501

Household data for Tenino from the 2021 American Community Survey (U.S. Census, Tables S1101, S2501, and DP02) show that while average household size for the city is slightly larger than regional comparison at 2.53 compared to 2.51 for Thurston County. This corresponds with 64.8% of those households having no related children under 18 years. However, average family sizes are larger than regional comparison, with an average 3.16 for Tenino and 2.99 at county level. This information, and the data shown in Figure 3 (Page 3) and Table 1, above, suggest that while many of the households in Tenino do not have children living in the home, those that do typically have more than one.

Renter-occupied housing also has a lower rate of multiple occupants per room as

compared to owner-occupied housing (0% vs. 1.9%, respectively). Households averaging more than one occupant per room are considered overcrowded, meaning that homeowners are in smaller housing units than what may be desired.

When compared regionally, Tenino's household sizes are smaller, as shown in Figure 5, with 29% of households comprised of only 1-person, compared to 27% statewide. Given the data on households and that 99% of households have one or less occupants per room, these are primarily smaller single-person households with a mix of younger families.

As compared to Thurston County, Tenino has a higher percentage of renter-occupied units, as shown in Figure 6.

Tenino Household Size with Regional Comparison (2021)

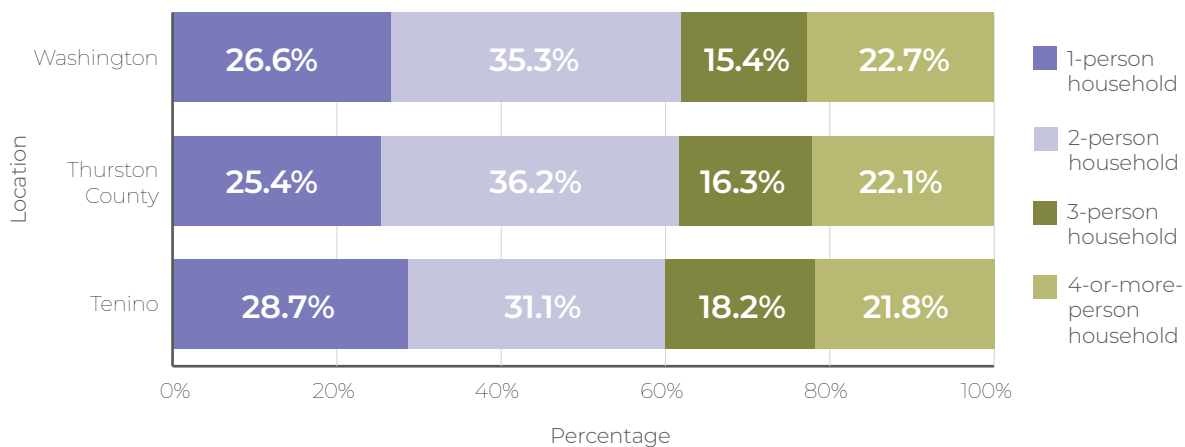


Figure 5: Tenino Household Size with Regional Comparison (2021)

Source: 2021 American Community Survey (ACS) 5-Year Estimates, Table S2501



Tenure in Tenino (2021)

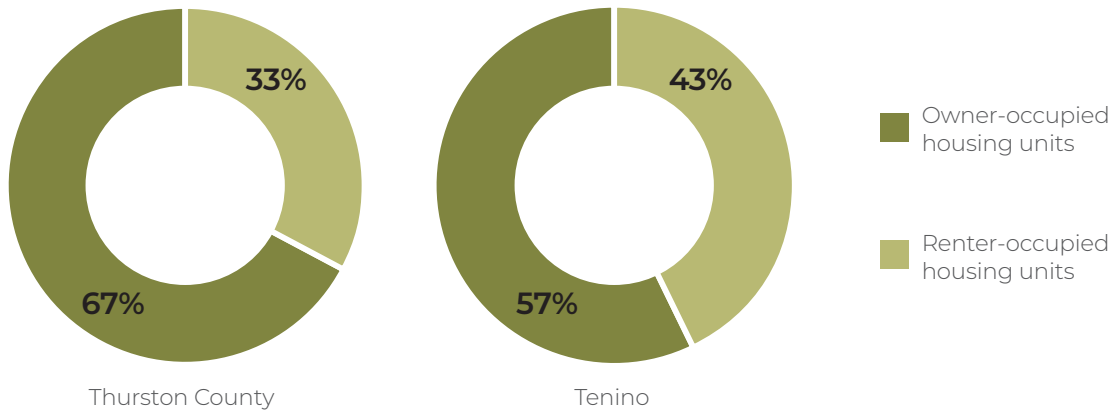


Figure 6: Tenure in Tenino (2021)

Source: 2021 American Community Survey (ACS) 5-Year Estimates, Table S1101

Household Income

Inflation-Adjusted Tenino Household Income with Regional Comparison (2021)

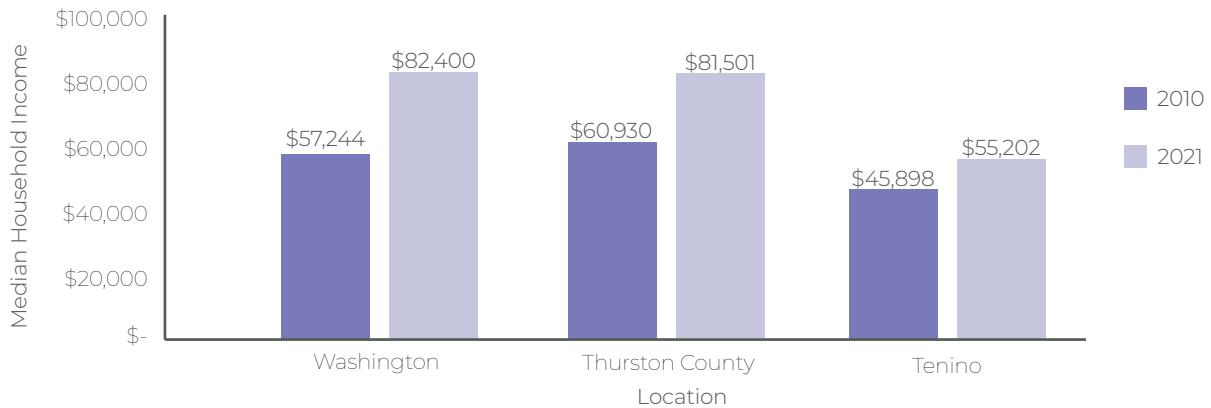


Figure 7: Inflation-Adjusted Tenino Household Income with Regional Comparison (2021)

Source: 2010, 2021 American Community Survey (ACS) 5-Year Estimates, Table S2503

In Tenino, the Median Household Income (MHI) has not kept pace with the region, rising only 20% between 2010 and 2021, to \$55,202, when adjusted for inflation. While this is smaller than regionally, the MHI in Tenino fluctuates greatly with any variance in households.

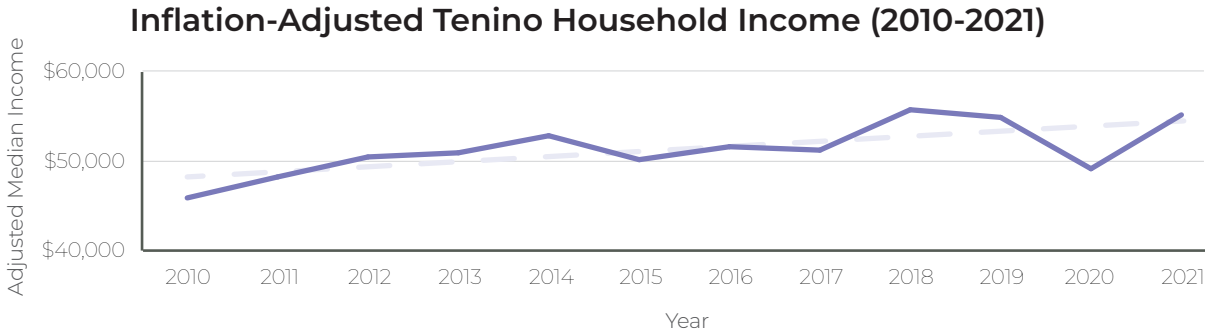


Figure 8: Inflation-Adjusted Tenino Household Income (2010-2021)

Source: 2010-2020 American Community Survey (ACS) 5-Year Estimates, Table S2503

While there has been an overall increase in MHI over the past decade, Tenino’s household incomes have fluctuated over the past decade, reflected in Figure 8. There were some periods of decline overall between 2014 and 2015, and 2018 to 2020 before it saw a jump back up in 2021.

Smaller cities typically see a greater fluctuation when comparing annual data. This is because the median household income is determined by selecting the middle value when the data is ordered from least to greatest. When there are smaller sets of data, combined with a wider spread (difference between lowest and highest

values) which is typical when reviewing incomes, the median tends to fluctuate greatly from year to year, in this case, showing decline even as the comprehensive view shoes an incline.

Median data can shift when a household leaves or enters the community, a household loses or gains employment, or changes jobs or positions.

Renters also earn significantly less than homeowners in Tenino. The MHI for homeowners in 2021 was \$75,441 compared with \$30,972 for renters – almost \$45,500 more, annually.

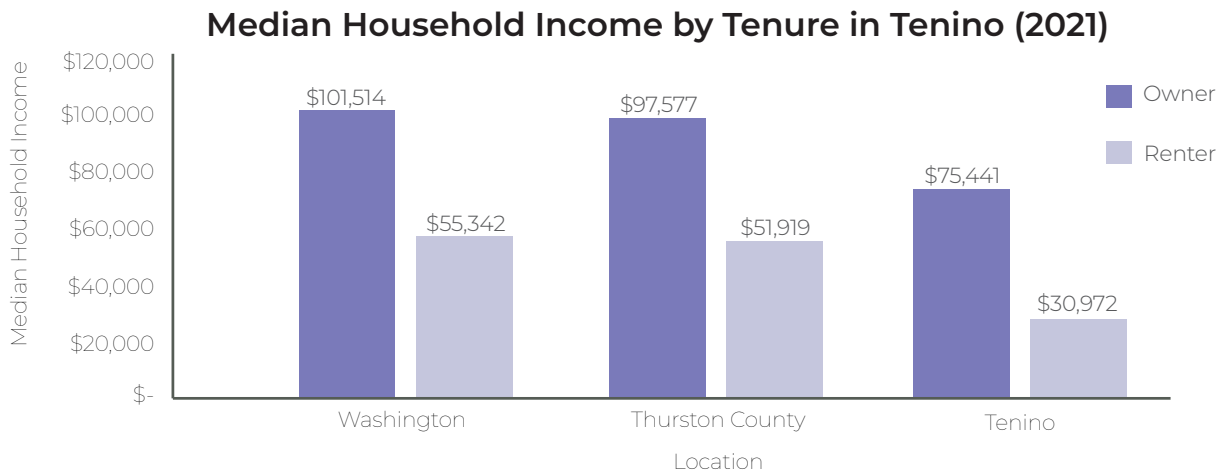


Figure 9: Median Household Income by Tenure in Tenino (2021)

Source: 2010-2020 American Community Survey (ACS) 5-Year Estimates, Table S2503

Household Needs and Risk

Low-Income and Cost-Burdened Households

The U.S. Department of Housing and Urban Development (HUD) calculates income thresholds to determine eligibility for subsidized affordable housing units. In Thurston County, the 2022 Area Median Income (AMI) was \$103,500. Table 2 shows the 2022 Thurston County HUD Income Limits for low, very low, and extremely low-income households making 80%, 50%, and 30% of the AMI, respectively.

Table 2: Olympia-Tumwater Metro Area (Thurston County) 2022 HUD Income Limits (\$)

Household Income Level	1-person Household	2-person Household	3-person Household	4-person Household	5-person Household
Extremely Low Income (30% AMI)	21,200	24,200	27,250	30,250	32,700
Very Low Income (50% AMI)	35,350	40,400	45,450	50,450	54,500
Low Income (80% AMI)	56,500	64,600	72,650	80,700	87,200

Source: HUD

Figure 10 shows a breakdown of Tenino’s households by income level and tenure. Overall, about 59% of Tenino households are earning less than 80% AMI, a common threshold for subsidized housing eligibility. As discussed previously, renters earn overall lower incomes than homeowners, with 80% of rental households earning under 80% AMI compared with 48% of ownership households, and over twice as many rental households earning under 30% AMI as ownership households.

Households with income at or below 30% AMI qualify to receive rental assistance through HUD’s Section 8 program; however, students and individuals under the age of 24 do not typically qualify for assistance.



Household Incomes in Tenino (2019)

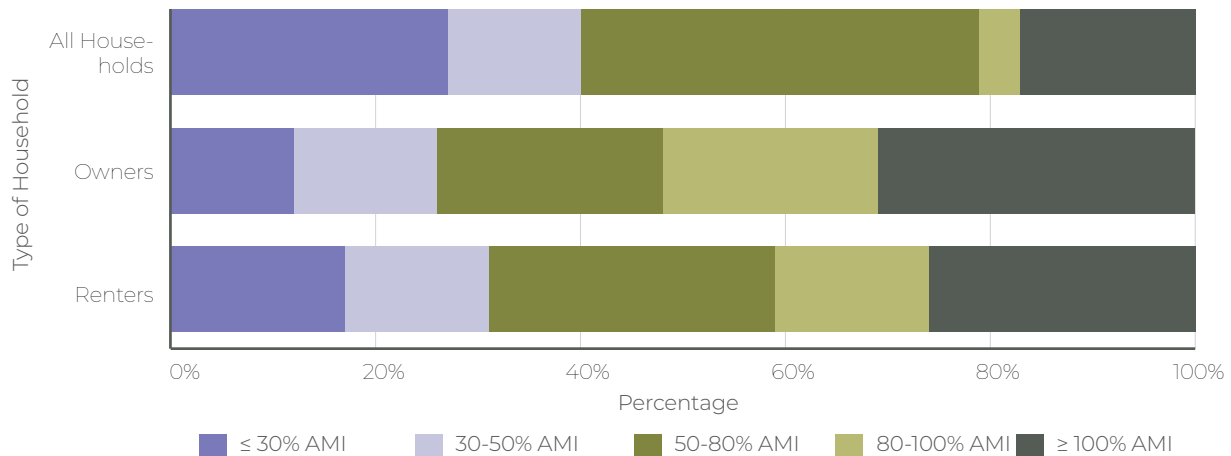


Figure 10: Household Incomes in Tenino (2019)

Source: HUD Comprehensive Housing Affordability Strategy (CHAS)

In addition to income, HUD used a measurement of “cost burden” to further determine which subset of a community’s residents are most in need of housing support or most at risk of displacement or housing hardship. A household is “cost-burdened” if they are spending more than 30% of their monthly income on housing costs (including rent and utilities). A “severely cost-burdened” household spends more than 50% of its monthly income on housing costs.

Figure 11 shows that Tenino’s most cost-burdened households are also those earning the lowest incomes. The majority of households earning less than 30% AMI are also severely cost-burdened. Overall, nearly 11% of Tenino’s households are severely cost-burdened. These households can face difficult choices between prioritizing spending on housing and other household needs such as food and health care.

Cost-Burdened Households in Tenino (2019)

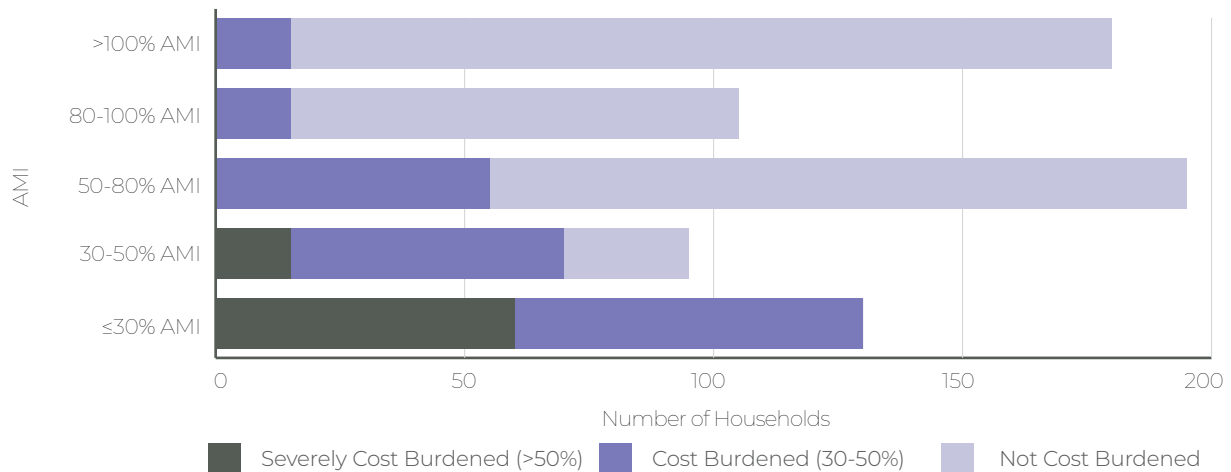


Figure 11: Cost-Burdened Households in Tenino (2019)

Source: HUD Comprehensive Housing Affordability Strategy (CHAS)

Housing Inventory

This section discusses the type and age of Tenino’s existing housing stock, current and future housing production, and trends in ownership and rental housing costs in the city. It also identifies special housing types in Tenino, including subsidized affordable units and senior housing. An inventory of the existing housing creates a baseline for future planning and identifies important trends.

Housing Characteristics

Housing Units, Production and Vacancy Rates

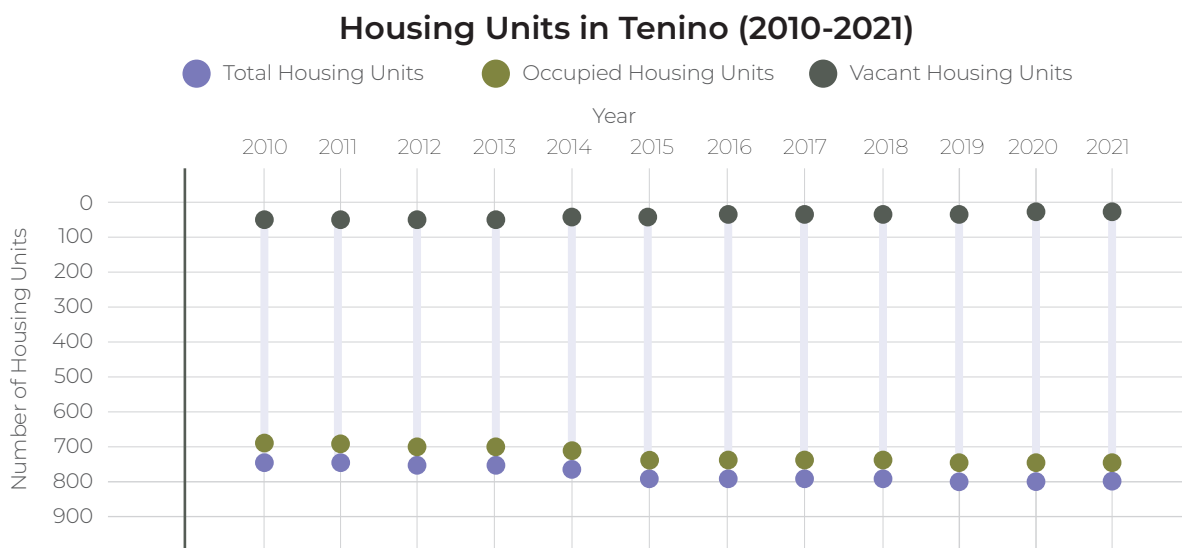


Figure 12: Housing Units in Tenino (2010–2021)

Source: 2010–2020 American Community Survey (ACS) 5-Year Estimates, Table DP04.

The 2022 Postcensal Estimates from the Office of Financial Managements count of housing units in Tenino was 846, of which 609 were single family residences, 83 multifamily, and 154 mobile home or other types of housing. As shown in Figure 12, the total number of housing units in Tenino has gradually increased over the past decade, while occupied units increased at a slightly higher rate, leading to a decrease in the housing vacancy rate over time. The vacancy rate was 6.62 in 2010 and has decreased every year until 2021 when it jumped back up to 6.09. While Tenino currently sits at a healthy vacancy rate, the city will need to increase the additional units per year to meet future demand and to keep the vacancy rate stable. Currently, the city averages 4 additional units per year, while the number of occupied units increases by 6 annually.

Housing Types by Tenure (2021)

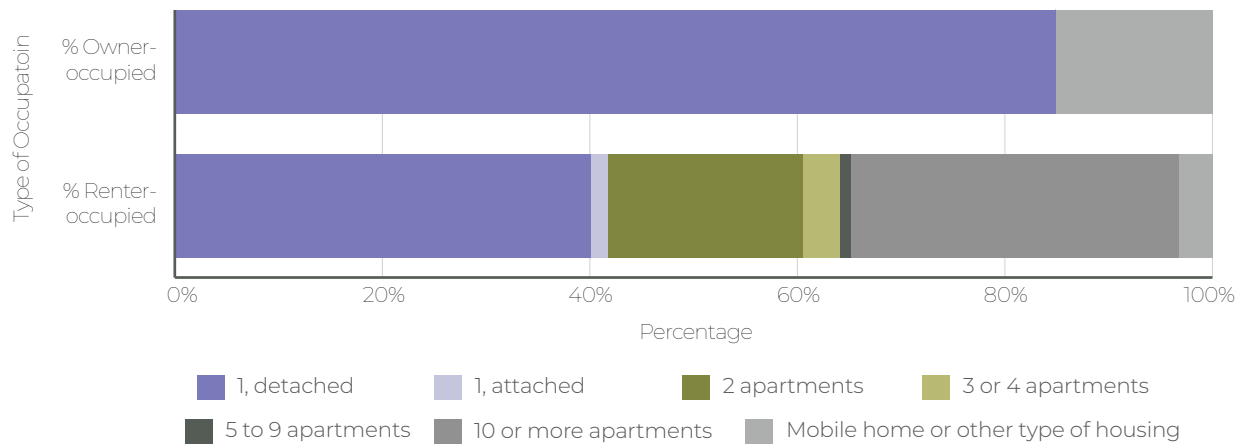


Figure 13: Housing Types by Tenure (2021)

Source: 2021 American Community Survey (ACS) 5-Year Estimates, Table S1101

Data from the 2021 ACS (U.S. Census, Table S2504) shows that most of the occupied units in the city are detached single-family homes, occupied by both owners and renters. Homeowners mostly live in single-family homes, with a smaller portion in mobile homes, and renters largely live in single-family or apartment buildings and duplexes (not including triplexes or quadplexes). Apartment buildings with 5 to 9 units make up the smallest percentage of housing type in Tenino.

Figure 14 breaks down recent construction of residential units as reported by the Thurston Regional Planning Council. The figure considers development per unit and not per structure, therefore this considers all individual units as separate living spaces or structures. Permit activity spiked in 2015 and 2020 with two single-family residential developments in the southwestern and eastern areas of the city.

Tenino Residential Permit Activity (2010-2021)

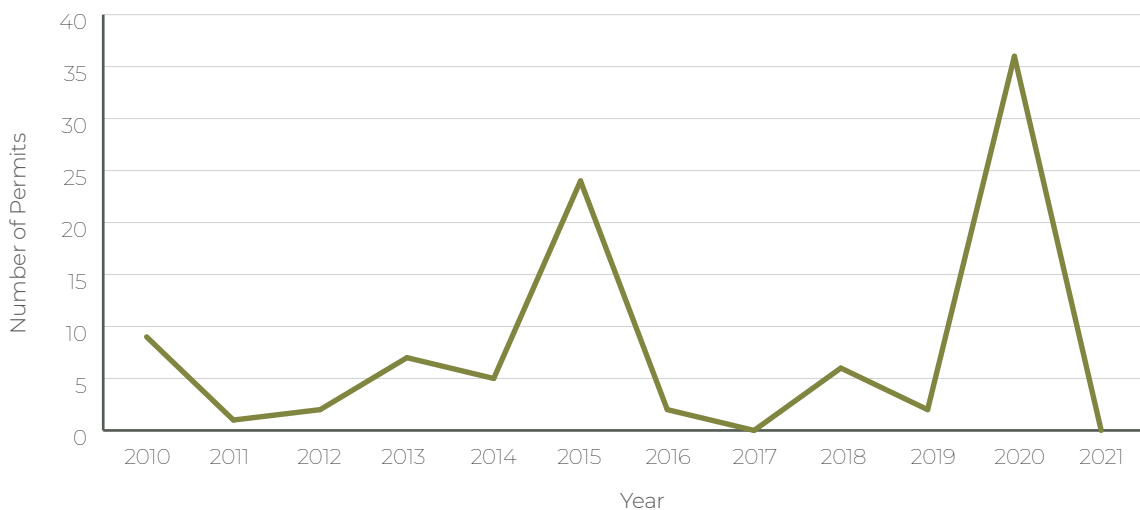


Figure 14: Tenino Residential Permit Activity (2010-2021)

Source: Thurston Regional Planning Council, 2022

Type, Size, and Age of Units

Tenino’s housing stock is comprised primarily of single-family homes, as shown in Figure 15, making up more than 78% of the total stock. A majority of the remaining 22% are mobile homes and apartment buildings with 10 or more units along with a smaller share of duplexes, triplexes, and quadplexes. This housing mix reflects the growth of the single-individual and family-oriented population as reflected in the Household Characteristics section on Page 4, and its demand on the housing market.

Figure 16, below, helps to describe the size of units within Tenino. This is an important consideration because unit size helps to assess how well the housing stock meets the needs of the community. In this case, a majority of the housing stock is comprised of units with 2 to 3 bedrooms. As discussed on Page 5, the average household size for Tenino is 2.53. Analysis of both of these numbers reflects that Tenino does not typically have an issue of overcrowding. Overcrowding is determined if an average household has more than one occupant per bedroom.

Units in Structure, Tenino (2021)

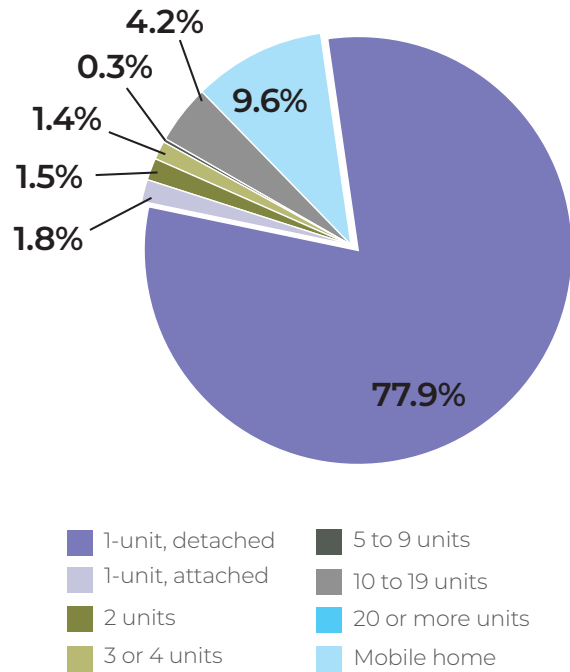


Figure 15: Units in Structure, Tenino (2021)
 Source: 2021 American Community Survey (ACS) 5-Year Estimates, Table DP04

Housing Units in Tenino by Number of Bedrooms (2021)

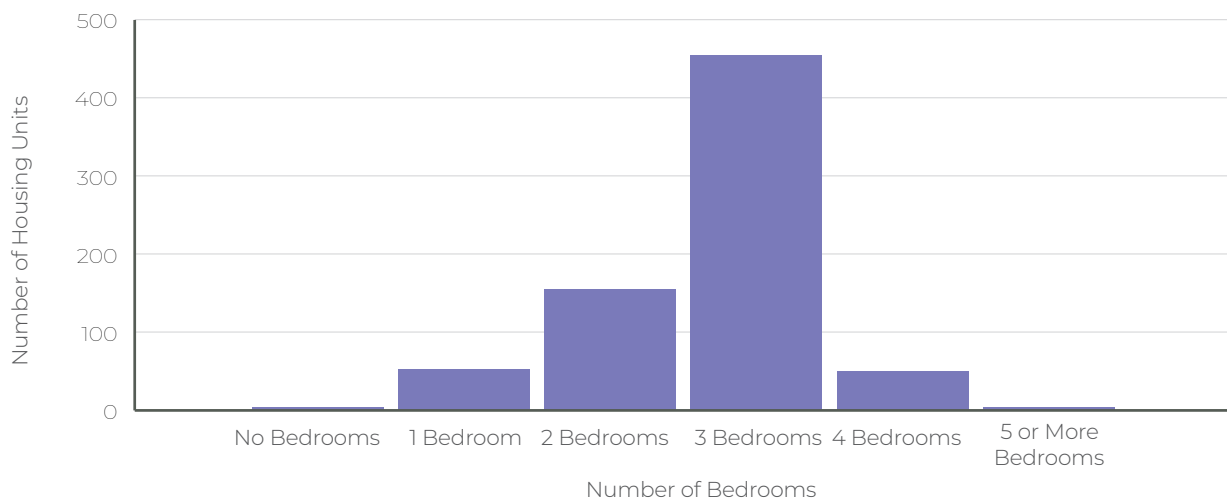


Figure 16: Housing Units in Tenino by Number of Bedrooms (2021)
 Source: 2020 American Community Survey (ACS) 5-Year Estimates, Table DP04

The housing in Tenino is largely considered historic (more than 50 years old) with a mix of more recently constructed homes, as shown in Figure 17. Just under 63% of the buildings in Tenino were built more than 50 years ago. While older buildings may contain lead paint and present ongoing maintenance problems, they can also provide a source of naturally occurring affordable housing units. The city’s housing stock has not developed in the same capacity as compared to the region, this is likely because Tenino has a preference to keep and revitalize historic structures rather than redevelop.

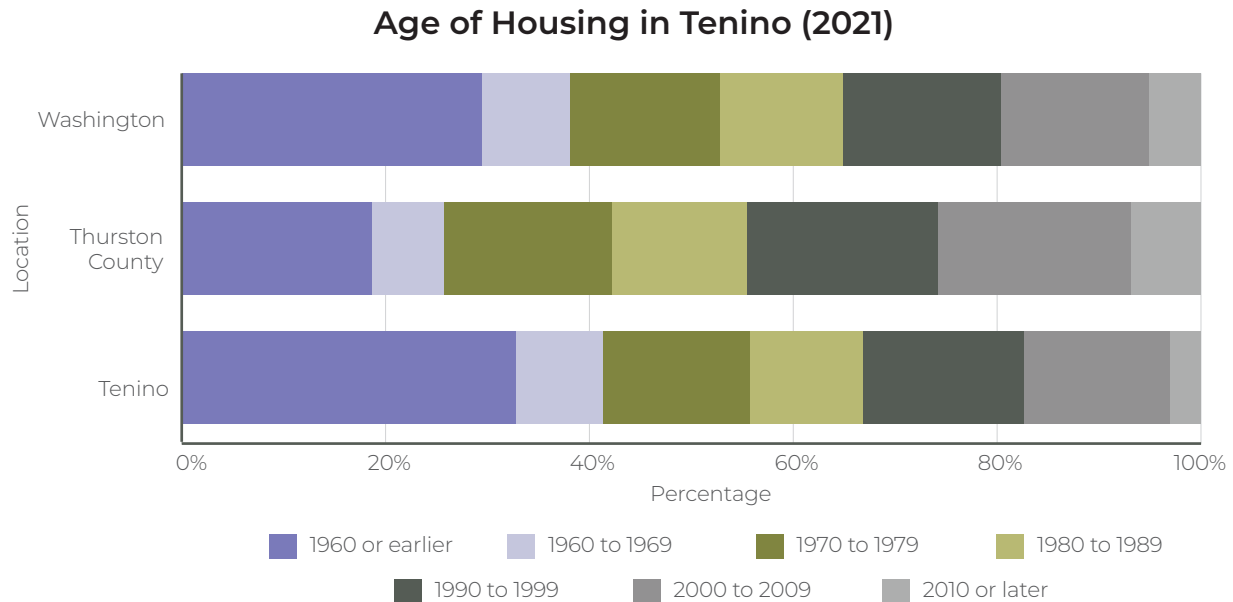


Figure 17: Age of Housing in Tenino (2021)
 Source: 2021 American Community Survey (ACS) 5-Year Estimates, Table DP04

Housing Cost

Both rental and homebuying costs have increased in price over the past decade, and sales prices have increased particularly fast since the onset of the COVID-19 pandemic. Figure 18 shows Tenino’s median sales prices over the past decade. Overall, the trendline shows a steady increase in housing cost with a noticeable increase of sales in 2021. Zillow’s Home Value Index, which estimates the typical home value for a region, currently estimates the cost to purchase a home in Tenino at \$498,326 as of October 2022.



Median Sales Price vs Number of Sold Houses in Tenino (2012-2022)

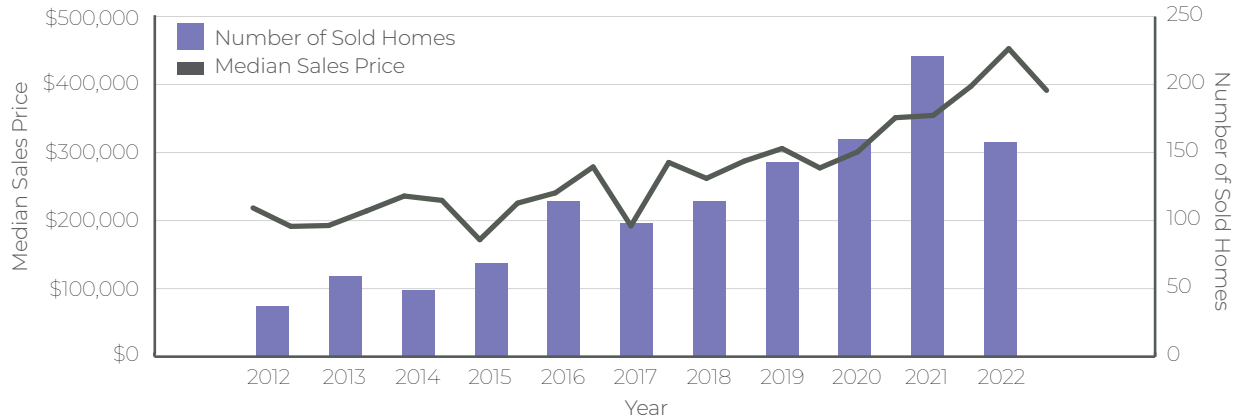


Figure 18: Median Sales Price vs Number of Sold Homes in Tenino (2012-2022)

Source: Thurston County Assessor’s Data, 2022 (through June 2022)

Rent cost is significantly more difficult to track, particularly for smaller geographies. Census data on rents is both delayed and self-reported and large real-estate websites do not track rent costs well for smaller communities. However, the Census data can provide a window into larger trends. In Tenino, rent costs are typically less than

those in Thurston County and have been increasing at a similar rate. Both County and City rent costs have not increased as quickly as they have Statewide, as shown in Figure 19. The 2021 ACS reports the Median Gross Rent in Tenino to be \$1,059, with an increase of 36% since 2010 however it is 23% less than Thurston County in the same year.

Inflation-Adjusted Median Gross Rent in Tenino with Regional Comparison (2010-2021)

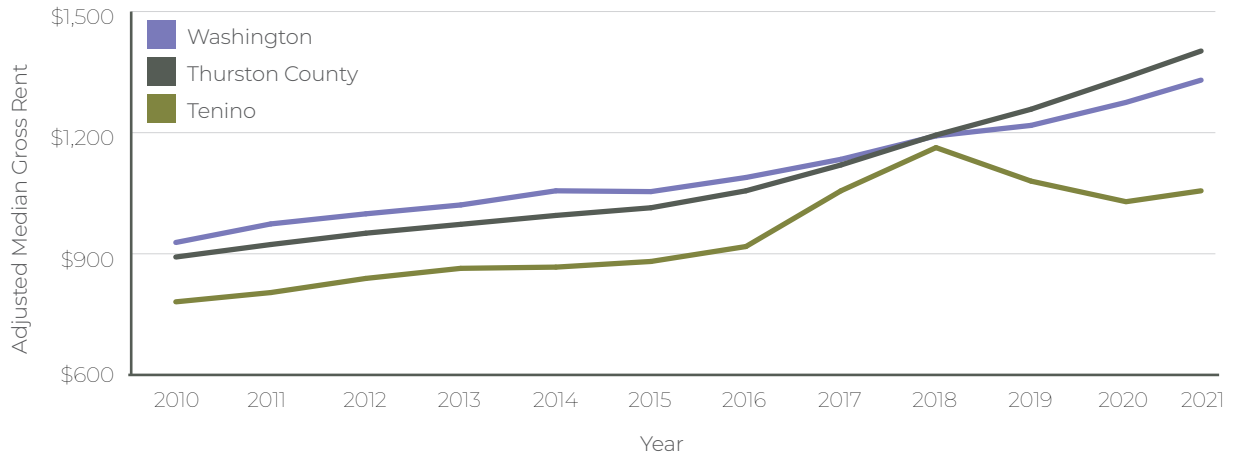


Figure 19: Inflation-Adjusted Median Gross Rent in Tenino with Regional Comparison (2010-2021)

Source: 2010-2021 American Community Survey (ACS) 5-Year Estimates, Table DP04

Comparing rent prices, home prices, and incomes can provide a window into housing affordability. Figure 20 takes 2014 as a baseline year and shows the change in each indicator over a 6-year period. Median household income is shown to fluctuate greatly, while median home values show a similar pattern but far more muted. Household income has greatly decreased, falling more than 15% between 2018 and 2021. As shown in Figure 8 (Page 7), median household income typically shows a greater fluctuation when there is a smaller number of data points within an entire set, which explains the exaggerated decline reflected in Figure 20, below. In 2017, Income and Home Values began to decline while the cost of rent increased – compounding the housing affordability difficulties in the community. These issues are also affecting communities across Thurston County, as demonstrated by the University of Washington Center

for Real Estate Research that shows the countywide Housing Affordability Index (HAI) falling since 2020. From 2020 to 2021, rent, home value, and household income saw a jump with increases across the board. These increases reflect the impacts of the Covid-19 pandemic and the work-from-home movement that found people searching for homes in more rural locations due to not having to commute. As most of these households had high-value jobs or careers, the intended residents started to compete to purchase homes as the number of homes available were far fewer than the households looking to purchase. This created momentum in the housing market, causing intended residents to compete in bidding wars to be able to purchase a home, increasing the purchase price and therefore the value of the home. When home values increase, rent also sees a similar change – but typically much more volatile.

Change in Rent, Home Value, and Income in Tenino (2014-2021)

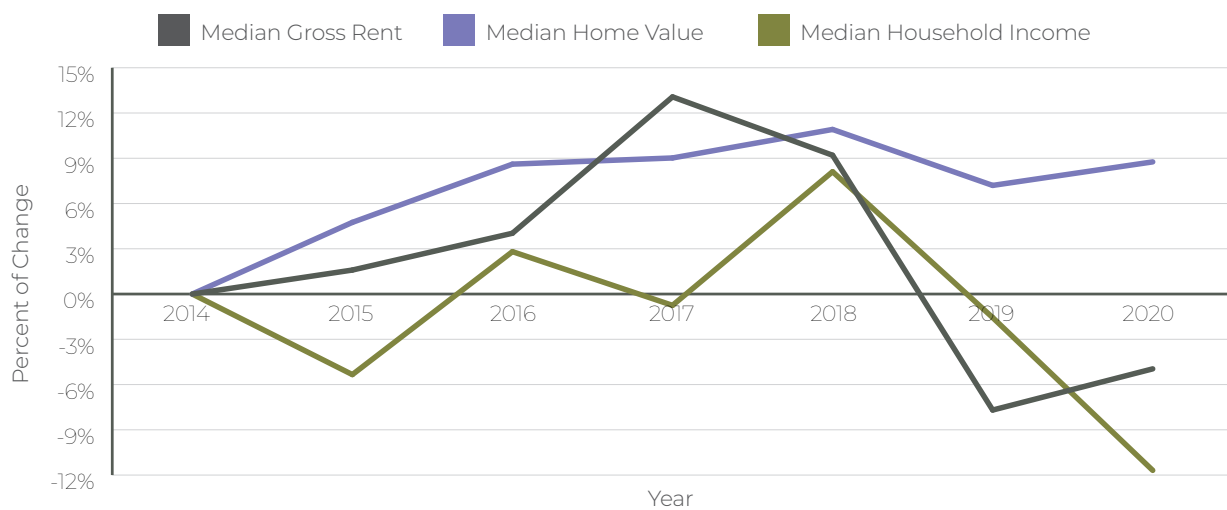


Figure 20: Change in Rent, Home Value, and Income in Tenino (2014-2021)

Source: 2014 - 2021 American Community Survey 5-Year Estimates, Tables S2503, DP04, Zillow

Special Housing Inventory

Special Housing Inventory includes Group Homes and Care Facilities, Income-Restricted Housing, and Senior Housing options. According to the 2021 Decennial Census there were no members of the population identified as residing in an institutionalized facility within the City of Tenino. Institutionalized facilities include Correctional or Healthcare facilities that can accommodate residents.

Income-Restricted & Senior Housing

Table 3 :Low Income Housing Availability in Tenino (2022)

Low Income Housing	Total Low-Income Units	Assistance Type
Sandstone Apartments Building B (298 Ritter St S)	30	Section 515
Sandstone Apartments Building A - Tenino Senior (118 McArthur St)	22	Senior & Disabled Persons, USDA Rental Assistance, Section 8

Source: HUD LIHTC Database, Affordable Housing Online

Income-restricted housing includes complexes and apartment communities that provide affordable housing options for low-income families, elderly, or developmentally delayed individuals. The reduction of cost to the renter is typically provided through subsidies paid to the complex or community by both local and federal government agencies.

The Sandstone apartments as mentioned in both Table 3 and 4, have two buildings that offer different types of assistance. Building B is an “affordable housing” option that follows requirements set by the HUDs Section 515 Rural Rental Housing

Loan program. According to the Housing Assistance Council (HAC), the Rural Rental Housing program facilitates mortgages made by USDA to provide affordable rental housing for very low-, low-, and moderate-income families, elderly persons, and persons with disabilities.

There are multiple types of senior housing, typically assessed at the different stages of care that a senior citizen may need. These types include senior living community (independent living), assisted living, memory care, and rehabilitation or skilled nursing.

Table 4: Senior Housing Types Available in Tenino (2022)

Senior Housing	Unit Types
Sandstone - Tenino Senior (Building A, 118 McArthur ST)	26 One-Bedroom
	4 Two-Bedroom

Source: Mercy Housing

Workforce Profile

Understanding workforce and employment trends is essential for housing planning. Tenino's economy, location, and housing shortage have negative impacts on its economic health. Understanding the relationship between the City's economy and housing challenges can provide better opportunities for economic development and access to jobs in the future.

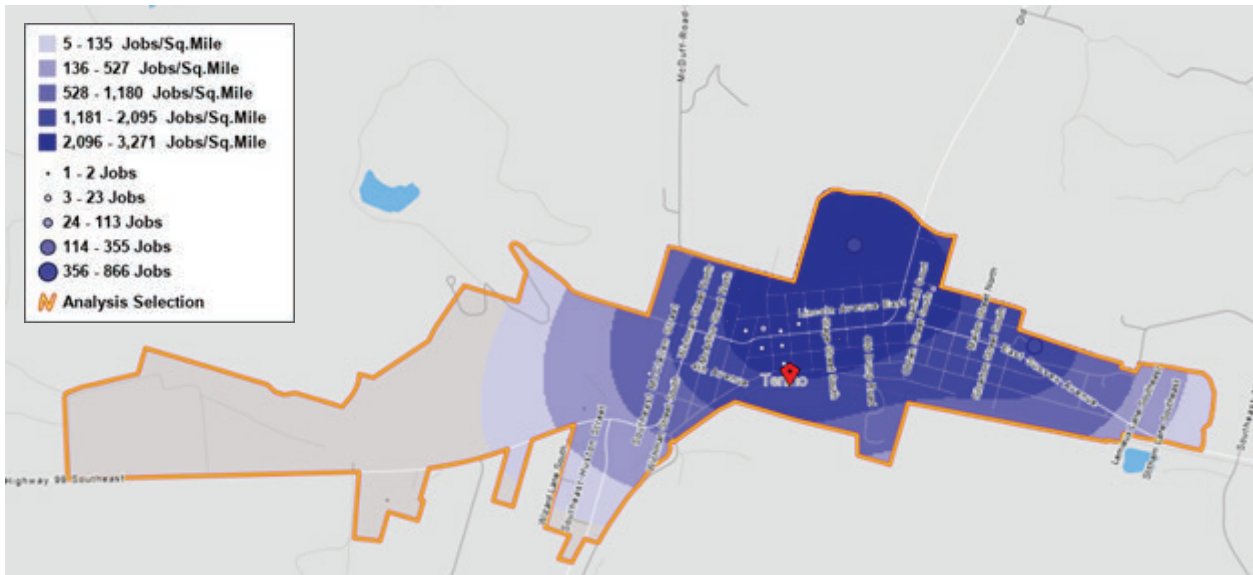


Figure 21: Job Density in Tenino (2019)

Source: Census OnTheMap

Job density is concentrated along the northeastern boundary of the city where the Elementary, Middle, and High Schools are located and the nearby commercial corridor, as shown in Figure 21. According to Census Data, the school district, retail, and food industries account for a large share of the jobs, as shown in Figure 22. As the population grows, the number of children in the area will grow and all three industries are expected to expand with the increased demand and educational needs. School Districts are dependent on taxes and levies for funding which will naturally see an increase with the growth of the population.



Top Industries in Tenino, 2019

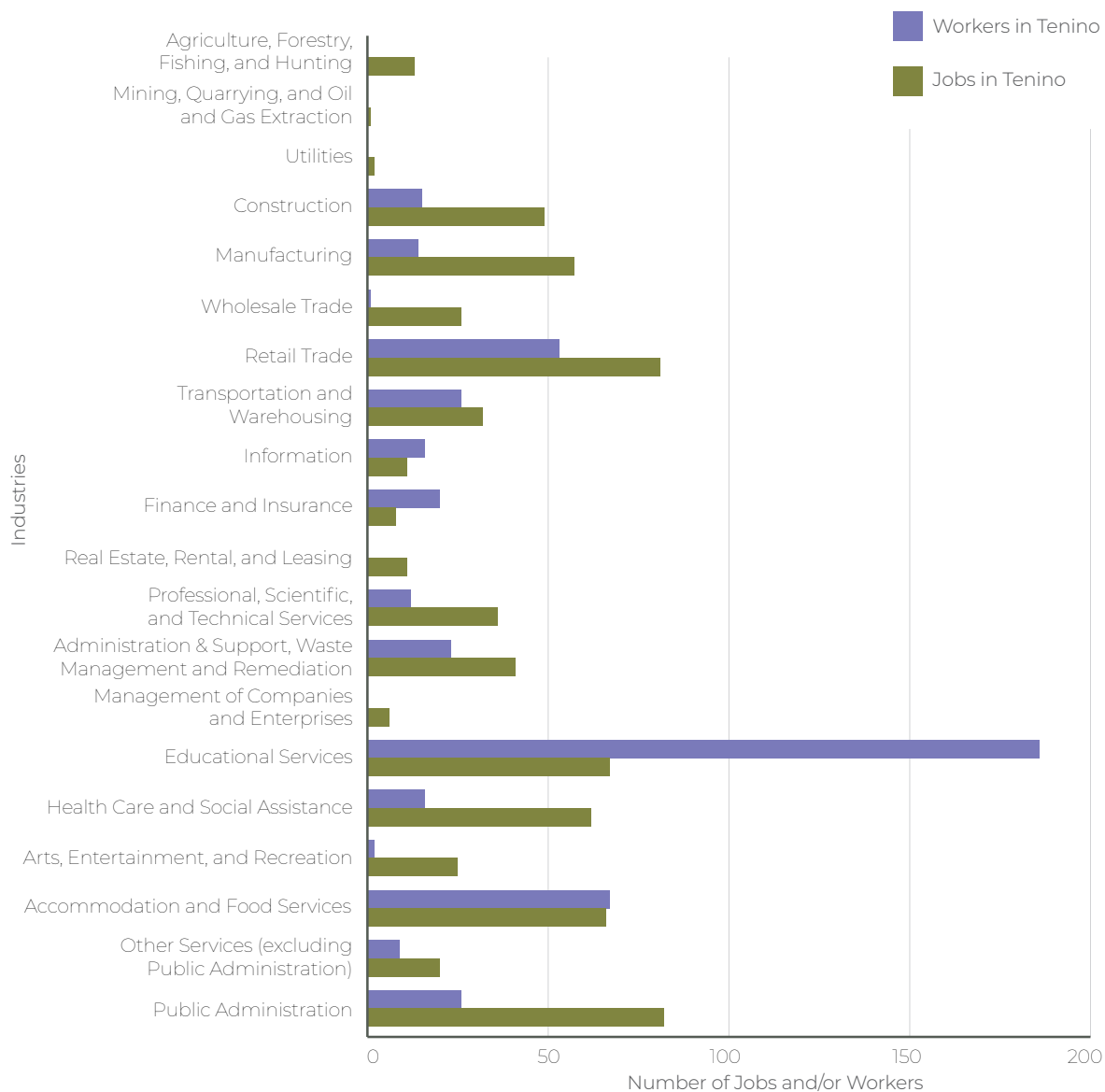


Figure 22: Top Industries in Tenino, 2019

Source: Census OnTheMap, 2020 American Community Survey 5-Year Estimates, Tables S2404

Employment Projections

According to the Washington State Employment Security Department (ESD), which provides regional employment projections, the Pacific Mountain workforce area (which encompasses Grays Harbor, Lewis, Mason, Pacific and Thurston Counties) will see annual growth of 2% between 2020 and 2025, which will taper to 1.64% annually by 2030. These projections are based on staffing patterns from occupational employment statistic surveys and converted to industry classifications based on industry control totals (ICT) definitions. Projections for the top industries in the City of Tenino are shown below in Table 5.

Table 5: Industry Growth Projections for Pacific Mountain Workforce Area (2022)

Industry Title	Growth Projections	
	2020-2025	2025-2030
Construction	2.23%	1.68%
Retail Trade	1.55%	1.11%
Professional, Scientific, and Technical Services	3.13%	2.24%
Educational Services	2.62%	2.31%
Health Care and Social Assistance	2.10%	2.24%
Accommodation and Food Services	6.55%	1.59%

Source: 2022 Employment Security Department Industry Projections

Jobs in Tenino pay less than jobs in Thurston County as a whole, with 18% of jobs paying \$1,250 a month or less in the city compared to 17% in Thurston County, as shown in Table 6. Tenino residents who commute also tend to earn less than those who work in the city, and there are a significant number of residents and employees in Tenino earning less than \$3,333 per month, which increase the risk of being burdened by housing costs for sole earners, based on the rent estimates discussed earlier in this analysis.

Table 6 :Tenino and Thurston County Job Earnings (2019)

Earnings	Jobs in Tenino	Jobs Worked by Tenino Residents	Jobs in Thurston County
\$1,250 per month or less	17.7%	28.2%	16.7%
\$1,251 to \$3,333 per month	35.2%	32.5%	28.3%
more than \$3,333 per month	47.1%	39.3%	55.0%

Source: Census OnTheMap

While the data from Table 6 and Figure 23 are from 2019, it is important to note that this is the most recent data available, and while not entirely accurate due to the age of that data – both the table and map provide valuable insight into the general tendencies with jobs, commuting, and pay for people who live and/or work in Tenino.

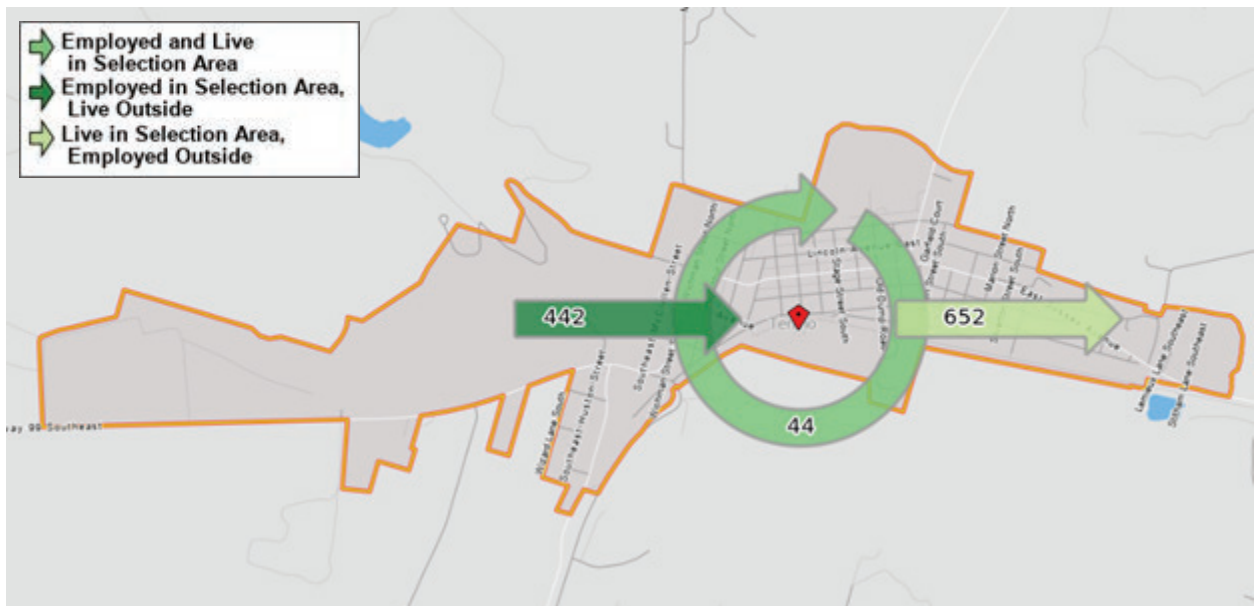


Figure 23: Commuting Patterns in Tenino (2019)

Source: Census OnTheMap

Tenino’s workforce faces long commute times and geographic challenges related to employment opportunities. The majority of residents in Tenino do not work in the City, and vice versa, as shown in Figure 23. According to community members interviewed by SCJ Alliance in the Fall of 2022, housing affordability is not the top concern for most residents as costs in Tenino tend to be less than other areas within Thurston County, but availability of affordable housing stock is a concern. This explains the high number of people who commute into, or out of the city, with a larger proportion commuting elsewhere.

Land Capacity Analysis

This section analyzes existing and potential capacity for housing production based on Tenino’s current zoning code and correlates the results with the number of housing units the City will need based on population and household forecasts. This section also discusses other opportunities and constraints to development, including availability of water, sewer, and other municipal services, environmental constraints, zoning, and other factors.

Zoning

Tenino’s zoning code contains four commercial and three residential districts, not including the West Tenino as shown in Figure 24, in light yellow. The City’s C-1 Commercial District covers historic downtown Tenino and is meant to “build on the historic and walkable nature of the area” (TMC 106.40.010). This model ensures that the downtown core stays vibrant and walkable with a variety of commercial offerings such as retail stores, service-oriented establishments, and apartments – with other residential uses allowed provided development occurs off ground level.

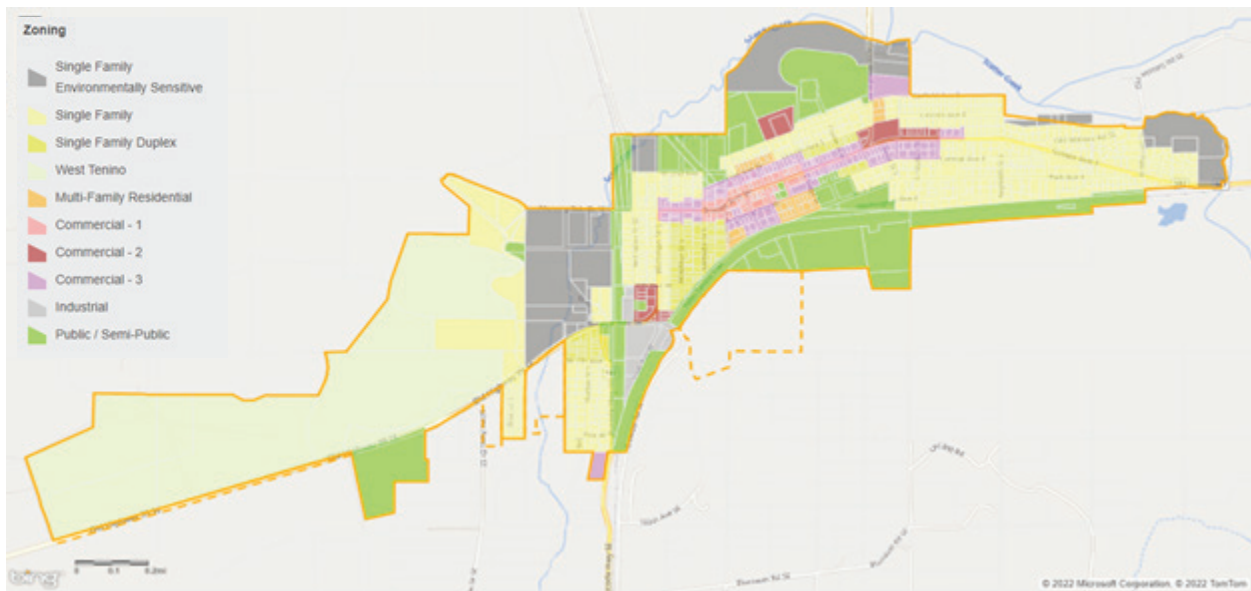


Figure 24: City of Tenino Zoning (2022)

Source: Esri, City of Tenino

The City of Tenino is 1,485 acres (2.32 square miles) not including the UGA, and a large portion of the land within city limits is designated West Tenino for master planned development proposals for residential units. While the land designated for the West Tenino is considered developable, the development would be slow as much of the encompassed area is home to the Mazama Pocket Gopher and therefore environmentally protected.

Table 7: Tenino Zoning Districts and Use Intent (2022)

Zoning District		Residential Use Allowance
Non-Residential		
C-1	Commercial 1	Some residential units allowed off ground level.
C-2	Commercial 2	Primarily commercial uses, with some residential units allowed off ground level.
C-3	Commercial 3	Mix of existing single-family uses, new and existing multifamily buildings, mixed use structures, and commercial uses.
I	Industrial	Commercial and Utilities activities and large-scale industrial. No residential units.
Residential		
SF-ES	Single Family Environmentally Sensitive	Larger lots to allow for environmental constraints. Lots are in proximity to critical areas.
SF	Single Family	Single-family residential units. Low-density residential area.
SFD	Single Family/Duplex	Single-family and Duplex units. Low-density residential area.
MF	Multi-Family Residential	Small-lot detached dwellings and attached structures such as apartments, condominiums, and townhouses. The mix can take form on a single site or mixed within a general area.
Special Purpose		
P/SP	Public/Semi-Public	No residential units.
WT	West Tenino	Intent is to allow for the land to be developed in a planned and structured capacity through the adoption of a master plan unless otherwise applicable.

Source: City of Tenino

Table 7 identifies the residential use allowances allowed by current zoning regulations within the City per zoning district. Controlling residential use allowances is similar to requirements of density in residential areas helps to control the type of housing and therefore supply. Not all types of housing are similar; typically, higher density equals lower housing cost. This is a general rule for the housing market, but not always accurate as

there are also different styles such as luxury apartments, which have larger living areas and square footage, or low-income housing that are packed as dense as the property and municipal code will allow. Low-income housing developers typically apply for the Low-Income Housing Tax Credit (LIHTC) through the Department of Housing and Urban Development (HUD) or other applicable tax credit or loan programs

Vacant and Underutilized Land

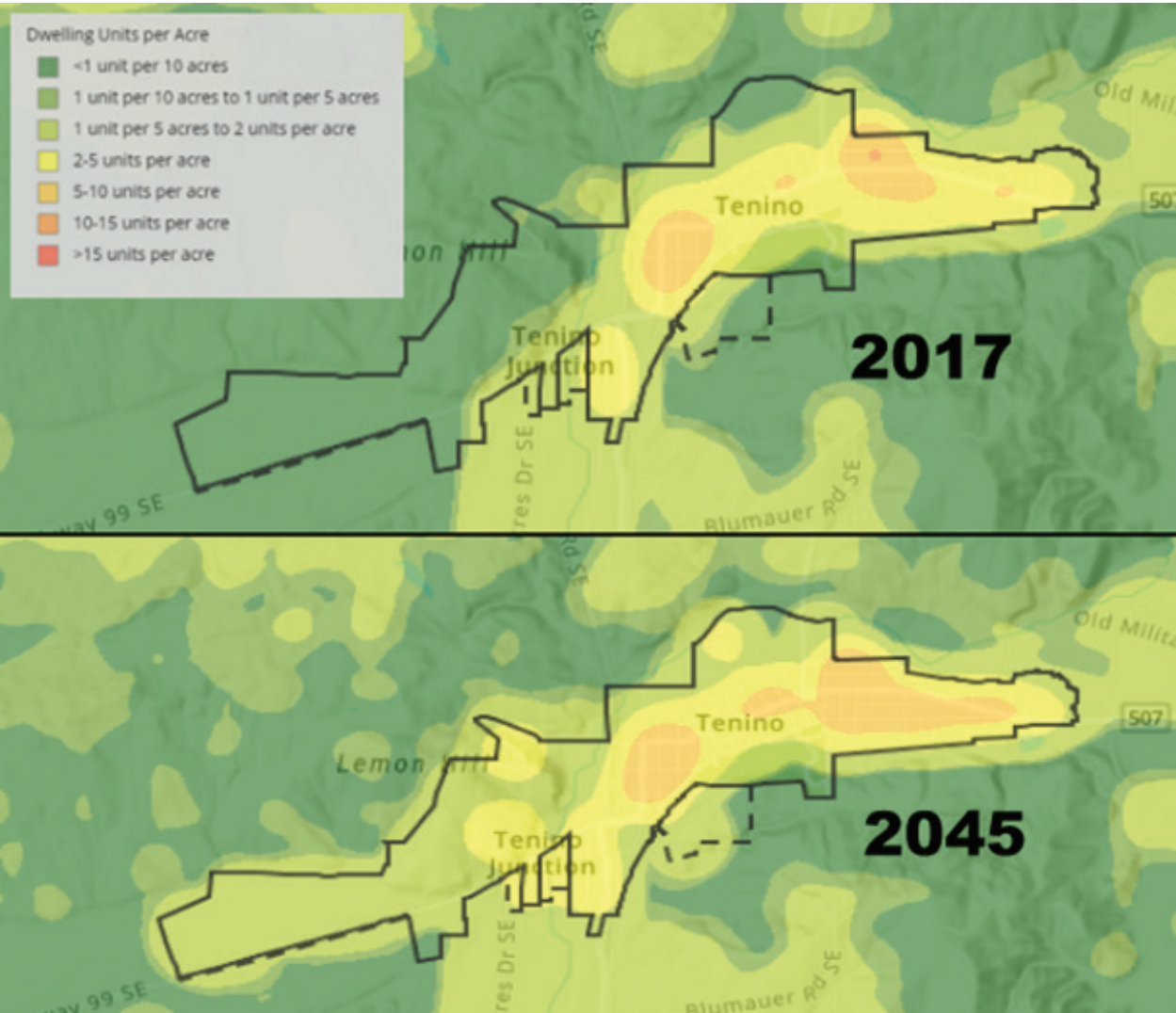


Figure 25: Comparison of 2017 vs Projected 2045 Residential Density in Tenino (2017)
 Source: Thurston Regional Planning Council, Thurston County Housing Density

The Thurston Regional Planning Council provides insight into future density areas, or areas where there will be a higher density of people living in the future. Figure 25 shows the Residential Density projected for 2045, where the density is mainly still in the eastern portion of the city where the R-1 and R-2 districts are and some increased density throughout West Tenino.

The above mapping does not take into consideration some environmental constraints on development including shoreline jurisdiction and Mazama Pocket Gopher Habitat. Residential capacity expansion is projected, but not likely in the most western portion of Tenino due to Mazama Pocket Gopher Habitat, further discussed in the Environmental Constraints section, below.

Environmental Constraints

While the recreational opportunities within and surrounding Tenino are plentiful, this also means that there are constraints to development that must be taken into account. Environmental regulations are codified under the city’s Shoreline Master Program (Title 109), Critical Areas Ordinance (Title 112), the State Environmental Policy Act (Title 110) and Floodplain Management standards (Chapter 5.24).

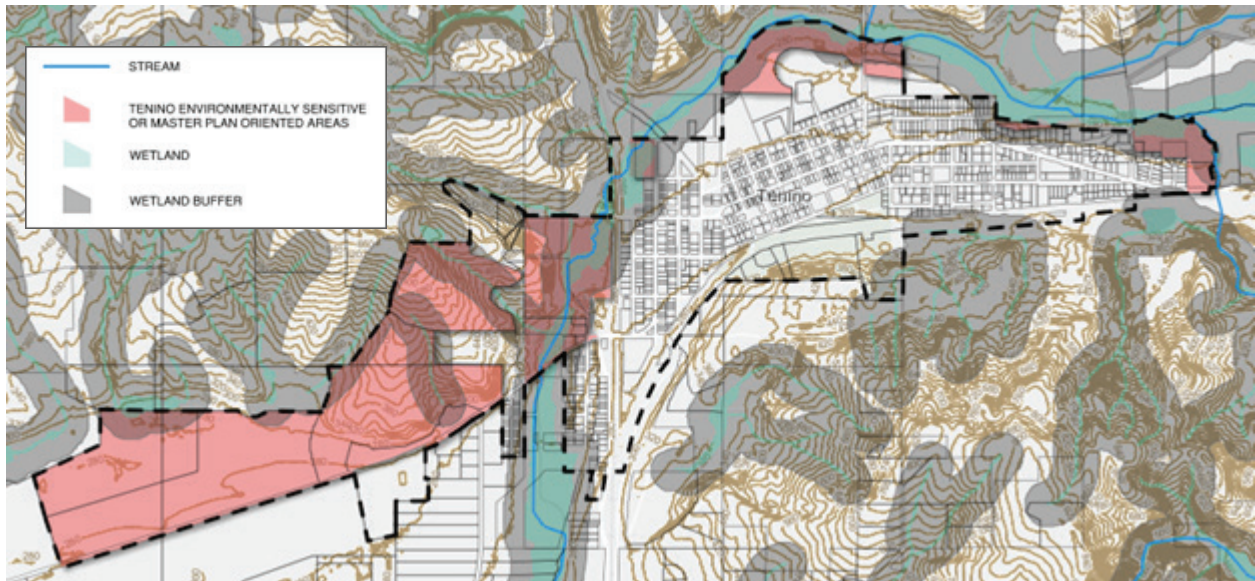


Figure 26: Environmentally Constrained Areas in Tenino (2022)

Source: Thurston GeoData, ESRI, City of Tenino, SCJ Alliance

Critical Areas

Tenino defines a critical area to include frequently flood areas, wetlands, fish and wildlife habitats and geologically hazardous areas. These areas can also overlap with Shoreline jurisdiction, as outlined in the next section.

Development within a critical area or its buffer requires an environmental review, including a critical area report to evaluate the proposal and all probable impacts to the critical area(s).

Shoreline Jurisdiction

Proposed development within shoreline jurisdiction (those lands which extend landward two hundred (200) feet as measured on a horizontal plane from the ordinary high-water mark (OHWM)) are regulated by the Shoreline Master Program, and Critical Areas Ordinance. The city has worked with the Washington State Department of Ecology to develop these regulations and ensure no net loss of ecological functions.

Scatter Creek, a protected shoreline runs along the northeast border and down through the middle of the city. The creek's shoreline designation is "Conservancy" and is defined as a Type S stream, which has a minimum environmental buffer of 150 feet landward from the OHWM. No development or alteration of the habitat or land is permitted without prior approval through the shoreline permit processes. However, uses aligned with single-family residences and their development are permitted, but may require a Substantial Development Permit or statement of exemption

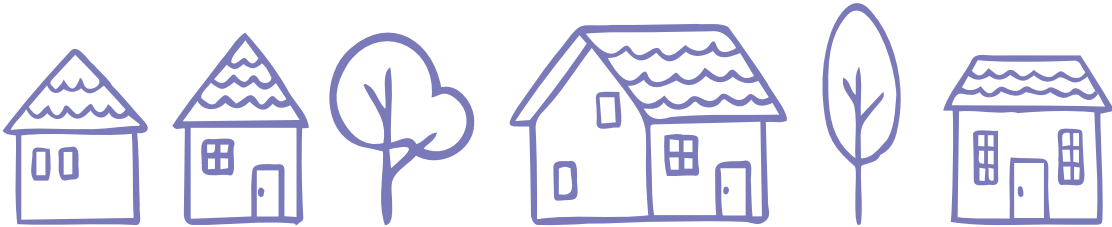
approval. These permits and processes add increased costs to development while.

As reflected in Figure 27, streams within the area, especially larger streams such as Scatter Creek present a flood hazard. Proposed residential development within flood hazard areas are required to build one to three feet above "Base Flood Elevation" and follow floodplain management regulations in Tenino's Critical Areas Ordinance and Floodplain Management standards and which can increase the cost of development.



Figure 27: Water-based Environmental Constraints

Source: Thurston GeoData, ESRI, City of Tenino, SCJ Alliance



Mazama Pocket Gopher

Much of West Tenino remains undeveloped due to high levels of Mazama Pocket Gopher activity and habitat. According to the U.S. Department of Fish and Wildlife, the name Mazama Pocket Gopher encompasses four subspecies that are only found in Thurston and south Pierce County, Washington. All four subspecies have been listed as threatened under the Endangered Species Act since April 2014. Their primary threat is degradation and loss of their habitat due to conversion of prairie land to agriculture, commercial and residential development.

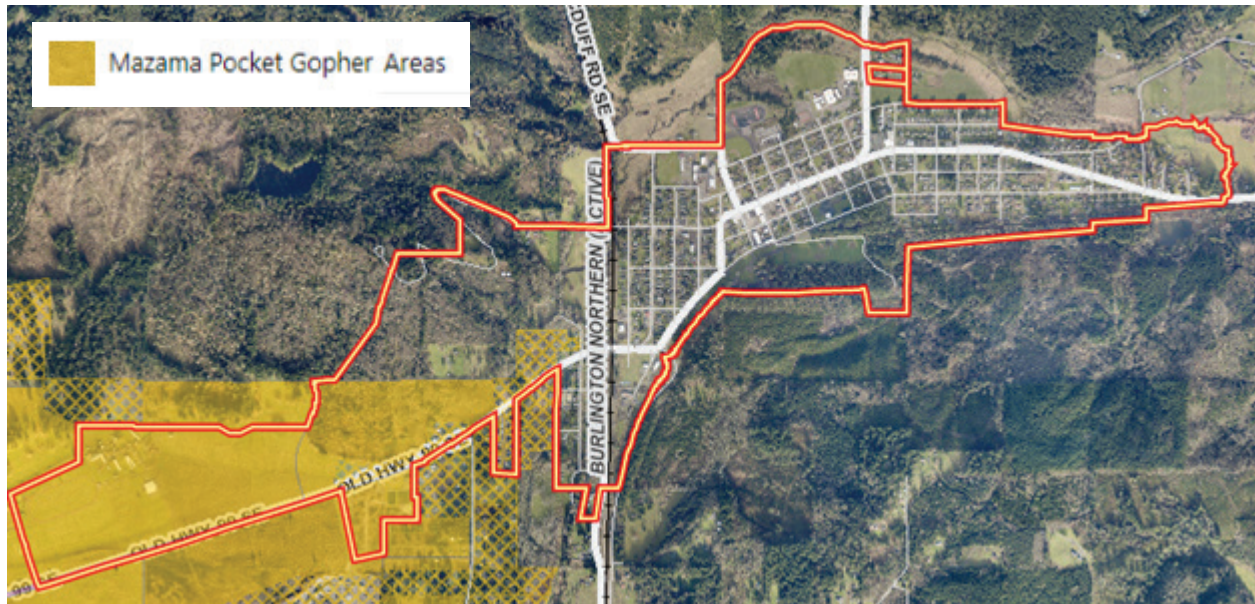


Figure 28: Mazama Pocket Gopher Areas

Source: Thurston GeoData, ESRI, City of Tenino, SCJ Alliance

Gap Analysis

This section identifies specific gaps following from the demographic, service member, and housing data discussed above. These gaps identify segments of the population with particular housing needs and important issues and trends which may emerge in coming years and should be used to formulate policy considerations to close these gaps.

Quantity of Housing Units to Income Levels

As discussed above, the housing market is typically thought of as two pieces: the rental market and the sales market. While there is overlap in household income levels between these two markets, typically there is a higher demand for affordable rental units and lower prices. This same idea is reflected in the data in Figure 29, below, where households making less than \$35,000 in annual income have a higher burden of cost due to lack of available affordable housing choices. Data like that shown below, helps to better understand where the City's housing supply needs a boost. In this case, the gap would best benefit from an increase of subsidized housing or rental assistance programs.

Renter Households and Affordable Rental Units by Income in Tenino (2021)

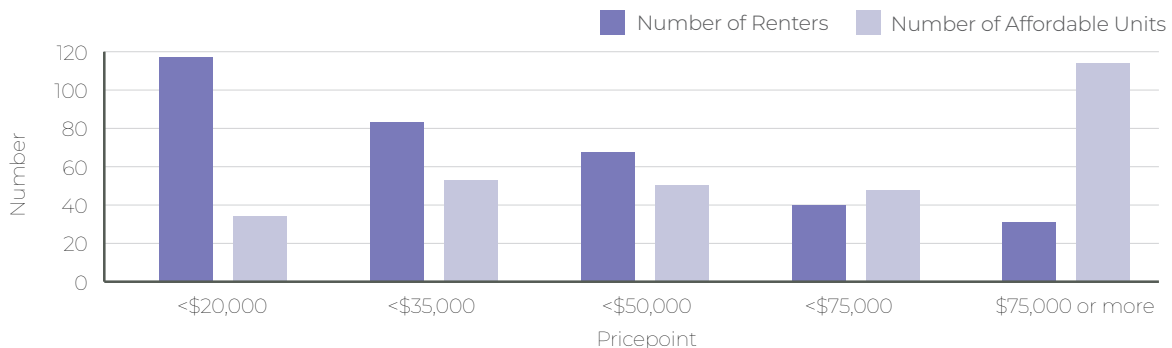


Figure 29: Renter Households and Affordable Rental Units by Income in Tenino (2021)

Source: 2021 American Community Survey 5-Year Estimates, Tables S2503



Owner Households and Affordable Housing Units in Tenino (2021)

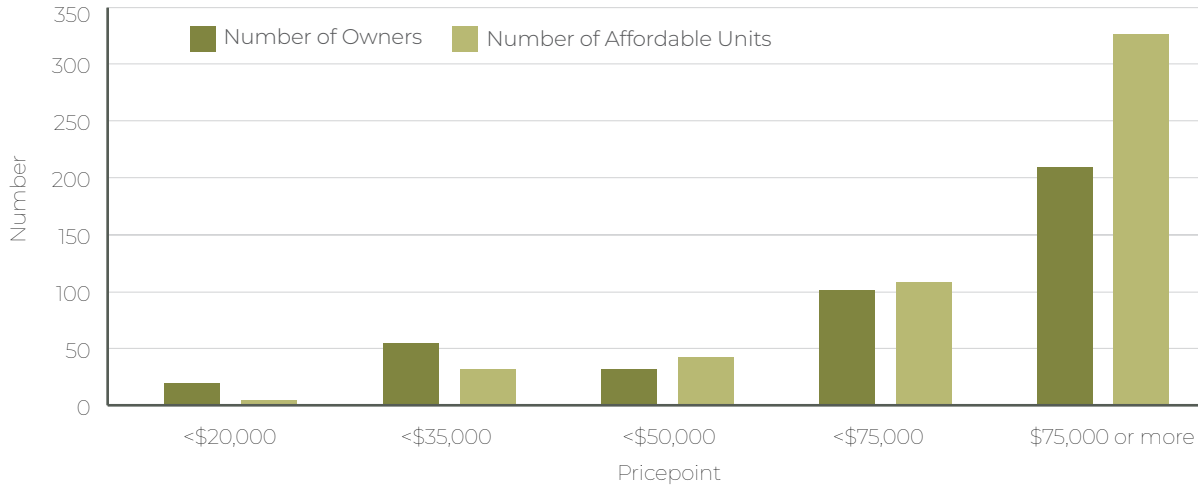


Figure 30: Owner Households and Affordable Housing Units in Tenino (2021)

Source: 2021 American Community Survey 5-Year Estimates, Tables S2503, B25106

Housing Units Needed to Accommodate Projected Population

Thurston County and the City of Tenino expect a population growth to 2,790 residents within city limits by 2045, as discussed in the Historic and Future Populations section on Page 2. Using this projection, and ACS population data from 2021, the projection would account for an additional 832 residents over the course of twenty-four years. This projection can be used to estimate the number of housing units that will be needed in Tenino by 2045, as shown below.

Table 8: Estimated New Housing Units Required in Tenino (2021, 2045)		
	2021 Estimates	2045 Projection
Population	1,870	2,790
People Per Household	2.53	2.53
Households	725	1068
(5% Vacancy Rate)		53
Total Housing Units	772	1,168
New Housing Units Required		396

Source: Washington Office of Financial Management (OFM), 2021 American Community Survey 5-Year Estimates Table DP04 and S1101, Thurston Regional Planning Council

Table 9 presents a breakdown of projected housing units for 2030, 2040, and 2045. The calculations are based off the 2021 ACS listed household size and percentage of occupied housing units by income, with an added 5% to account for the standard vacancy rate. The table uses the projected population to break down the total housing units using the same method as Table 8, then assumes a 5% vacancy rate to obtain the projected occupied housing units and further breaks down the occupied housing units by 2021 percentage of housing units by income.

Table 9: Estimated Housing Units Required in Tenino by Income (2030-2045)					
		2021	2030	2040	2045
% of Area Median Income	Total Housing Units	772	1,001	1,082	1,091
	Occupied Housing Units	725	953	1,029	1,038
Less than 19%	Less than \$20,000	18.30%	174	188	190
19% to 34%	\$20,000 to \$34,999	14.10%	134	145	146
34% to 48%	\$35,000 to \$49,999	10.90%	104	112	113
48% to 72%	\$50,000 to \$74,999	21.50%	205	221	223
72% or more	\$75,000 or more	33.80%	322	348	351
0%	Zero or negative income	1.40%	13	14	15

Source: 2021 American Community Survey 5-Year Estimates Table S2503, Thurston Regional Planning Council

Another way of breaking down the housing unit projections is by type of structure. Table 10 represents the projections of housing unit needs if the City chose to keep the statistical proportions of 2021. Just over 65% of the City’s housing units were 1-unit, detached (also known as Single Family residences (SFR)). If the same ratio is applied to growth by 2045, there would be a projected need of 712 SFRs by 2045 (an additional 208 units). The City’s current zoning requirements use lot size area minimums and regulate residential density by site area and availability of utilities (such as sewer and water).



Table 10: Estimated Housing Units Required in Tenino by Type (2030-2045)

Units in Structure	2021		2030	2040	2045
Total Housing Units	772	%	1002	1082	1091
1-unit, detached	504	65.3%	654	707	712
1-unit, attached	5	0.6%	6	6	7
2 units	68	8.8%	88	95	96
3 or 4 units	11	1.4%	14	15	15
5 to 9 units	3	0.4%	4	4	4
10 to 19 units	108	14.0%	140	151	153
20 or more units	0	0.0%	0	0	0
Mobile home	70	9.1%	91	98	99
Boat, RV, van, etc.	3	0.4%	4	4	4

Source: 2021 American Community Survey 5-Year Estimates Table DP04

This analysis does not consider other potential changes in the housing stock, particularly loss of housing stock due to age or poor condition, which could increase the number of new units required. The City’s average permit intake for housing units has fluctuated greatly over the last decade due to fluctuating need for multi-family structures. Though in recent years (aside from 2020, due to the onset of the COVID-19 pandemic) the overall number of permits has increased, the city will still likely see fluctuation based on demand from the increased population.

Conclusion

While Tenino is projected to grow in population, the environmental constraints on the City make expansion of city limits and development of residential housing difficult. Review of the housing prices, values, and stock show that Tenino residents face a housing availability issue more than that of affordability. This is not to say that affordable housing is not necessary but rather Tenino residents statistically make less than regional comparisons when looking at Median Household Income. There is also limited or no availability of low-income, senior housing, or nursing homes located within the city.

Growth projections from Thurston County show that residential density will increase along Sussex Ave E, with hot spots along Morning Side Dr SE and along the north side of Old Hwy 99, west of Bucoda Hwy. Reevaluating current zoning designations and density allowances, especially in the areas referenced above would help to increase density and allow for development or redevelopment of parcels in these areas. Remodel and/or demolition of older structures or underutilized parcels will be important to review as development within the West Tenino area would be difficult due to the Mazama Pocket Gopher habitat. Density is projected to increase to the south where the City has seen some annexations and new subdivisions, this will likely continue.

Appendix B: Housing Framework Review

Housing Policy Review

Policy Evaluation Criteria

This evaluation takes into consideration the findings of the Housing Needs Assessment including anticipated growth, permit issuance trends, and identified gaps concerning the city's Comprehensive Plan policy implementation. The review considers the following evaluation criteria in terms of success in achieving housing unit needs as well as the achievement status of each goal and policy referenced:

Connection to the HNA or HAP Objectives		Achievement of Goals, Policies, and Actions	
C	Continuing need for the goal/policy to meet identified gaps in the HNA or HAP objectives	E	Early or not yet initiated
A	Amend to address HNA gaps	M	Moderate progress
N	Not directly related to housing needs or objectives	C	Completed

Table B1. Tenino Comprehensive Plan 2016-2036				
Goal, Policy, or Action Number	Adopted Housing Element Goals, Policies, and Actions	Status	Connection to the HNA or HAP	Achievement of Goals, Policies, and Actions
LAND USE				
Goal LU 1. Build excellent neighborhoods throughout Tenino (Great Neighborhoods)				
LU 1.1	Ensure that new residential and commercial developments include features such as trails, sidewalks, well-connected streets, and street trees.	New proposed subdivision applications require improvements such as trails, sidewalks, well-connected streets, and street trees. Developments for residential structures in single-family residential zones do not have required design standards.	N	M

Table B1. Tenino Comprehensive Plan 2016–2036

Goal, Policy, or Action Number	Adopted Housing Element Goals, Policies, and Actions	Status	Connection to the HNA or HAP	Achievement of Goals, Policies, and Actions
Evaluation: The City has maintained and updated their zoning code to ensure that single-family residences on existing lots are minimally impacted by development requirements.				
LU 1.2	Require new developments to submit plans for streets, landscaping, stormwater, and pedestrian enhancement.	Non-SFR developments are required to submit plans for improvements.	N	M
Evaluation: The City has ensured new developments assist in expanding infrastructure while minimizing impact to SFR developments.				
Goal LU 2. The addition of housing units within residential neighborhoods does not detract from the character of existing single-family development. (Great Neighborhoods)				
LU 2.1	Identify methods to respectfully include new housing units within existing single-family residential neighborhoods	Current zones limit development by dwelling unit type, decreasing variety of housing types and densities permitted.	A	E
Evaluation: Update the zoning code to allow more diverse housing types and densities.				
LU 2.2	Consider changes to the zoning code to allow housing types that are similar to existing precedents found within the community such as bungalow courts, cottage house, accessory dwelling units, and small multifamily structures	Most residential zones allow for accessory dwelling units, but not different dwelling types such as bungalow courts, cottage house, and small multi-family structures. The SFD zone allows for duplexes but not triplexes, quadplexes, or small apartment buildings. The MF zone allows for duplexes, and attached single family units including townhomes, condos, tri/quadplexes and apartments.	C	M
Evaluation: Update zoning code to permit housing diversity.				
Goal LU 3. New residential development contains a mix of housing types that are constructed at urban densities. (Great Neighborhoods)				
LU 3.0	New residential development contains a mix of housing types that are constructed at urban densities	<i>No policies listed</i> Types of housing is limited in all residential zones. Density overlay shows urban densities are aligned with Single Family and Single-Family Duplex zones.	C	E
Evaluation: Update zoning map to better align zones with urban density areas.				

Table B1. Tenino Comprehensive Plan 2016–2036

Goal, Policy, or Action Number	Adopted Housing Element Goals, Policies, and Actions	Status	Connection to the HNA or HAP	Achievement of Goals, Policies, and Actions
<p>Goal LU 4. The boundaries of the Tenino UGA are modified to account for the loss of dwelling units planned for in West Tenino due to the federal listing of the Mazama pocket gopher. (Great Neighborhoods)</p>				
LU 4.1	Work with Thurston Regional Planning Council and Thurston County to address proposed changes to the UGA.	The UGA boundary was reviewed in 2016 where potential changes to the UGA were reviewed.	C	E
<p>Evaluation: Update the city’s maps and regulations to change the UGA boundaries.</p>				
<p>Goal LU 9. New multifamily and attached housing units are constructed near downtown and add vitality to the historic district. (Vital Historic Business District and Nonresidential Development)</p>				
LU 9.1	Ensure that sufficient lands are zoned to accommodate additional housing units near the downtown, and the zoning code does not unnecessarily limit the development of the multifamily or attached housing types.	Current zoning shows multifamily zoning designated near commercial and historic downtown corridor. Multifamily zoning is limited past downtown area.	C	E
<p>Evaluation: Update zoning map to better align zones with urban density areas.</p>				
LU 9.2	Encourage landowners and developers to consider the construction of multifamily housing or options such as townhomes near downtown.	Multifamily zoning surrounds the current downtown and historic district.	C	M
<p>Evaluation: Continuous need for evaluating multifamily zone and regulations to encourage higher density infill development.</p>				
LU 9.3	Ensure that multifamily housing projects located in high-priority areas for pedestrian activity are sited such that the building is located near the street and the parking is situated behind the structure.	Pedestrian-Oriented Site Design is required under Table 108.30.140-1: Applicable Design Standards for Each Zone and Action, in C2, C3. MF and I zones for all new structures and major or minor remodels if expanding the footprint.	C	C
<p>Evaluation: No action necessary.</p>				
<p>Goal LU 10. West Tenino is developed in a manner consistent with the community’s vision for the area.</p>				

Table B1. Tenino Comprehensive Plan 2016–2036

Goal, Policy, or Action Number	Adopted Housing Element Goals, Policies, and Actions	Status	Connection to the HNA or HAP	Achievement of Goals, Policies, and Actions
LU 10.1	Ensure that any master plan for west Tenino adequately addresses utilities, transportation infrastructure, land use, and park and open space features.	Development of West Tenino is a challenge as the area is known for active Mazama Pocket Gopher habitation.	A	E
Evaluation: Re-assess development potential of West Tenino.				
LU 10.2	Review future master plan(s) in accordance with the intent of the future land use designation and the standards of the Tenino Municipal Code.	Development of West Tenino is a challenge as the area is known for active Mazama Pocket Gopher habitation.	A	E
Evaluation: Re-assess development potential of West Tenino.				
HOUSING ELEMENT				
Goal HS 1. Maximize opportunity to redevelop land in priority areas by investing in infrastructure and environmental remediation.				
HS 1.1	Ensure that an adequate supply of land is zoned for a variety of housing types and budgets by periodically inventorying existing conditions and reviewing and amending the Comprehensive Plan and zoning code.	Current zones limit development by dwelling unit type, decreasing variety of housing types and densities permitted.	C	E
Evaluation: Re-assess zoning and vision to ensure variety of housing types and budgets available				
HS 1.2	Encourage new larger residential developments to include a mix of housing types.	Current zones limit development by dwelling unit type, decreasing variety of housing types and densities permitted.	C	E
Evaluation: Assess current subdivision regulations to encourage mix of housing types.				
HS 1.3	Ensure that zoning requirements do not hinder new developments intended for elderly residents or individuals subject to the Fair Housing Act.	Current zoning requirements do not hinder new developments subject to the Fair Housing Act, however they do not actively encourage developments for elderly residents or individuals subject to the FHA in all zones.	C	M

Table B1. Tenino Comprehensive Plan 2016–2036

Goal, Policy, or Action Number	Adopted Housing Element Goals, Policies, and Actions	Status	Connection to the HNA or HAP	Achievement of Goals, Policies, and Actions
<p>Evaluation: Review residential use language in zoning regulations to encourage developments for elderly residents or individuals subject to the Fair Housing Act.</p>				
HS 1.4	Monitor state laws regarding housing and ensure these laws are addressed in local regulations.	Continuing need for monitoring of state laws and updating local regulations for compliance.	C	M
<p>Evaluation: The city has done well in periodically reviewing state regulations and remaining in compliance.</p>				
HS 1.5	Ensure that manufactured housing constructed on an individual lot continues to be regulated similar to a site-built home.	Manufactured housing is regulated the same as a site-built home on an individual lot.	C	C
<p>Evaluation: The city has met this goal as it does not regulate manufactured homes on individual lots differently than site-built homes on individual lots.</p>				
HS 1.6	Cooperate with public and private housing agencies to promote a fair and equitable distribution of housing for all income groups throughout the region.	Continuous effort to engage with local housing agencies.	C	M
<p>Evaluation: Continue encouraging and cooperating with local housing agencies.</p>				
<p>Goal HS 2. The structural and aesthetic integrity of the existing housing stock is preserved and enhanced</p>				
HS 2.1	Actively review building permits for home remodels and enforce life safety requirements of the City’s regulations throughout Yelm, its UGA, and adjacent areas of Thurston County.	The City regulates all building permit applications for parcels within City jurisdiction/boundaries.	C	M
<p>Evaluation: Continue reviewing building permits for home remodels and enforcing life safety requirements within City jurisdiction.</p>				
HS 2.2	Participate in federal, state, and regional rehabilitation programs and actively pursue Community Development Block Grant (CDBG) monies and other funding sources to rehabilitate the existing housing stock.	Continuous effort to participate and engage with rehabilitation programs. 2019 CDBG grant received by City for renovation of the Quarry House.	C	E

Table B1. Tenino Comprehensive Plan 2016–2036

Goal, Policy, or Action Number	Adopted Housing Element Goals, Policies, and Actions	Status	Connection to the HNA or HAP	Achievement of Goals, Policies, and Actions
Evaluation: Continue to review for CDBG grant application and project opportunities for rehabilitation of local structures.				
HS 2.3	Maintain information about and connections to housing agencies and services to assist property owners and renters in the rehabilitation of the existing housing stock.	Continuous need to ensure public knowledge/education of maintenance assistance programs.	C	E
Evaluation: N/A.				
Goal HS 3. Provide sufficient housing for low- and moderate-income households within each jurisdiction.				
HS 3.1	Promote adequate maintenance of the existing housing stock as a means of preserving more affordable housing options for individuals and families	Continuous need to ensure public knowledge/education of maintenance assistance programs. City established façade improvement grant in 2018.	C	E
Evaluation: Evaluate current public education efforts for maintenance assistance programs.				
HS 3.2	Promote innovative housing types that may reduce the cost of housing, such as smaller-scale multifamily homes, small-lot housing, and accessory dwelling units	Attached single-family units (see definition) are only permitted in Multifamily zoning districts, which makes up the smallest percentage of zoning in the City.	C	E
Evaluation: Re-assess zoning and vision to ensure variety of housing types and budgets available.				
HS 3.3	Encourage public, private, and nonprofit associations and joint public/private partnerships to build low- to moderate- income housing.	The city is open to associations and joint public-private partnerships to build low to moderate-income housing.	C	M
Evaluation: Continuous need for the City to support.				
HS 3.4	Evaluate local development standards and regulations for their effects on housing costs, and modify development regulations that unnecessarily add to the price of homes.	This effort is needed and can be conducted during periodic update to Comprehensive Plan.	C	E
Evaluation: Make sure periodic update to Comprehensive Plan includes regulatory analysis				

Table B1. Tenino Comprehensive Plan 2016–2036

Goal, Policy, or Action Number	Adopted Housing Element Goals, Policies, and Actions	Status	Connection to the HNA or HAP	Achievement of Goals, Policies, and Actions
HS 3.5	Facilitate home ownership by low and moderate-income families through federal, state and local programs.	The city operates a resource page for Affordable Housing options within the City of Tenino limits.	C	M
Evaluation: City should continue to facilitate home ownership for low- and moderate-income families.				
Goal HS 4. Indirect costs associated with living in Tenino are minimized				
HS 4.2	Find ways to reduce sewer rates whenever possible without jeopardizing the maintenance and operation of the wastewater treatment system	Continuous effort by City staff.	N	E
Evaluation: Continuing review of sewer rate reduction options.				
CAPITAL FACILITIES ELEMENT				
Goal CF 1. Expansion and location of public facilities are coordinated and timed to meet present and future demand.				
CF 1.2	Require new development to assume the costs of providing onsite public facilities and services such as road improvements, sidewalks, street lights, connection to water mains, and connection to sewer mains.	New multi-family developments and subdivisions within the City are required to make improvements to city services and roads, if necessary, when development occurs.	C	C
Evaluation: Continue to ensure development assumes costs where applicable to ensure public facilities and services are provided for.				
CF 1.3	Allow new development only when and where all public facilities are adequate and does not reduce the level of service elsewhere.	New development must either assume costs and/or develop where existing public facilities are located and ensure adequacy prior to development occurring.	C	M
Evaluation: Continue to ensure that development occurs when and where public facilities and level of service are adequate.				
CF 1.4	Guarantee new development within Tenino’s urban growth area builds water and other public facility systems to City standards to ensure efficient transition to City public facilities in the future.	Thurston County regulates the UGA and development within. City staff will need to work with Thurston County or create joint plan for regulating the UGA.	A	E

Table B1. Tenino Comprehensive Plan 2016–2036

Goal, Policy, or Action Number	Adopted Housing Element Goals, Policies, and Actions	Status	Connection to the HNA or HAP	Achievement of Goals, Policies, and Actions
Evaluation: Discuss working opportunities with Thurston County				
Goal CF 3. The Capital Facilities Plan is consistent with other chapters of the Comprehensive Plan and coordinates with other jurisdictions.				
CF 3.1	Update the Capital Improvement Program at least every six years.	City completed 2020 Capital Improvement Plan in 2019.	N	C
Evaluation: City has completed an update to the Capital Improvement Program at least every six years				
CF 3.2	Review the Capital Facilities Plan whenever changes are made to other chapters of the Comprehensive Plan to ensure that the entire plan remains internally consistent.	Comprehensive Plan update will start July 2023 and completed by June 2025.	N	M
Evaluation: Review the Capital Facilities/Improvement Plan with 2025 Comprehensive update.				
Goal CF 11. Tenino has sufficient water rights to accommodate the community’s projected population growth.				
CF 11.2	Require properties with water rights within the Unincorporated Urban Growth Area to transfer their water rights prior to annexation as a means of providing water for future development.	No language in TMC Chapter 104.30 – Annexations requiring water rights to be transferred.	N	E
Evaluation: City should consider changing language to reflect policy goal				
UTILITIES ELEMENT				
Goal UT 1. Tenino coordinates with utility providers to ensure that sufficient service is available for development.				
UT 1.2	Ensure that development regulations are consistent with and do not otherwise impair the fulfillment of public service obligations imposed upon utilities by State and Federal law.	The City regulates all ROW permit applications within City jurisdiction/boundaries.	N	C
Evaluation: Continue review of policies to ensure compliance				

Appendix C: Stakeholder Interviews Summary

Question 1: Who are you? How long have you worked/lived in the community? What does your organization do?

- ♦ **Beckie Stephens:** Realtor. Have lived in the area for 33 years and served on the Tenino Planning Commission for 5 years. Property owner in Tenino.
- ♦ **Aslan Meade:** Thurston County EDC Director of Strategic Alliances. Tenino resident for 5 years.
- ♦ **Brock Williams:** Resident of Tenino and principal of Parkside Elementary School.
- ♦ **Ron Stewart:** Director of Programs & Assets for Housing First. Homes First buys houses to rehab and get folks in there that have trouble affording houses. They are a nonprofit organization that are focused on getting lower income folks into homes. 50% AMI is typical but it's going to 30% AMI and really squeezing people's ability to pay rent. They are heavily regulated by the feds when it comes to applications/requirements to get into their system. Homes First has been around 32 years and has 46 properties and close to 90 units.
- ♦ **Jessie Simmons:** Director of Government Affairs with Master Builders.
- ♦ **Clint Endicott:** Clint is the superintendent of Tenino School District. Has been in the district for a couple years and is experienced with building houses, real estate market, and smaller development projects.
- ♦ **Tyler Whitworth:** Local business owner and Chamber President from 2013–2021.

Question 2: In terms of housing in town, what do you think is working? Please provide a brief description.

- ♦ **Beckie Stephens:** New construction is helping immensely. People remodeling unlivable/old houses and making them

viable via USDA home loans. Many of the old homes in Tenino won't finance via FAHA. Contractors can go in and get them into HUD standards and can be sold for more affordable because of HUD standards via \$0. Example: 3 bed, 1 bath, built in 1930s w/ fire damage in attic, foundation issues, wiring issues – couldn't sell it. However, turned around and did a 5% conventional. 20% down in sales right now from last year.

- ♦ **Aslan Meade:** People still seem to want single family. Folks seem to want to move to Tenino if they COULD find housing. Plan for expansion into West Tenino is very limited due to environmental regulations. Putting housing into the prairie is not really an option.
- ♦ **Brock Williams:** Sewer came online finally so this is helping the city grow. Infill is being developed, specifically 3 bed, 2 bath rentals. What he is hearing is that we need more smaller units for the elderly. The 65+ don't need a huge yard or lots of stuff. Rental inventory is increasing and doesn't seem to necessarily be an issue within Tenino. It seems like sidewalks are not necessarily being required uniformly. Walkability is connected to affordability and when it's hard to walk it's making the housing situation worse. Tenino COULD be a retirement area and sidewalks are a big part of that.
- ♦ **Ron Stewart:** There is NO affordable housing in the area. Housing First is trying to correct that with what they do. Nothing really seems to be working right now. Things like ADUs ARE helping though. Some of the apartments being constructed in downtown might help things.
- ♦ **Jessie Simmons:** Jessie thinks that increasing density in the central areas is a positive. Getting density in areas where services exist. Their goal is to create housing for every economic levels.
- ♦ **Clint Endicott:** Clint would not put affordability at the top of the list. Clint thinks that the City of Tenino

not interfering with the expansion of housing. Some new construction is underway which are positives. Thurston County is kind of on the opposing end of this. They are generally pro development.

- ♦ **Tyler Whitworth:** Diverse mix of homes in town. Starter homes, high end homes, and some apartment buildings. There seems to be a variety of options in town.

Question 3: What do you consider the top obstacles preventing affordable and attainable housing options in town?

- ♦ **Beckie Stephens:** Lack of land and too much water. Scatter creek is a big hurdle. The pocket gophers are preventing annexation. Water rights are also heavily restricting expansion and water rights of the Alpaca Farm are needed to expand outward. The sewer system is also substandard and doesn't really support expansion. Affordable housing is absolutely a top priority. Need more projects like the one in Lemieux – this one created really affordable housing.
- ♦ **Aslan Meade:** Land availability and cost of materials right now. The market in general is creating crazy costs right now.
- ♦ **Brock Williams:** Lack of supply affecting affordability. Constructing industry on the west side of town could be a solution for Tenino that would create living wage jobs.
- ♦ **Ron Stewart:** Not exactly sure where it is but it needs to be corrected. We need to build more affordable housing. Ron said everything has been going up in price. Prices for a roof he is doing has doubled in about 3 or 4 years.
- ♦ **Jessie Simmons:** Code compliance is one of the major obstacles. Conformance to IRC/IBC is constantly in flux at the Washington. No major obstacles locally that Jessie can think of. Constructing housing compliant to HB 1220 will be more difficult in smaller communities.
- ♦ **Clint Endicott:** It appears that there

are many single-family homes and not enough multifamily housing. Not enough diversity in housing. The size of Tenino is difficult because it's a smaller and building a giant apartment building may not be the best solution because residents desire the small-town atmosphere.

- ♦ **Tyler Whitworth:** Rental side, there's at least one person a day looking for a rental in the 1000-1800 range. There are two rentals in his neighborhood and the rentals fly off the market. For the average person, the down payment/interest rates are a huge hurdle to obtain a house. If you have equity/job you can do that but there's a lot of folks over there that can't afford.

Question 4: How would you describe current housing market needs in town? (Business needs, full time residents, seasonal staffing, etc.)

- ♦ **Beckie Stephens:** It's more balanced now because of the recent change in the market for sale. Still need more houses to sell. Not every buyer wants 2 bed/1 bath. Tenino WAS the affordable alternative with Bucoda being the bedroom community for Tenino.
- ♦ **Aslan Meade:** No employers have stated that they need housing necessarily.
- ♦ **Brock Williams:** Rentals have been a big issue. We need more apartments. Not assisted living facilities with all the medical needs, but something that is ADA compliant for elderly.
- ♦ **Ron Stewart:** We NEED affordable housing. We have a lot of homeless people and many of these homeless people (and families) need a home. Housing tracts with 400-500k homes are not affordable. Apartments being built downtown look like they may be a solution. Housing First has 50-100 people a month call looking for a home and are willing to take anything.
- ♦ **Jessie Simmons:** The major needs in town is multifamily needs like duplexes, small apartments.
- ♦ **Clint Endicott:** The current needs are consistent with other areas. Tenino

isn't necessarily unique with the trends of the region. There's a decent volume of available homes and affordability is increasing from what Clint's been seeing. One developer is building a mini single-family development to rent. There are 2 properties available in Tenino in the entire city.

- ♦ **Tyler Whitworth:** More inventory which are primarily for purchases.

Question 5: How would you describe the quality or the condition of the housing & neighborhoods in town?

- ♦ **Beckie Stephens:** Still in need of restoration and beautification. Planning Commission received beautification to help commercial but not for residential. Broken RVs, garbage, etc. is still laying around and making neighborhoods more desirable. Previous City Planner worked hard on promoting beautification measures by making improvements in the public right of way.
- ♦ **Aslan Meade:** There are some rough neighborhoods in town which are quite noticeable throughout town. The main core is the more desirable part of town. There are some underutilized properties here.
- ♦ **Brock Williams:** Aged. The housing near the high school is the older part of Tenino and were built from the 1890s through the 50s. East of Downtown was built 70s and 80s. The new development is occurring on the east end and the west end. Residents feel strongly about the historic character of Tenino but want to be careful with heavy regulations.
- ♦ **Ron Stewart:** In general, houses are in good shape in the area. They looked at one in Tenino close to the High School. Tenino seems like a nice little town and doesn't remember seeing anything that looked ragged or worn.
- ♦ **Jessie Simmons:** Tenino looks like it is in good condition and the residents seem to take pride in homeownership.
- ♦ **Clint Endicott:** Above average for like communities. Individual home

ownership pride is high and the city does a really good job making sure that nuisances.

- ♦ **Tyler Whitworth:** It has been excellent with a lot of new homes being built. Most folks in the City keep up with their houses in town and fix things up. The community seems to have a lot of pride with ownership. City seems to keep up with nuisances.

Question 6: What incentives can be offered to encourage property owners to make attainable (or affordable) housing units available for rent or purchase?

- ♦ **Beckie Stephens:** Tenino could waive water and sewer hook up fees for a while. Tacoma waived property taxes for a while. Would Thurston County be able to do something like this? If you want affordable housing in Tenino you need more transit. Without transit you have senior citizens how do they get around properly?
- ♦ **Aslan Meade:** Not sure.
- ♦ **Brock Williams:** Sewer rates are very high right now because of the relatively new sewer plant. \$150/month is an expensive monthly fee that generally must be passed on to the renters. It is generally cheaper to subdivide property. Siting apartments so that they are walkable is very important. The current apartments, especially the ones on the east side are not walkable. Siting them closer to the schools will help a lot with families with children get to and from school and using the playgrounds after hours.
- ♦ **Ron Stewart:** Trying to make it so tenants can actually afford units is what we need to focus on.
- ♦ **Jessie Simmons:** If there's incentive to give some breaks on permit fees, impact fees, reducing upfront costs in some way shape or form could be great. Maybe a break on providing affordable housing and increasing density allowances.
- ♦ **Clint Endicott:** Ensuring that

developments are compatible with surrounding areas. Not a huge fan of tax abatement programs. The City should focus on is continued improvement to wastewater/water and this is necessary to attracting developers. A roundabout at 99 and 507 would help the community quite a bit. Allowing increased density is important to attracting more investment in the community.

- ♦ **Tyler Whitworth:** His lot has 3 lots and has the ability to add an ADU on his property. If there was a program that promoted ADUs there would likely be more folks like him that explore that option. Perhaps something like promotion of ADUs would be helpful.

Question 7: Are there specific code updates that could support more housing development (i.e., lot size, setback requirements, protected views/height restrictions, etc.)?

- ♦ **Beckie Stephens:** Right now if you have 12,000 sf lot you can have two homes. This could be changed to allow more density pretty easily. The City of Olympia allows ADUs that can be rented out, why not in Tenino? There are plenty of lots that are big enough that could support ADUs. Sewer hookup reductions. There's only about 6 duplexes in town and 1 multiplex right now. We NEED more of these, they are highly desirable on the rental market. Condo's aren't really a valid option for Tenino. Fourplexes would be GREAT to see more of. Beckie owns a duplex and has never NOT had it rent out. Plenty of parking is in Tenino and parking requirements are too onerous. 8 spaces for a fourplex is too much and takes up too much space. If there's housing above commercial what's wrong with this?? Nonconforming code is too onerous too, if a commercial property changes to residential and then wants to go back again who cares?
- ♦ **Aslan Meade:** There's not many opportunities that he can think of.
- ♦ **Brock Williams:** Not necessarily.

Growth in Tenino should be well planned and well thought out in order to fit in. Urban growth shouldn't necessarily be popping up everywhere.

- ♦ **Ron Stewart:** No, not really. They focus on things like bus lines/transit routes. Housing First doesn't really deal with permitting and restrictions. They are constructing two ADUs on two properties to help provide more units. ADUs are very difficult in City of Olympia. City of Lacey is easiest to work with and Thurston County is difficult to deal with. The prime hurdle for Housing First is just getting the funding to buy a house.
- ♦ **Jessie Simmons:** Environmental regulations are important but in some cases they can be very burdensome. Thurston County processes that require inspections for environmental regulations can take a very long time to complete.
- ♦ **Clint Endicott:** City of Tenino requirements seem like they're in a pretty good spot. Have not heard anyone critique.
- ♦ **Tyler Whitworth:** Not that he's aware of. Tenino supports adding housing so it seems that folks can build housing fairly easy. The City seems pretty fair with sewer and fees are kind of normal rates. The mayor wants more diverse housing and options and he thinks the City is a good incubator that is willing to try a lot of things. The subsidized housing has a large waiting list so building something similar would fill up very quickly.



City of Tenino

Washington

Appendix B.2 TRPC Land Capacity Analysis

Page intentionally left blank



MEMBERS:

- City of Lacey
- City of Olympia
- City of Rainier
- City of Tenino
- City of Tumwater
- City of Yelm
- Confederated Tribes of the Chehalis Reservation
- Nisqually Indian Tribe
- Town of Bucoda
- Thurston County
- North Thurston Public Schools
- Olympia School District
- Tumwater School District
- Intercity Transit
- LOTT Clean Water Alliance
- Port of Olympia
- PUD No. 1 of Thurston County

ASSOCIATE MEMBERS:

- Lacey Fire District #3
- Puget Sound Regional Council
- The Evergreen State College
- Thurston Conservation District
- Thurston Economic Development Council
- Timberland Regional Library

MEMORANDUM

TO: Housing Allocation Project Partners

FROM: Michael Ambrogi, Senior Planner

DATE: June 25, 2024

SUBJECT: GMA Housing Need Allocations
Land Capacity Analysis

OVERVIEW

TRPC is working with Lacey, Olympia, Tenino, Tumwater, Yelm, and Thurston County to implement new requirements in the Growth Management Act (GMA) that ask jurisdictions to plan for housing affordable to all economic segments of the population in their periodic Comprehensive Plan updates. In Phase 1 of the project, the partners agreed on a housing need allocation that was provisionally accepted by TRPC on March 1, 2024. In Phase 2 of the project, the partners contracted with TRPC to complete the land capacity analysis required by HB 1220 to show there is sufficient capacity to accommodate the housing need allocated to each jurisdiction.

This memo documents the land capacity analysis. The analysis determined that there is insufficient capacity in some jurisdictions to accommodate the low- and moderate- income housing allocations. At the next partner meeting — scheduled for July 10, 2024 — the partners will review the findings of the land capacity analysis and discuss how to address the deficits.



Marc Daily
Executive Director

2411 Chandler Court SW
Olympia, WA 98502
360-956-7575
360-741-2545 Fax
www.trpc.org

MEMORANDUM

Page 2

June 25, 2024

BACKGROUND

HB 1220 amended the Growth Management Act, which now requires jurisdictions to “plan for and accommodate housing affordable to all economic segments of the population.” Specifically, jurisdictions must estimate the number of housing units needed for moderate, low, very low, and extremely low-income households; and emergency housing, emergency shelters, and permanent supportive housing.

In Phase 1 of this project, the project partners agreed on an allocation of the countywide housing need for each income to individual jurisdictions. This housing need allocation (Appendix I) was accepted by TRPC on March 1, 2024 as a provisional step for completing a land capacity analysis — Phase 2, the current phase of this project. The goal of the land capacity analysis is to determine whether there is sufficient land in each jurisdiction to accommodate the housing need allocated to each jurisdiction in each income category.

The Dept. of Commerce’s guidance for updating housing elements¹ outlines five steps for completing a land capacity analysis, which are described in this report:

1. Summarize Land Capacity by Zone
2. Categorize Zones by Allowed Housing Types and Density Category
3. Relate Zone Categories to Potential Income Levels and Housing Types
4. Summarize Capacity by Zone Category
5. Compare Allocated Housing Need to Capacity

Thurston County also requested that TRPC complete a housing need allocation and land capacity analysis consistent with the Sustainable Thurston land use alternative described in the 2021 Buildable Lands Report² as an alternative scenario to the allocations accepted by TRPC. The land use alternative increases the housing allocated to cities and unincorporated urban areas to reduce the amount of development in the rural areas to about five percent — consistent with the Sustainable Thurston vision for Thurston County³. This work — completed under a separate contract between TRPC and Thurston County — is also documented in this memo.

¹ Dept. of Commerce (2023) Guidance for Updating Your Housing Element
[\[https://deptofcommerce.app.box.com/s/1d9d517q509r389f0mjpowh8isjpirh\]](https://deptofcommerce.app.box.com/s/1d9d517q509r389f0mjpowh8isjpirh)

² TRPC (2021) Buildable Lands Report for Thurston County
[\[https://www.trpc.org/164/Buildable-Lands\]](https://www.trpc.org/164/Buildable-Lands)

³ TRPC (2013) Creating Places — Preserving Spaces: A Sustainable Development Plan for the Thurston Region
[\[https://www.trpc.org/260/Sustainable-Thurston-Plan\]](https://www.trpc.org/260/Sustainable-Thurston-Plan)

1. SUMMARIZE LAND CAPACITY BY ZONE

“Capacity” refers to the potential number of new dwelling units that could be built on a parcel based on zoning, development regulations, development trends, and market factors. Capacity includes greenfield development, infill development, and redevelopment. Under the ILA for Phase 2, the partners agreed to use the land capacity model developed for TRPC’s most recently adopted forecast and the 2021 Buildable Lands report. The documentation for that model — including the assumptions that went into it — can be found in TRPC’s forecast documentation⁴ and the Buildable Lands report.

The capacity estimates for each zone under the adopted forecast and the Sustainable Thurston land use alternative are shown in Appendix II.

Changes from Adopted Forecast

While TRPC used the same land capacity model to develop TRPC’s adopted forecast and the 2021 Buildable Lands Report, the capacity estimates differ from those published in 2021 Buildable Lands Report for the following reasons:

Extension of Planning Horizon to 2045. The planning horizon for the Buildable Lands Report was 2040 while the planning horizon for Comprehensive Plans is 2045. The capacity for housing need allocations includes additional capacity due to:

- Land expected to be redevelopable after 2040
- Accessory dwelling units and family member units expected to be built between 2040 and 2045
- Development of some master planned communities that occurs after 2040
- Difficult-to-sewer areas and areas without sewer expected to have sewer after 2040

Recent development. TRPC also adjusted the capacity to account for recent housing development. If a project was permitted that exceeded the capacity estimate in TRPC’s model, the capacity was revised to the permitted number of units.

TRPC did not revise capacity to account for changes in zoning or development regulations that have occurred since the last forecast was updated. Doing so would require substantial updates to the population and housing forecast adopted by TRPC in 2018 that serves as the foundation for the housing need allocations and was not included in the scope of the current ILA. However, Appendix II does include notes where jurisdiction staff felt the capacity may be higher or lower than estimated due to recent or potential changes.

⁴ TRPC (2019) Population and Employment Land Supply Assumptions for Thurston County
[\[https://www.trpc.org/236/Population-Employment-Forecasting\]](https://www.trpc.org/236/Population-Employment-Forecasting)

Capacity for Accessory Dwelling Units

TRPC’s method for projecting accessory dwelling units (ADUs) mirrors Commerce’s guidance. TRPC projects the number of ADUs likely to be built over the next 20 to 25 years based on past trends and recent changes to development regulations. The units are then allocated to “potential ADU lots.” The estimated number of ADUs for each jurisdiction is shown in Table 1.

Within urban areas of Thurston County (including cities, towns, and unincorporated urban areas), TRPC projects 565 ADUs across 11,886 potential ADU lots — a participation rate of about five percent. Potential lots have only one single-family unit and no additional dwellings and are located in areas platted prior to 1970 (referred to as “infill areas”). For the Sustainable Thurston land use alternative, the number of ADUs increases to 830 (a seven percent participation rate).

For the rural unincorporated county, TRPC projects 280 ADUs across 24,271 potential ADU lots — a participation rate of about one percent. Potential lots have one single-family unit and no additional dwellings. For the Sustainable Thurston land use alternative, the number of ADUs shrinks to 170 (a 0.7 percent participation rate).

Table 1: Estimates of Accessory Dwelling Units by Jurisdiction.

Jurisdiction		Accessory Dwellings		Potential ADU Lots
		Adopted Forecast	Sustainable Thurston	
Bucoda	City	9	14	195
Lacey	City	97	143	2,045
	UGA	43	63	906
Olympia	City	309	454	6,502
	UGA	1	1	16
Rainier	City	5	7	104
	UGA	0	0	0
Tenino	City	19	28	395
	UGA	0	0	0
Tumwater	City	73	107	1,536
	UGA	0	0	0
Yelm	City	9	13	185
	UGA	0	0	2
Grand Mound	UGA	0	0	0
Urban Total		565	830	11,886
Rural Total		280	170	24,271
Countywide		845	1,000	36,157

Capacity for Emergency Housing

Per Commerce’s guidance, jurisdictions do not need to do a land capacity analysis for emergency housing if:

- The jurisdiction has one or more zones that allow hotels, all of which allow for emergency housing by right. Alternatively, this condition may be met by demonstrating that emergency housing is allowed by right in a majority of zones within a one-mile proximity to transit.
- The jurisdiction has no regulations that limit the occupancy, spacing, or intensity of emergency housing.

The project partners confirmed at least one of these conditions applied to their jurisdictions, therefore TRPC did not complete a land capacity analysis for emergency housing.

2. CATEGORIZE ZONES BY ALLOWED HOUSING TYPES AND DENSITY CATEGORY

Step 2 of Commerce’s guidance recommends that jurisdictions assign a density category to each zone based on the density and types of housing allowed. The partners agreed to use the example categories in Commerce’s guidance shown in Table 2. In May 2024, TRPC met with jurisdiction staff to review the housing types allowed in each zone and assign a density category; this information is shown in Appendix II.

Table 2: Categories for Classifying Zones by Housing Types Allowed

Zone Category	Typical housing types allowed
Low Density	Detached single-family homes
Moderate Density	Townhomes, duplex, triplex, quadplex
Low-rise Multifamily	Walk-up apartments (up to 3 floors)
Mid-rise Multifamily	Apartments in buildings with ~4-8 floors (~40-85 feet in height)
High-rise/Tower	Apartments in buildings with ~9 or more floors (>85 feet in height) and requiring steel frame construction

Note: Adapted from Commerce’s guidance. Manufactured homes are not listed as a housing type because by law they should be allowed in all zones. High-Rise/Tower zones are likely to be relevant only in major metropolitan cities. Condominiums are omitted since they are a type of ownership, not housing.

3. RELATE ZONE CATEGORIES TO POTENTIAL INCOME LEVELS AND HOUSING TYPES

For the land capacity analysis, housing types must be tied to an affordability level. Commerce’s guidance provides examples of this relationship for moderate- and high-cost communities in Washington State which may be used in the land capacity analysis if a more detailed market analysis is not available. The project partners agreed to use the relationship for moderate-cost communities (Table 3) for this analysis.

MEMORANDUM

Page 6

June 25, 2024

Note that the assigned affordability levels are intended to indicate the potential for that zone to accommodate housing affordable to different income levels, not a guarantee that any housing in those zones actually will be affordable at specific household income levels.

Table 3: Relationship of Zone Categories to Housing Income Levels Served in Moderate-Cost Communities

Zone category	Lowest potential income level served		Assumed affordability level for capacity analysis
	Market Rate	With subsidies and/or incentives	
Low Density	Higher income (>120% AMI)	Not typically feasible at scale	Higher income (>120% AMI)
Moderate Density	Moderate income (>80-120% AMI)	Not typically feasible at scale	Moderate income (>80-120% AMI)
Low-rise Multifamily	Low income (>50-80% AMI)	Extremely low and Very low income (0- 50% AMI)	Low income and PSH (0-80% AMI)
Mid-rise Multifamily	Low income (>50-80% AMI)	Extremely low and Very low income (0- 50% AMI)	Low income and PSH (0-80% AMI)
ADUs (all zones)	Low income (>50-80% AMI)	N/A	Group with Low-rise and/or Mid-rise Multifamily

Note: Adapted from Commerce’s guidance

4. SUMMARIZE CAPACITY BY ZONE CATEGORY

In Step 4, the total capacity in each zone category is summarized. This provides the total capacity that could accommodate housing in each income level. These totals are shown in Table 4, and Appendix III (“Total Capacity” columns).

5. COMPARE ALLOCATED HOUSING NEED TO CAPACITY

The final step is to compare the allocated housing need for each jurisdiction to the capacity for new housing. The difference between the allocated housing need and capacity is shown in Appendix III (“Surplus or Deficit” columns). A positive number (surplus) indicates that there is sufficient capacity to accommodate the allocated housing need for a given income level while a negative number (deficit) indicates that there is insufficient capacity.

All jurisdictions had a deficit in at least one income level (Table 5). Deficits were most likely in the rural unincorporated County, UGAs, or other areas with less capacity for multifamily housing. If a deficit is found, the jurisdictions may either revise the housing need allocations and request that TRPC accept them or identify policies to increase capacity. The ILA includes budget to revise the housing need allocations if needed. HB 1220 does not require jurisdictions to plan for and accommodate housing affordable to high-income households (120% AMI or above) although data for this income level are included.

MEMORANDUM

Page 7

June 25, 2024

Deficits were identified in both the adopted forecast and in the Sustainable Thurston land use alternative, however the Sustainable Thurston housing need allocations significantly reduced the deficit for housing affordable to low-income households for the rural unincorporated County while generally increasing deficits for the urban areas.

NEXT STEPS

The next meeting for the project partners is scheduled for July 10, 2024. At that meeting the partners will review this memo and discuss how to address the deficits found in the land capacity analysis. Questions to be discussed at the next meeting include:

- Are there any questions or concerns about the land capacity analysis (the methodology or findings)?
- How do the partners wish to resolve the deficits? Options could include:
 - Revising the housing need allocations. The ILA includes scope and budget for this.
 - Jurisdictions can revise zoning or development regulations to increase capacity.
- How should deficits in the UGAs be resolved?
- Do the partners prefer the Sustainable Thurston land use alternative allocations?

MEMORANDUM

Page 8

June 25, 2024

Table 4: Capacity by Zone Category

Jurisdiction		Adopted Forecast				Sustainable Thurston			
		Mid-rise Multifamily	Low-rise Multifamily	Moderate Density	Low Density	Mid-rise Multifamily	Low-rise Multifamily	Moderate Density	Low Density
		0-80% AMI; PSH		80-120% AMI	> 120% AMI	0-80% AMI; PSH		80-120% AMI	> 120% AMI
Bucoda	City	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Lacey	City	3,988	1,482	1,916	38	5,476	1,572	2,260	38
	UGA	1,096	906	8,818	11	1,321	906	9,454	11
	Total	5,085	2,387	10,735	50	6,796	2,478	11,715	50
Olympia	City	7,352	2,599	4,943	929	13,101	2,659	6,013	959
	UGA	0	868	1,614	326	0	868	1,899	326
	Total	7,352	3,468	6,557	1,255	13,101	3,528	7,912	1,285
Rainier	City	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	UGA	0	0	0	108	0	0	0	108
	Total	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tenino	City	0	39	376	184	0	57	376	184
	UGA	0	0	0	27	0	0	0	27
	Total	0	39	376	211	0	57	376	211
Tumwater	City	3,195	1,343	4,842	465	3,697	1,343	5,656	477
	UGA	0	615	440	1,976	0	615	583	2,264
	Total	3,195	1,958	5,283	2,441	3,697	1,958	6,239	2,742
Yelm	City	655	3,776	3,834	0	830	3,776	3,834	0
	UGA	0	0	0	745	0	0	0	745
	Total	655	3,776	3,834	745	830	3,776	3,834	745
Grand Mound	UGA	0	0	406	0	0	406	0	
Unincorporated	Rural	0	0	0	17,748	0	0	0	17,748
	Combined UGAs	1,096	2,390	11,278	3,193	1,321	2,390	12,342	3,482
	Total	1,096	2,390	11,278	20,942	1,321	2,390	12,342	21,230

Note: Bucoda and Rainier did not participate in the ILA so data are not available.

MEMORANDUM

Page 9

June 25, 2024

Table 5: Capacity Surplus or Deficit by Jurisdiction and Affordability Range

Jurisdiction		Surplus or Deficit					
		Adopted Forecast			Sustainable Thurston		
		0-80% AMI	80-120% AMI	>120% AMI	0-80% AMI	80-120% AMI	>120% AMI
Bucoda	City	N/A	N/A	N/A	N/A	N/A	N/A
	City	3,121	1,450	-2,203	4,178	1,759	-2,322
Lacey	UGA	-3,151	8,068	-3,012	-3,466	8,745	-2,847
	Total	-31	9,518	-5,215	712	10,505	-5,169
	City	4,391	2,883	-3,786	8,349	2,948	-4,105
Olympia	UGA	119	1,374	-335	99	1,591	-329
	Total	4,510	4,257	-4,121	8,448	4,539	-4,434
	City	N/A	N/A	N/A	N/A	N/A	N/A
Rainier	UGA	-8	-6	98	-12	-7	97
	Total	N/A	N/A	N/A	N/A	N/A	N/A
	City	-37	159	-23	-9	117	-4
Tenino	UGA	-3	-3	24	-3	-3	24
	Total	-41	157	0	-12	114	20
	City	1,313	3,806	-1,877	1,345	4,356	-1,813
Tumwater	UGA	-807	51	1,272	-1,037	85	1,583
	Total	506	3,857	-605	308	4,441	-230
	City	-1,484	4,519	-2,266	-1,555	4,452	-2,074
Yelm	UGA	-52	-34	687	-77	-41	669
	Total	-1,536	4,486	-1,579	-1,632	4,411	-1,405
Grand Mound	UGA	-204	350	-50	-208	341	-41
	Rural	-5,037	-2,214	17,748	-955	-631	17,748
Unincorporated	Combined UGAs	-4,106	9,800	-1,316	-4,704	10,711	-844
	Total	-9,143	7,586	16,432	-5,659	10,081	16,905

Note: Red indicates a deficit, or insufficient capacity to accommodate the housing in an income category that needs to be addressed. Bucoda and Rainier did not participate in the ILA so data are not available.

MEMORANDUM

Page 10

June 25, 2024

APPENDIX I: HOUSING NEED ALLOCATIONS

2020-2045 Housing Need Allocations

Provisionally accepted by TRPC on March 1, 2024

	Total Housing Units	Income Level (Percent of Area Median Income)							Seasonal/Migrant	Emergency Housing Beds
		0-30%		30-50%	50-80%	80-100%	100-120%	120%+		
		PSH	Non-PSH							
Bucoda	134	7	13	0	5	39	24	47	0	2
Lacey	5,154	335	849	1,053	210	0	466	2,241	0	89
Olympia	12,644	818	2,011	2,777	264	973	1,087	4,714	0	218
Rainier	571	41	100	0	79	22	107	222	0	10
Tenino	519	32	62	0	0	115	102	208	0	9
Tumwater	6,676	513	1,211	1,033	541	400	636	2,342	0	115
Yelm	7,504	549	1,341	1,196	1,062	274	817	2,266	0	129
Unincorporated	21,155	1,300	3,171	2,373	6,109	2,550	1,142	4,510	0	364
... Lacey UGA*	8,970	650	1,599	1,552	1,395	0	750	3,024	0	154
... Olympia UGA*	1,651	128	226	397	0	103	136	661	0	28
... Rainier UGA*	23	2	4	0	2	0	5	10	0	0
... Tenino UGA*	9	1	2	1	1	1	1	3	0	0
... Tumwater UGA*	2,516	181	439	364	439	190	199	704	0	43
... Yelm UGA*	144	8	19	25	0	0	34	58	0	2
... Grand Mound UGA*	310	21	52	34	97	40	16	50	0	5
... Rural	7,531	311	832	0	4,174	2,214	0	0	0	130
Thurston County	54,356	3,594	8,758	8,431	8,270	4,373	4,381	16,549	0	936

Note: Numbers may not add to totals due to rounding. *HB 1220 does not require jurisdictions to allocate the unincorporated housing need to urban and rural areas, however the jurisdictions requested this information to inform future planning. Thurston County — in consultation with the cities — has discretion over how the housing need is allocated between urban and rural unincorporated areas as long as the total housing units align with column 1.

MEMORANDUM

Page 11

June 25, 2024

2020-2045 Alternate Housing Need Allocation
Sustainable Thurston Land Use Alternative

	Total Housing Units	Income Level (Percent of Area Median Income)							Seasonal/Migrant	Emergency Housing Beds
		0-30%		30-50%	50-80%	80-100%	100-120%	120%+		
		PSH	Non-PSH							
Bucoda	147	7	13	0	9	56	21	42	0	3
Lacey	5,874	394	1,000	1,115	503	0	501	2,361	0	101
Olympia	15,994	1,019	2,520	2,938	1,388	1,856	1,209	5,064	0	275
Rainier	586	40	99	0	111	34	97	204	0	10
Tenino	541	32	62	0	0	168	91	189	0	9
Tumwater	7,392	541	1,290	1,023	947	679	622	2,290	0	127
Yelm	7,630	532	1,308	1,088	1,470	417	742	2,074	0	131
Unincorporated	16,191	1,030	2,466	2,266	3,842	1,164	1,098	4,325	0	279
... Lacey UGA	9,324	655	1,620	1,462	2,019	0	709	2,858	0	161
... Olympia UGA	1,733	136	245	390	0	172	136	655	0	30
... Rainier UGA	29	2	5	0	5	1	5	11	0	1
... Tenino UGA	9	1	1	1	1	2	1	3	0	0
... Tumwater UGA	2,831	186	456	353	658	305	192	681	0	49
... Yelm UGA	194	13	30	34	0	0	41	76	0	3
... Grand Mound UGA	315	18	45	27	117	53	13	41	0	5
... Rural	1,755	19	63	0	1,043	631	0	0	0	30
Thurston County	54,356	3,594	8,758	8,431	8,270	4,373	4,381	16,549	0	936

Note: Numbers may not add to totals due to rounding.

MEMORANDUM

Page 12

June 25, 2024

APPENDIX II: ESTIMATED CAPACITY AND DENSITY CATEGORY BY ZONE

Notes: P: housing type is permitted; C: housing type is conditionally allowed. Information is included to support the density category assigned to each zone. Consult jurisdiction code for specifics on which housing types are allowed. The city of Rainier and town of Bucoda are not included in the interlocal agreement so are omitted from the TRPC analysis. Per Dept. of Commerce guidance, manufactured homes are omitted since they should be permitted in all zones.

Zone		Capacity		Density Category	Select Housing Types					Project Partner Staff Notes
		Adopted Forecast	Sustainable Thurston		Single-Family	Townhome	2 to 4-Plex	Apartment	ADU	
Bucoda										
All Zones	City	—	—	N/A						Not included in analysis
Lacey										
AG	UGA	11	11	Low Density	P				P	
AQUATC	City	0	0	Nonresidential						
AQUATC	UGA	0	0	Nonresidential						
C	City	0	0	Nonresidential						
CBD 4	City	44	88	Mid-rise Multifamily	P	P	P	P	P	
CBD 5	City	110	163	Mid-rise Multifamily		P		P		
CBD 6	City	55	109	Mid-rise Multifamily				P		
CBD 6	UGA	0	0	Mid-rise Multifamily				P		
CBD 7	City	12	12	Mid-rise Multifamily				P		
CCD	City	144	235	Low-rise Multifamily		P		P		
CO	City	227	227	Mid-rise Multifamily		P		P		
GC	City	0	0	Nonresidential						
HD	City	1,598	1,598	Mid-rise Multifamily		P	P	P	P	
HD	UGA	386	386	Mid-rise Multifamily		P	P	P	P	
HPBD-BC	City	68	68	Mid-rise Multifamily		P		P		May accommodate more capacity

MEMORANDUM

Page 13

June 25, 2024

Zone		Capacity		Density Category	Select Housing Types					Project Partner Staff Notes
		Adopted Forecast	Sustainable Thurston		Single-Family	Townhome	2 to 4-Plex	Apartment	ADU	
HPBD-C	City	17	17	Mid-rise Multifamily		P		P		May accommodate more capacity
LD	City	1,666	2,010	Moderate Density	P	P	P		P	
LD	UGA	4,933	5,569	Moderate Density	P	P	P		P	
LHN	City	31	31	Low Density	P				P	
LI	City	0	0	Nonresidential						
LI	UGA	0	0	Nonresidential						
LI-C	City	0	1	Nonresidential						
MD	City	1,338	1,338	Low-rise Multifamily	P	P	P	P	P	
MD	UGA	906	906	Low-rise Multifamily	P	P	P	P	P	
ME	UGA	0	0	Nonresidential						
MGSA	UGA	3,166	3,166	Moderate Density	P	P			P	
MHDC	City	525	582	Mid-rise Multifamily		P		P		
MHDC	UGA	710	935	Mid-rise Multifamily		P		P		
MMDC	City	73	73	Moderate Density	P	P	P	P	P	
MMDC	UGA	172	172	Moderate Density	P	P	P	P	P	
NATURL	City	1	1	Low Density	P				P	
NC	City	0	14	Nonresidential				P		
NC	UGA	0	32	Nonresidential				P		
OS-I	City	1	1	Nonresidential						
OS-I	UGA	0	0	Nonresidential						
OSI-P	City	0	1	Nonresidential						
OSI-P	UGA	0	0	Nonresidential						

MEMORANDUM

Page 14

June 25, 2024

Zone		Capacity		Density Category	Select Housing Types					Project Partner Staff Notes
		Adopted Forecast	Sustainable Thurston		Single-Family	Townhome	2 to 4-Plex	Apartment	ADU	
OSI-S	City	0	0	Nonresidential						
OSI-S	UGA	0	0	Nonresidential						
SHORES	City	3	3	Low Density	P	P	P		P	
SMU	City	0	0	Nonresidential						
URBCON	City	3	3	Low Density	P				P	
V(U)C	City	178	178	Moderate Density	P	P	P	P	P	
V(U)C	UGA	547	547	Moderate Density	P	P	P	P	P	
WD	City	1,332	2,611	Mid-rise Multifamily		P		P		
Olympia										
AS	City	0	0	Nonresidential						
CAP	City	0	10	Nonresidential						
COSC	UGA	31	31	Low-rise Multifamily	P	P	P	P	P	
CSH	City	0	0	Nonresidential	P	P	P	P	P	
DB	City	1,442	1,772	Mid-rise Multifamily	P	P	P	P	P	
GC	City	168	169	Low-rise Multifamily	P	P	P	P	P	
HDC-1	City	3	25	Moderate Density	P	P	P	P	P	
HDC-2	City	4	33	Moderate Density	P	P	P	P	P	
HDC-3	City	37	102	Moderate Density	P	P		P	P	
HDC-4	City	3,019	8,251	Mid-rise Multifamily	P	P	P	P	P	
I	City	0	0	Nonresidential						
LI-C	City	0	0	Nonresidential						

MEMORANDUM

Page 15

June 25, 2024

Zone		Capacity		Density Category	Select Housing Types					Project Partner Staff Notes
		Adopted Forecast	Sustainable Thurston		Single-Family	Townhome	2 to 4-Plex	Apartment	ADU	
LI-C	UGA	0	0	Nonresidential						
MHP	City	0	0	Moderate Density	P	P	P		P	
MR-10-18	City	117	117	Low-rise Multifamily	P	P	P	P	P	
MR-7-13	UGA	0	0	Moderate Density	P	P	P	P	P	
MS	City	217	217	Mid-rise Multifamily	P	P	P	P	P	
NR	City	2	21	Moderate Density	P	P	P	P	P	
NR	UGA	10	30	Moderate Density	P	P	P	P	P	
NV	City	410	410	Low-rise Multifamily	P	P	P	P	P	
PO/RM	City	688	745	Low-rise Multifamily	P	P	P	P	P	
PUD	City	83	83	Mid-rise Multifamily	C	C	C	C	C	
R-1/5	City	4	4	Low Density	P	P	P		P	
R-1/5	UGA	39	39	Low Density	P	P	P		P	
R-4	City	16	16	Low Density	P	P	P		P	
R-4	UGA	154	154	Low Density	P	P			P	
R-4-8	City	3,758	4,551	Moderate Density	P	P	P		P	
R-4-8	UGA	1,553	1,815	Moderate Density	P	P			P	
R-4CB	City	445	475	Low Density	P		P		P	
R-6-12	City	1,141	1,281	Moderate Density	P	P	P		P	
R-6-12	UGA	51	55	Moderate Density	P	P	P		P	
RLI	City	464	464	Low Density	P	P	P	P	P	
RLI	UGA	133	133	Low Density	P	P	P	P	P	
RM-18	City	945	947	Low-rise Multifamily	P	P	P	P	P	

MEMORANDUM

Page 16

June 25, 2024

Zone		Capacity		Density Category	Select Housing Types					Project Partner Staff Notes
		Adopted Forecast	Sustainable Thurston		Single-Family	Townhome	2 to 4-Plex	Apartment	ADU	
RM-18	UGA	837	837	Low-rise Multifamily	P	P	P	P	P	
RM-24	City	999	999	Mid-rise Multifamily	P	P	P	P	P	
RM-H	City	0	0	Mid-rise Multifamily	P	P	P	P	P	
RMU	City	23	23	Mid-rise Multifamily	P	P	P	P	P	
UR	City	187	187	Mid-rise Multifamily	P	P	P	P	P	
UV	City	271	271	Low-rise Multifamily	P	P	P	P	P	
UW	City	778	965	Mid-rise Multifamily				P		
UWH	City	604	604	Mid-rise Multifamily		P		P		
Rainier										
All Zones	City	—	—	N/A						Not included in analysis
NC	UGA	0	0	Low Density						
RRR1/5	UGA	108	108	Low Density	P	P			P	
Tenino										
C-1	City	2	6	Low-rise Multifamily		C		C		
C-2	City	2	5	Low-rise Multifamily		C		C		
C-3	City	26	39	Low-rise Multifamily	C	C		C		
I	City	0	0	Nonresidential						
MF	City	8	8	Low-rise Multifamily	P	P	P	P	C	
P/SP	City	0	0	Nonresidential						
PO	City	1	1	Moderate Density	P				C	May accommodate additional capacity

MEMORANDUM

Page 17

June 25, 2024

Zone		Capacity		Density Category	Select Housing Types					Project Partner Staff Notes
		Adopted Forecast	Sustainable Thurston		Single-Family	Townhome	2 to 4-Plex	Apartment	ADU	
RRR1/5	UGA	27	27	Low Density	P	P			P	
SF	City	346	346	Moderate Density	P				C	
SF-D	City	28	28	Moderate Density	P		P		C	
SF-ES	City	69	69	Low Density	P				C	
WT	City	115	115	Low Density	P				C	May accommodate less capacity
Tumwater										
ARI	City	0	0	Nonresidential						
BD	City	666	678	Mid-rise Multifamily	P	P	P	P	P	May accommodate less capacity
CBC	City	742	1,189	Mid-rise Multifamily				P		May accommodate less capacity due to lot sizes.
CS	City	0	0	Nonresidential						
GB	City	0	0	Nonresidential	P					
GB	UGA	0	0	Nonresidential	P					
GC	City	1,344	1,353	Mid-rise Multifamily				P		
GC	UGA	0	0	Mid-rise Multifamily				P		
HC	City	0	0	Mid-rise Multifamily				P		
HI	City	0	0	Nonresidential						
HI	UGA	0	0	Nonresidential						
LI	City	0	0	Nonresidential						
LI	UGA	-1	-1	Nonresidential						Permitted demolition
MFH	City	404	404	Mid-rise Multifamily		P	P	P	P	Capacity may be less due to HCP mitigation
MFM	City	975	975	Low-rise Multifamily		P	P	P	P	Capacity may be less due to HCP mitigation

MEMORANDUM

Page 18

June 25, 2024

Zone		Capacity		Density Category	Select Housing Types					Project Partner Staff Notes
		Adopted Forecast	Sustainable Thurston		Single-Family	Townhome	2 to 4-Plex	Apartment	ADU	
MFM	UGA	615	615	Low-rise Multifamily	P	P	P	P	P	
MHP	City	46	46	Moderate Density	P					May accommodate less capacity. Density is closer to SFL or SFM but affordability more in line with "Moderate Density"
MU	City	368	368	Low-rise Multifamily		P	P	P	P	Capacity may be less due to HCP mitigation
MU	UGA	1	1	Low-rise Multifamily		P	P	P	P	
NC	City	0	12	Low Density		P	P	P		May accommodate less capacity
NC	UGA	0	4	Low Density						
OS	City	3	3	Nonresidential	P					
OS	UGA	0	0	Nonresidential	P					
R/SR	City	465	465	Low Density	P		P		P	
R/SR	UGA	53	53	Low Density	P				P	
SFL	City	2,807	3,054	Moderate Density	P		P		P	Capacity may be less due to HCP mitigation. Sustainable Thurston capacity may be lower
SFL	UGA	1,923	2,207	Low Density	P				P	Sustainable Thurston capacity may be lower
SFM	City	1,989	2,556	Moderate Density	P	P	P		P	Capacity may be less due to HCP mitigation
SFM	UGA	440	583	Moderate Density	P	P	P		P	
TC-C	City	0	0	Nonresidential						
TC-MU	City	7	40	Mid-rise Multifamily				P		
TC-PO	City	0	0	Nonresidential						
TC-R	City	33	33	Mid-rise Multifamily				P		

MEMORANDUM

Page 19

June 25, 2024

Zone		Capacity		Density Category	Select Housing Types					Project Partner Staff Notes
		Adopted Forecast	Sustainable Thurston		Single-Family	Townhome	2 to 4-Plex	Apartment	ADU	
Yelm										
AC	UGA	2	2	Low Density			P			
C-1	City	91	190	Mid-rise Multifamily				C	P	May accommodate more capacity
C-2	City	58	93	Mid-rise Multifamily				C	P	May accommodate more capacity
C-3	City	15	15	Mid-rise Multifamily				C	P	May accommodate less capacity
CBD	City	99	108	Mid-rise Multifamily	P		C		P	
I	City	0	0	Nonresidential					P	
LI	UGA	0	0	Nonresidential						
MPC	City	3,776	3,776	Low-rise Multifamily	*	*	*	*	*	Multiple housing types/densities likely in planned community. Capacity split into two density categories for LCA.
		2,000	2,000	Moderate Density	*	*	*	*	*	
OS/ID	City	0	0	Nonresidential						
R-16	City	390	423	Mid-rise Multifamily	P	P	P	P	P	May accommodate less capacity
R-4	City	928	928	Moderate Density	P	P	P	P	P	
R-6	City	906	906	Moderate Density	P	P	P	P	P	
RR1/5	UGA	743	743	Low Density	P	P			P	
Grand Mound										
AC	UGA	120	120	Moderate Density	P	P	P	P	P	Includes 2023 rezones
LI	UGA	0	0	Nonresidential						
PID	UGA	0	0	Nonresidential						
R3-6/1	UGA	239	239	Moderate Density	P	P	P	P	P	
R4-16/1	UGA	47	47	Moderate Density	P	P	P	P	P	

MEMORANDUM

Page 20

June 25, 2024

Zone	Capacity		Density Category	Select Housing Types					Project Partner Staff Notes	
	Adopted Forecast	Sustainable Thurston		Single-Family	Townhome	2 to 4-Plex	Apartment	ADU		
County										
HC		0	0	Nonresidential						
LTA		359	359	Low Density	P				P	
LTF		1	1	Nonresidential	P					
MEI		0	0	Nonresidential						
MGSA		724	724	Low Density	P				P	
MR		0	0	Nonresidential						
NA		0	0	Nonresidential						
NC		0	0	Nonresidential						
PP		0	0	Nonresidential						
R 1/10		210	210	Low Density	P				P	
R 1/20		374	374	Low Density	P				P	
RCC		1	1	Nonresidential						
RL1/1		837	837	Low Density	P	P			P	
RL1/2		347	347	Low Density	P	P			P	
RL2/1		588	588	Low Density	P	P			P	
RR1/5		257	257	Low Density	P	P			P	
RRI		0	0	Nonresidential						
RRR1/5		13,819	13,819	Low Density	P	P			P	Does not include three rezone requests submitted in 2024
UR 1/5		235	235	Low Density	P				P	

MEMORANDUM

Page 21

June 25, 2024

APPENDIX III: HOUSING NEED COMPARED TO CAPACITY

Lacey

Baseline Forecast

Income Level	Zone Categories Serving These Needs	Housing Need			Aggregate Housing Need			Total Capacity			Surplus or Deficit		
		City	UGA	Total	City	UGA	Total	City	UGA	Total	City	UGA	Total
0-30% PSH	Low-rise Multifamily Mid-rise Multifamily ADUs	335	650	985	2,446	5,196	7,643	5,567	2,045	7,612	3,121	-3,151	-31
0-30% Other		849	1,599	2,447									
30-50%		1,053	1,552	2,605									
50-80%		210	1,395	1,606									
80-100%	Moderate Density	0	0	0	466	750	1,217	1,916	8,818	10,735	1,450	8,068	9,518
100-120%		466	750	1,217									
>120%	Low Density	2,241	3,024	5,265	2,241	3,024	5,265	38	11	50	-2,203	-3,012	-5,215
Total	—	5,154	8,970	14,124	5,154	8,970	14,124	7,522	10,874	18,397	2,368	1,904	4,273

Sustainable Thurston

Income Level	Zone Categories Serving These Needs	Housing Need			Aggregate Housing Need			Total Capacity			Surplus or Deficit		
		City	UGA	Total	City	UGA	Total	City	UGA	Total	City	UGA	Total
0-30% PSH	Low-rise Multifamily Mid-rise Multifamily ADUs	394	655	1,049	3,013	5,756	8,769	7,191	2,290	9,481	4,178	-3,466	712
0-30% Other		1,000	1,620	2,621									
30-50%		1,115	1,462	2,577									
50-80%		503	2,019	2,522									
80-100%	Moderate Density	0	0	0	501	709	1,210	2,260	9,454	11,715	1,759	8,745	10,505
100-120%		501	709	1,210									
>120%	Low Density	2,361	2,858	5,219	2,361	2,858	5,219	38	11	50	-2,322	-2,847	-5,169
Total	—	5,874	9,324	15,198	5,874	9,324	15,198	9,490	11,756	21,245	3,615	2,432	6,047

MEMORANDUM

Page 22

June 25, 2024

Olympia

Baseline Forecast

Income Level	Zone Categories Serving These Needs	Housing Need			Aggregate Housing Need			Total Capacity			Surplus or Deficit		
		City	UGA	Total	City	UGA	Total	City	UGA	Total	City	UGA	Total
0-30% PSH	Low-rise Multifamily Mid-rise Multifamily ADUs	818	128	945	3,013	5,756	8,769	10,261	869	11,130	4,391	119	4,510
0-30% Other		2,011	226	2,236									
30-50%		2,777	397	3,174									
50-80%		264	0	264									
80-100%	Moderate Density	973	103	1,076	501	709	1,210	4,943	1,614	6,557	2,883	1,374	4,257
100-120%		1,087	136	1,223									
>120%	Low Density	4,714	661	5,375	2,361	2,858	5,219	929	326	1,255	-3,786	-335	-4,121
Total	—	12,644	1,651	14,295	5,874	9,324	15,198	16,133	2,808	18,941	3,489	1,158	4,647

Sustainable Thurston

Income Level	Zone Categories Serving These Needs	Housing Need			Aggregate Housing Need			Total Capacity			Surplus or Deficit		
		City	UGA	Total	City	UGA	Total	City	UGA	Total	City	UGA	Total
0-30% PSH	Low-rise Multifamily Mid-rise Multifamily ADUs	1,019	136	1,155	7,865	771	8,635	16,214	870	17,084	8,349	99	8,448
0-30% Other		2,520	245	2,765									
30-50%		2,938	390	3,328									
50-80%		1,388	0	1,388									
80-100%	Moderate Density	1,856	172	2,028	3,065	308	3,373	6,013	1,899	7,912	2,948	1,591	4,539
100-120%		1,209	136	1,346									
>120%	Low Density	5,064	655	5,719	5,064	655	5,719	959	326	1,285	-4,105	-329	-4,434
Total	—	15,994	1,733	17,727	15,994	1,733	17,727	23,186	3,094	26,280	7,192	1,361	8,553

MEMORANDUM

Page 23

June 25, 2024

Rainier

Baseline Forecast

Income Level	Zone Categories Serving These Needs	Housing Need			Aggregate Housing Need			Total Capacity			Surplus or Deficit		
		City	UGA	Total	City	UGA	Total	City	UGA	Total	City	UGA	Total
0-30% PSH	Low-rise Multifamily Mid-rise Multifamily ADUs	41	2	42	220	8	227	N/A	0	N/A	N/A	-8	N/A
0-30% Other		100	4	104									
30-50%		0	0	0									
50-80%		79	2	81									
80-100%	Moderate Density	22	0	23	129	6	135	N/A	0	N/A	N/A	-6	N/A
100-120%		107	5	112									
>120%	Low Density	222	10	232	222	10	232	N/A	108	N/A	N/A	98	N/A
Total	—	571	23	594	571	23	594	N/A	108	N/A	N/A	85	N/A

Sustainable Thurston

Income Level	Zone Categories Serving These Needs	Housing Need			Aggregate Housing Need			Total Capacity			Surplus or Deficit		
		City	UGA	Total	City	UGA	Total	City	UGA	Total	City	UGA	Total
0-30% PSH	Low-rise Multifamily Mid-rise Multifamily ADUs	40	2	42	250	12	262	N/A	0	N/A	N/A	-12	N/A
0-30% Other		99	5	104									
30-50%		0	0	0									
50-80%		111	5	116									
80-100%	Moderate Density	34	1	36	132	7	138	N/A	0	N/A	N/A	-7	N/A
100-120%		97	5	103									
>120%	Low Density	204	11	215	204	11	215	N/A	108	N/A	N/A	97	N/A
Total	—	586	29	615	586	29	615	N/A	108	N/A	N/A	79	N/A

MEMORANDUM

Page 24

June 25, 2024

Tenino

Baseline Forecast

Income Level	Zone Categories Serving These Needs	Housing Need			Aggregate Housing Need			Total Capacity			Surplus or Deficit		
		City	UGA	Total	City	UGA	Total	City	UGA	Total	City	UGA	Total
0-30% PSH	Low-rise Multifamily Mid-rise Multifamily ADUs	32	1	33	95	3	98	58	0	58	-37	-3	-41
0-30% Other		62	2	64									
30-50%		0	1	1									
50-80%		0	1	1									
80-100%	Moderate Density	115	1	116	216	3	219	376	0	376	159	-3	157
100-120%		102	1	103									
>120%	Low Density	208	3	211	208	3	211	184	27	211	-23	24	0
Total	—	519	9	528	519	9	528	617	27	644	99	18	116

Sustainable Thurston

Income Level	Zone Categories Serving These Needs	Housing Need			Aggregate Housing Need			Total Capacity			Surplus or Deficit		
		City	UGA	Total	City	UGA	Total	City	UGA	Total	City	UGA	Total
0-30% PSH	Low-rise Multifamily Mid-rise Multifamily ADUs	32	1	32	94	3	97	85	0	85	-9	-3	-12
0-30% Other		62	1	64									
30-50%		0	1	1									
50-80%		0	1	1									
80-100%	Moderate Density	168	2	170	259	3	262	376	0	376	117	-3	114
100-120%		91	1	92									
>120%	Low Density	189	3	192	189	3	192	184	27	211	-4	24	20
Total	—	541	9	550	541	9	550	645	27	672	104	18	122

MEMORANDUM

Page 25

June 25, 2024

Tumwater

Baseline Forecast

Income Level	Zone Categories Serving These Needs	Housing Need			Aggregate Housing Need			Total Capacity			Surplus or Deficit		
		City	UGA	Total	City	UGA	Total	City	UGA	Total	City	UGA	Total
0-30% PSH	Low-rise Multifamily Mid-rise Multifamily ADUs	513	181	694	3,298	1,422	4,720	4,611	615	5,227	1,313	-807	506
0-30% Other		1,211	439	1,650									
30-50%		1,033	364	1,396									
50-80%		541	439	980									
80-100%	Moderate Density	400	190	591	1,036	390	1,426	4,842	440	5,283	3,806	51	3,857
100-120%		636	199	835									
>120%	Low Density	2,342	704	3,046	2,342	704	3,046	465	1,976	2,441	-1,877	1,272	-605
Total	—	6,676	2,516	9,192	6,676	2,516	9,192	9,918	3,031	12,950	3,242	516	3,758

Sustainable Thurston

Income Level	Zone Categories Serving These Needs	Housing Need			Aggregate Housing Need			Total Capacity			Surplus or Deficit		
		City	UGA	Total	City	UGA	Total	City	UGA	Total	City	UGA	Total
0-30% PSH	Low-rise Multifamily Mid-rise Multifamily ADUs	541	186	728	3,801	1,652	5,454	5,147	615	5,762	1,345	-1,037	308
0-30% Other		1,290	456	1,746									
30-50%		1,023	353	1,376									
50-80%		947	658	1,605									
80-100%	Moderate Density	679	305	984	1,301	498	1,798	5,656	583	6,239	4,356	85	4,441
100-120%		622	192	814									
>120%	Low Density	2,290	681	2,971	2,290	681	2,971	477	2,264	2,742	-1,813	1,583	-230
Total	—	7,392	2,831	10,223	7,392	2,831	10,223	11,280	3,463	14,743	3,888	632	4,520

MEMORANDUM

Page 26

June 25, 2024

Yelm

Baseline Forecast

Income Level	Zone Categories Serving These Needs	Housing Need			Aggregate Housing Need			Total Capacity			Surplus or Deficit		
		City	UGA	Total	City	UGA	Total	City	UGA	Total	City	UGA	Total
0-30% PSH	Low-rise Multifamily Mid-rise Multifamily ADUs	549	8	557	4,147	52	4,200	2,663	0	2,663	-1,484	-52	-1,536
0-30% Other		1,341	19	1,359									
30-50%		1,196	25	1,221									
50-80%		1,062	0	1,062									
80-100%	Moderate Density	274	0	274	1,091	34	1,125	5,610	0	5,610	6,519	-34	6,486
100-120%		817	34	851									
>120%	Low Density	2,266	58	2,324	2,266	58	2,324	0	745	745	-2,266	687	-1,579
Total	—	7,504	144	7,648	7,504	144	7,648	8,273	745	9,018	769	601	1,370

Sustainable Thurston

Income Level	Zone Categories Serving These Needs	Housing Need			Aggregate Housing Need			Total Capacity			Surplus or Deficit		
		City	UGA	Total	City	UGA	Total	City	UGA	Total	City	UGA	Total
0-30% PSH	Low-rise Multifamily Mid-rise Multifamily ADUs	532	13	545	4,398	77	4,475	2,843	0	2,843	-1,555	-77	-1,632
0-30% Other		1,308	30	1,338									
30-50%		1,088	34	1,122									
50-80%		1,470	0	1,470									
80-100%	Moderate Density	417	0	417	1,158	41	1,199	5,610	0	5,610	4,452	-41	4,411
100-120%		742	41	783									
>120%	Low Density	2,074	76	2,150	2,074	76	2,150	0	745	745	-2,074	669	-1,405
Total	—	7,630	194	7,824	7,630	194	7,824	8,453	745	9,198	823	551	1,374

MEMORANDUM

Page 27

June 25, 2024

Grand Mound

Baseline Forecast

Income Level	Zone Categories Serving These Needs	Housing Need	Aggregate Housing Need	Total Capacity	Surplus or Deficit
		UGA	UGA	UGA	UGA
0-30% PSH	Low-rise Multifamily Mid-rise Multifamily ADUs	21	204	0	-204
0-30% Other		52			
30-50%		34			
50-80%		97			
80-100%	Moderate Density	40	56	406	350
100-120%		16			
>120%	Low Density	50	50	0	-50
Total	—	310	310	406	96

Sustainable Thurston

Income Level	Zone Categories Serving These Needs	Housing Need	Aggregate Housing Need	Total Capacity	Surplus or Deficit
		UGA	UGA	UGA	UGA
0-30% PSH	Low-rise Multifamily Mid-rise Multifamily ADUs	18	208	0	-208
0-30% Other		45			
30-50%		27			
50-80%		117			
80-100%	Moderate Density	53	66	406	341
100-120%		13			
>120%	Low Density	41	41	0	-41
Total	—	315	315	406	91

MEMORANDUM

Page 28

June 25, 2024

Unincorporated Thurston County

Baseline Forecast

Income Level	Zone Categories Serving These Needs	Housing Need			Aggregate Housing Need			Total Capacity			Surplus or Deficit		
		Rural	UGA	Total	Rural	UGA	Total	Rural	UGA	Total	Rural	UGA	Total
0-30% PSH	Low-rise Multifamily Mid-rise Multifamily ADUs	311	990	1,300	5,317	7,636	12,953	280	3,530	3,810	-5,037	-4,106	-9,143
0-30% Other		832	2,339	3,171									
30-50%		0	2,373	2,373									
50-80%		4,174	1,934	6,109									
80-100%	Moderate Density	2,214	336	2,550	2,214	1,478	3,692	0	11,278	11,278	-2,214	9,800	7,586
100-120%		0	1,142	1,142									
>120%	Low Density	0	4,510	4,510	0	4,510	4,510	17,748	3,193	20,942	17,748	-1,316	16,432
Total	—	7,531	13,623	21,155	7,531	13,623	21,155	18,028	18,001	36,029	10,497	4,377	14,874

Sustainable Thurston

Income Level	Zone Categories Serving These Needs	Housing Need			Aggregate Housing Need			Total Capacity			Surplus or Deficit		
		Rural	UGA	Total	Rural	UGA	Total	Rural	UGA	Total	Rural	UGA	Total
0-30% PSH	Low-rise Multifamily Mid-rise Multifamily ADUs	19	1,011	1,030	1,125	8,479	9,604	170	3,775	3,945	-955	-4,704	-5,659
0-30% Other		63	2,403	2,466									
30-50%		0	2,266	2,266									
50-80%		1,043	2,800	3,842									
80-100%	Moderate Density	631	533	1,164	631	1,631	2,262	0	12,342	12,342	-631	10,711	10,081
100-120%		0	1,098	1,098									
>120%	Low Density	0	4,325	4,325	0	4,325	4,325	17,748	3,482	21,230	17,748	-844	16,905
Total	—	1,755	14,435	16,191	1,755	14,435	16,191	17,918	19,599	37,517	16,163	5,163	21,326

Appendix C. Public Participation

Page intentionally left blank



To City of Tenino Planning Commission
From: SCJ Alliance
Date: November 8, 2023
Project: Tenino 2025 Comprehensive Plan Update
Subject Public Participation Plan

Background

The City of Tenino is updating its Comprehensive Plan in accordance with RCW 35A.63.061. The Comprehensive Plan updated for cities in our region is due by July 2025. The Comprehensive Plan is the long-range policy document that guides the City's growth and development over the next 20 years. Under the GMA, cities and counties in Washington must periodically review and, if needed, update their comprehensive plans to ensure consistency with state law and other regional planning documents.

Public outreach is a key component of this periodic update effort. Among other things, GMA requires early and continuous public participation in the Comprehensive Plan update (RCW 36.70A.140). This Public Participation Plan (PPP) is intended to guide public outreach efforts throughout the process to ensure early and continuous involvement in decision making. Efforts to encourage participation will continue over the course of the Comprehensive Plan update.

This document outlines the public participation opportunities for Tenino's Comprehensive Plan update, including engagement methods, timeline, and implementation strategies. This is a working document and may be updated over time to reflect the needs of the community.

Objective

- The objectives for this Public Participation Plan are:
- Inform residents of the Comprehensive Plan update, the planning process, and outcomes.
- Give participants more ownership in the outcome of planning processes through collaborative events that engage in conversation and the exchange of ideas and information, leading to buy-in, a sense of ownership, and higher quality planning documents.
- Be inclusive of a range of perspectives, engaging residents in unique ways to reach a broader audience and understand their goals, needs, and desires.
- Provide access to engagement opportunities, events, and participation for all residents of Tenino, including disadvantaged groups and individuals and those who have historically been left out of community planning processes.
- Build support for the Comprehensive Plan and work with the Tenino community, elected officials, and other agencies toward success in implementing its goals, policies, and actions.

Roles and Responsibilities

City of Tenino

The City of Tenino is responsible for the update of the Comprehensive Plan in compliance with RCW 35A.63.061. This responsibility includes actively inviting public comment and coordinating with state, regional, and county planning policies as outlined in state law. The city is using its on-call planning consultant, SCJ Alliance, to work alongside City staff in facilitating the Comprehensive Plan update process.

Planning Commission

The Planning Commission will take the lead as the advisory body for this project. Planning Commission meetings are regularly scheduled and open to the public, and the City Council will receive briefings on the committee's work.

City Council

Once the Comprehensive Plan update is complete, the Tenino City Council is responsible for adoption of the plan.

Public Participation

Audiences

There are several audiences – individuals and agencies – that will participate in the Tenino Comprehensive Plan update, and each will engage in the process in different ways:

- **General Public:** Tenino residents, property owners, and business owners.
- **Elected and Appointed Officials:** City Councilmembers, Planning Commissioners
- **Non-City Service Providers:** South Thurston Fire & EMS, Thurston County Rural Transit, Thurston County PUD, etc.
- **Non-Governmental Organizations:** Tenino Chamber of Commerce, Thurston Economic Development Council, and others as interested.
- **State, Regional, Tribal, and Other Local Governments:** Thurston Regional Planning Council, Thurston County, Nisqually Tribe, Confederated Tribes of the Chehalis Reservation and Cowlitz Tribe.

Communication Channels

It is important that information be made available so any interested person can review the materials and participate. Throughout the Comprehensive Plan update process, the city will maintain several channels for notifying the public and other participants of relevant meetings and events. Regular opportunities for education and notification include:

- City website
- Email
- City social media
- Tenino City Hall

- Places of worship
- Other channels/events TBD

Public meetings held by the Planning Commission and City Council will be noticed according to the standard procedures for those bodies, as well as on the City’s website. All outreach efforts and comments received will be documented by the City and available for public review upon request.

Inclusivity and Potential Barriers to Participation

The channels by which we communicate and the events we hold should incorporate an inclusive engagement approach. The table below identifies the engagement options for this plan, including the potential barriers of each as well as how the method achieves inclusivity.

Engagement Method	Potential Barrier(s)	Potential Inclusivity Methods
<p>Project Website A central location for status updates, draft documents, meeting schedules and related information, official notices, and feedback/ comment portal.</p>	<ul style="list-style-type: none"> • Getting visitors to the website • Reaching non-English speaking residents • Uploading materials in a timely manner 	<ul style="list-style-type: none"> • Ensure ease of access through virtual outreach on social media and email correspondence directing public to website • Provide materials in a variety of languages as needed. • Make materials available in advance for distribution to the public
<p>Social Media Sharing of public events, surveys, and other opportunities to participate.</p>	<ul style="list-style-type: none"> • Posting and noticing in a timely manner • Creating postings that appeal to a wide audience. • Reaching non-English speaking residents 	<ul style="list-style-type: none"> • Provide materials in a variety of languages as needed. • Provide links to surveys and other web-based platforms.
<p>Public Meetings, Civic Events, and Presentations</p>	<ul style="list-style-type: none"> • Identifying appropriate events for community • Engaging non-English speaking residents • Childcare availability • Potential for low participation • High level of coordination/ communication required 	<ul style="list-style-type: none"> • Work with City departments to identify appropriate events to reach a diverse audience. • Designate 1–2 point people for coordination/ communication to ensure clarity and efficiency. • Provide options for non-English-speaking participants and ensure ADA accessibility. • Incentivize participation with food and/or childcare. • Include opportunities for both virtual and in-person participation; host “hybrid” public meetings – in-person meetings with a virtual participation option.

<p>Printed Materials Printed materials describing the update process, including:</p> <ul style="list-style-type: none"> • Mailers • Others TBD 	<ul style="list-style-type: none"> • Reaching non-English speaking residents • Potential for low participation 	<ul style="list-style-type: none"> • Provide materials in a variety of languages as needed. • Identify a variety of outlets with relevant contact information for notification and distribution of materials (newspapers, neighborhoods, churches, and other community-oriented organizations/groups). • Include website link and QR code for access.
<p>Planning Commission and City Council Meetings/Hearings</p>	<ul style="list-style-type: none"> • Engaging non-English speaking residents • Childcare availability • Potential for low participation • May be intimidating 	<ul style="list-style-type: none"> • Provide ample time for the public to speak and/or provide written comments and questions. • Provide options for non-English-speaking participants and ensure ADA accessibility. • Incentivize participation with food and/or childcare. • Include opportunities for both virtual and in-person participation.
<p>Community Advisory Board Interdisciplinary team of local stakeholders who can contribute nuanced input and community expertise to policy development</p>	<ul style="list-style-type: none"> • Board members must have availability to commit to regular meeting attendance • Lack of access to transportation, childcare, etc. may prevent stakeholders from being able to participate as board members 	<ul style="list-style-type: none"> • Allow virtual attendance to enable members to contribute without arranging for transportation, childcare, etc. • Schedule meetings at times which enable the greatest number of stakeholders to attend, be it weekends, evenings, or during the day.

Public Engagement Activities

This section delves deeper into each of the engagement methods planned as part of the Comp Plan Update engagement strategy, describing the tool or activity as well as the anticipated timeframe for implementation.

Project Website

Timeframe: Duration of project

The project website will be a central location for all interested parties to access the latest information related to the Comprehensive Plan update. The website will be linked through the City’s website and will allow all interested parties to:

- Review background information concerning the Comprehensive Plan update; access and review the project status and timeline.
- Review draft and final documents, Comprehensive Plan deliverables, and community workshop materials.
- Provide comments and feedback via a comment portal throughout the update process.
- Have the option to attend in-person public open houses virtually, via a link on the project website; and
- See the Planning Commission and City Council’s schedules related specifically to the update process.

Roles and Responsibilities

- **City Staff (lead):** Publishing, distribution, and translation (as needed) of materials.
- **SCJ Alliance (support):** Production of materials as needed.

Social Media

Timeframe: Duration of project

Social media will be utilized to broadcast public events, surveys, and other engagement activities for the public to participate in. To avoid any gaps in communication, the community will be provided with consistent, clear social media posts that will continue the conversation, provide education, and build awareness throughout the comprehensive plan update process.

To run a successful social media campaign, materials must be published on time and updated regularly. There should also be regularly scheduled postings leading up to events, and each post should include a clickable image that redirects people to the website or event link. Comments posted on social media posts should be compiled and delivered to City Staff and consultants regularly. Social media postings will correspond with the event dates listed under Public Outreach Events, Community Survey, and Planning Commission and City Council Meetings listed below.

Roles and Responsibilities

- **City Staff (lead):** Publishing and production of materials.
- **SCJ Alliance (support):** Assisting the City in the production of social media content (e.g. text, images, and information)

Public Outreach Events

Timeframe: (exact dates TBD)

The Comprehensive Plan update process will include two large, city-wide public open houses to inform residents about the update process and collect feedback on the plan. The Planning Department will coordinate with other City departments as necessary to plan the open houses.

Roles and Responsibilities

- **City Staff (lead):** Coordinate and help lead outreach events; publish materials on the project website and social media page(s); assist with running the events.
- **SCJ Alliance (support):** Design and production of materials; collect and monitor public feedback; attend/lead outreach events.

Community Survey

Timeframe: (exact dates TBD)

At least one online community survey will be developed to explore community preferences and planning alternatives. An opportunity to complete the survey in a paper format will also be provided for community members who are not likely to participate online. This survey will collect topical information from the public on various elements of the Comprehensive Plan.

Roles and Responsibilities:

- **SCJ Alliance (lead):** Develop survey questions; digitize in Alchemer online survey platform; monitor and analyze results.
- **City Staff (support):** Distribute surveys via City outlets; data entry for hard copy surveys.

Community Advisory Board

Timeframe: (exact dates TBD)

Monthly or bi-monthly meetings of an advisory board consisting of local stakeholders representing diverse communities and with backgrounds and perspectives relevant to municipal policy development. The community advisory board will serve as a panel of experts on Tenino, providing expertise that city staff and the consultant team may lack. Board meetings will be an opportunity for staff and consultants to workshop policies with board members in a more comprehensive and individualized fashion than that of a larger-scale, one-off community engagement event.

Roles and Responsibilities:

- **SCJ Alliance (lead):** Assemble Community Advisory Board, develop meeting agendas, lead meetings and group discussion.
- **City Staff (support):** Facilitate board meetings by enabling access to city property (e.g., city hall), provide meeting support.

Comprehensive Plan Rollout and Adoption

Planning Commission and City Council

Meetings Timeframe: (exact dates TBD)

While the Planning Commission and City Council will continue to hold regular meetings throughout the update timeframe, there will be several meetings specifically associated with the adoption of Tenino's Comprehensive Plan update. These include:

Draft Plan Presentation (date TBD): City staff and consultant (SCJ Alliance) will present a summary of engagement efforts and the draft Comprehensive Plan to the Planning Commission.

Final Plan Presentation (date TBD): A combined Planning Commission/City Council workshop will be held to roll out the final draft of Tenino’s updated Comprehensive Plan. City staff and consultant (SCJ Alliance) will provide an overview of the planning process, public feedback, and final draft of the plan. Final feedback will also be collected from the two public bodies and substantive comments will be incorporated into the final draft.

Planning Commission recommendation (date TBD): Planning Commission is required to review amendments to the Comprehensive Plan and provide a recommendation to the City Council for consideration and potential adoption.

Comprehensive Plan Adoption (date TBD): City Council will hold a hearing to adopt the updated Comprehensive Plan.

Roles and Responsibilities:

- **City Staff** (lead): Coordinate, schedule, and lead workshops and hearings.
- **SCJ Alliance** (support): Technical resources as needed; production of materials as needed.

Conclusion

The update of Tenino Comprehensive Plan is a collaborative effort in which the city will engage the public, businesses, governmental agencies, tribes, and other interested groups. As detailed in this Public Participation Plan, the City’s website, public postings, community events, public meetings, and workshops will be used to reach out to interested parties and get them involved in the process. Throughout this effort, the city will strive to involve “a broad cross-section of the community” (WAC 365- 196-600) in order that the resulting Comprehensive Plan update may truly reflect the vision and goals of the community.

Tenino Planning Commission Comment Matrix

January 7, 2026

Comment	Response	1.30.2026 Draft
Update Land Use/Zoning Map to include Ag Park Overlay		Pg. 25
Jenniver Colvin, Colvin Ranch - Potential of expanding Urban Growth Area - Encourages infill development in current city limits as opposed to UGA expansion - Encourages Density - Wants to ensure residential zoning doesn't conflict with Ag zoning or overlay.	Noted, no response required. UGA is not currently proposed to be expanded in Comp Plan Update.	N/A
Pg. 18. Street Tree Plan and Downtown Plan	Staff reached out to previous consultant regarding Street Tree Plan, Appendix D. Downtown Plan is Appendix A.	Appendix A. Downtown Tenino Concept Plan Appendix D. Street Tree Plan
Pg. 32. Add goal to convert all septic Systems to connect to sewer	Policy UT 9.5	Pg. 114
Pg. 47. Update policy to reflect correct name of Housing Council to Thurston Regional Housing Council	Updated Policy HS 3.3	Pg. 52
Pg. 48. Change InterCity Transit to Transit Providers to allow for more flexibility.	Updated Policy HS 5.3	Pg. 53
Pg. 55. Add Tenino Chamber of Commerce and Experience Olympia	Updated Economic Development Resources section	Pg. 61
Pg. 56. LOTT CDBG	Added LOTT Clean Water Alliance to Grant section, including link to the LOTT Septic Conversion Incentive Program.	Pg. 62
Pg. 63. 2 nd Old Highway 99 Bridge near school over Scatter Creek. Challenge: Current issue with bridges is that funding isn't available for bridges under a certain length. Every culvert has to be replaced with bridge, but no maintenance costs are provided.	The small bridge is considered a culvert, not a bridge.	N/A
Pg. 74. Traffic Burden when Interstate is shut down, causes major congestion and traffic flow back up	Added a subsection discussing Regional Diversion Impacts on Local Traffic.	Pg. 79

Comment	Response	1.30.2026 Draft
Missing Details on Pg. 83, 85, 87, 92	Updated Table 16. Updated Table 18. Updated Table 19. Updated Table 22.	Table 16. Pg. 92 Table 18. Pg. 96 Table 19. Pgs. 96-97 Table 22. Pg. 101
<p>TRPC: Regarding regional coordination (criteria 13 in our checklist). Currently, the plan does not include school districts or TRPC as partners in TS 10. While TRPC is mentioned in other sections, the school district was not. To be fully consistent with the RTP, we suggest adding these two partners to TS 10 and included an example below of how this could be completed.</p> <p>Goal TS 10: Tenino partners with neighboring cities, Thurston County, Washington State, Thurston Regional Planning Council, Tenino school district, and other transportation providers to provide a holistic multi-modal transportation system.</p>	Goal TS 10 was updated to reflect recommendation by TRPC	Pg. 88
<p>TRPC: I noticed that several times in the comp plan the 2040 RTP or regional model was cited. TRPC currently adopted has adopted the 2050 RTP. We would suggest updating these references in your plan.</p>	References were double checked and updated, including any updated data for the City of Tenino.	Pg. 76
<p>TRPC: Currently, the Transportation Element does not fully reflect the changes made in the City’s Housing and Land Use Elements regarding urban densities and housing types. Goal HS 1 and its associated policies and actions demonstrate a clear commitment to a mix of housing types and densities, which is what TRPC’s criterion is intended to support.</p> <p>To improve internal consistency of Tenino’s plan and better align with the RTP, TRPC suggests either:</p> <p>Adding a cross-reference between the Housing and Transportation Elements, such as:</p> <p>Policy TS 2.4: Provide adequate transportation facilities for the variety of acceptable housing types and densities outlined in the Housing Element.</p> <p>OR Incorporating RTP Policy 6.a directly into the Transportation Element, as it aligns with the intent of the City’s existing goals and policies:</p> <p>RTP Policy 6.a: Promote transportation-efficient development and redevelopment, and site services and facilities where transit, walking, and bicycling are now or will be viable options instead of driving.</p>	Added Policy 2.4, as suggested under Goal TS 2	Pg. 85

Comment	Response	1.30.2026 Draft
<p>DNR: <u>Executive Summary</u> The Executive Summary includes nice descriptions of each of the chapters aka elements.</p>	<p>No change required</p>	<p>Pgs. 9-10</p>
<p>DNR: <u>Countywide Planning Policies</u> This section includes a good description of Tenino’s relationship with Thurston County’s, in terms of planning policies. There are three goals with policies, described here, that is great! Some jurisdictions also include lists of their plans such as natural hazard mitigation plans, climate plans, transportation plans, and so forth, to provide more specificity to existing plans and how this comprehensive plan relates to them as well as to the Thurston County plans. Suggest adding that information to the comp plan.</p>	<p>Updated the section to include reference to the County’s other plans that are incorporated into the comp plan update.</p>	<p>Pg. 11</p>
<p>DNR: <u>Chapter 1 Land Use</u> The Community Character section is a nice part of this. On page 17, good to see the Environmental Constraints section. It mentions critical areas. “Tenino defines a critical area to include frequently flooded areas, wetlands, fish and wildlife habitats and geologically hazardous areas.” Thank you for including this statement. Some jurisdictions neglect to state which critical areas they have. Note, it does not state which types of geologically hazardous areas are identified. Consider further describing the critical areas by stating which of the geologically hazardous area hazards are in Tenino. It is also useful to include maps and or references to map sources that support the information. If you have estimated numbers on the amount of land considered as critical areas, it can be useful to include that here and in Chapter 2 Natural Resources.</p> <p>Interesting to note the first policy in the first goal is “Policy LU 1.1 The rights of individual property owners shall be protected.”</p> <p>“Goal LU 8: Establish land use patterns that increase the resilience of the built environment, ecosystems, and communities to climate change.” Good to see this one.</p>	<p>No change required, critical areas are further referenced in Chapter 2, with a note already in place under the Environmental Constraints section in Chapter 1, to refer to Chapter 2 for further detail.</p> <p>No change required.</p> <p>No change required.</p>	<p>Pg. 17</p>

<p>DNR: Chapter 2 Natural Resources</p> <p>Page 33, critical areas are aka environmentally sensitive areas. These areas are shown on Figure 4, Identified Critical Areas in Tenino. I had to increase the size of the map to read it, which made it blurry. It looks like it shows a wide variety of categories of wetlands; soils in the categories of high, medium, and low; and steep slopes. I'm unclear what else is on the map. On page 33, "Critical areas, as defined in state law, include wetlands, critical aquifer recharge areas, frequently flooded areas, geologically hazardous areas, and fish and wildlife conservation areas."</p> <p>On page 36, "Land with slopes of more than 40% are considered to have potential landslide or erosion hazards. Where these areas exist, potential hazards should be evaluated under the Tenino Critical Areas Ordinance to ensure development does not further contribute to a landslide or erosion hazard." So steep slopes of more than 40% is the only trigger for review of geologically hazardous areas? And landslides and erosion are the geologically hazardous areas hazards identified for Tenino? No others like seismic or volcanic? Suggest reviewing the Washington Geologic Information Portal for best available science, and cross checking the hazards with those on the natural hazard mitigation plan.</p> <p>Great to see these goals and policies: "Goal NR 2: Land uses are compatible with topography, geology, underlying soils, surface water, ground water, frequently flooded areas, wetlands, and other geological or biological factors."</p> <p>"Policy NR 2.1 Protect members of the public and community resources and facilities from injury, loss of life, or property damage due to landslides and steep slope failures, erosion, seismic events, volcanic eruptions, and flooding." It covers geologic hazards the comp plan hasn't specifically identified as geologically hazardous areas hazards.</p> <p>"Goal NR 4: Development in geologically hazardous areas is consistent with maintaining public health and safety." And great to see the policies related to it.</p> <p>Map 5 is included as the last page in the Chapter. It is the same map as Figure 4. See my comments above.</p>	<p>Added link to electronic map below Figure 4, Figure 5, and Map 5.</p> <p>This is on Page 37, updated and expanded the Landslide and Erosion Hazard section. Added link to the Washington Geologic Information Portal.</p> <p>No change required.</p> <p>According to the portal there is no concern regarding volcanic eruptions, however the entire state would be inundated with ash if volcanic activity occurs within the cascade mountain range.</p> <p>No change required.</p> <p>Added link to the Washington Geologic Information Portal.</p>	<p>Pg. 34 Pg. 37 Pg. 43</p> <p>Pgs. 37-38</p> <p>Pg. 39</p> <p>Pg. 39</p> <p>Pg. 40</p> <p>Pg. 43</p>
--	--	---

Comment	Response	1.30.2026 Draft
<p>DNR: Chapter 8 Climate This chapter begins on page 115. It is nicely written. Suggest linking information here to related information in Chapter 2 and in plans like natural hazard mitigation plans, climate action plans, and so forth. It is good to see this on page 127, “Policy GG 8.2 Ensure the Local Hazard Mitigation Plan (LHMP) includes specific strategies for GHG reduction and climate-smart emergency response infrastructure.”</p>	<p>Reviewed, no change.</p> <p>No change required.</p>	<p>Pg. 117</p> <p>Pg. 129</p>
<p>DNR: Below, I include our usual language for this and future endeavors.</p> <p>Recognizing the limitations of the current proposals, I want to mention that it would be great for you to consider these in current or future work, be it in your comprehensive plan, development code, and SMP updates, and in your work in general: Consider adding a reference to the definition of geologically hazardous areas, WAC 365-190-120, in other areas besides the CAO. In addition, consider adding a reference to WAC 365-196-480 for natural resource lands.</p> <p>Consider adding in other areas besides the CAO. If you have not checked our interactive database, the Washington Geologic Information Portal, lately, you may wish to do so. Geologic Information Portal WA -DNR</p> <p>If you have not checked out our Geologic Planning page, you may wish to do so. Geologic Planning WA -DNR</p>	<p>The Landslide and Erosion Hazard section was updated to include the basic definition and add a reference to WAC 365-190-120.</p> <p>Reference to WAC 365-196-480 was added to the opening section of Chapter 2.</p>	<p>Pg. 37</p> <p>Pg. 34</p>
<p>Commerce: During our review, we did not find goals or policy pertaining to the siting of organic materials (OM) management facilities as identified in local solid waste management plans (SWMP). Siting must meet criteria described in RCW 70A.205.040(3). Also see RCW 36.70.330 and RCW 70A.205.540. We recommend modifying your plan according to these requirements.</p>	<p>Update Land Use Goals/Policies</p>	<p>Pg. 23</p>

Comment	Response	1.30.2026 Draft
<p>Commerce: In our review, we did not find an inventory of projected housing needs by income band over the planning period consistent with the jurisdiction’s share of countywide housing needs, as required by RCW 36.70A.070(2)(a). Based on information from the Thurston Regional Planning Council (TRPC), the City of Tenino needs to plan for 519 housing units of varying income levels within the city and 9 housing units within the UGA, and a total of 11 emergency housing beds. To meet this requirement, we recommend including a table of projected housing needs which is consistent with the figures adopted by TRPC found on this webpage: Housing Affordability Thurston Regional Planning Council, WA.</p>	<p>This was in the HNA, pulled information to main Comp Plan.</p>	<p>Pg. 52</p>
<p>Commerce: During our review we did not find analysis indicating sufficient land capacity to accommodate housing needs at all income levels, as required by RCW 36.70A.070(2)(c). To demonstrate sufficient land capacity for projected housing needs at each income level, including emergency and permanent supportive housing, we recommend including an analysis with estimates of how many housing units at each income level may be accommodated under existing or planned zoning and infrastructure availability. Please see chapter 3 of Guidance for Updating Your Housing Element for additional information on meeting this requirement.</p>	<p>Discussion of Housing Capacity Analysis under existing zoning is included</p>	<p>Pg. 54 - 55</p>
<p>Commerce: In our review, we found actions the city proposes to achieve housing availability, but we did not find identification of barriers to affordable housing development, as required by RCW 36.70A.070(2)(d)(ii). We recommend adding to the housing element a list of local barriers to affordable housing development or a summary of the local barriers identified in the Housing Action Plan appendix. In consideration of recent Growth Management Hearings Board cases,¹ we also recommend identifying the number of units that are likely to require subsidies and/or incentives to be affordable at the designated income levels, the amount of funding and/or incentives needed for these units, and potential local funding sources and incentives for these housing needs. Guidance on completing this requirement can be found in chapter 4 of Guidance for Updating Your Housing Element (pg. 63-65) and Appendix B: Adequate provisions checklist. As you work to update the city’s development regulations as part of the periodic update, we recommend that the regulations include the proposed actions to remove local barriers to affordable housing development identified in the housing element.</p>	<p>Discussion of Subsidies and Local Barriers are included</p>	<p>Pg. 55 - 56</p>

Comment	Response	1.30.2026 Draft
<p>Commerce: In our review, we did not find identification of policies and regulations that result in racially disparate impacts, displacement, and exclusion in housing, as required by RCW 36.70A.070(2)(e). If this work has been performed, we recommend documenting in the housing element or an appendix a summary of the review and updates made to housing policies. For guidance on completing this requirement, please see Guidance to Address Racially Disparate Impacts, particularly steps 3, 4 and 5 (pg. 33-48).</p>	Goal HS 8	Pg. 64
<p>Commerce: We recommend removing or amending Policy HS 4.1 Action #1: Define income-restricted housing as a different use from other forms of housing in the zoning code. RCW 36.130.020 requires affordable housing, including income restricted housing, to be regulated the same as housing development generally. The noted action could lead to inconsistencies with that state law. Instead, we recommend an action that directs the city to align their definitions with state definitions for affordable housing and/or an action that encourages the city to add incentives for the development of permanent supportive housing.</p>	Replaced	Pg. 59
<p>Commerce: In our review, we did not find identification of areas at risk of residential displacement, as required by RCW 36.70A.070(2)(g). This requirement can be met by including a displacement risk map – such as Commerce’s Draft Displacement Risk Map – or a discussion of areas that may be at risk of displacement.</p>	Discussion and map included	Pg. 59 - 60
<p>Commerce: Based on our review, we did not find identification of specific actions to bring transportation facilities and services to established multimodal levels of service, as required in RCW 36.70A.070(6)(a)(iii)(B) and (C). We recommend including language that describes these actions as part of the comprehensive plan, whether in the transportation element, an appendix, or other document adopted by reference, prior to the final adoption.</p>	Included	Pg. 95, 101
<p>Commerce: Based on our review, we did not find a forecast of multimodal transportation for a minimum of 10 years including land use assumptions used in estimating travel, as required in RCW36.70A.(6)(a)(i) and RCW 36.70A.070(6)(a)(iii)(E). We recommend including language detailing this forecast information as part of the comprehensive plan, whether in the transportation element, an appendix, or other document adopted by reference, prior to the final adoption.</p>	Included	Pg. 88 - 89
<p>WDFW: Policy LU 1.2 - The maintenance and enhancement of community identity, including natural character, shall be considered in land use decisions.</p>	Updated	Pg. 21

Comment	Response	1.30.2026 Draft
<p>WDFW: Policy LU 1.4 - Ensure the City’s land use policies and development regulations provide a fair and transparent process for the siting of essential public facilities (EPF) as defined in RCW 36.70A.200, and follow critical areas designation and protection as defined in RCW 36.70A.172. EPF siting shall be guided by the Countywide Planning Policies and the City’s adopted siting criteria to prevent preclusion while mitigating local impacts.</p>	Updated	Pg. 21
<p>WDFW: Goal LU 2: Safeguard community wide environmental conditions and resources of the landscape, critical areas, parks, open space, and views.</p>	Updated	Pg. 21
<p>WDFW: Policy LU 2.1 - Upon annexation, new developments of ten acres or more shall be required to include adequate usable open space in the subdivision proposals. These open spaces should be identified and mapped.</p>	Updated	Pg. 21
<p>WDFW: Goal LU 4 : Expand the Urban Growth Area to accommodate future residential growth.</p> <p>As the City considers the designation of urban growth areas, WDFW encourages the City to follow the location process outlined in RCW 36.70A.110 (3). In applying this process, WDFW recommends that the City consult the Priority Habitats and Species (PHS) map to identify the location of priority habitats and species. The PHS program is the Agency’s primary mechanism for providing fish and wildlife information from WDFW resource experts to local governments.</p> <p>WDFW cautions against proposing urban growth area expansions to the south and southwest of the City, as these areas contain westside prairie habitat, which is designated as a priority habitat due to its rarity.</p>	Noted, no action required.	N/A
<p>WDFW: Policy NR 1.1 – Seek Follow the mitigation sequence to minimize impacts to critical areas. Unavoidable impacts should must be mitigated.</p>	Updated	Pg. 39
<p>WDFW: Policy NR 1.4 - Where a development proposal is to be located within the boundary of one or more critical area, require site-specific analyses that is completed at an appropriate timing for each critical area.</p>	Updated	Pg. 39
<p>WDFW: Policy NR 1.5 - Ensure all development (including clearing and grading) that could potentially impact a critical area is reviewed under the Tenino Critical Areas Ordinance.</p> <p>WDFW is supportive of this policy.</p>	Noted, no action required.	N/A
<p>WDFW: Policy NR 2.3 - Identify and protect any fish and wildlife habitat conservation areas with which endangered, threatened, or sensitive species have a primary association.</p>	Updated	Pg. 39

Comment	Response	1.30.2026 Draft
<p>WDFW: Policy NR 2.4 - Identify and consider follow the mitigation sequence for the impact of new development activities on fish and wildlife habitat conservation areas containing species of local importance, naturally occurring ponds, waters of the state, and lakes, ponds, streams or rivers planted with game fish by a governmental agency or tribal entity.</p>	Updated	Pg. 39
<p>WDFW: Policy NR 3.7 - Continue to adopt and enforce standards and policies that limit unnecessary impervious surfaces, especially in critical aquifer recharge areas. WDFW is supportive of this policy.</p>	Noted, no action required.	N/A
<p>WDFW: New Policy 5.7 - Support the benefits and ecosystem services provided by healthy, connected floodplains and riparian systems, such as water attenuation, pollution filtration, flooding resilience, and drought resistance.</p>	Added	Pg. 41
<p>WDFW: Goal NR 6 : No net loss in the function and values of all critical areas wetlands in Tenino.</p> <p>Policy NR 6.1 - Make standards for critical areas wetland protection easy to understand and consistent with best available science.</p> <p>Policy NR 6.2 - Where critical areas a wetland may be impacted, require developers/property owners to perform a critical area analysis and wetland delineation and follow the mitigation sequence to mitigate wetland impacts that will occur as a result of the development proposal.</p> <p>Policy 6.3 - Promote the clustering of homes away from critical areas wetlands.</p>	Updated	Pg. 41
<p>WDFW: Policy NR 7.1 - Use best available science in preserving and enhancing resources for anadromous fish and other local endangered, threatened or sensitive species. WDFW is supportive of this policy.</p>	Noted, no action required.	N/A
<p>WDFW: Policy NR 7.5 - Prohibit habitat fragmentation wherever possible and practical and encourage clustered development patterns. WDFW is supportive of this policy.</p>	Noted, no action required.	N/A
<p>WDFW: Policy NR 8.1 - Work with non-profits, governmental agencies and other interested parties to preserve, connect, and enhance natural lands within Tenino.</p>	Updated	Pg. 41
<p>WDFW:</p>		

Comment	Response	1.30.2026 Draft
<p>WDFW: Policy CF 1.1 – Action - Regularly update the Capital Facilities Plan and Capital Improvement Program to identify high-priority projects for the 6- and 20-year horizons.</p>	Noted, no action required.	N/A
<p>WDFW: Policy CF 2.2 – Action - Encourage the planting of appropriate native street trees wherever possible.</p>	Updated	Pg. 115
<p>WDFW: Policy GG 1.3 - Promote environmentally sustainable water-storage and farming practices that help agricultural producers adapt to changing conditions and reduce production losses while balancing ecosystem needs. WDFW is supportive of this policy.</p>	Noted, no action required.	N/A
<p>WDFW: Policy GG 10.3 - Increase tree canopy and access to green space to reduce urban heat, sequester carbon, and support mental and physical well-being.</p> <p>New Action - Implement a tree canopy management plan that guides and benchmarks the City’s goals in order to increase and protect the tree canopy’s ability to provide shade, improve air quality, and increase carbon sequestration, contributing to climate resilience efforts.</p>	Updated, added new action	Pg. 135
<p>WDFW: Policy RE 8.1 - Take inventory of and protect climate refugia and habitat connectivity needs for species under stress from climate change. WDFW is supportive of this policy.</p>	Noted, no action required.	N/A
<p>WDFW: Policy Re 8.2 - Ensure no net loss of ecosystem composition, structure, and functions, especially in priority habitats and critical areas, and strive for net ecological gain to enhance climate resilience. WDFW is supportive of this policy.</p>	Noted, no action required.	N/A
<p>WDFW: Policy RE 10.1 - Map transportation infrastructure that is vulnerable to repeated floods, landslides, and other natural hazards, and designate alternative travel routes for critical transportation corridors when roads must be closed.</p>	Noted, no action required.	N/A

Appendix C.2 Public Survey

Page intentionally left blank

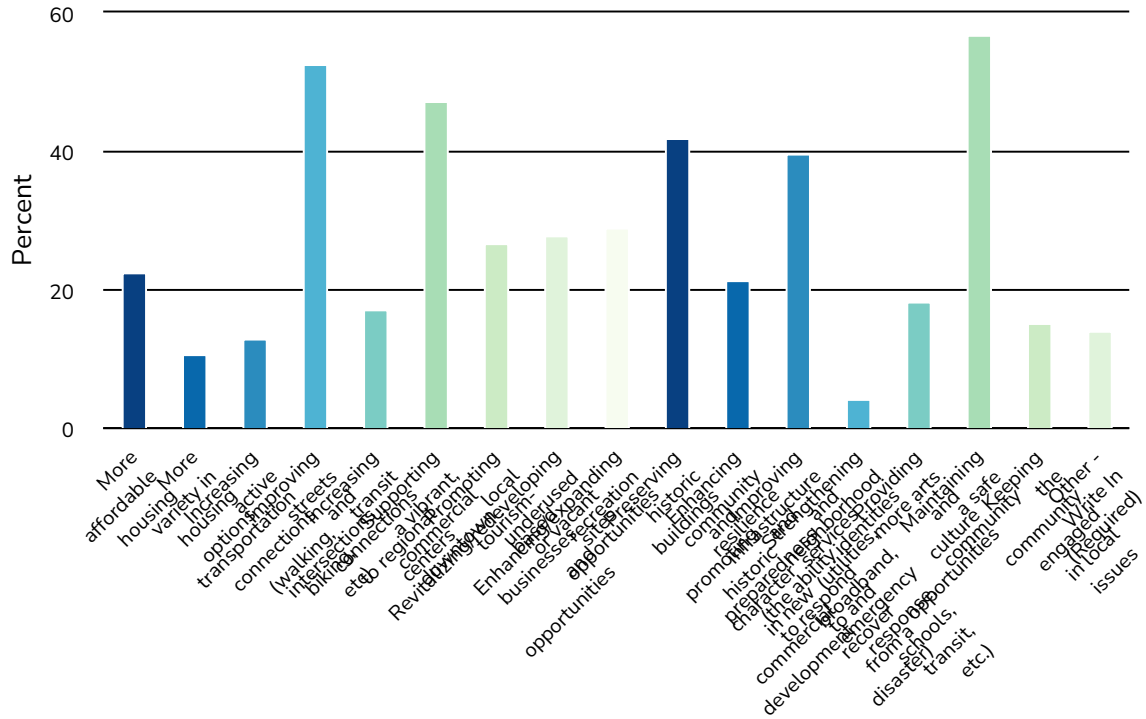
Report for City of Tenino Comprehensive Plan Community Survey

Response Counts



Totals: 93

1. What do you think Tenino's top five priorities should be in the next 20 years? (select up to 5)



Value	Percent	Responses
More affordable housing	22.6%	21
More variety in housing options	10.8%	10
Increasing active transportation connections (walking, biking, etc)	12.9%	12
Improving streets and intersections	52.7%	49
Increasing transit connections to regional centers	17.2%	16
Supporting a vibrant, commercial downtown	47.3%	44
Promoting local tourism-based businesses and opportunities	26.9%	25
Revitalizing/redeveloping underused or vacant sites	28.0%	26
Enhancing/expanding recreation opportunities	29.0%	27
Preserving historic buildings and promoting historic character in new commercial development	41.9%	39
Enhancing community resilience and preparedness (the ability to respond to and recover from a disaster)	21.5%	20
Improving infrastructure and services (utilities, broadband, emergency response, schools, transit, etc.)	39.8%	37
Strengthening neighborhood identities	4.3%	4
Providing more arts and culture opportunities	18.3%	17
Maintaining a safe community	57.0%	53
Keeping the community engaged in local issues	15.1%	14
Other - Write In (Required)	14.0%	13

Other - Write In (Required)	Count
Affordable water and sewer (a flat base rate of \$155.89 is outrageous) and PLEASE create a roundabout at the intersection between Old Hwy 99 and Sussex Ave! Turning left onto Sussex from Old 99 is a nightmare during peak traffic.	1
Bringing additional internet options- I love tenino telephone but the service is not fast/reliable enough to support me working from him or in the community regularly.	1
Community Food Gardens	1
Eliminating debt, cutting taxes (or at least not increasing them), replacing chlorine with UV light in the water treatment. Chlorine is poisonous and more expensive over time	1
Get the water and sewage chepper	1
Improving the intersections of 507 (Bucoda Hwy) & Old Hwy 99, and Sussex & Old Hwy 99. Traffic backs up frequently because there's no traffic control. I think two traffic lights in town would be nice.	1
Keeping our community the way it used to be, stop new growth before it becomes over grown and we can't support it. We struggle now with not affording our police, schools and other government. We need to focus on what we have and stop trying to build more, and let more growth happen.	1
Lowering taxes as far as possible.	1
Please put a roundabout where 99 and Sussex by market fresh!	1
Promoting & recruiting stronger economic opportunity	1
bring in more restaurants and stores beyond antique stores	1
employment / industry	1
sidewalk repair	1
Totals	13

2. What do you think are the biggest barriers to accomplishing these priorities?

ResponseID	Response
1	Money
2	The debt right now the city has and then on top of that taxes and prices of everything is crazy high. We need to pass savings on to residents of Tenino in someway
3	Too many opinions. Should just come up with a 5 year, 10 year and 20 year plan.
4	Money
5	Tourism could increase sales tax revenue and help with other areas of need in the city. However, synergy of businesses is needed to really become a tourism destination. Need investment in hotels, and incentives for doing business.
6	Tourism could increase sales tax revenue and help with other areas of need in the city. However, synergy of businesses is needed to really become a tourism destination. Need investment in hotels, and incentives for doing business. Transportation infrastructure is expensive.
7	Not sure
8	Funding, staffing, community support.
9	Money
10	Tenino has tourism potential that would bring in revenue for infrastructure but need hotel infrastructure to support tourism. How can we incentivize doing business in Tenino?
11	mismanagement of funds
12	Bureaucracy, greed, and greedy bureaucrats.
13	Greed
14	People in the community that don't want anything to change.
15	Balancing a budget and eliminating waste in government.
16	Conflicting opinions
17	Money
18	Need staff who do not over spend and keep running us into financial crisis
19	Govt poor planning we are rural town not Olympia or Tumwater! Keep it small

ResponseID Response

20 People refusing to embrace growth and the community not supporting local small businesses (we don't need more Edward Jones, we need a sit down espresso shop, paint and fire pottery shop, bakery, etc). Make Tenino a destination not a thru way.

21 Funding and a bad economy.

22 Funding

23 Funding, specifically for improving streets and adding sidewalks.

24 Mayor, funds

25 Money and people's willingness to help

26 Funding Community participation

27 Money

28 Lack of community participation.

29 The "good old boy" mentality that some people have.

30 People wanting to get free things from the city government, people not wanting to change

31 Politicians

32 Money, understanding priorities of the community not just what the highest bidder will pay - no chains, no insurance buildings - think local businesses that families can support, take classes at, etc

33 Funding

34 Not having the best interests of the community and not allowing the community to have a say.

35 The deficit budget. We should not be spending money we do not have. Stop spending unnecessary money and focus on paying the debt off.

36 A lack of available funding.

37 Unity and finances

38 Funding

39 Budget. Long term structure with inevitable major role changes are hard to sustain a 20 year plan.

ResponseID Response

40 I'm unsure

41 Leadership

42 Money, lack of vision

43 Lack of vision and interest from leadership.

44 Funding

45 Funding

46 Spending money on stuff that it shouldn't be spent on

47 Funding and the Sussex Ave being a main travel road - we need north and south town to be easier to cross on the eastside

48 Tourism needs more infrastructure. High Cost of street upgrades

49 Time any money? Would love to clean up some of the shaggy businesses on the main strip. Keep Tenino safe and clean place for our children and elders!

50 Counsel

51 Cost probably?

52 Budgetary issues

53 our mayor

54 Funding and lack of interest.

55 Local participation

56 Unsure

57 Budget, permits, staff

58 poor government and planning the town government does not appear to support businesses starting out. No gas service and water and sewer prices way to high

59 Budget, economic, and political realities.

ResponseID Response

60 We are a rural town- Xfinity services in town but just less than a mile past the elementary school they can't serve the homes off the road- in bad weather we have no cell service no internet and during good weather the internet is not strong enough/stable enough to work from home. Housing is more expensive in tenino period there is not many rental opportunities for families due to the cost and my father in law is ready to quit driving but is still very active however any bus options take all day or are in reliable

61 Our priorities have been focused on other things in the last few years, where they should have been focused on these things to begin with. Our communities safety, should have been top priority in our budget.

62 I'm unsure, I'd say the biggest barrier would be lack of available finances.

63 Funding. A state agency transportation improvement board used to help small communities with projects like this. Not sure if they still have funding given recent federal cuts.

64 Poor city leadership

65 Cash

66 Less public involvement

67 Na

68 Lack of funding. Socioeconomic status.

69 Making them priorities.

70 Money

71 Revenue

72 Budget?

73 Finding ways to engage residents with city/downtown events and issues. City budget issues.

74 Obviously budget constraints are a difficulty, plus disruption of services when construction is happening. The side streets opposite the park side of Sussex are the main arteries when Sussex is blocked (Lincoln Ave). We need our sidewalks repaired and useable for all.

75 Incentfizing people to get involved and contribute to decisionmaking.

76 Poor management.

ResponseID Response

77 Marketing. Tenino has all the charm and character of a nestled New England town, but lacks the marketing and advertising to draw in tourists, attract new businesses, and thus stimulate revenue for town improvements, such as building renovations. The town seems to lack the kind of aesthetic cohesion that would make it a destination for visitors and tourists. Some parts feel "preserved," other parts feel "old," and still other parts feel like there cars parked on the front lawn. Tenino has good bones, but is sorely in need of revitalization and moderate renovation to increase, not only its curb appeal, but also its sense of identity as something more than another Washington town that used to be relevant. Tenino has an interesting and solid history, and a charming layout. But it gives more the impression of a town you'd like to drive through, but doesn't entice you to stop. It just looks dingy and run-down. I'm not insinuating uniformity, but rather aesthetic cohesion. Clean and fix the buildings, decide on an actual identity for which Tenino can be known (Skagit has tulips, Leavenworth has the German thing, Issaquah has the salmon run, etc) which will draw attention (and revenue) to the locale. Tenino can be *known* for something beyond a quarry swimming hole. Figure out what that is, lean into it, make it enticing, and market it. Seasonal festivals? Larger farmers market? We have master stone carvers and master woodworkers, why not be an artisan hub? We have a fantastic Main Street, where's the huge Christmas Market every weekend in December? We used to make railroad ties right? Where's our lumberjack games and chainsaw carving in the summer? Clean the place up, revitalize it, and give the people a reason to stop and spend.

78 Money.

79 Politics of being a small community and not wanting to grow. We can keep our small niche community while also finding ways to responsibly grow housing and economy.

80 Money

81 city council

82 Funding; frequent transit routes to destinations

83 Funding, staffing, community engagement.

84 Stuck in past. Need to think of future more. Take 507 back from trucks. Enforce noise ordinances.

85 Across all five priorities the biggest barriers are limited funding and inconsistent community buy-in. These goals require long term investment, but progress often stalls due to budget constraints, shifting leadership, or resistance to change. Without broad support and sustained resources, even the most well-planned efforts can fall short.

86 I want to keep Tenino small. A good place for a young family to grow.

87 Money. It always boils down to funding.

88 Money

ResponseID Response

89 Funding.

90 Funding

91 I'm not sure. The sidewalks in the neighborhood near the high school, middle school and upper elementary are in need of repair. Especially by the food bank. The sidewalks are cracked, uprooted or covered in places while in other places the side walk is fine. While still not all streets have sidewalks and should to provide a safe walking path to students and residents.

92 Don't know

93 Funding

3. On a scale of 1 to 5, how well does this statement reflect your vision for Tenino’s future? In 2045, Tenino is a vibrant small town that celebrates its artisanal history. Our community is integrated with the natural landscape and carefully stewards its resources. Our lively, walkable downtown supports local entrepreneurs and provides the retail, services, and amenities our residents need. Our community is welcoming to all.

	1 (This does not reflect my vision for Tenino)	2 (There are elements of this statement that I agree with, however this does not reflect my vision for Tenino)	3 (There are elements of this statement that reflect my vision for Tenino, but it needs some work)	4 (This largely reflects my vision for Tenino, but is missing a part of my vision)	5 (This perfectly reflects my vision for Tenino)	Responses
Rating Count	3	7	22	27	22	81
Row %	3.7%	8.6%	27.2%	33.3%	27.2%	
Totals						81 100.0%

4. In a few words, what makes Tenino great today?

ResponseID	Response
------------	----------

2	The people the ones born raised here the ones with roots here those are the best!
8	Self-sufficient, small
9	The people
10	History, sense of community, fantastic park and nature areas.
11	small town kindness
12	History, small size, and greenery.
14	Location
15	The citizens are the best part of Tenino. They are dependable, honest, and hard working. If you want to keep Tenino great, listen to the citizens and don't push political agendas or personal beliefs.
16	It hasn't been ruined yet... no corporations
17	The people
19	Small quiet rural city
20	That Olympia is close.
21	I think the community is what makes tenino great today.
22	Small town strong community feel
23	Low crime and most folks and businesses seem to take pride in the area they live in.
24	Community
25	Small town, community,
26	The historical character and the antique shops
27	Small community feel with people helping each other
28	Community based food production.
29	The small town feel.
30	No stop lights, low crime, good neighbors, green spaces

ResponseID Response

31 No stop lights. No round a bouts.

32 Community atmosphere and recreation

33 B

34 The community and its small town feel.

35 Not the tavern nazi bar

36 Tenino has something for everyone.

37 Small town with friendly atmosphere and clean streets and alleys

38 Small town, safe and appreciate the clean streets and ensuring homeless camps do not move in

39 Our park, the history, close knit community, clean downtown

40 Great community and town.

41 Local law enforcement, vibrant business community, excellent parks and school

42 Our police Department, our schools, the people

43 Community, rural character and nature

44 The small community feel we maintain.

46 Family friendly events

47 Charming, artsy, family and kid friendly, close to nature, agriculture

48 Strong sense of community. Safe. History.

49 The park, clean walking trail, Don Juan's&Daves, responsible speed limits through town with good sidewalks.

50 Not much

51 How the community rallies for events like Oregon Trail Days and the art markets

52 History. The close knit community.

53 the community

ResponseID Response

54	Historic feel with modern touches such as the paved trail, play grounds, and baseball fields.
56	Small town feel, history.
57	Community members that stop to chat and care about one another, small town feel, no big chain businesses, low crime, safety, small classroom sizes
58	safety for the most part
59	History, community, recreation, park and natural areas
60	The inclusive, diverse and accepting atmosphere create a safe place for all. The utilization of a local theatre has brought many people to this town and provided a positive outlet for many community members. The town needs access to better internet and cell phone coverage
61	It is a small town and in a world of fast paced growth, this a town that still has that charm and feel of a small town. No fast food, shopping centers and street lights. We have a wonderful community that cares for one another.
62	I enjoy being able to walk to everything in town from our home. The streets are nice, and I feel safe walking. There are some properties that don't pick up dog poop but other than that it's great.
63	We enjoy the quiet small town vibe, that welcomes diversity.
64	Unfortunately the days of Tenino being great are few and far between, between lack luster leadership at the city and state level. The city and surrounding area is taking a big downturn. The one bright spot is the city is still small and somewhat tight nit in some old school ways.
65	Community activities & park & walking trails
66	Community
68	Small town community that is willing to go above and beyond for each other
69	My community and ease of doing business
71	Small town!
72	The park
73	The passion for growth and community connection by several community leaders.
74	Community support for the schools is amazing.

ResponseID Response

75	George Sharp and the initiative he has brought through the EDC. Our business must be supported in order for the downtown core to be visited thereby increasing vitality for all.
76	Not much
77	Don Juan's
78	It's small town character.
79	The community & access to open space & people
80	The lively downtown area and kindness from everyone.
81	small, close knit community
82	Cultural events. Venues. Entertainment.
83	Safe, friendly, great location
84	Independence
85	small town charm, central location, fairly quiet
86	That is is small and not full of chain businesses. Keep Tenino small and local
87	Cute small town, steeped in history.
88	A Sense of community and the park and outdoor rec
89	Small, safe, community
90	Community, unique, safe, history
91	Small town close to bigger towns
92	Being a fairly safe place to live & the community
93	Small town character, nature, and agriculture

5. What do you think would make Tenino even better 20 years from now?

ResponseID	Response
2	If we had more activities things to do in town that won't break the bank
8	I don't know...
9	Tenino needs to be a go to place like Leavenworth, WA, Solvang CA or Niles Canyon, CA. We should work towards celebrating our history.
10	A hotel. Promoting cute shops in the downtown. A theater and a Senior Center. More things to do. Might need the ability to build up more than two stories.
11	Bigger and better community events - bring back the musket shoots, the giant shopping carts and horses in the parade, keep the pool open more days, fix the potholes, figure out a solution for lease barriers for businesses.
12	Hard to say. Repairing the rutted, potholed, crumbling streets would be good.
14	Growth
15	Continued small growth, it's inevitable. Maintain conservative fiscal beliefs but acknowledging a percentage of change in social settings.
16	Some affordable housing but nothing too overboard. It is the highest priority to protect the large farms surrounding tenino
17	Better tourism attractions and more parking options downtown.
19	Slow growth make due with what's here don't ruin history of town with aggressive government growth plans
20	Embracing growth and supporting small businesses that draw people to the community.
21	More reasonable businesses downtown. Things the community can actually afford.
22	Continuing to support schools and local businesses, providing more family friendly activities, continue to preserve historical buildings, keep the small town community
23	Mixed use buildings downtown that better integrates visually with it's more historic buildings, while also adding housing opportunities. It would make that area more vibrant by increasing foot traffic and commercial opportunities, and make it more visually appealing.
24	Make it so I don't have to leave town. A bigger store, more dining options, activities, etc.
25	Better roads, more small business

ResponseID Response

26 A lively arts community

27 build on it and bring people together.

28 Low-income housing.

29 More activities/recreation for children of all ages in our town. Updated schools and continued public transportation to connect with other cities/towns.

30 No city debt, an updated water treatment facility that uses UV light instead of chlorine, low taxes

31 No stop lights. No roundabouts. Teachers that don't let the kids know their political views or sexual orientation. Schools that don't promote gender changes. Schools that are transparent and keep parents informed.

32 Control traffic, have more local businesses and restaurants, plenty of natural spaces, limit growth

33 B

34 Preservation of the past and not destroying it for money and growth.

35 More diversity in ethnicity and culture!

36 A renewed commitment to maintaining Tenino's infrastructure. Better walkability and transit connections.

37 Preserved history with functional modern vibe

38 Expand school properties to support housing growth, improve side streets, add digital speed check signs coming into town

39 More draw to Tenino to keep our local businesses thriving. I think our town is great just improving the we have established.

40 Better more affordable utilities.

41 Continued investments in economic and cultural development

42 Bringing in people who want to invest in our economy, getting more citizens involved and having better transparency

43 Leveraging outdoor recreation to draw in more people for tourism

44 Cleaning up our neighborhood streets. (Sidewalks, paving etc). Revived historical buildings. Larger more vibrant seasonal activities. More locally owned, thriving businesses, more variety in those.

ResponseID Response

46 Safe, family friendly community

47 More restaurants, night life, more walkable on the Eastside, slower traffic from Yelm, different transportation to Centralia and Oly

48 Maintain the unique flavor (no urban sprawl). Maintain history. Natural areas

49 Cleaning up old businesses. Loving the flowers around town! Keeping our park clean and growing! Would love to see another really solid food choice that was higher end. We have lots of so-so places but no clean bar (missing 1776!) and would love something that compliments runs clean and quality like Don Juans. We love the community events and keeping the library clean and available is important.

50 New management

51 Better walkability (sidewalks), better streets

52 A larger focus on the history of the quarries. Restoration of historical structures. Revitalization of downtown.

53 to keep tenino a small town

54 More businesses such as restaurants or shops.

56 Business that stay, more community connection, people who want to help improve Tenino instead of cut eachother down.

57 Walkable downtown with outdoor seating for meals, desserts, coffee, and visiting with each other. Community gathering spaces for all ages, especially dry spaces for young families to gather and connect. Opportunities for older kids to mentor younger kids. More opportunities for creating new adult friendships.

58 as stated earlier more restaurants and stores beyond antique stores bring in natural gas and lower water and sewer cost. Property and levee taxes are killing homeowners

59 Historical character, natural spaces, and recreational opportunities maintained/enhanced while infill in and around city center are developed including some affordable multifamily instead of cookie cutter single family developments on outskirts. And disaster resilience plans developed and actionable.

60 Families want to spend more time at home many work places have adapted a hybrid or work from home option however due to xfinities inability to move up driveways or provide service off the main strip many secure large income Families are drawn away from this beautiful area

ResponseID Response

61	Keeping our town small and not allowing growth. This gives us a unique character that other towns are lacking in this modern age.
62	More sidewalks and more use of vacant properties.
63	Improvements to schools. New buildings off main roads.
64	Embrace the fact that growth is going to happen and being prepared for it. Work on having an actual police force and strong infrastructure and schools.
65	Better maintenance of roads & better Restricted to keep trash from outside of houses in town.
66	More things for our youth to occupy themselves that is free
68	Promotion of small businesses, supporting the unique demographic that is Tenino. Very different from thurston county as a whole and people like it that way
69	Strong community
71	?
72	Dog park
73	Affordable, events, activities and thing to do for residents and visitors every day of the week.
74	Tenino is already a highly walkable community. Repairing sidewalks on Lincoln and away from the park side of town would help families that live on that side thrive and be able to walk to the activities. Right now, the sidewalks on Lincoln are terribly broken and not walkable unless you are surefooted. No one with disabilities could navigate the sidewalks with a wheelchair or cane.
75	Upgraded school buildings.
76	Viable businesses that the population could support.
77	Repair, renovation, revitalization. See previous comment.
78	Being able to drive through it without the headaches of waiting for yields/turns backed up in mornings and afternoons.
79	More economic opportunities & strengthen the access to trails in the park. The park is amazing and is unlike any others. We also need to focus on walkability of the city. We cannot reduce the car trips simply just across town if we do not have safe sidewalks & cross walks.
80	Updated schools and more community involvement activities.

ResponseID Response

81 jobs

82 More tourist attractions, founded on our rich, fascinating history.

83 More diversity of amenities, retaining its historical charm

84 Vibrant downtown. Traffic control and enforcement of noise and speeding ordinances. Make Tenino safe to walk in.

85 1

86 Maintaining its small rural feel, while offering local independent places to spend our money.

87 Maintaining/emphasizing historical significance, and a destination shopping stop for quality antiques, boutiques, and local craftsmanship (arts, bakeries, crafted goods, farm to table, etc). Making sure that everyone feels welcome and supported from all walks of life.

88 Sidewalks, police dept, road improvements, another well

89 Preserving the historic elements, while making it a leader in technological advancements.

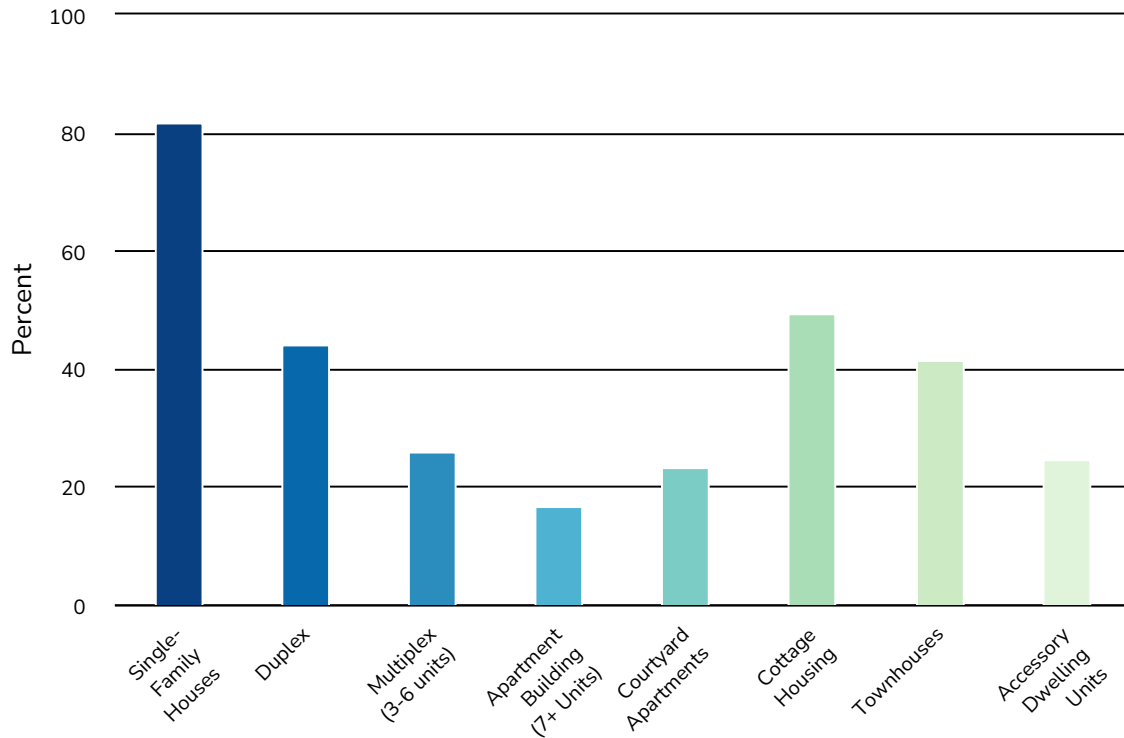
90 A thriving downtown that retains its unique charm. Some self-sufficiency.

91 better sidewalks, traffic signals (morning and afternoon traffic is horrible) and a bigger community center that residents can rent for occasions (possibly using a location on Sussex to help revitalize the downtown area)

92 More restaurants options & more activity options

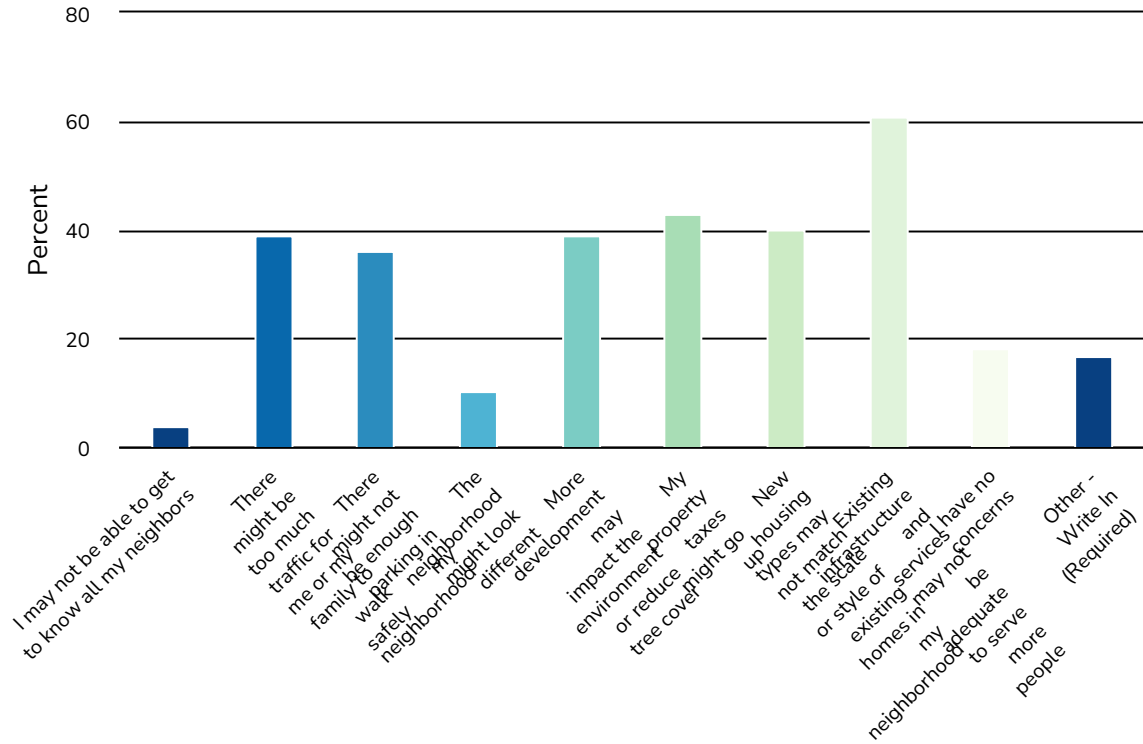
93 More connection to outdoor recreational opportunities and a stronger downtown business core.

6. Which housing types do you think would fit in with existing residential development? (Select all that apply.)



Value	Percent	Responses
Single-Family Houses	81.8%	63
Duplex	44.2%	34
Multiplex (3-6 units)	26.0%	20
Apartment Building (7+ Units)	16.9%	13
Courtyard Apartments	23.4%	18
Cottage Housing	49.4%	38
Townhouses	41.6%	32
Accessory Dwelling Units	24.7%	19

7. What are your biggest concerns related to allowing different housing types? (Select all that apply.)



Value	Percent	Responses
I may not be able to get to know all my neighbors	3.9%	3
There might be too much traffic for me or my family to walk safely	39.0%	30
There might not be enough parking in my neighborhood	36.4%	28
The neighborhood might look different	10.4%	8
More development may impact the environment or reduce tree cover	39.0%	30
My property taxes might go up	42.9%	33
New housing types may not match the scale or style of existing homes in my neighborhood	40.3%	31
Existing infrastructure and services may not be adequate to serve more people	61.0%	47
I have no concerns	18.2%	14
Other - Write In (Required)	16.9%	13

Other - Write In (Required)	Count
Any new multifamily housing units must have on site parking and not rely on street parking. We also need to keep the character of our neighbors. Must enforce the regulations you have in place when property is subdivided. Also need to clean up City right of ways	1
Cost of available houses	1
I want Tenino to stay a small, tight knit community. No more multi family dwellings.	1
It would be horrendous for Tenino to become the next Yelm. No more green, just large apartment complexes and postage stamp houses crammed together	1
Lack of actual planning for impact.	1
More city spending when the government is already too far in debt and passing that cost onto taxpayers	1
More housing and people as long as it is affordable and accessible	1
Our city can't handle more growth. We don't have the means to.	1
School capacity	1
Size and access of schools. Things we're seeing impact Yelm like water and traffic.	1
Too inexpensive/subsidized housing attracts more crime.	1
We ♥ T90!	1
decreasing property value	1
Totals	13

8. What are your thoughts on the current height limit of 35 feet in all of Tenino?

ResponseID	Response
2	I think it's smart no one wants skyscrapers here it's a small town that's all it needs to be
8	Agree
9	For single family homes this is fine. But anything above 35 feet should be apartments for our veterans or senior citizens only.
10	There isn't the real estate to support this. Building up makes sense and can still feel old fashioned.
11	approve
12	I approve.
14	Effects change and growth
15	It keeps a small town feel to the town which is why many residents have moved here.
16	Raise it to 500 so the rednecks can have extra tall tree stands
17	No concerns, OK to go higher.
19	Again govt stay out leave in place no high density housing
20	I think that it's a reasonable limit
21	I think it's important to ensure new developments blend in with existing architecture and preserve the overall aesthetic of a community.
22	No concern
23	For downtown area, it really limits growth. Higher buildings downtown capped at maybe 3 stories would be great for mixed use development.
24	No point
25	It keeps the town vide the same. Less Tumwater-ish
26	High rise buildings above 35 feet will be out of character with the historic town.
27	get rid of height limits. People should be able to build how they see fit.
28	No Higher

ResponseID Response

29	If too tall, views would be blocked.
30	Good. It keeps the look of a small town and allows for scenic views of surrounding greenery
31	It should remain.
32	Excellent, keep it!
34	I think it needs to stay
35	Na
37	I like it!
38	Keep it
39	Don't care
40	No issues
41	It should be raised downtown to allow for second and third story residential in our commercial zone
42	We need to allow for higher density and ability to go up
43	None
44	I'm ok with this. We are a small community. Seeing the trees and sky at night is the point of living in a smaller town like Tenino.
46	I think it helps keep our community personal
47	It's adds to the look of a small town but I don't care as long as it adds to the affordable housing in town
48	Silly. There isn't the real estate to restrict height.
49	Great!
50	Ridiculous
51	Seems like a good limit
52	Appropriate
53	don't know that was a thing

ResponseID Response

54 No thoughts.

57 Great!

58 ok

59 That's plenty tall. Appropriate height limit.

60 If the reasoning is current i agree however if it is a limit out in place years ago with no thought to how many more people could be served then it needs to be re evaluated

61 I like it, we don't need anything bigger.

62 I don't have any preference. Although, it is kind of add to the small town feel having no buildings over 35 feet.

63 Agree

64 This needs to be updated to allow better access and better balance of building to be built

65 Am good with it

66 Nobody should be told what they can and can't do on their own property within reason straight out

68 No thoughts

69 I agree with this

71 Perfect, no higher

72 None

73 None

74 No concens

75 I like it

76 It's fine, no reason to go taller

77 It's dumb. Literally stunting growth.

78 The height limit should stay in place to keep the small town character.

79 I think downtown is tall enough. Could maybe see a taller building at the edges of town if they are tucked in and blend

ResponseID Response

80 I think it's great for downtown to not block the beautiful views.

81 could be negotiated w industrial uses

82 I think we need to build more housing up, than out. The height limit needs to increase.

83 I like that

84 Fine for now. That's 3 stories. Allows lots of multi family development

86 It is great. Id support it being 30 feet

87 I like it— it allows for you to view tree lines.

88 At this point that is good unless the developer is purchasing a firetruck that can reach that high

89 I think the reduced height is not a barrier to more robust development. Keep the cozy feel, and not impede the natural environment.

90 There is a limited footprint in Tenino, we should be building up.

91 perfect, don't change it

92 No issues

93 it's appropriate

9. What other comments would you like to share about housing in Tenino?

ResponseID	Response
2	Try to help the 3x the rent it's out of a lot of people's reach
9	No more trailers. Unless it is a tiny home community for veterans or senior citizens.
16	Don't be like tumwater, grandmound
19	Keep big city planning out we are historical small town with growth limits
20	We need more.
21	Fiscal impacts of developing new housing will affect the low income community of tenino. Property taxes are already outlandish.
24	Expand housing
28	Collective Developments
29	Homes should be built more solid and not so close together.
32	No multi plexes or large condos
35	It's over priced
41	We don't allow for enough multifamily in areas where it would likely develop
42	There's very few options for people in their 20's
43	There is lots of opportunity for infill development in city limits.
44	I love the old housing in Tenino. I would love to see our streets cleaned up....in terms of addition of sidewalks, repaved streets etc. I would love to see our in town neighborhoods with safer walking paths that would be provided by this. Kids have no sidewalks, so biking, skateboarding, walking is done on narrow streets. As a family with children, near the downtown area, this is something I see being a necessity to facilitate safety. For kids and families, for not only school access, but other local community and activity access.
46	None
47	Needs to be more affordable and people need incentives to develop ADUs to help with multi generational housing
49	Not a lot of opinions. Just want to keep our community clean and our schools and rec areas a safe place to be.

ResponseID Response

57 We have lots of big properties with spacing between neighbors, which I love, but we need more opportunities to gather and get to know each other. Also, as our kids grow up, will they be able to buy a home in their hometown?

58 some houses need to remove old cars and rubble from their yards, but never have HOA

59 I dislike lots smaller than quarter acre. The newer developments are all house and no yard. We live in a rural community, those neighbors have less space to garden, play, plant trees that benefit wildlife, etc.. I suggest decreasing density slightly to 4 lots per acre.

60 What housing is here is unattainable to most families- the cost is high to get sub par utility coverage (phone and internet) and what is available for a family with 2 kids is not realistic in its requirements. We want our schools and business to thrive but we are pushing out the newer generation of families by not offering decent high speed internet cell towers and bus service

61 Keep our town small, please

62 I don't like the ideas of apartments or shared units because I don't think we need to add to the population. I believe we should prioritize using vacant properties rather than tearing down and replacing or adding anymore housing.

64 The city needs to look at ways to attract builders, if the housing is built the people will come.

66 People should be allowed to live in RVs on their own property in city limits if it's not obstruction of peace or environment

74 In general, housing in Tenino is limited, mostly due to Tenino being smaller. However, there are multiple vacant or condemned houses on the Lincoln Ave side of Sussex that the city could utilize for housing.

75 The small town look is important.

76 Enforce the existing codes and make people clean up the derelict properties around town

77 The houses are old and poorly maintained. They lack really any curb appeal, giving a dingy apathetic impression of the town as a whole.

78 Townhouses and/or cheaply-built compact housing does not match the character of Tenino.

81 buildbuildbuild

84 Enforce codes. Get cars and trucks off of front yards. Enforce existing rules

86 Only allow single family homes

ResponseID Response

87 We need more houses with character. Bungalow style homes are more charming and appealing to the eye than boxed housing development homes.

88 We need to not lose the character of some of the older sections in our town. Caton St., Wickman Street MacArthur Street. New development in those areas must be in the style of current homes.

89 none

92 Please don't build too much housing that our infrastructure cannot handle, and not too many businesses. Please don't turn us into Yelm!

93 There's lot of opportunities for infill.

10. On a scale of 1 to 5, how well does Tenino's transportation/road network meets your needs: 1: It doesn't meet my needs at all – I don't feel safe and I can't get where I want to go very easily 5: It's perfect for me - it feels safe, well-connected, and efficient

Rating

As a Driver?



Count: 75

Not Applicable: 0

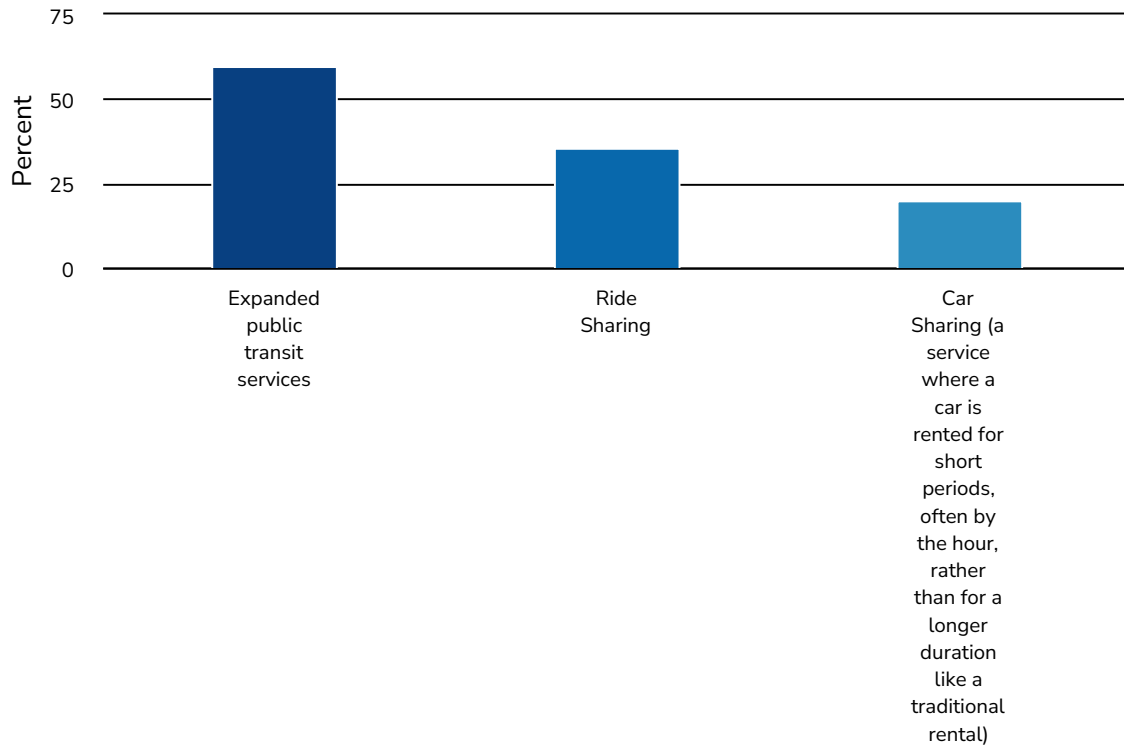
As a pedestrian or bicyclist?


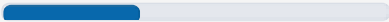
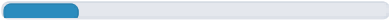


Count: 75

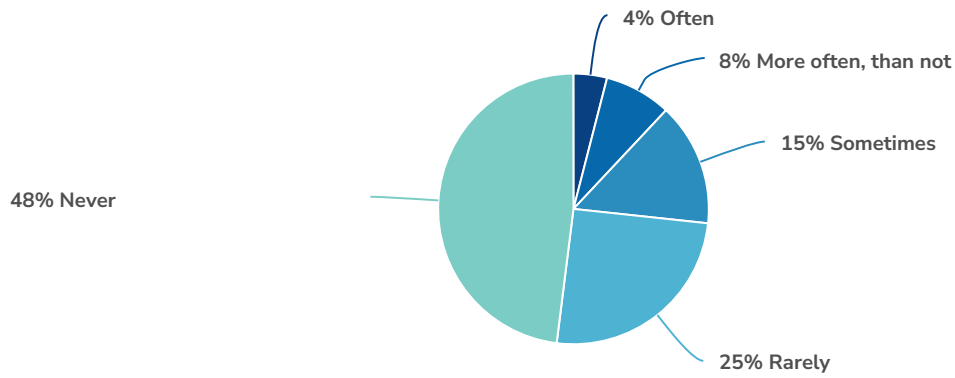
Not Applicable: 0

11. If any of the following public transportation options were available, which would you use?



Value	Percent	Responses
Expanded public transit services	60.0% 	45
Ride Sharing	36.0% 	27
Car Sharing (a service where a car is rented for short periods, often by the hour, rather than for a longer duration like a traditional rental)	20.0% 	15

12. If public transit was available how frequently would you use it?



Value	Percent	Responses
Often	4.0%	3
More often, than not	8.0%	6
Sometimes	14.7%	11
Rarely	25.3%	19
Never	48.0%	36

Totals: 75

13. What do you think Tenino’s transportation/road system needs? Is there anything missing?

ResponseID	Response
2	Sidewalks and roads for smooth riding for all
8	Better areas for crossing
9	Sidewalks. Oh and the trestle needs to be widened
10	Round about at crucial intersection. Turn lanes at Tenino Elementary School. Hard to cross the street in downtown. Traffic calming features on Park Street
11	I think the roads need serious help, and the school bus situation is sad
12	Pavement. Repairs. Maintenance.
14	No
15	Just normal road repair is always needed.
16	Train
17	Roundabouts
19	Police enforcement of speed limits
20	Actually offering public transit
21	No.
22	No
23	Sidewalks! And half the road missing from the corner of W 6th Ave and 507/OldHwy99
24	No
25	Potholes fixed,
26	I drive everywhere so I don't use public transport but I do think its important to have.
27	Main drag needs to be flattened so driveways are smoother. The center arc of the road is too high. Rais the speed limit back to 30. 25 means everyone drives at 15-20 now.
28	Collective Ride Share - Car Sharing
29	Covered, lighted, bus stops.

ResponseID Response

30	Better surfacing on existing streets
31	Pot holes
32	Connecting bike trail to rural areas
34	To be better maintained
37	No opinion
38	Speed bumps around the school properties particularly behind baseball fields and park entrance
39	Not sure
40	Some side streets need repaving
41	More sidewalks
42	Uber
43	More bike paths
44	No
46	A cross walk from the market across the main street going through Tenino. School kids and many others cross there but there is no cross walk in the area
47	Eastside crossing for Sussex (near the welcome sign)
48	Roundabouts. Traffic calming features on Park street. People go fast and don't stop for pedestrians.
49	Just road maintenance upkeep for pot holes. Love safe sidewalks.
50	Good roads
51	The turn from Sussex to Wichman needs to be a roundabout or light or something. That is a difficult spot. Also there are a lot of potholes that need to be addressed on side streets
52	More frequent busses to Olympia
53	no
54	Sidewalks! At least from marketfresh to Bowen Way before the turn.

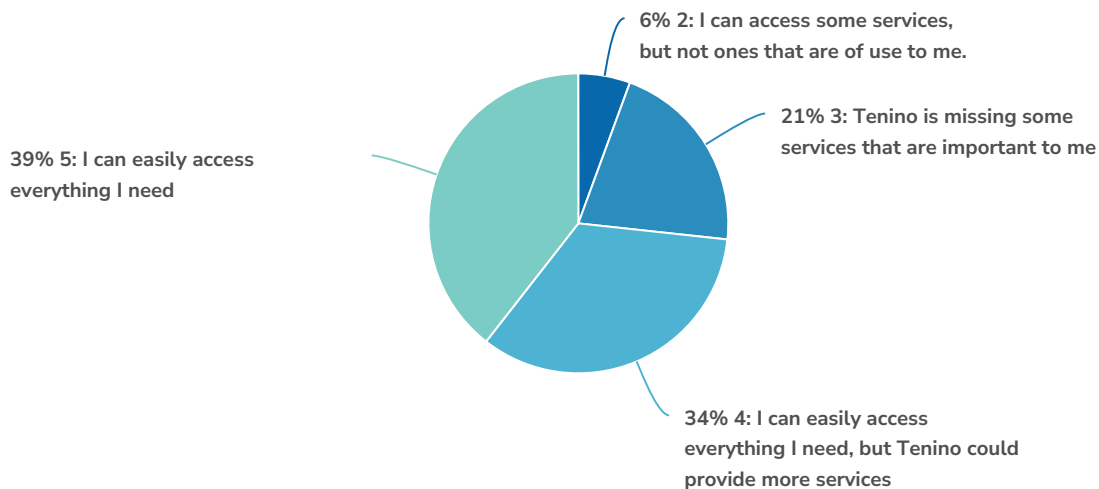
ResponseID Response

57	It's great for me as a driver. Potholes suck, but the city fixes them fast. Access to public transit for youth would be great. Things to get them from rural properties to their friends and Oly life.
58	NA
59	Traffic circle at the NAPA.
60	Public transportation- turn lanes at intersections that do not have lights (near the store ect)
61	City bus service to and from Olympia
62	More sidewalks and crosswalks with lights to encourage drivers to slow down or stop for pedestrians
63	Round about 507 where 99 intersects with Sussex
64	A better maintenance program
65	Better maintenance of roads. Some are good where so many are not maintained
66	Less potholes
68	Other options beside one main artery of traffic through downtown
69	None
71	?
72	Idk. Maybe a roundabout
73	N/A
74	The sidewalks on the Lincoln Ave side of Sussex are terrible!
75	I'm happy with the layout and traffic signage. Keep the pothole filled in a timely manner to prevent bigger repairs.
76	Better crosswalks and driveable streets
77	Road maintenance, possible widening, traffic signals so you're not waiting on a gap in the constant flow of cars to make a turn or merge.
78	Two traffic lights. 507 & Old Hwy 99, both sides of town!

ResponseID Response

79	We need roundabouts by the parts store and by the grocery store. We need to fix the flooding by black bear. We need to fix the backup by the elementary school during pick up and drop off. We need more crosswalks by the park especially. Sidewalks are lacking and I think the city needs to find a way to fund them without waiting for redevelopment of the properties.
80	No they're just fine
81	build for the future
82	A roundabout on SR 507 instead of the Y in town. More sidewalks on side streets. More barriers between the roads and sidewalks.
83	I am happy with it.
84	Enforcement of noise and speeding ordinances is completely missing. Revenue potential for City and better experience for residents. Most trucks violate noise ordinances.
86	It is perfect. Do not bring in more public transit.
87	The roundabout at the Old Hwy 99 and Sussex! :)
88	Roads need repaired. Sidewalks need to be maintained and accessible. And we need more sidewalks at least one side of each street.
89	More foot paths for pedestriations.
90	Roundabouts. Traffic calming features on Park street. People go fast and don't stop for pedestrians.
91	sidewalk repair and bus lines
92	Shared scooters
93	more bike trails

14. On a scale of 1 to 5, how well are you able to access the services you need? Think about utilities, telecommunications, emergency services, schools, recreational opportunities, senior services and other public services.



Value	Percent	Responses
2: I can access some services, but not ones that are of use to me.	5.6%	4
3: Tenino is missing some services that are important to me	21.1%	15
4: I can easily access everything I need, but Tenino could provide more services	33.8%	24
5: I can easily access everything I need	39.4%	28

Totals: 71

15. Are there services or facilities missing in Tenino? If so, which ones?

ResponseID Response

8	A public restroom near downtown
9	Safe Walking paths.
10	I do go elsewhere for most healthcare. I know seniors could use more community.
11	arcades/youth areas bowling! :) I mean... we seriously need teriyaki
12	More police. As the community grows, the current arrangement will be less and less adequate.
15	None
16	Marijuana dispensary
17	Community Center
19	None
20	Good medical care, espresso shop (sit down), Asian food, arts and crafts opportunities, various restaurants (not more Mexican food).
21	No
22	Emergency or urgent care
23	We need a basketball court at the park and also tennis or pickleball.
24	Yes. Get more specialized medical care. A hair salon.
25	Internet
26	An auditorium for local theatre groups, productions, special screenings of movies, art exhibitions etc.
27	Teriyaki restaurant
28	Car Sharing
29	No, I can access everything.
30	No
31	I don't know right now

ResponseID Response

32	More baseball/soccer fields
34	A community center
38	None
39	Not sure
40	None
41	Not really
42	No
44	No
46	None
47	Music venue, affordable groceries, nursery
48	Senior Center. A place for youth to hang out. Could use better health care.
49	We have young kids and really enjoy the park and community events for their ages at this time. The music festival in the summer is fun too. Great job Tenino!
50	More police
51	N/a
52	Local police
53	well if we lose our police we won't have that
54	Younger kids recreational activities
57	Community gathering for young families, especially during rainy months and for families with 2 working parents. Gathering space for youth (arcade, ymca, etc). A coffee shop to sit and meet a friend.
58	food service is very limited
59	Overnight lodging.
60	Decent high speed internet Senior services or programs Reliable cell phone service Affordable grocery option Community center of some kind
61	Public transportation

ResponseID Response

62	Not that I can think of off the top of my head.
63	Auto Repair shop
64	As the city grows, I believe more food options will need to be available. This will also add opportunity for youth to get jobs locally.
65	Lower water/sewer bills
66	Youth services! A community youth center!
68	No comment
69	Not sure
71	?
72	Internet
73	N/A
74	None that I can think of
75	I live in unincorporated Thurston County and I would have skipped the previous question if I could have. It is my perception though that infrastructure services already available to City residents.
76	No
77	.
78	N/a
79	Expansion of available services and opportunity for residents to pick better cost effective services. Also sewer is way too expensive for me.
81	jobs
82	Not that I can think of.
83	More recreational activities or more diverse activities.
84	No
86	Id like another option to eat out that is not branded for selling alcohol

ResponseID Response

87 Is there a senior center? Or Youth center? Or community center that houses all of the above?

88 A senior citizens center. Not just lunch but recreation. Better sidewalk so elderly can walk pickle ball courts.

89 Nothing specific I can think of at this time.

90 Recreation Center with all ages activities.

91 laundry facilities open to the public 24/7. Tenino really could use one.

92 Urgent care

93 More recreational opportunities for kids and families.

16. What other comments would you like to share about infrastructure, or public facilities and services in Tenino?

ResponseID	Response
8	Nothing
9	Have a way for kids to earn a day at the pool.
10	Places for family to stay when visiting the area.
11	Please keep the old town feel - love the architecture and how Sandstone and 1776 and Kodiak and Edward Jones have managed to honor it.
12	Public bathrooms.
15	None
16	School zone by the middle school needs work
17	N/A
19	Take care of residents here and don't be influenced by crazy growth plans of surrounding cities >>> they are a nightmare with traffic crime high density housing etc
20	N/A
21	None
22	None
23	I think maintenance does a fantastic job of keeping things working and looking nice.
24	None are useful to me
25	None
26	I love Tenino!
27	NA
28	Home repair collective coordinating aid and equipment
29	None
30	Only that the flow of traffic is good because there are no stop signs or traffic lights on the main road.
31	None

ResponseID Response

32	Urgent care?
34	The food bank needs a new building. It serves so many in our community and they need more space.
38	None
39	None
40	Sewage is way too expensive
41	Continued local Law Enforcement services need to be maintained at proper levels
42	Our Police Dept needs continued support
44	Again....better paved neighborhood streets and sidewalks
46	None
47	Teens need a place to hang out
48	na
49	None
50	Need to hire more police
51	N/a
52	Historical restoration
53	hdjd
54	N/a
57	None. I love our town and appreciate the care you all put into doing it well. Look at other cities and their development for clues. Things like growing sustainably, building cohesive neighborhoods that flow together, managing traffic, and ensuring resources are available for the population.
58	nothing
59	Staff to maintain things is a challenge as I understand it. We have a lot of resources that go underutilized as a result. Park bathrooms, the pool, campgrounds, etc. The staff we do have do so much and we appreciate them.

ResponseID Response

60	I love tenino however I am unable to work from home or stay in town as much as I want due to the un reliable internet (it high speed) and lack of cellular connection- I can fix the phone with WiFi but cannot work from home and have my phone on the internet reliably. These Two issues are stopping younger families from relocating to our amazing town as more and more Biden ss are offering hybrid and work from home options
61	Public transportation would be the only nice thing to have
62	N/A
63	NA
64	Not just Tenino but all surrounding areas need to do a better job on infrastructure. Especially maintaining stripping of roadways.
65	None
66	Na
68	No comment
69	None
71	?
72	None
73	N/A
74	The city is very walkable and accessible to all, except some of the sidewalks are in need of major repair. The whole town is not on the park side. Other people live on the other side of town and want to walk too.
75	Tenino is the best little city. Thanks for investing in the quarry pool, the holiday decor, summer flowers, and metal markers along Sussex. All this enhances our presentation and invites people to stay awhile and spend money.
76	None
77	.
78	N/a
79	Expanding the sewer needs to not make it more expensive
81	jobs

ResponseID Response

82 Thank you for the opportunity to provide input into Tenino's right future.

83 I would like more diversity with food options and more recreational activities.

84 None

86 Tenino is great the way it is

87 Just the cost of water and sewer.

88 Fix our roads

89 It would be nice to see reclaim irrigation water available for residential and commercial water customers.

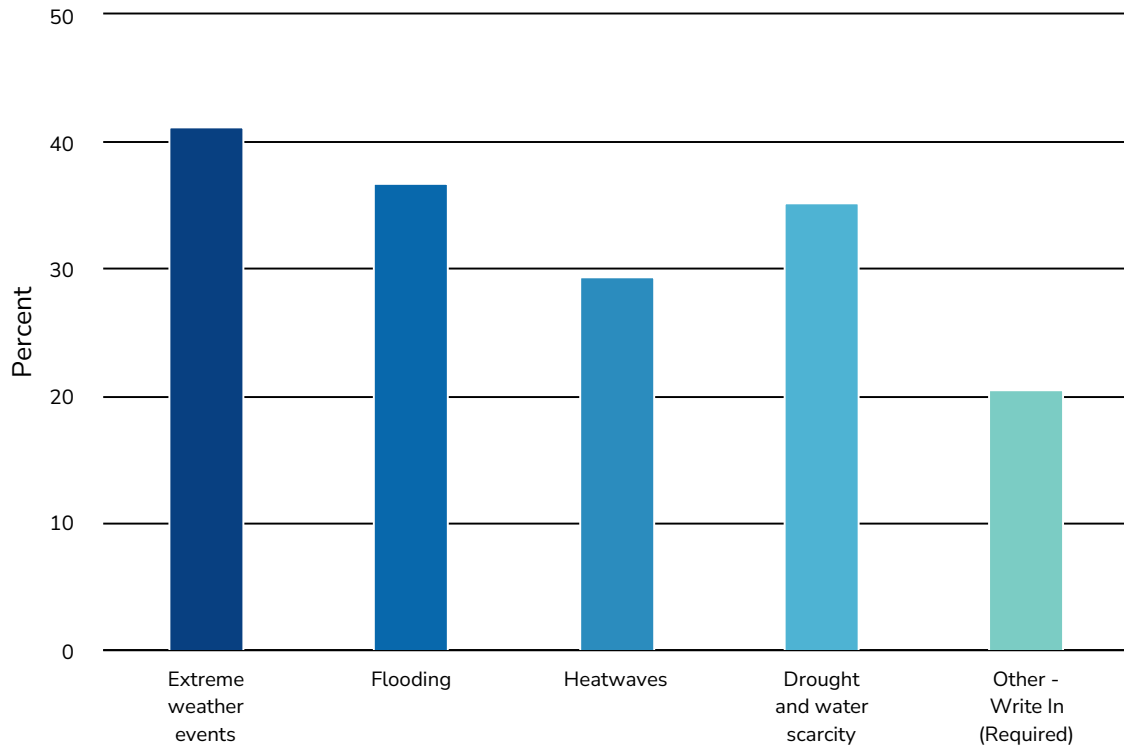
90 Tenino needs guest housing. Hotels, etc.

91 I've lived here since 2019 and the seems the plumbing and sewer systems haven't been updated to accommodate the influx of residents. The sidewalks need repair for safety and we could really use a city laundry mat.

92 Nothing

93 More recreational opportunities for kids and families.

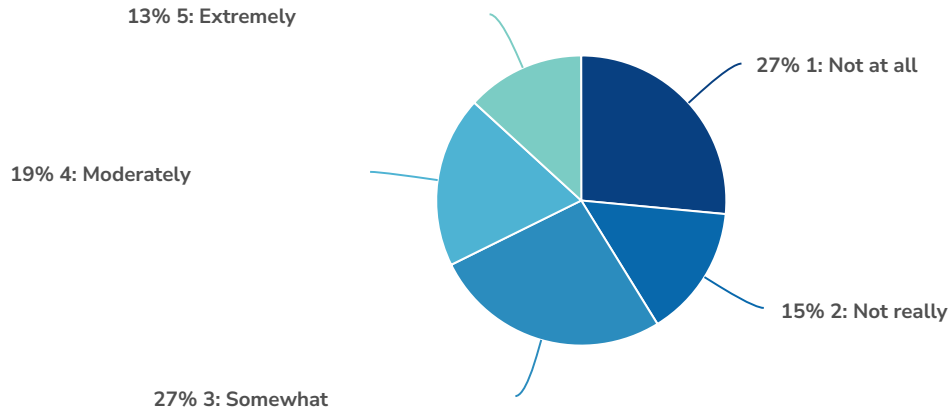
17. In your opinion, what are the most critical climate-related risks facing this community? (Select all that apply.)



Value	Percent	Responses
Extreme weather events	41.2%	28
Flooding	36.8%	25
Heatwaves	29.4%	20
Drought and water scarcity	35.3%	24
Other - Write In (Required)	20.6%	14

Other - Write In (Required)	Count
0	1
Fire	1
Fires	1
Fires	1
I don't believe in climate change	1
Loss of native plants, destabilization of soil, large evergreens falling, need to replace natural trees with those that are more drought tolerant.	1
None	1
None, really.	1
None. Tenino is in an extremely safe area.	1
Seriously?	1
There are none	1
Wild Fires	1
fire	1
nothing climate related most likely poor management of water sources	1
Totals	14

18. On a scale of 1 to 5, how concerned are you about the potential impacts of climate change in Tenino?



Value	Percent	Responses
1: Not at all	26.5%	18
2: Not really	14.7%	10
3: Somewhat	26.5%	18
4: Moderately	19.1%	13
5: Extremely	13.2%	9

Totals: 68

19. What community assets in Tenino (e.g. natural areas, buildings/landmarks, infrastructure, cultural resources, etc.) should be protected against climate impacts and/or natural disasters?

ResponseID	Response
8	All
9	Downtown, the pool, the depot/quarry house
10	All of them if possible...historic buildings (historic district and museum), forests/park, homes.
11	downtown should be protected against flooding
12	Skookumchuck Dam needs maintenance and monitoring. Flood events happen. They should be planned for.
15	Protect the quarry pool.
16	The old ones on Sussex
17	Downtown buildings
19	Can't think of any
20	The forested area south of the Tenino/Yelm trail, the structures in Tenino's park
22	Not sure
23	Downtown and the park when it comes to drought and the potential for wild fires.
25	The swimming area and historic buildings
26	Historic landmarks
27	Parks and historical buildings along with Schools. Grocery store and gas stations.
28	Natural Areas
29	The schools and the grocery store.
30	Protect green spaces from development
31	All
34	The quarry and the main downtown strip

ResponseID Response

38 Unsure

39 Not sure

40 Unsure

41 Historic buildings

42 Don't know

44 All

46 None

47 Water access, food access, shelter for people

48 Historic downtown, Museum. Homes. City Park

49 Historical buildings and schools

50 Quarry

51 The historic buildings/museum

52 All

53 jsns

54 Personal homes and schools.

57 Parks, homes, roads, schools, businesses.

58 people and their homes and property

59 Historic downtown. The park. My house!

60 The bridge needs to have the water flow fixed before it destroys the road and causes collapse of the overpass killing people

61 Buildings

62 Anything historical to the town

63 All

ResponseID Response

64 I'm all for preserving the old town look and feel but at what cost. Putting thousands of \$\$ into the face of a building to look nice as the road and curbside are falling apart doesn't make sense.

65 Dirt parking lot near park

66 Na

68 No comment

69 Not sure

71 Landscape from development

72 ?

73 Tenino City Park/Quarry Pool area

74 The quarry and historical buildings

75 City Park, quarry pool, drinking water reservoirs/aquifer.

76 None, climate change is a joke

77 The huge bloody forests that surround us and may be vulnerable to wildfires.

78 N/a

79 I think that flooding has posed a large threat to Tenino for years and has been ignored and needs to be fixed because it will destroy our roads. Our community assets are our roads, our park, our school, and the historic downtown.

82 Depot museum. Quarry and house. Downtown businesses. Schools.

83 The historic downtown and the park and buildings there associated with the old quarry. Necessary natural resources.

84 Trees

86 The old Quarry and the museum that sits by the railroad

87 A water preservation system?

88 We need a pocket park to protect Ezra Meekers stone on Main Street

ResponseID Response

89 Water, sewer, and storm water plants should be protected against extreme weather events. As well as the water supply should be protected. Reduction of potable water use should be encouraged, through more availability of reclaimed water for irrigation purposes.

90 Historic District, Museum, Park

91 the city park, schools and the power station between the middle school and high school

92 Schools, historic buildings

93 Parks and historic buildings.

20. What other comments would you like to share climate-related vulnerabilities in Tenino?

ResponseID	Response
8	None
9	What do we do if there is a fire like what happened in Southern California
10	A fire plan is important.
11	none
12	Not much.
15	There are none.
16	.
17	N/A
19	It is overstated in this state more pressing problems and making state to expensive to live in
20	N/A
22	None
23	none
25	N
26	What about the risk of fire during dry periods.
27	none
28	Rules limiting cutting down trees. Requirements for Trees in new development
29	None
30	None
31	None
34	None
38	None

ResponseID Response

39	None
40	None
41	N/A
42	Don't know
44	Na
46	None
47	Wind is extreme - underground our utilities if possible
48	Hopefully we can get more water rights.
49	Not too concerned.
50	None
51	I am always concerned about the fire risk in the summer, and especially with fireworks on the 4th of July. I would love if the city restricted firework use in city limits.
52	Green power
53	nsndn
54	N/a
57	We need education about how to help. In California there are days we were instructed to not water our lawns. The public needs to hear often that climate change is real and, if we work together, we can live more sustainably and be better prepared for the inevitable.
58	none
59	Solar initiatives may help energy needs in heat waves. Community center with filtered air and AC may become a necessary resource in summer smoke and heat events.
60	Tenino needs to be aware of pre watering and trimming trees and grass to protect from Fires
61	None
62	N/A
63	NA

ResponseID Response

64	We live in a rainy climate, make it a safer drive and put down quality roadway markings.
65	To keep park walkways free from moss during winter so they are not slippery when walking
66	Na
68	No comment
69	None
71	?
72	None
73	N/A
74	None
75	Whether it's climate-related disasters or natural disasters like earthquakes, I heard we are working towards an emergency plan for powering the high school during city power interruption emergencies. I think this is a good decision for supporting our city's population.
76	None
77	I would like increased forest management for the long term health and safety of the forests and the citizenry.
78	Old Hwy 99 to the west of Bucoda HWY is always flooding due to poor drainage. Even something as simple as a ditch going into Scatter Creek would be better than they way it's been for years...
79	Flooding needs to be fixed otherwise in a disaster we will be trapped. Every exit out of Tenino has a flooding issue. Work with the county to fix the problems outside of the city as well.
82	NA
83	None
84	None
86	none
87	The smoke and air quality— maybe an earlier fire ban? To help combat the inevitable smoke pollution that comes from fire season? (So we only have poor air quality during fire season and not have to have smoke right before fire season from people burning?)

ResponseID Response

88 Why don't we have a flood gauge on the scatter Creek Bridge by Tenino Elementary school that is tied into the Thurston County network

89 It would be nice to see, an effort to reduce urban heat islands. By increasing vegetation by planting trees and creating green spaces, and implement cool roofs using reflective materials. These strategies could help lower surface and air temperatures, improving overall urban comfort and reducing energy costs.

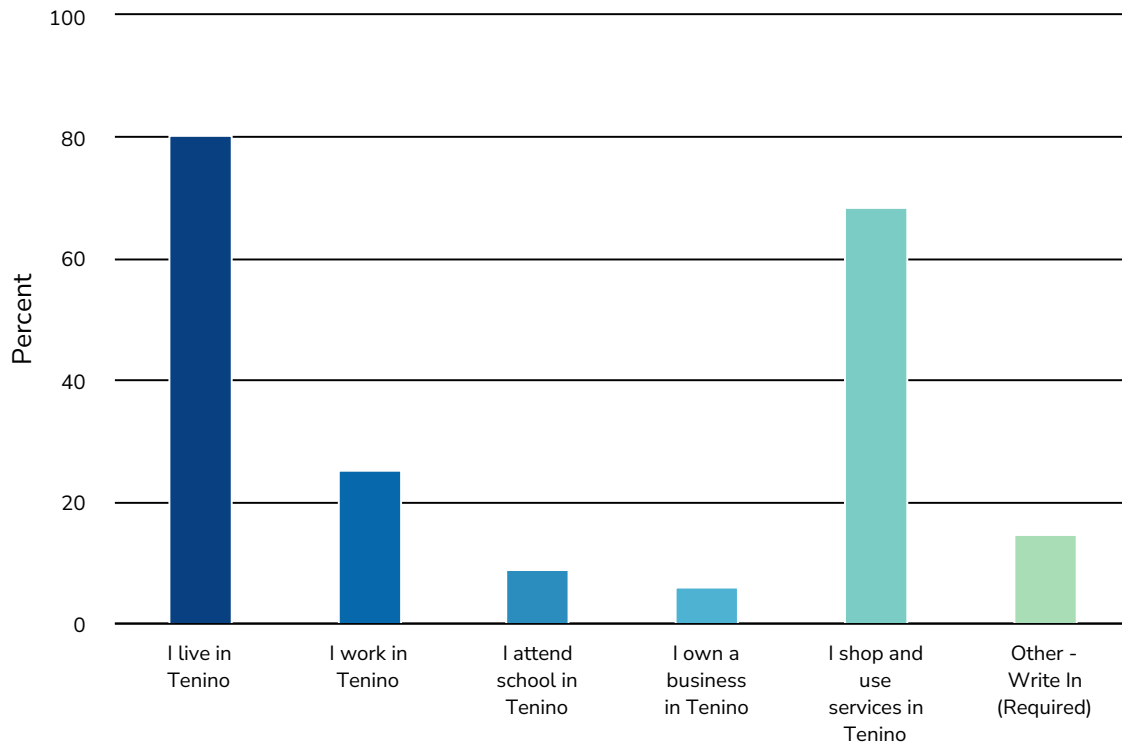
90 n/a

91 I'm not too concerned about this for Tenino

92 None

93 none

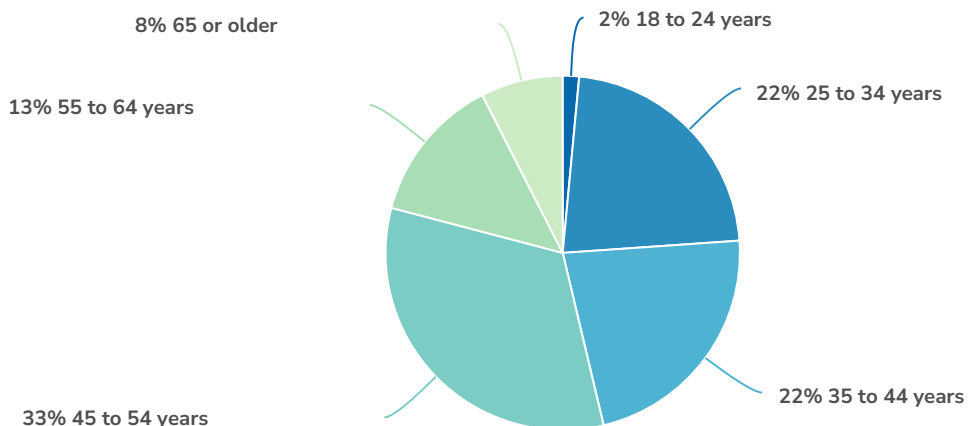
21. What is your relationship to Tenino? (Select all that apply.)



Value	Percent	Responses
I live in Tenino	80.6%	54
I work in Tenino	25.4%	17
I attend school in Tenino	9.0%	6
I own a business in Tenino	6.0%	4
I shop and use services in Tenino	68.7%	46
Other - Write In (Required)	14.9%	10

Other - Write In (Required)	Count
Children attend Tenino schools	1
GENERATIONS of us live here	1
I live in yelm, but plan to build a home in tenino in the near future.	1
I live just outside of city limits.	1
I live walking distance of Tenino	1
My child attends school in Tenino	1
My children will attend school here	1
My grandchildren attend school in tenino and I performed in local theatre in tenino	1
Past residents	1
attend events/volunteer	1
Totals	10

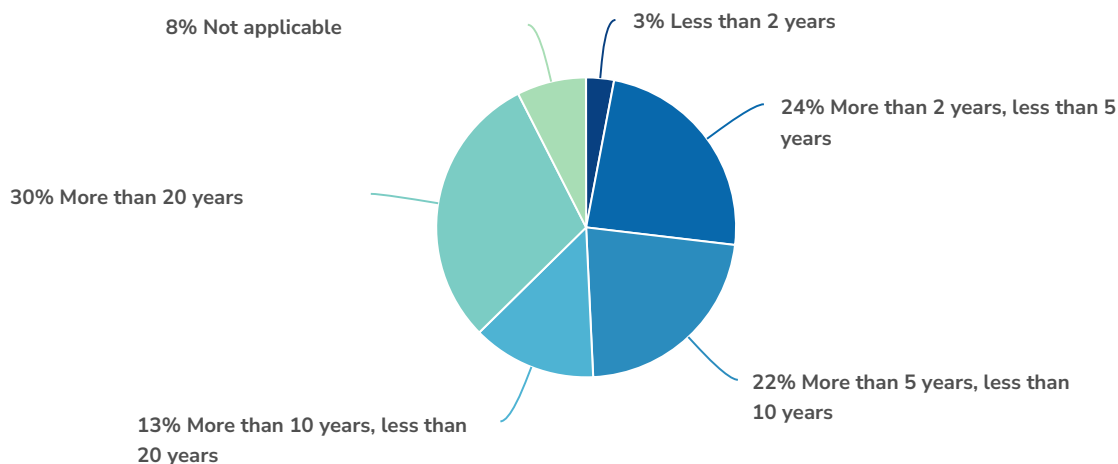
22. What is your age range?



Value	Percent	Responses
18 to 24 years	1.5%	1
25 to 34 years	22.4%	15
35 to 44 years	22.4%	15
45 to 54 years	32.8%	22
55 to 64 years	13.4%	9
65 or older	7.5%	5

Totals: 67

23. How long have you lived in Tenino?



Value	Percent	Responses
Less than 2 years	3.0%	2
More than 2 years, less than 5 years	23.9%	16
More than 5 years, less than 10 years	22.4%	15
More than 10 years, less than 20 years	13.4%	9
More than 20 years	29.9%	20
Not applicable	7.5%	5

Totals: 67

24. How long do you plan on staying in Tenino, and what is influencing your decision?

ResponseID	Response
8	For life; age
9	I will be staying in Tenino until I am taken out of my house feet first.
11	possibly moving soon due to political climate
12	The rest of my life, if we don't have to sell due to high taxes.
15	Although I don't currently live in city limits (I'm about 7 minutes outside) I did live in town for almost a years. I have worked in town for almost 30 years now. I plan on staying until I retire and may move back inside city limits at any time. I love Tenino for it's small town values and feel.
16	I plan to leave soon, nothing against tenino it's a Washington problem
17	Nice community
19	Forever
20	Want to move away soon. Small town mentalities don't work for me.
22	Forever. Love the small town community!
23	As long as possible. Property taxes and cost of living are making me consider other options though.
25	I moved away due to the schools
26	I don't intend to move at all. The best of rural living, beauty of nature and a great community all round me.
27	until i die. I have a nice place where I am at.
28	Forever....
29	I hope a long time. I own my home.
30	Indefinitely; proximity to job
31	Forever, unless property taxes force me out. My land has been in the family since 1950
34	Don't know. Depends on if the state taxes me out of living here.
38	20 years, small schools, small community, no homelessness, great neighbors

ResponseID Response

39	Always have a home base in tenino
40	Many years, bought home in 2023
41	Undecided
42	For a long time
44	As long as we can afford WA state (taxes are insane) We love the community feel as a family. We enjoy a small town feel and schools for our kids while also seeing diversity in the community. Having close access to activities for family.
46	We just moved to bucoda last year but still use Tenino on a weekly basis
47	Forever - raising my babies here
48	forever
49	Never moving. EVER! Ha!
50	Death
51	Undetermined, we have no plans to move though.
52	Indefinitely. The area has potential
53	bsbsjeje
54	I want to stay in Tenino for the next 5 years, at least. I love the small town feel with the convenience of a grocery store and gas station. I love the opportunities for my kids to play at several play grounds and to walk on the paved trail. I consider leaving because of the reputations of the schools and the lack of housing available.
57	At least until I retire. I love it here. Not sure if we'll be able to afford to stay once we retire though.
58	depends on what the washington government does regarding property taxes and all the taxes they are trying to force on taxpayers
59	We may stay forever.
60	Rest of my life
61	I plan on living in Tenino the rest of my life as long as it doesn't get grow

ResponseID Response

62 We just purchased our home in 07/2024. We love it here and plan to be here for at least 5-7 years, if not more. Biggest influence is the quiet town, being able to walk around and explore, and the short commute to work.

63 20 we love it here. It's a great community

64 I live just outside of Tenino, just go into Tenino frequently for shops and visiting family. I will be around for sometime.

65 Don't know

66 My life

68 Will send our kids to school in Tenino for many years

69 Forever

71 Trying to move back but housing options are limited. Keep my kids in the schools

72 Forever. I bought property. I don't plan on selling it

73 No plans to change

74 I plan on staying in Tenino at least until my child graduates HS in about 10 years

75 To the extent of my lifetime.

76 Unsure

77 It's where I live now.

78 As long as the small town stays small, I'll live here.

79 I cannot afford a house in Tenino so I will be looking elsewhere very soon

81 depends on tax rates

82 50 years. My daughter is being raised here. I like the city and accessible services.

83 I would like to continue living here possibly forever! My boyfriend and I really like Tenino! Perfect small town that's nearby all amenities. Great location, safe neighborhood, love the park and walking trails, nice community events, farmers market, etc.

84 20

86 Forever once we build our home

ResponseID Response

87 Approximately another 10 years, then hopefully moving out of town for more property

88 I will probably stay in tonight now for part of the year. As long as dentist and medical is available locally and sidewalks start improving.

89 At this time I have no plan of leaving. I like the small community.

90 forever

91 forever, its a good community

92 Forever. My husband grew up here and we're raising our daughter here

93 forever

25. The answers you've provided will help inform Tenino's Comprehensive Plan update. Please share any other thoughts you'd like to contribute:

ResponseID Response

16 I hope this actually helps

19 City has to stop being influenced by cities around us. Tenino is small rural historical town there is no reason to buy into high density housing to bring elements to town which will not be positive for current residents!

20 Thanks for putting this surgery together. Hoping Tenino can grow and improve.

23 I think the city should work on improving the downtown area as much as possible by adding mixed use development on Sussex to increase both housing available and commercial opportunities. Revitalization efforts should also focus on styling new structures (and incentivize existing structures - eg. tax reduction) to meet a general design esthetic. For instance, exterior facing stone facades and styled signage. Right now its a strange mix of structures (pole buildings, craftsman, stone, etc.) and the city lacks identity because of it. It would need be well planned to make it work. The contact info question below is missing the text entry block, but please add my email to it: Joe Stone Sr joestonesr@pm.me Thanks!

27 none

31 None

38 As the upgrades to the park are made including the ball fields, please consider leaving these available to be used without reservation or cost.

46 Nothing

57 Thank you so much for doing this! I hope you get a good response rate. This survey was quite long with lots of required fields. I'd recommend shorter more frequent surveys, especially those that can be run on Facebook.

58 none

59 Thank you to the Planning Commission for volunteering your time to do this work with diligence and care. You are appreciated!

60 Tenino is amazing but we need to continue to bring in young vibrant families in order to support our schools sports and business

61 Please don't allow this town to become a Yelm

64 I think Tenino needs to lean hard on its partner, county/state and have them help support them in grants and funding for roads and maintenance. 507 is a well used hwy and the state needs to do a better job making sure the community of Tenino is safe for travel.

ResponseID Response

66 Na

72 None

74 I urge the planning committee to think of the other side of town opposite the park side where the sidewalks are in dire need of repairs. The families on this side want to enjoy the town too!

75 Somehow as a team we all have to figure out how to fund improvements to our school buildings which are aging out. Though very important, bonds are difficult to pass. The ability to provide to our students and their families, facilities that are desirable to attend is a huge factor in attracting people to move and live here.

78 Please try to keep the Tenino police. With more people coming in, and more societal problems here lately, we really need them to stay in our community.

84 None

87 Tenino is a pretty clean town— it's cute and has so much potential for more. It's cute as is though.

88 Priorities need to be continue to support local businesses make it a place businesses want to be. Improve the sidewalks and maintain the few that we have and make sure people aren't parking on them or leaving their garbage cans on them so people can walk on them clean up Yards, don't allow motorhomes to park on city property for long periods of time, cell access property to attached homeowners to help your budget, fix several different roads, extend trail to Bucoda. That would be Thurston County parks. Attach the new egg park to Tenino via trail.

89 It is important for the city to grow and develop but not at the expense of the environment.

91 Please consider the sidewalks that need updated along with the sewer and water lines. Adding one or two traffic signals would help a lot when traffic is high. If Tenino is planning on adding housing, these will be essential to review and update for safety and the capability of the current systems. A community center and a laundry mat would be great for the city. Adding busses to our city would be great so that the kids can travel where they need to get from the outskirts of town.

26. If you would like to be notified of future updates, please include your contact information below (optional):

Appendix D. Street Tree Plan

Page intentionally left blank

CITY OF TENINO

STREET TREE PLAN



Prepared for

The City of Tenino

and

Thurston County Regional Planning Council

March, 2015

Prepared by

WASHINGTON FORESTRY CONSULTANTS, Inc.

Olympia, WA

360/943-1723



City of Tenino

STREET TREE PLAN

Introduction

The City of Tenino’s “physical and aesthetic character” will be enhanced with a long-term plan providing street tree ‘themes’ and space for trees. This street tree plan, coupled with creative landscape plantings and preservation of native trees in new developments, parks, critical areas, open spaces, and residential lots will insure that the environmental health, economic, and aesthetic benefits of trees to a community grow with time

Trees are one of the most useful design elements on individual projects, but must be planned on a community wide basis so that diverse elements of the entire city are linked. This linkage cannot possibly be achieved if urban forestry planning proceeds on a project by project basis. Space for trees must be created to achieve the long-term benefits that trees provide for the entire community.

Cities have embraced a combination of tree protection and tree planting to ensure that the hard concrete lines of development are softened by tree lined boulevards, curved and planted walkways, shady parks, and natural areas. These planted and protected areas are enhanced by the natural instincts of humans to plant trees around their dwellings.

As we continue to press on the edges of our native forests with our increasingly dense urban and suburban structure, the need to design for trees, implement sound tree protection practices, and create long-term planting plans becomes more and more critical.

By working to make our cities more comfortable and pleasant we instill pride in our citizens. Proud citizens will get more involved and work even harder to preserve, protect, and enhance our cities. This is the key to a livable city of the future.

Goals of the Street Tree Planning Process

The following are the goals of the necessary street tree planning process:

1. **Modify street standards to provide space for trees.**
2. **Modify street tree design and planting guidelines to provide for long-term development and health of the trees.**
3. **Update the tree selection list to provide durable, long-term street trees.**
4. Require street trees to be planted on all public and private streets, and in all new industrial, commercial, and residential development.
5. Provide the budget necessary to maintain street trees.
6. Aggressively solicit funding to bring existing major and minor arterials up to this long-term plan.

Only items 1-3 are addressed in this report.

Methodology for Developing the Plan

The evaluation of Tenino’s street tree conditions was undertaken through the following activities:

- Collection of maps, shapefiles, and aerial photos.
- Conducted an inventory and evaluation of the condition and locations of the street trees and open planting spaces on selected arterials and collectors as directed by Thurston County Regional Planning.
- Determine the appropriate tree species for use in the rights-of-ways for comprehensive street tree planning and develop street tree themes for use on the arterials and collectors.

Observations

The first step in management of any resource is an inventory to determine the extent, condition, and needs of (in this case) the street tree community.

Since all life is rooted in the soil, geologic and soil survey information was examined to determine the physical characteristics of the soils in Tenino. The information pertinent to management of trees includes: general fertility levels, drainage, depth to root restrictions, organic matter contents, plant available water capacity, and windthrow potential. The suitability for wildlife, construction and engineering properties was also examined. This information was then considered when recommendations were made with regard to tree protection areas, tree species selection, and planting designs.

An inventory of the existing street trees on the rights-of-ways along the city arterials and collectors was done, as per Thurston County Regional Planning.

Soils and Site Information

The topography of the study area was flat to gently sloping. The soils are predominantly formed in glacial drift deposited by the most recent of several continent-sized glacial ice sheets. The soils generally consist of compact basal till covered by a thin, discontinuous layer of ablation till.

Over 95% of the study area is on the Spanaway gravelly sandy loam soil type. This is a very deep, somewhat excessively drained soil found on terraces. It formed in glacial outwash and volcanic ash. Permeability is moderately rapid in the subsoil and very rapid in the substratum. The available water capacity for plants is low and the effective rooting depth for trees is greater than 60". Windthrow hazard is slight under normal conditions. Irrigation is necessary to establish new trees and shrubs. This is an intermediate to low productivity site for Douglas-fir and other native tree species.

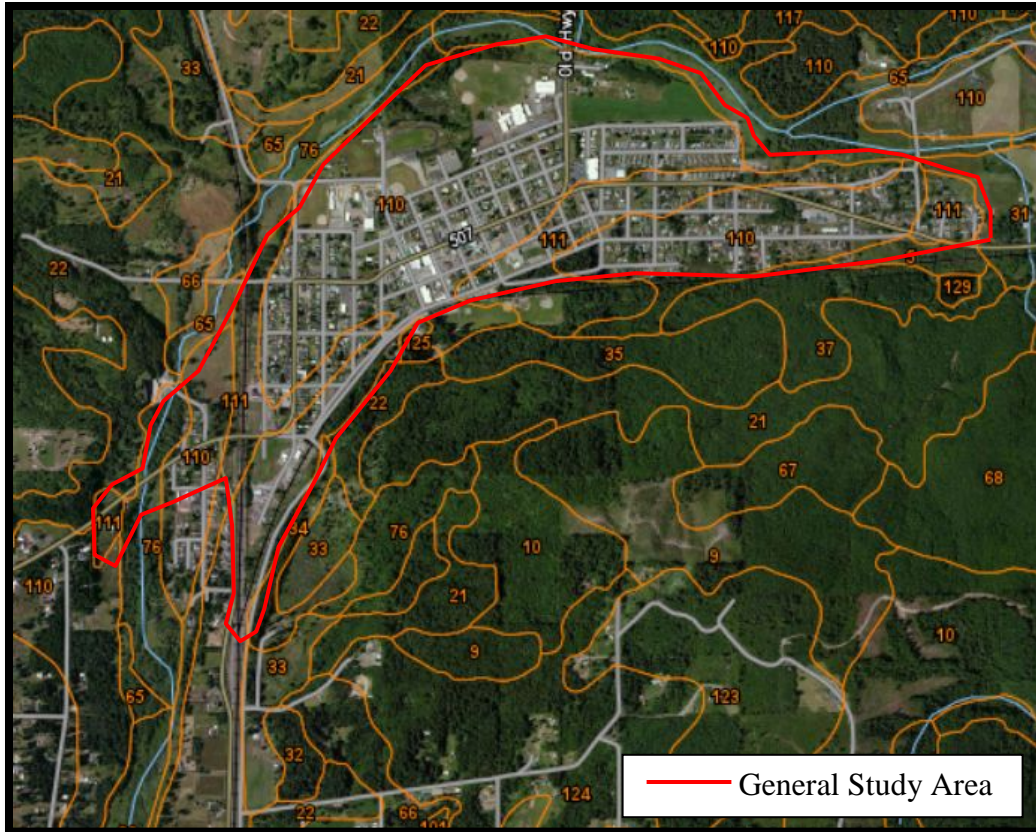


Figure 1. Soil Types (in the study area): 110, 111 = Spanaway gravelly sandy loam

Due to the gravelly, infertile, and droughty nature of the Spanaway soil type, amendment with a silt loam, or silty clay loam topsoil is required to establish new street trees in Tenino.

The Street Tree Inventory - Designated Arterials and Collectors

The aerial photo in Figure 2 illustrates the locations of existing street trees and open planting spots in the study area. The street trees included planted street trees, trees planted by neighbors in the street tree zone, and native trees in the street tree zone. The street tree zone is simply the area along the edge of the street rights-of-way.

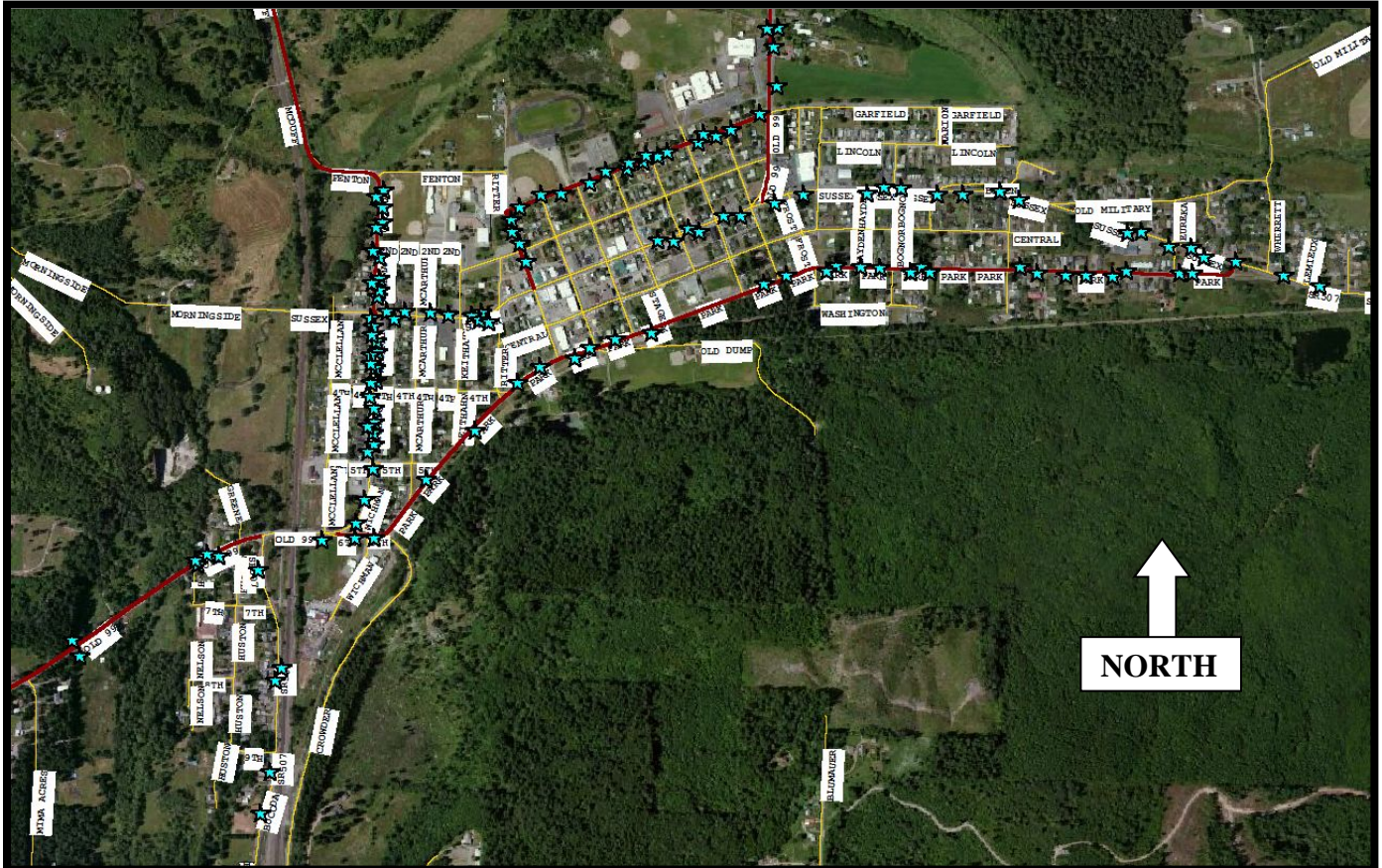


Figure 2. Street tree survey. Each star is an existing street tree or open planting spot. Larger scale maps are included in Appendix II.

The study area included the following arterials and collectors:

- SR507//Sussex Ave.
- Old Highway 99
- Park Ave.
- Wichman St. North
- Howard St. North
- Garfield Ave.

A 100% inventory of existing trees and open planting spots was conducted. Information on tree species, size, condition, and the planting site was collected.

We found 11 species of trees on the rights-of-way (Appendix I). They included a mix of planted trees and native trees in the street tree zone. Hawthorne and flowering plum were the predominant street tree species, with all other species being planted by adjacent landowners, or native trees. The planted street trees ranged from 2 to 10 inches diameter

(measured at 4.5 ft. above the ground line). The other street trees or native trees ranged from 5-28 inches DBH.

The Hawthorne street trees were mostly in ‘Poor’ condition and the flowering plums were mostly rated in ‘Good’ condition. Overall, 22% of the street trees were rated in Good condition, 28% in Fair condition, and 50% in ‘Poor’ condition. Most of the trees in ‘Poor’ condition exhibited major dieback.

Table 1. Summary of existing trees, tree conditions, and open planting spots on the arterials and collectors in the study area.

Species	DBH Range (in)	Tree Condition			Total
		Good	Fair	Poor	
Hawthorne	4-10	1		13	14
Flowering Plum	2-7	6	1		7
Cherry	3-10		3	2	5
Bigleaf maple	14-28		1	1	2
Other deciduous	4-5		2		2
Dogwood	7		1		1
Apple	8		1		1
Crabapple	7			1	1
Honey locust	13			1	1
Magnolia	4		1		1
White pine	11	1			1
Total Trees		8	10	18	36
% Composition		(22%)	(28%)	(50%)	
Open Planting Spots					139
Trees/Spots Under Powerlines					94

Our survey found a total of 36 existing street trees and 139 open planting spots (94 under powerlines). Close to 80% of the street tree zone is not stocked with street trees, but potentially could be planted. Some planting spots will require design changes to the rights-of-way to accommodate the trees, however many open spaces occur in the curblawn zones (planter strips). This means that space will need to be created for trees in planter strips, grates cut into sidewalks, bump-outs created on street edges, or space behind sidewalks must be improved for trees.

Figure 3. # Trees vs. Open Planting Spots



Diversity is key in any urban forest. This helps insure that entire urban canopies are not wiped out by common maladies, such as what the Dutch elm disease did to many elms across the U.S., the chestnut blight on American chestnut, and ash decline on several species of ash. Emerald ash borer is likely the next invasive species for our area that will cause major damage.

As a rule of thumb, no more than 10-15% of the urban tree population should be of the same species. Some tree species such as red maples, green ash, London plane, and sweetgum tend to be over planted in the Pacific Northwest urban areas and should be limited or not used.

Selection of cultivars resistant to known insect or disease problems help to insure that mortality will be limited if outbreaks occur. Ice and snow storms, wind storms, or extended droughts also may impact some tree species differently. Diversity is the key to minimizing damage from abiotic and biotic influences.

There is adequate space in many locations on Tenino streets for larger scale street trees. Many of the best and longest lived street trees are the larger tree varieties. Many of the small flowering tree species are plagued by leaf diseases, twig blights, cankers, and other problems and are short-lived. Hawthorne is one of these species that is often heavily impacted by disease. Even some resistant cultivars will still have problems.

It is recommended that the existing species selection for street trees be modified to improve the quality of the Tenino street trees.

City Street Tree Maintenance and Recommendations

The 26 street trees (hawthorns, cherries, and flowering plums) maintained by the City of Tenino are generally described as being young and in ‘Poor’ to ‘Good’ condition. Many of these trees are in poor health due to being topped to avoid contact with overhead communication or power lines. The flowering plum trees on South Wichman Street are good examples of healthy street trees beneath power lines. However the turf grass is growing too close to the trees, and tree spacing is too close.



Photo A. View of existing flowering plum trees on Wichman St.

Normally, in cities with more and larger trees, all work is prioritized based on the urgency of the work. In our evaluation, we recommend removal of and replacement of 13 of the hawthorns, and two of the cherry trees due to poor health. The following is the recommended prioritization for future street trees.

- **Priority 1 Tree Removal:** Trees designated for removal have structural defects that cannot be cost-effectively or practically treated. The majority of the trees in this category have a large number of dead branches which present a safety hazard. Removal of these branches would leave a severely deformed tree, the live crown would be reduced to the point that mortality was sure, or that the tree is already in irreversible decline. Removal of trees before they are dead and in severe decline helps to prevent property damage or injury, and the tree removal is safer and theoretically less costly for a tree service to remove.
- **Priority 2 Tree Removal:** Trees on public property that are recommended for priority removal should be removed after priority one removals are completed. These trees may be in irreversible decline, but are still structurally sound.
- **Priority 1 Large Tree Pruning:** Trees are recommended for priority one pruning if there is a need to remove hazardous deadwood, hangers, cracked or broken branches. If conditions cannot be determined from the ground, then a lift truck or climber may need to be employed to do a closer inspection of the above ground parts.
- **Priority 2 Small Tree Pruning:** These trees require routine corrective pruning to establish scaffold branches and to raise crown for sidewalk or street clearances. Corrective pruning should be minimal after planting, and should remove crossing, damaged, and extra branches. Pruning for street clearances and sidewalk clearances depends on the length of the crown and growth rate of the tree.
- **Priority 3 Monitor:** Tree has structural defect that cannot be repaired, or is showing minor symptoms of decline. Tree should be monitored in spring after leaf-out and fall before leaf drop and a prescription for care developed.
- **Planting Spot:** This category indicates a vacant planting spot or a stump where a previous street tree had died.

The causes for tree decline and mortality in a city are many and varied. Planting shock or lack of irrigation are the most common causes of mortality for newly planted trees. The gravelly soils in Tenino present a harsh environment for trees even when amended.

The next most common cause of mortality is man-caused injury. Weed eater damage, lawnmowers, bicycles tied to trees, trees vandalized, root disturbance, or run over by cars are the most common reasons newly planted trees failed. Insect or disease problems usually are a problem in later years, unless a tree was infected with disease or infested with insects in the nursery.

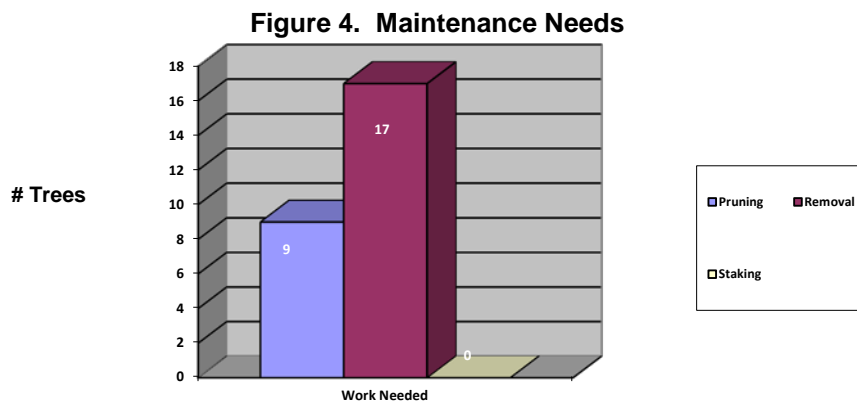
It is important to remove and replace dying trees quickly to eliminate inoculum from disease or insect infestations, to maintain aesthetic quality, and to get a new tree established and growing to maintain some uniformity of the planting.

Maintenance needs by priority is described below. Work should be accomplished by priority. This may require specialized tree contractor to deal with some of the larger hazard trees. Most of the small tree work can be accomplished with city staff.

All small street trees should be inspected on a 3-year cycle. This helps to assure that pruning is accomplished on a timely basis, that damage, decline, mortality, or other problems are addressed quickly. Decline and other insect or disease problems can be identified and control methods implemented before the tree is a total loss.

Individuals that maintain weeds near the bases of trees, mow curb-lawn zones, and that do tree maintenance should be trained to recognize tree problems before they result in mortality.

All pruning should conform to the ANSI A300, Standard Practices for Trees, shrubs and Other Woody Plant Maintenance (2011). This is the recognized standard for all tree care. All pruning should be completed by an International Society of Arboriculture Certified Arborist®, or be supervised by one. It is recommended that at least one staff member of the parks maintenance staff become certified.



Condition of the Street Trees

A condition rating was assigned to each tree to help assess the health of the street trees. The ratings are adapted from the *Plant Appraisal Guide* (2000), published by the International Society of Arboriculture. The condition of the foliage (if present), twigs, scaffold branches, stem, and roots is assessed, along with any hardware (stakes, cable and bracing) present in the tree. After the tree is evaluated it is rated as: Excellent, good, fair, poor, or dead.

Trees that are rated as dead or poor are usually recommended for immediate removal and replacement. Large trees rated as very poor usually are in irreversible decline due to root disturbance or some other factor. Small trees rated as very poor usually did not establish, or have been severely damaged since planting. Quick replacement of these trees simply gains a year of establishment and growth.

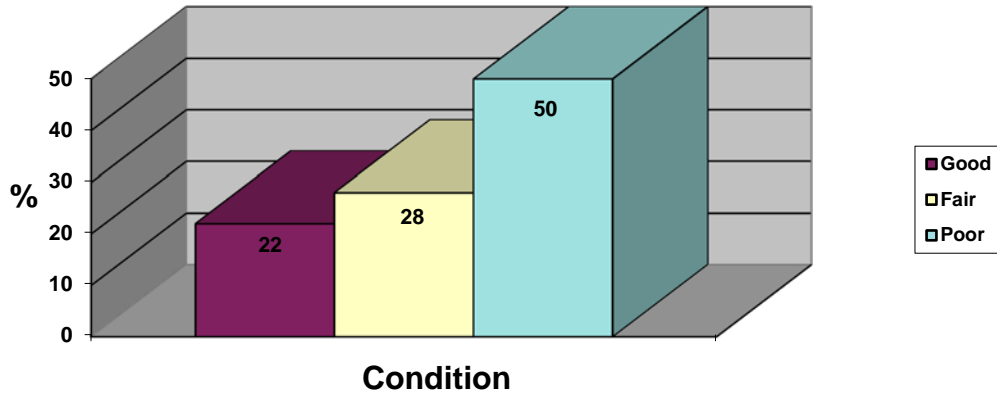
Trees rated as fair and good may need minor cultural care and are expected to be long-term trees. Trees rated as excellent are expected to be long-term trees and require no care at this time.



Photo B. View of Mt. Ash trees in ‘Poor’ condition on city property adjacent to Park St.

Approximately 50% of Tenino’s trees were rated as Fair to Good. The following graph provides a summary of the condition of the city trees.

Figure 5. Condition Classes (%)



Based on this data, removal and replacement of low vigor trees is recommended, since pruning will not improve tree health.

Priority Pruning

Pruning of any safety hazards should be completed first, followed by the routine maintenance pruning. The routine maintenance pruning should be completed in the dormant season between October 1st and February 15th.

All pruning should conform to the ANSI A300 (2001) *Standard Practices for Trees, Shrubs and Other Woody Plant Maintenance*. This is the standard for proper tree care. All pruning should be done by an International Society of Arboriculture Certified Arborist®.

When contracting with a professional tree service, it should be specified in the contract that they observe the safety guidelines for tree care operations: ANSI Z133.1 - 2001 -- *Pruning, Trimming, Repairing, Maintaining, and Removing Trees, and Cutting Brush -- Safety Requirements*.

Clearance Requirements

The types of situations where trees can interfere with visibility include: signs, sidewalks, buildings, street lights, stop lights, or sight distances for pedestrians and motorists. In all cases trees can be pruned to provide adequate clearances.

Trees and other vegetation should be *monitored annually* to identify these types of safety hazards. The annual inspection of all rights-of-way is recommended for about June 1 when the first flush of deciduous tree growth begins to slow. Trees and other vegetation that are close to these signs will begin to obscure site distances and visibility. A second inspection is also recommended for early September, after vegetation growth is complete, but before leaf drop.

The tree that requires clearance pruning should be inspected and pruned for clearance immediately. This should include native vegetation encroaching onto the streets and sidewalks as well as planted street trees.

Sidewalk overhead clearances should be a minimum of 8', but 10' is recommended. Pruning on smaller trees may need to be done over a 3-4 year period to achieve these clearances and avoid stress on the trees. Trees with thorns are especially a hazard. Generally, trees with thorns should not be planted as street trees. Where pruning for sidewalk clearance dramatically changes the look or shape of the tree, notification of the tree owner is recommended. As an option, they could be notified to prune their own trees to provide clearance with a time-frame before the City completes the work.

Street clearances must be maintained to prevent damage to vehicles and to the trees, and to maintain sight distances. A height of at least 15 feet needs to be maintained to the first branches. Any branches hanging lower will be torn off by trucks.

Trained city staff will recognize these clearance problems and correct them during routine maintenance. As a rule of thumb, branches should be pruned before they reach a diameter of 2" at the branch bark collar. This minimizes the wound size and allows a tree to quickly callus over the wound, protecting tree health.

Where branches of private trees encroach into the city rights-of-way, the city can only prune to the rights-of-way edge. In some cases this will leave stubs or unsightly branches that will die back. To maintain tree health and appearance it is recommended that all pruning cuts be made to the nearest lateral branch. Where pruning beyond the rights-of-way edge should occur to protect tree health, then landowner permission is recommended.

Overhead Utilities

The presence of overhead utility wires was noted for 94 (over 50%) of the existing trees and open planting spots. Many of the trees had been crown reduced for the overhead powerlines. Tall growing tree species under powerlines will require repeated pruning to maintain reliability and safety for the public. Only trees with a mature height of 20' or less should be planted under utility lines to avoid costly pruning and deformation of the appearance of trees.



Photo C. Planter strips under power lines. Space is there for utility friendly trees.

When these crown reduced trees are replaced due to mortality or other problems in the future, ‘Utility Friendly’ trees should be planted in those planting spots. A list of ‘Utility Friendly’ trees is provided in the section on street tree selections.

Curb Lawn Zone Widths

It is recommended that the designs for all new city streets include a curb lawn zone (the area between the sidewalk and the street) with a minimum width of 5 feet. Six to 8 feet is the more optimal width.



Photo D. View of open planting spots in Tenino.

In many cases, especially where large, canopy forming trees are desired, planting the street trees behind the sidewalk is the best location. This moves trees away from the street edge, reducing car damage, pruning for clearances, and will reduce sidewalk damage. Overhead utilities are less of a problem with these planting locations. Private easements for street trees can be obtained.

Maintaining the Safety of the Street Trees

Annual evaluation of larger trees on and adjacent to rights-of-ways is necessary to identify developing hazard trees and to identify clearance pruning needs. This can normally be done with a windshield survey.

Removals

The small street trees recommended for removal are less of a hazard, but should be scheduled for replacement due to poor health and aesthetics.

The average lifespan of an urban street tree varies from 7 to 18 years. Mortality will be ongoing, and replacement should be completed during the next planting season.

Trees that require removal can be removed by city crews or on a lump-sum bid contract with private tree services. It is recommended that all large tree work and other difficult removals be handled by skilled contract tree professionals. Small tree pruning can effectively be handled by city staff.

When crews begin to remove hazard trees, public notices should be posted to avoid concerns by citizens. Much anxiety and public concern can be avoided if citizens understand that only hazard trees are being removed.

Sidewalk Damage

The majority of the street trees in Tenino are smaller trees, so sidewalk heaving is not yet a major problem. However, there will need to be some annual repair activity anytime trees grow near sidewalks or curbs.

Potential problems with new plantings can be minimized by use of root barriers along curbs and sidewalks to deflect or direct roots deeper. This will defer, and with proper tree selection, can eliminate heaving problems.

Where roots of large native trees or ornamental trees adjacent to sidewalks begin to cause heaving, care must be used to avoid severe damage to the tree. Cutting of large lateral anchor roots can cause stability problems, may cause decay, and will reduce the lifespan of the tree.

Minor heaving can be temporarily repaired with an asphalt bridge between the lifted section of concrete, or the lifted edge can be ground flush. As the deflection of the section continues to rise, replacement of the section will be required. A decision to cut the root or bridge the root must be made at this time. If at all possible it is recommended that root cutting be avoided. Curving the sidewalk, leaving a cutout for the root, or raising the grade of the sidewalk to go over the top of the root is recommended. These decisions must be made on a case by case basis. Trees in poor condition, or that would be made hazardous by the activity should be considered for removal.

Open Planting Spots

The following specifications are to be used to identify an open planting spot:

- A minimum of 5' is needed for a plantable area.
- The minimum distance to the adjacent planted trees is 25'.
- All planting spots are at least 25' away from intersections.
- All planting sites are at least 10' away from fire hydrants, driveway, utility poles and street lights.
- All planting sites are at least 10' away from any visible or identifiable underground electrical vaults.
- Planting spots with overhead (electrical conductors) or side restrictions for growing space are identified.
- Planting behind the sidewalk is preferable to narrow (4') planting spots in many cases. This may require private easements to establish medium to large street trees.

Knowing the numbers of open spots, coupled with a street tree plan with recommended species easily allows preparation of grant proposals for additional tree planting funds. Having good, demonstrable data on the urban forest will improve success in acquiring grants. These projects are also excellent to get citizen involvement.



Photo E. View of a well-designed planter strip, however tree wells are not adequate – turf is too close to tree's rootball.

The Street Tree Planning Process

The process of street tree planning encompasses all aspects of street design, soils and tree biology, planting, maintenance, and ordinances that affect street trees.

Planting Design Patterns (Themes)

There are four general designs for planting trees in the community. The type of design depends upon space available, both above and below ground, presence of other native tree stands, the character of the area, and effect desired.

1. **Formal Design:** This approach is strongly advocated to provide spatial definition to street corridors, and continuity between different types of areas within the city. This type of planting scheme works well in grid type street designs and long, linear corridors that lack space for groupings of trees. Trees are normally planted in rows. Species diversity is usually limited, but not so limited that monocultures are created.
2. **Informal Design:** This approach utilizes clustering, planting a variety of species, with irregular spacing intervals by design, or because of space limitations. This design is more often applicable in suburban areas or newly developing areas where space can be created on and off of rights-of-ways for tree plantings. It can however, be used in virtually every zone of the city achieving more species diversity. Informal plantings are most common in parks, and along park corridors.
3. **Combined Design:** In some cases, informal plantings can be used to break-up the more formal rows of trees, where space is provided. This is especially useful in commercial and industrial areas to help break up the moonscape of asphalt and buildings. Plant size, shape, color, seasonal flowering, fall coloration and growth rates are the most critical factors to consider when combining planting designs.
4. **Wildlife Design:** This concept utilizes clusters, layers of vegetation, and a variety of species of trees and shrubs to attract songbirds and small mammals. This design is best utilized near critical areas or other open spaces, and in parks. Safety and security must be considered when creating these types of dense plantings. Most trees with higher value for wildlife trees are not suitable for the street environment due to size, form, or fruit production.

Mature Tree Size

Street tree plantings are limited by space. Large trees require wide planter strips or areas for the tree roots to explore to avoid damage to curbs, sidewalks, and underground utilities. Powerlines, adjacent buildings, overhanging awnings, and vehicle clearances are the most common above ground restrictions to growing space. Planting a tree with space to achieve its mature size will greatly increase the aesthetics and useful life of the street tree, while dramatically reducing the maintenance costs.

Longevity of the Species

Communities must fight the urge to plant fast growing tree species such as soft maples, poplar, and birch. Generally the fast growing tree species have shorter life-spans, are more easily damaged by storms, and cause more damage to curbs and sidewalks. This results in higher maintenance costs, requires replacement of trees years sooner, and upsets the visual and spatial continuity of the planting. Species such as Norway and sugar maple, linden, northern red and other oaks, and ash species tend to be more durable long-term trees.

Tree Character

The color of summer and fall foliage, presence of flowers, shape of the crown, color of bark, type of foliage and habit of branches (weeping, upright) give trees their color, texture, and form. These characteristics, along with size, longevity and growing space should be considered when selecting trees for all projects.

These tree characteristics should complement building architecture, define streets and sidewalks, accent adjacent landscaping, and add diversity along Tenino streets.

Trees are defined as having form that is:

1. Columnar
2. Round- full crowned, or spreading (upright, oval, globose)
3. Pyramidal (conical)
4. Vase shaped
5. Weeping
6. Irregular
7. Multi-stemmed
8. Fountain

Multi-stemmed trees are less desirable for street trees due to line-of-sight obstruction and sidewalk clearances. In most cases, tall growing trees are best since it is easy to raise crowns for ground and vehicle clearances. Signs for adjacent businesses can be exposed by crown raising. Ground signs work well with trees.

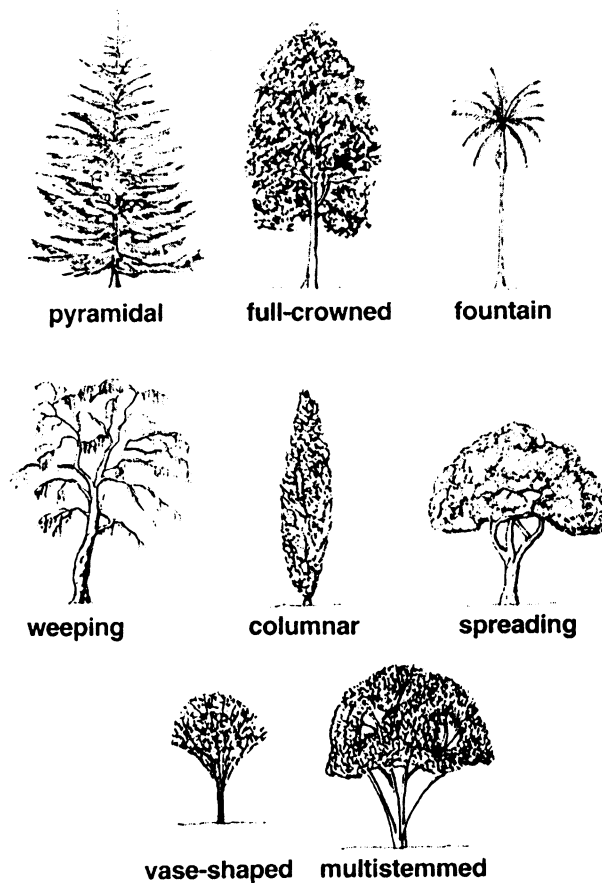


Figure 6. Illustration of Tree Shapes.

The form is critical in selecting trees to fit the growing space, and providing amenities such as screening of incompatible land uses or unsightly buildings, protecting views of vistas or signs, or lining streets in formal designs.

The summer color of a tree generally includes hues of green or shades of red or maroon. Reddish color summer foliage is used to break up the monotony of a formal, linear street tree planting, or accenting an informal design. Long rows of reddish foliage are considered more monotonous than facades created by tall, green canopies.

Fall color is more often considered when selecting seasonal color. Contrasting yellow fall coloration with occasional red or orange colored trees (or vice versa) catches the eye and stirs the ‘ooh and aah’ emotion common to the finale of a fireworks display.

The texture of a tree is not just apparent between conifers and deciduous trees. It varies greatly between deciduous tree species with simple leaves of differing shapes such as oaks and maples, to compound, bi- and tri-pinnately compound leaves on ashes, locusts, and mimosa. Subtle color differences accentuate the differences between leaf shapes.

Conifers also vary greatly in texture. Needle color, length, density, shape, and presence of cones create startling contrasts between tree species. Consider the differences between western red cedar, western hemlock, Douglas-fir, noble fir, and western white pine. All are strikingly different and can create attractive clusters in informal, combined, or wildlife plantings. When combined with deciduous accent trees, year-round beauty is created.

Hardiness to the Pacific Northwest

The temperate climate of Tenino (hardiness zones 7-8 - USDA Hardiness Zone Map) allows many tree species to thrive, though some insect and disease populations also are well suited to the climate. Most of our common and most valued street tree species are native to the Midwestern and eastern United States.

Genetic selection is constantly improving the trees available from nurseries, as is the knowledge of growing them. Some cultivars of Pacific Rim species can further improve the disease resistance of small trees available for use on Tenino streets.

Diversity of Street Trees

It is very important to avoid over planting a single species. We learned from Dutch elm disease and Chestnut blight to populate our cities with a diversity of tree species. Threats from ash decline, an actinomycete that threatens red maple, sudden oak death, oak wilt, gypsy moths, and other maladies will require that urban foresters be vigilant.

Tree Selection

The following selection of trees in Table 2 is suitable for planting as street and landscape trees within the city of Tenino. This list includes large, medium, and small size trees for planting in all types of growing spaces. Species of flowering trees are selected based upon their colors and resistance to insect and disease problems, and low amounts of plant debris.

Species include red, orange, maroon, and yellow fall coloration. There is however, a great variation as to the timing and interval of fall leaf drop. For example, green ash cultivars turn yellow and drop their leaves within a week, while cultivars of white ash will have maroon leaf color, and may persist for 2-3 weeks. Unfortunately, leaf drop is not something that can be controlled if diversity is desired in street tree populations.

Trees that hold and drop leaves all winter long (such as pin oak and sweetgum) are to be avoided. Severe damage has occurred to sweetgums from early snowfalls and ice storms. Most sweetgum varieties will hold their leaves until the end of December (occasional exceptions). While their fall coloration is exceptional, planting more than a few accent trees should be avoided until cultivars with earlier leaf drop are available.

The following is a general list of tree species that should be considered Tenino’s Street Tree List. All commercial, industrial, and residential projects should utilize this list. Selections should be in concert with the continuity provided by existing trees planted on adjacent portions of the street. Where existing street trees are of an undesirable, unhealthy, or inappropriate species, consideration should be given to re-treeing the entire area.

In short, trees can be chosen on a project basis, but must fit the overall plan for what has already been planted, or will be planted as part of the overall comprehensive street tree plan. More specific street tree themes will be provided for all major and minor arterials, and collectors in Table 3.

Table 2. General list of trees for Tenino.

COMMON NAME	BOTANICAL NAME	CULTIVAR	MATURE HEIGHT	CROWN SPREAD	SPACING	FALL COLOR
Large >50’ Tall					40-50’	
Autumn Purple Ash	<i>Fraxinus americana</i>	Autumn Purple	50’	35’		Maroon
Sugar Maple	<i>Acer saccharum</i>	Commemoration	60’	35’		Yellow
Greenspire Linden	<i>Tilia cordata</i> ‘Greenspire’					Yellow
Northern Red Oak	<i>Quercus rubra</i>					Red, burgundy
Scarlet Oak	<i>Quercus coccinea</i>		60’	40’		Red, orange
Medium-Narrow Crowns 40-50’ Tall					25-35’	
Bowhall Red Maple	<i>Acer rubrum</i>	Bowhall	40’	15’		Orange
Parkway Maple	<i>Acer platanoides</i>	Columnar-broad	40’	25’		Orange
Medium – Wider Crowns 40-50’ Tall					35-40’	
Norwegian Sunset Maple	<i>Acer truncatum x A. platanoides</i>	Keithsform	45’	35’		Burgundy, red, orange
Summit Ash	<i>Fraxinus pennsylvanica</i>	Summit	45’	25’		Yellow
Patmore Ash	<i>Fraxinus pennsylvanica</i>	Patmore	45’	35’		Yellow
October Glory Red Maple	<i>Acer rubrum</i>	October Glory	45’	35’		Orange
Honeylocust	<i>Gleditsia triacanthos</i>	Shademaster	45’	35’		Yellow
Red Horsechestnut	<i>Aesculus x carnea</i>	Briotti	30’	35’		Yellow
Autumn Gold Ginkgo	<i>Ginkgo biloba</i>	Autumn Gold				Yellow
Small Trees <35’ Tall					25-40’	
Pacific Sunset Maple	<i>Acer truncatum x A. platanoides</i>	Warrenred	30’	25’		Red, burgundy, orange
Black Tupelo Gum	<i>Nyssa sylvatica</i>		35’	20’		Orange, red
Crimson Sentry Maple	<i>Acer platanoides</i>	Crimson Sentry	25’	15’	30-40’	Purple
Snowgoose Cherry	<i>Prunus spp.</i>	Snowgoose	20’	20’		Reddish
Spire Cherry	<i>Prunus x hillieri</i>	Spire	30’	10’		Reddish

City of Tenino – Street Tree Plan

COMMON NAME	BOTANICAL NAME	CULTIVAR	MATURE HEIGHT	CROWN SPREAD	SPACING	FALL COLOR
Flowering Crabapple	<i>Malus spp.</i>	Snowdrift, Red Baron, Prairiefire	20'	20'		Reddish
Japanese Snowbell	<i>Styrax japonicus</i>		25'	25'		Yellow
Rustica Rubra Saucer Magnolia	<i>Magnolia soulangiana</i>	<i>Rustica Rubra</i>	30'	15'		Burgundy
Rocky Mt. Maple	<i>Acer grandidentatum</i>	Schmidt	25'	15'		Red, orange
Galaxy Magnolia	<i>Magnolia spp.</i>	Galaxy	30'	15'		Yellow
Golden Desert Ash	<i>Fraxinus oxycarpa</i>	Aureafolia	20'	18'		Yellow
Chinese Kousa Dogwood	<i>Cornus kousa</i>	Chinensis	20'	20'		
Serviceberry	<i>Amelanchior x grandiflora</i>	Autumn Brilliance	20'	15'		Red, maroon
Flowering Plum	<i>Prunus cerasifera</i>	Thunder-cloud	20'	20'		Purple
Paperbark Maple	<i>Acer griseum</i>		25'	20'		Red
Tatarian Maple	<i>Acer tatarian</i>		25'	20'		Yellow, orange
Trident Maple	<i>Acer buergeranum</i>		20'	20'		Red, orange
Flame Maple	<i>Acer ginnala</i>	Flame	20'	20'		Orange, red, deep red
David's Maple	<i>Acer davidii</i>		30'	25'		Yellow
Sargent Cherry	<i>Prunus sargentii</i>		30'	30'		Reddish
Small Trees – Narrow <35' Tall					25-30'	
Redmond Linden	<i>Tilia americana</i>	Redmond	35'	25'		Yellow
Pyramidal European Hornbeam	<i>Carpinus betulus</i>	Fastigate	35'	25'		Yellow
Hedge Maple	<i>Acer campestre</i>	Evelyn	35'	30'		Yellow
Callery Pear	<i>Pyrus calleryana</i>	Redspire or Cleveland Select	35'	25'		Red, maroon
Red Cascade Mt. Ash	<i>Sorbus americana</i>	Dwarfcrown	18'	8'		
Japanese Tree Lilac	<i>Syringa meyeri</i>	Palibin	7'	5'		

*Other species or cultivars may be appropriate but must be approved by the City of Tenino.

If conifers are used in informal plantings, then the following species are appropriate for use in Tenino:

- Western red cedar (*Thuja plicata*)
- Douglas-fir (*Pseudotsuga menziesii*)
- Giant sequoia (*Sequoia gigantea*)
- Alaska Yellow Cedar (*Chamaecyparis nootkatensis* and 'Pendula')
- Austrian pine (*Pinus nigra*)
- Deodar Cedar (*Cedrus deodara*)
- Shore Pine (*Pinus contorta* var. *contorta*)
- Western white pine (*Pinus monticola*-blister rust resistant cultivars)

All trees planted as street trees and other landscape trees in Tenino should meet the standards defined as the American Standard for Nursery Stock (ANSI Z60-1-2004). This standard specifies height, caliper, and rootball diameter standards for nursery stock. It also provides standards for container stock and shrubs.

In addition to specifying that stock meet the ANSI standard, the stock should have 1) strong central leaders for all but small, spreading trees, 2) show evidence of cultural pruning by the nursery, including corrective pruning and crown raising, 3) be free of damage from nursery lifting and shipping to site, 4) be free of insects, diseases, and other pests, and 5) the rootball should be intact, not broken from rough handling.

The trees should not be picked up from the nursery until time to plant the trees. Most project sites are not set up to protect trees from freezing temperatures, drying, vandalism, theft, and other maladies. If they are brought in early, all balled and burlap material should have rootballs covered with sawdust or clean woodchips, and irrigation must be provided daily in absence of rains (except during the dormant season). During the dormant season the woodchips or sawdust must just be kept moist. Container stock must be irrigated daily during the growing season. The trees must be monitored closely. Holdover time should be minimal (less than 1 week if possible).

Trees must be handled carefully when they arrive from the nursery to avoid stem and branch damage, and to avoid breaking the rootball. Plan the operation to minimize handling of the trees. If the rootball is broken, then consider that the tree is now a bare root tree, and the potential for survival and rapid establishment has been greatly reduced. Do not accept broken root balls from the nursery.

If trees are included as part of a contract, provide detailed specifications to prevent planting of inferior or damaged trees. Do not be afraid to reject trees due to poor quality. A detailed tree specification for use on projects is provided in Appendix III.

To help insure that proper size of high quality trees of the desired species are procured for street projects, it is recommended that the City of Tenino procure their own trees and bid only the installation of the trees on projects. For large future projects, it is recommended that a reputable nursery be contracted to provide the species, quality, and numbers of trees needed for the project. Tree quality will be greatly improved and the street tree design plan will continue to move in the planned direction.

Street Tree Themes

The following street tree themes are recommended to provide tree-lined corridors, canopies over the streets, and linkages between differing zones in the city. Detailed descriptions are provided for what were determined to be the highest need, and highest profile areas. The remainder of the arterials and collectors are described in Table 3.

SR507/Sussex Avenue

This stretch of highway includes the downtown core plus more open rural residential land uses on either end of town.

There is little existing tree planting space within the downtown core. The sidewalks abut the building frontages and are narrow. There is no space for trees in grated planter pits. The only potential to establish new trees in the downtown core is to create ‘bump-outs’ along the sidewalk/street edge, at the expense of parking. These types of bump-outs are common in cities today, and have a calming effect on traffic.



Photo E. View of downtown core from the west to the east. No space for trees unless created. Illustrates potential bump-out traffic calming structure with space for a tree.



Photo F. View of an actual bump out constructed on busy street.

The street profile for almost the entire corridor is a 2 lane highway with sidewalks abutting the curbs. There is space for trees on the parking strip abutting the highway, but no space in the sidewalk or behind the sidewalk.

It is recommended that canopy forming trees be planted on 35 to 50 ft. centers in bump-outs along both sides of the highway in the downtown core. Where store awnings or building frontages prevent the planting of a tree with a wide canopy, then trees with narrower or columnar crowns could be used. It is important to minimize mixing tree species to provide linkage and continuity between the east and west ends of town.

The design should establish trees on a wide spacing, incorporating 3-4 different canopy forming and flowering tree species along the way. There are additional obstacles to a uniform design, including distribution and transmission power lines along portions of the route.

Where there is space behind the sidewalk outside the downtown core, then trees can be planted on private property.

Summary: Planting design – Formal

Primary street tree species – Northern red oak

Secondary street tree species – Autumn purple ash

Secondary columnar tree species – Parkway maple

Accent tree species – Snowgoose cherry

Utility Trees – Kousa dogwood, ‘Snowdrift’ flowering crabapple

This planting scheme, coupled with replacement of some poor quality trees and creation of additional planting spots will change this Sussex Avenue/SR507 into a tree lined corridor. The green canopy of foliage and splendid fall coloration will warm the appearance of the street and traffic will slow. Businesses and residents will find this will be a friendly and comfortable street to shop, walk, bike and jog along, most unlike the stark conditions today. The linkage between the east and west ends of town complete.



Photo G. Plenty of space for trees, with some overhead powerline restrictions.

The following table provides a summary of the proposed street tree themes for all major and minor arterials and collectors in Tenino.

Table 3. ‘Street Tree Themes’ for all major and minor arterials and collectors.

STREET	SEGMENT		PRIMARY TREE	SECONDARY TREE	ACCENT TREE	UTILITY TREE
	FROM	TO				
SR507/Sussex Ave.	City Limits	Old 99	Northern Red Oak	Summit Ash	Galaxy Magnolia	Autumn Brilliance Serviceberry
SR507/Sussex Ave.	Old 99	Ritter	Parkway Maple	European Hornbeam	Japanese Ivory Silk Tree	Trident Maple
SR507/Sussex Ave./Wicham/6th	Ritter	City Limits	Black Gum	Redmond Linden	Flowering Plum	Paperbark Maple
Old Highway 99	SR507/Sussex Ave.	City Limits	Autumn Purple Ash	Columnar Tuliptree	Snowgoose Cherry	Snowgoose Cherry
Park Ave.	Crowder Rd.	SR507	Autumn Purple Ash	Pacific Sunset Maple	Flame Maple	Flame Maple
Park Ave.	Crowder Rd.	SR507/Sussex Ave.	Patmore Ash	Norwegian Sunset Maple	Snowdrift Fl. Crab	Autumn Brilliance Serviceberry
Wichman St. North	Sussex Ave. West	Fenton Ave. West	Norwegian Sunset Maple	Commemoration Sugar Maple	Rustica Rubra Saucer Magnolia	Galaxy Magnolia
Howard St. North	Garfield St.	SR507/Sussex Ave.	October Glory Red Maple	Shademaster Honeylocust	David’s Maple	Trident Maple
Garfield Ave.	Howard St.	Old 99	Greenspire Linden	Summit Ash	Snowgoose Cherry	Desert Ash

Street Profiles for Trees

The ideal street profile to create a tree-lined street with canopy forming trees would include 8' planter strips plus a 12-18' wide medians. Future designs of major and minor arterials should consider this type of design where rights-of-ways permit. This design provides adequate space above and below ground for trees, minimizing damage to curbs and sidewalks. The feel and look of driving, bike riding, jogging, and walking on these types of streets in 30 years will please residents of Tenino. To achieve this effect, we must plan for it and plant it today.

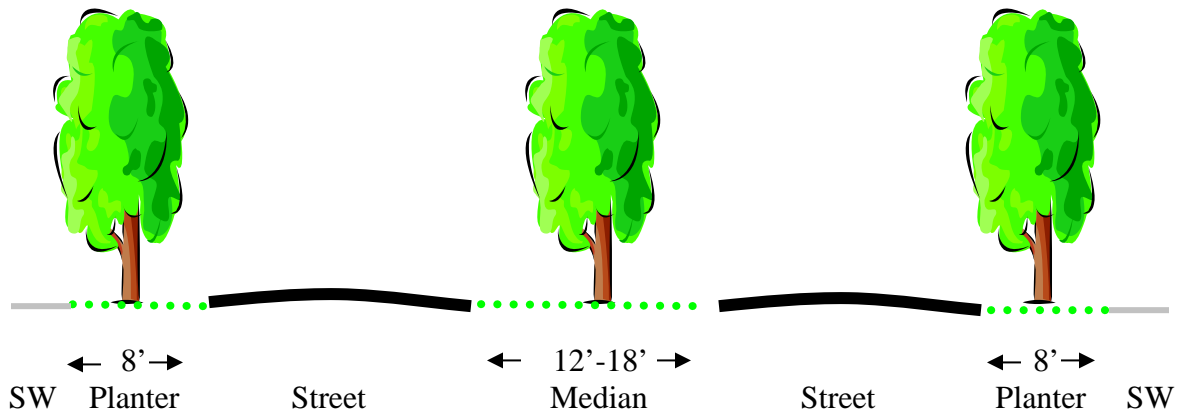


Figure 7. Ideal street design for development of maximum canopy, while providing separation between streets and sidewalks.

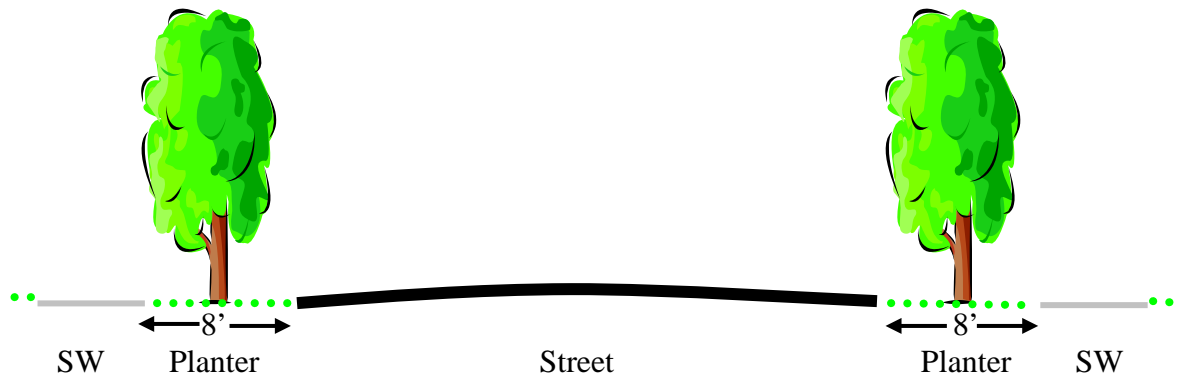


Figure 8. When space does not allow development of a full median, providing 8' planter strips will allow development of large, canopy forming trees. Planter strips should not be less than 6' wide. These narrow widths will only allow planting of small to medium sized trees that will not produce the canopy effect.

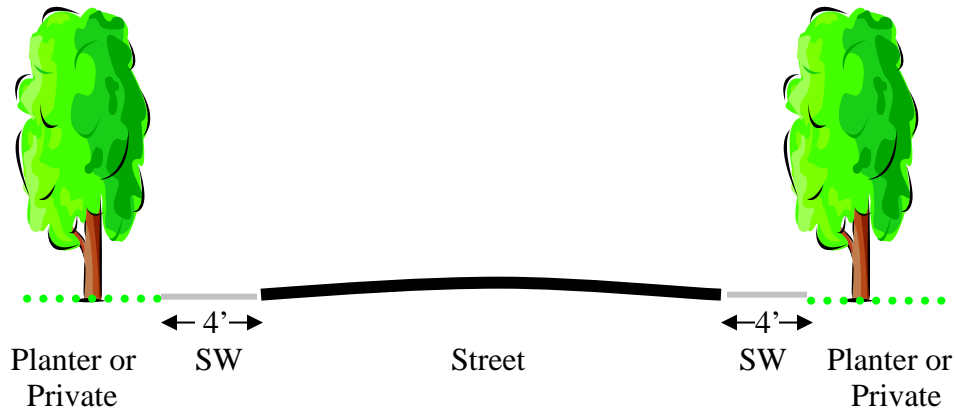


Figure 9. This is a commonly occurring street design in Tenino. Street trees, when they occur, are located on private property, or occasionally in planter strips.

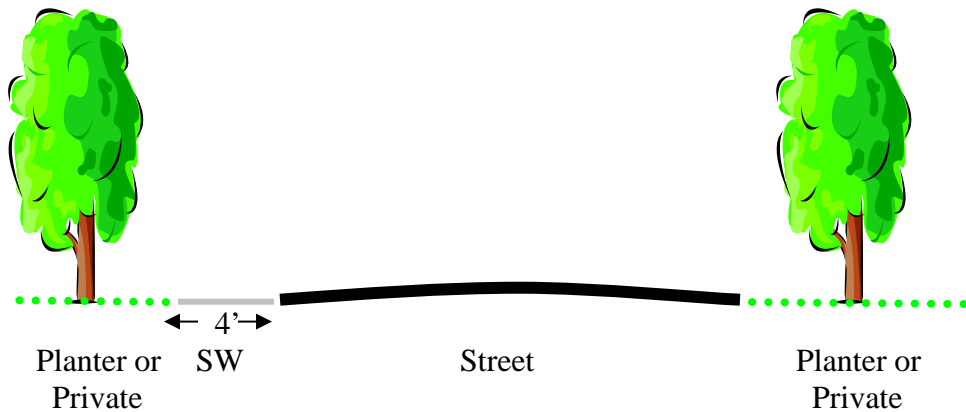


Figure 10. This is a commonly occurring street design in older neighborhoods in Tenino. In some cases no sidewalks occur. Most street trees are privately planted, without uniformity of design or occurrence.

Planting Space Recommendations

When designing sidewalks for street tree plantings, an 8' wide planter strip is recommended to accommodate large, canopy forming trees. Narrower strips increase the potential for heaving of the sidewalks and curbs. Five feet should be considered to be an absolute minimum for a planter strip, and then tree size must be adjusted for the decreased rooting space. Placing trees between the vehicle and the pedestrian provides a feeling of safety for sidewalk users, though trees are more susceptible to vehicle damage in this location.

For trees, the most desirable location is behind the sidewalk where the tree can exploit the larger soil volumes of yards and open space. Development of a canopy over the street will take longer, and will be less effective. However, trees in this location will have greater longevity and cause less hardscape damage.

Often driveways, water meters, signs, and other obstructions limit strict, uniform spacing for street trees. Compromises must then be made to achieve the visual and spatial effects provided by rows of street trees. Street tree spacing will be determined primarily by the mature size of the tree being planted. However, the purpose of the tree also is a factor.

If one is trying to screen objectionable views or less attractive structures, then tighter street tree spacing may be desirable. In an area where attractive architecture, signage, or views are to be preserved, then widen the tree spacing. Do not over plant. This will simply increase initial establishment costs, as well as future maintenance costs. Always consider the desired future visual and spatial effects – linkage, beauty, and shade.

The following are the recommended targets for street tree spacing, understanding that **variations may occur** due to obstacles or the desired effect.

<u>Tree Type/Size</u>	<u>Spacing Between Trees</u>
Large Street Trees	40'-50'
Medium Street Trees	35'-40'
Columnar Trees	25'-35'
Small Trees	25'-35'

Informal planting designs utilizing conifers in cluster plantings should be 12'-15' on center, depending on the use of accent trees in the cluster. Each conifer must have two sides of its crown free to grow. These types of clusters of tall growing trees must be planted at least 25' from overhead utilities, and 15' from awnings, buildings, and signage. Screen plantings should be designed on a project by project basis and the plant spacing designed for the species used and the effect desired. Species other than listed in Table 1 may be used when dense screens are desired.

Compromises to this ideal design while still achieving some of the feel, would be 6' planter strips with a median. Any design that places the sidewalk against the curb with the trees behind the sidewalk will sacrifice the separation of pedestrians from traffic that the planter strip provides. Though planting trees behind the sidewalk where unlimited root zone occurs is good for the tree, the same feeling of security and visual beauty is not achieved.

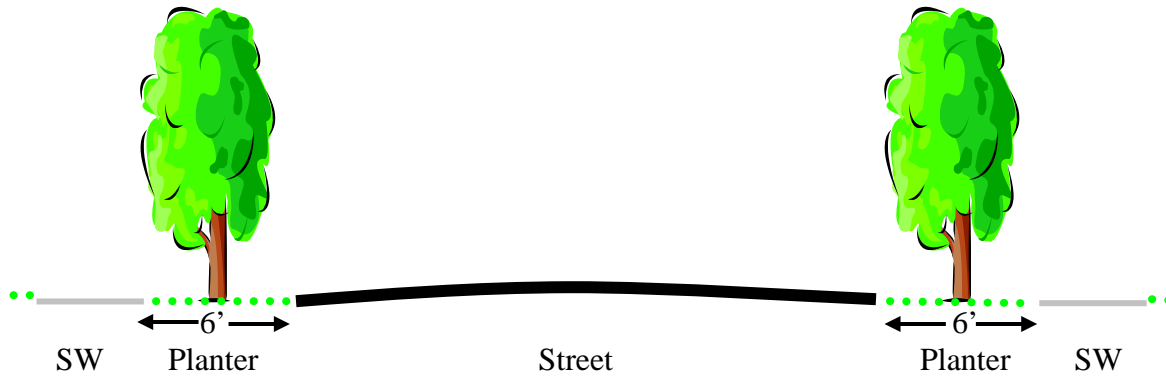


Figure 11. If space does not allow for 8’ wide planter strips, then 6’ can still be planted with medium to large street trees, however potential for root damage is higher.

Street Tree Planting and Maintenance

Ideally, the responsibility and budget for the planting and maintenance of street trees should be with the Parks Maintenance division of the Public Works Department.

The selection and design of street tree plantings should be completed by a landscape architect or urban forester, and be reviewed by the Planning Department and the Parks Maintenance Division to insure that it furthers goals outlined in the street tree plan, is compatible with the existing site conditions and the overall goals of the city.

Budget

As the street tree numbers grow, the maintenance, and thus the maintenance budget must grow. A minimum of \$45-49 per tree per year is required to provide adequate care for a street tree population. As the street tree population matures, these numbers will increase. The budget should be increased annually based on the new plantings, and with a modifier for inflation.

Stock Quality

All trees should meet the American National Standard for Nursery Stock (ANSI A60.1-2004), have a strong, central leader and show evidence of cultural care in the nursery. The trees should not be damaged, and should be free of insect, insect eggs, disease, and other problems. The root balls should well-wrapped with burlap and unbroken. Trees with broken root balls, damage, poor form, or other problems should be rejected. A detailed contractual specification is included in Appendix III for street projects.

It is strongly recommended that the City of Tenino remove the street tree procurement from the overall street project contract, and only contract for planting. The city should contract for trees in advance with a reputable nursery to insure that the numbers, species, size, and quality of trees are available when a project is constructed. This will eliminate

substitution, accepting less than high quality trees, and holding stock on site for extended periods of time (1 week is the target).

Preparing the Planting Hole

The planting hole within the planter strip or behind the sidewalk often contains structural soils used in the preparation of the sub grade for the street and sidewalks. If the planter strip will be planted with grass, the entire planter strip should be backfilled with topsoil that has a silt loam or loamy sand texture. The organic matter content should be 4-6%. It should be free from contaminants.

The area where the tree is to be planted should be excavated to the proper depth so the root ball sits on native soil, and the top of the root ball will be 1” above the final soil grade. The planting hole should be at least 3 times the diameter of the rootball of the street tree. The edges of the planting hole should be shaved off to eliminate the glazed or compacted hole edge.

If a hardpan or other compacted layer occurs that will cause perching of water in the planting hole, this layer should be fractured by over excavating the hole and backfilling the native material. The area under the rootball should be firmed to prevent settling of the tree. In cases where drainage cannot be improved by over excavating, installation of drain tile may be necessary to drain the planting hole and the surrounding root zone.

Orientation of the Tree

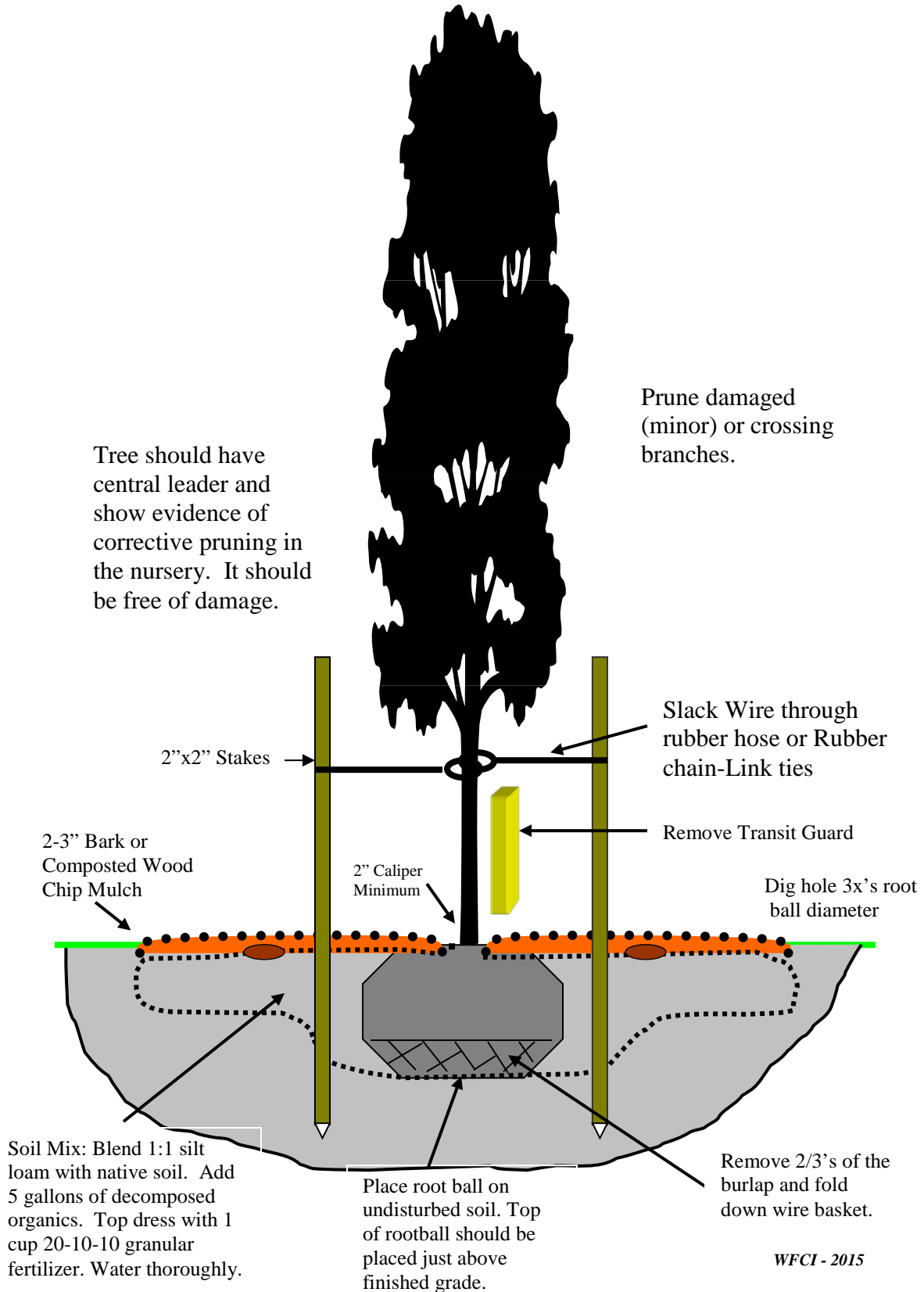
Plant the tree in the same orientation as it grew in the nursery. Most trees will be marked at the base to indicate the north side of the tree. This will reduce the potential for sunburn of the bark.

Tree Grates

Every effort should be made to avoid planting trees in tree grates within a sidewalk. Planting behind the sidewalk and within planter strips will provide a microclimate much more conducive to tree growth and survival. Planting trees at the back of a sidewalk edge with half-grates is a better alternative than full grates within a sidewalk.

If the only planting location is within the sidewalk and tree grates must be used, then the minimum size grate should be 5’ x 5’. If smaller grates must be used, then small street tree cultivars must be selected for these limited spaces. Preparation of the planting soils and space is similar to planting in planter strips.

FIGURE 12. STREET TREE PLANTING DETAIL



Burlap and Wire Basket

Remove twine ties from the root collar of the tree and fold the burlap down into the hole exposing at least 2/3's of the root ball. If desired, cut out the extra burlap. If the tree has a wire basket, leave it on until the tree is in the ground and stabilized. Prior to completing backfill, cut out the upper 2/3's of the wire basket and remove from the hole.

Complete backfilling with the topsoil mix. In areas with gravelly soils, blend the topsoil with native soils. In areas of Tenino with sandy loams, utilize the native material or imported topsoil's with additional silt and organic matter. If native sandy loams are used, then incorporate organic matter as described on the planting diagram.

Fertilization

Trees should be fertilized with a granular formulation of 20-10-10 at a rate of 6 pounds per 1000 square feet of surface area. This amounts to approximately 2 ounces per tree. Do not incorporate the fertilizer into the planting hole or fill soils. Salt burn of the new roots may occur. Do not apply any other root stimulants. Good weed control must accompany fertilization treatments.

Watering

All trees should be thoroughly water in to eliminate air pockets and settle the soil around the rootball. Create a small 4" high berm with soil to create a well for holding water from irrigation. This berm should be located 12" outside of the rootball.

The rule of thumb for water is to apply 2" of water per week, or follow the rates listed below:

<u>Tree Caliper</u>	<u>Gallons per Week</u>
1"	5
2"	10
3"	13
4"	18
5"	23

Monitor soil moisture contents in the root ball and the surrounding soil to determine the actual watering frequency and amounts.

Mulching

All trees should be mulched for a distance of at least 2 times the rootball diameter with 2-3" of bark mulch or composted wood chips.

Staking

All deciduous trees 1.5” to 2.5” caliper and conifers taller than 5’ should be staked with two stakes. Trees should be staked with 2” x 2” or round wooden stakes that are 6’ long. The stake must be tall enough to provide support to the tree. The stakes should be driven firmly into the ground outside of the root ball. They should be placed straight up and down, and be equidistant from the tree. Trees should be oriented to support the tree against the prevailing winds.

The stake ties should be rubber chain-link, installed snug but not stretched. The tree needs to be able to move slightly to develop normal stem diameter and taper. Avoid wire and hose ties.

The stakes and ties should be inspected several times in the first year. Vandalism and accidental damage occurs frequently. Once the tree becomes established, usually one year, remove the stakes and ties. Ties left on trees long-term will often girdle the tree. Trees larger than 2.5” caliper will require 3 stakes. Trees larger than 4” caliper should be guyed with three cables and buried earth anchors.

Trunk Wraps

Trunk wraps are used to prevent sunburn on new trees. This is usually not a problem, however if trunk wraps are used, they should be made of paper and left on the tree for 1 year.

Transit guards should not be left on the tree as trunk wraps. They are designed to protect the stem of the tree during transport only. Molds, insects, and other fungi may be attracted to the moist, shady confines of the transit guard.

Root Collar Protectors

Plastic sleeves should be installed on all newly planted trees to protect the root collars from lawn mowers and weed eaters. These protectors should be left on the trees until trees are 6” caliper, or the protector becomes snug.

Grass and weeds should not be allowed to grow in the tree well, removing the temptation to mow or weed-eat near the stems. Root collar damage from weed eaters is a major cause of tree mortality, and/or reduced vigor.

Pruning

Newly planted trees that were well cultured in the nursery should need only minor pruning to remove crossing branches, or branches damaged during transport and planting. Pruning in successive years to provide sidewalk and street clearance, improve the branch structure of the tree, and maintain central leaders, should conform to the American

National Standard ANSI A300 (2001), *Tree, Shrub, and Other Woody Plant Maintenance – Standard Practices* (Pruning).

This small tree pruning is critical to provide a strong tree and branch structure for the future, minimizing storm damage, and the need for additional pruning. Pruning should be completed by an arborist certified by the International Society of Arboriculture, or supervised by a certified arborist. No more than 20% of the live branches should be pruned in any one year.

Inspections

The newly planted trees should be inspected several times in the first year to adjust stakes and note other cultural concerns. Prior to release of the 1 year bond or end of the 1 year guarantee for trees planted as part of a street project, the trees should be inspected by a certified arborist. Trees that were unhealthy or poorly handled often ‘hang on’ for some time after planting. Specialized expertise is needed to identify the trees that are in decline, but still alive. This inspection must take place when trees are foliated.

Timing of Tree Planting

Tree planting should not occur between May and October. Trees planted during this time will be stressed and survival and establishment will be reduced. The following is a general window for planting the different types of trees.

<u>Stock Type</u>	<u>Timing of Planting</u>
Balled and Burlap	October 15 th through May 1 st
Containerized	October 15 th through May 1 st
Bare-Root Stock	February 15 th through April 15 th

Fall planting of B&B and containerized stock is preferred, since tree roots will grow for part of the winter. This will improve establishment and early growth.

Maintenance Recordkeeping

As trees are planted in the city of Tenino, maintenance records need to be updated on the street tree inventory system. This will help with tracking of stake removal, weed control, pruning needs, and hazard assessment. This system is up and running and simply needs to be maintained and refined as needed.

Street Tree Management Units. – The only soils based separation in Tenino street tree populations are soils that are 1) excessively drained gravels, 2) sandy soils, and 3) poorly drained soils.

Geographically, it is recommended that the management units be based on the Tenino planning areas.

Figure 13. Calendar for tree planting and maintenance activity.

ACTIVITY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Tree Planting:												
Balled & Burlap and Containerized	←————→									←————→		
Bare-Root Stock		←————→										
Fertilization: Surface Applied			↔			↔				↔		
Watering					←————→							
Weed Control			←————→									
Integrated Pest Management – Scouting		←————→										
Pruning:												
Spring Flowering Trees					↔							
Summer Flowering Trees	←————→									←————→		
All Other Shade Trees and Conifers	←————→									←————→		
Storm Damage Assessment-As Needed	←————→											

Trees and Planting Specifications

The following summarizes the tree and planting specifications:

All trees and shrubs should conform to the American Standard for Nursery Stock ANSI Z60.1-2004 for size, root ball diameter, and quality, and be planted according to industry standards, including mulching. All street trees should have a well-defined central stem and show evidence of corrective cultural pruning in the nursery.

Tree planting should occur in the spring between March 1 and June 1, or preferably in the fall between October 1 and December 1. Irrigation should be provided to the trees and shrubs at least weekly during the summer, in the absence of adequate rainfall.

Summary

We found 26 planted, city maintained street trees and 139 open planter spaces within the study area. Ninety-four of these open planter spaces had overhead powerlines or other restrictions on tree size. The existing flowering plum street trees were in good condition, however most other existing street trees were in poor condition.

In the downtown area, the best opportunity to make the greatest change or improvement in tree cover is to create space and plant trees along Sussex Avenue/SR507 through the downtown core. Currently there is no space for trees, and the soil condition under the existing concrete is likely poor. The only opportunity for trees in this area is to create bump-outs for tree planting along the street. Significant cost and soil improvement will be required. We have recommended a more columnar, medium scale street tree (Parkway Maple) for use in this area. It is a hardy tree that can tolerate challenging locations.

On other city streets, planting in the existing curblawn zones (planter strips) yards or private property behind the sidewalks will provide the best opportunity for trees that will thrive. If native forest encroaches on the street and there is little to no space for street trees, then do not plant street trees.

Street tree maintenance for the 26 trees is good. However the species mix needs to be diverse and many open planting spaces exist. Over time, planting trees in these 139 open spaces will change the look and feel of Tenino.

If trees are added to the arterials and collectors in Tenino the connectivity of the corridors will be improved from one of the street to the other, traffic will slow, people will linger downtown longer, and the overall aesthetics of the city will be improved. Trees like infrastructure must be planned – if space is not created and trees planted today, our great grandchildren may be having this same conversation in 30 years.

Appendix I

Tree/Planting Spot Inventory

**(6 pages attached – tree numbers on list
correspond to map in Appendix II)**

Tree #	SPECIES	DBH (in)	CONDITION	PROBLEM	WORKNEEDED	WRKPRIORTY	COMMENTS
400			Other	Other	Other	Routine	open space, overhead powerlines, 200 ft
401	Locust - Honey	13	Poor	Other	Other	Routine	topped, overhead powerlines
402	Other - Deciduous	5	Fair	None	Other	Routine	overhead powerlines
403	Other - Deciduous	4	Fair	None	Other	Routine	overhead powerlines
404			Other	Other	Other	Routine	open space, 100 ft x 5 ft
405			Other	Other	Other	Routine	open space, overhead powerlines, 2300 ft, brush and trees growing off row
406			Other	Other	Other	Routine	open space, 2300 ft, brush and trees growing off row
407			Other	Other	Other	Routine	open space, overhead powerlines, along rr row, 2300 ft,
408			Other	Other	Other	Routine	open space, 60 ft
409			Other	Other	Other	Routine	open space, 60 ft x 10 ft
410			Other	Other	Other	Routine	open space, 700 ft x 10 ft
411			Other	Other	Other	Routine	open space, brush growing off row, 100 ft
412			Other	Other	Other	Routine	open space, overhead powerlines, 300 ft
413			Other	Other	Other	Routine	open space, 80 ft x 8 ft
414			Other	Other	Other	Routine	open space, overhead powerlines, 60 ft
415			Other	Other	Other	Routine	open space, 35 ft
416			Other	Previous Failure	Other	Routine	open space, planter, 100 ft x 6 ft
417			Other	Other	Other	Routine	open space, planter, overhead powerlines, 30 ft x 6 ft
418			Other	Other	Other	Routine	open space, planter, 70 ft x 6 ft
419	Hawthorne	9	Poor	Major Dieback	Remove tree	Routine	topped
420			Other	Other	Other	Routine	open space, planter, 110 ft x 6 ft
421			Other	Previous Failure	Other	Routine	open space, planter, 40 ft x 6 ft
422	Hawthorne	9	Poor	Major Dieback	Remove tree	Routine	topped
423	Magnolia	4	Fair	None	Prune	Routine	prune for clearance
424			Other	Other	Other	Routine	open space, planter, 40 ft x 6 ft
425			Other	Other	Other	Routine	open space, planter, 25 ft x 6 ft
426			Other	Other	Other	Routine	open space, planter, 15 ft x 6 ft
427			Other	Other	Other	Routine	open space, planter, 40 ft x 6 ft
428			Other	Previous Failure	Other	Routine	open space, between rd and sidewalk, 60 ft x 10 ft
429	Pine - White	11	Good	None	Prune	Routine	prune for clearance
430	Hawthorne	5	Poor	Major Dieback	Remove tree	Routine	topped
431	Hawthorne	5	Poor	Major Dieback	Remove tree	Routine	topped
432	Hawthorne	5	Poor	Major Dieback	Remove tree	Routine	topped
433	Hawthorne	10	Poor	Major Dieback	Remove tree	Routine	topped
434	Hawthorne	9	Good	Major Dieback	Remove tree	Routine	topped

Tree #	SPECIES	DBH (in)	CONDITION	PROBLEM	WORKNEEDED	WRKPRIORTY	COMMENTS
435			Other	Other	Other	Routine	open space, 40 ft
436			Other	Other	Other	Routine	open space, 40 ft
437			Other	Other	Other	Routine	open space, 90 ft x 10 ft
438	Apple	8	Fair	None		Routine	
439			Other	Other	Other	Routine	open space, brush growing off row, 150 ft x 10 ft
440			Other	Other	Other	Routine	open space, overhead powerlines, brush growing off row, 200 ft
441			Other	Other	Other	Routine	open space, overhead powerlines, 40 ft
442			Other	Other	Other	Routine	open space, overhead powerlines, 150 ft x 10
443			Other	Other	Other	Routine	open space, overhead powerlines, 150 ft x 10 ft
444	Cherry - Other	10	Poor	Major Dieback	Remove tree	Routine	topped, overhead powerlines
445			Other	Other	Other	Routine	open space, overhead powerlines, planter, 40 ft x 6 ft
446	Cherry - Other	6	Fair	None	Prune	Routine	prune for clearance, overhead powerlines
447	Cherry - Other	3	Poor	Minor Dieback	Remove tree	Routine	overhead powerlines
448			Other	Other	Other	Routine	open space, overhead powerlines, planter, 30 ft x 6 ft
449			Other	Other	Other	Routine	open space, overhead powerlines, planter, 35 ft x 6 ft
450	Plum - Flowering	2	Good	None	Other	Routine	prune for clearance, overhead powerlines
451	Plum - Flowering	2	Good	None	Other	Routine	prune for clearance, overhead powerlines
452	Plum - Flowering	2	Good	None	Other	Routine	prune for clearance, overhead powerlines
453			Other	Other	Other	Routine	open space, overhead powerlines, planter, 30 ft x 6 ft
454	Plum - Flowering	7	Good	None	Other	Routine	prune for clearance, overhead powerlines
455	Plum - Flowering	7	Good	None	Prune	Routine	prune for clearance, overhead powerlines
456			Other	Other	Other	Routine	open space, overhead powerlines, planter, 35 ft x 6 ft
457			Other	Other	Other	Routine	open space, overhead powerlines, planter, 15 ft x 6 ft
458			Other	Other	Other	Routine	open space, overhead powerlines, planter, 45 ft x 6 ft
459			Other	Other	Other	Routine	open space, overhead powerlines, planter, 50 ft x 6 ft
460			Other	Previous Failure	Other	Routine	open space, overhead powerlines, planter, 75 ft x 6 ft
461			Other	Other	Other	Routine	open space, overhead powerlines, planter, 30 ft x 6 ft

Tree #	SPECIES	DBH (in)	CONDITION	PROBLEM	WORKNEEDED	WRKPRIORTY	COMMENTS
462			Other	Other	Other	Routine	open space, overhead powerlines, planter, 30 ft x 6 ft
463			Other	Other	Other	Routine	open space, overhead powerlines, 80 ft
464			Other	Other	Other	Routine	open space, overhead powerlines, 40 ft
465			Other	Other	Other	Routine	open space, overhead powerlines, 40 ft
466	Cherry - Other	8	Fair	None	Other	Routine	overhead powerlines
467			Other	Other	Other	Routine	open space, overhead powerlines, 40 ft
468			Other	Other	Other	Routine	open space, overhead powerlines, 40 ft
469			Other	Other	Other	Routine	open space, overhead powerlines, 100 ft
470			Other	Other	Other	Routine	open space, 50 ft
471			Other	Other	Other	Routine	open space, 50 ft
472			Other	Other	Other	Routine	open space, overhead powerlines, 350 ft x 8 ft
473			Other	Other	Other	Routine	open space, overhead powerlines, 120 ft x 8 ft
474			Other	Other	Other	Routine	open space, overhead powerlines, 80 ft x 8 ft
475			Other	Other	Other	Routine	open space, 70 ft x 9 ft
476			Other	Other	Other	Routine	open space, 60 ft x 12 ft
477			Other	Other	Other	Routine	open space, 250 ft
478			Other	Other	Other	Routine	open space, 40 ft
479			Other	Other	Other	Routine	open space, 50 ft
480			Other	Other	Other	Routine	open space, 30 ft
481			Other	Other	Other	Routine	open space, 40 ft
482			Other	Other	Other	Routine	open space, 450 ft
483			Other	Other	Other	Routine	open space, overhead powerlines, 140 ft x 9 ft
484			Other	Other	Other	Routine	open space, overhead powerlines, 240 ft x 9 ft
485			Other	Other	Other	Routine	open space, overhead powerlines, 120 ft
486			Other	Other	Other	Routine	open space, overhead powerlines, 20 ft x 8 ft
487	Maple - Bigleaf	28	Poor	Major Dieback	Prune	Routine	crown clean
488			Other	Other	Other	Routine	open space, 40 ft x 12 ft
489	Maple - Bigleaf	14	Fair	Minor Dieback	Prune	Routine	crown clean
490	Plum - Flowering	3	Fair	None	Prune	Routine	prune for clearance
491	Plum - Flowering	3	Good	None	Prune	Routine	prune for clearance
492			Other	Other	Other	Routine	open space, 30 ft x 6
493			Other	Other	Other	Routine	open space, overhead powerlines, between rd and sidewalk, 20 ft x 8 ft
494			Other	Other	Other	Routine	open space, overhead powerlines, between rd and sidewalk, 50 ft 8 ft
495			Other	Other	Other	Routine	open space, overhead powerlines, between rd and sidewalk, 75 ft 8 ft
496			Other	Other	Other	Routine	open space, between rd and sidewalk, 40 ft 8 ft

Tree #	SPECIES	DBH (in)	CONDITION	PROBLEM	WORKNEEDED	WRKPRIORTY	COMMENTS
497			Other	Other	Other	Routine	open space, overhead powerlines, 250 ft
498			Other	Other	Other	Routine	open space, overhead powerlines, planter, 50 ft x 2 ft
499			Other	Other	Other	Routine	open space, overhead powerlines, planter, 80 ft x 5 ft
500			Other	Other	Other	Routine	open space, overhead powerlines, planter, 80 ft x 5 ft
501			Other	Other	Other	Routine	open space, overhead powerlines, planter, 90 ft x 5 ft
502			Other	Other	Other	Routine	open space, overhead powerlines, planter, 75 ft x 5 ft
503			Other	Other	Other	Routine	open space, overhead powerlines, planter, 30 ft x 6 ft
504			Other	Other	Other	Routine	open space, planter, 20 ft x 6 ft
505			Other	Other	Other	Routine	open space, planter, 55 ft x 6 ft
506			Other	Other	Other	Routine	open space, overhead comm lines, planter, 80 ft x 6 ft
507			Other	Other	Other	Routine	open space, overhead comm lines, planter, 20 ft x 6 ft
508	Hawthorne	9	Poor	Major Dieback	Remove tree	Routine	topped, overhead comm lines
509	Hawthorne	7	Poor	Major Dieback	Remove tree	Routine	topped, overhead comm lines
510	Hawthorne	7	Poor	Major Dieback	Remove tree	Routine	topped, overhead comm lines
511	Dogwood - Flowering	7	Fair	None	Prune	Routine	prune for clearance, overhead comm lines
512	Crabapple	7	Poor	Major Dieback	Remove tree	Routine	overhead comm lines, topped
513	Cherry - Other	10	Fair	None	Other	Routine	overhead comm lines, topped
514	Hawthorne	6	Poor	Major Dieback	Remove tree	Routine	overhead comm lines, topped
515	Hawthorne	4	Poor	Major Dieback	Remove tree	Routine	overhead comm lines, topped
516	Hawthorne	4	Poor	Major Dieback	Remove tree	Routine	overhead comm lines, topped
517	Hawthorne	5	Poor	Major Dieback	Remove tree	Routine	overhead comm lines, topped
518			Other	Other	Other	Routine	open space, planter, 60 ft x 2 ft
519			Other	Other	Other	Routine	open space, planter, 45 ft x 2 ft
520			Other	Other	Other	Routine	open space, planter, 30 ft x 2 ft
521			Other	Other	Other	Routine	open space, planter, 30 ft x 1 ft
522			Other	Other	Other	Routine	open space, planter, 30 ft x 2 ft
523			Other	Other	Other	Routine	open space, 80 ft
524			Other	Other	Other	Routine	open space, 50 ft
525			Other	Other	Other	Routine	open space, 750 ft
526			Other	Other	Other	Routine	open space, 225 ft
527			Other	Other	Other	Routine	open space, 200 ft

Tree List - Existing Trees and Open Planting Spots

Tree #	SPECIES	DBH (in)	CONDITION	PROBLEM	WORKNEEDED	WRKPRIORTY	COMMENTS
528			Other	Other	Other	Routine	open space, 50 ft
529			Other	Other	Other	Routine	open space, 150 ft
530			Other	Other	Other	Routine	open space, 250 ft x 4 ft
531			Other	Other	Other	Routine	open space, overhead powerlines, 100 ft
532			Other	Other	Other	Routine	open space, overhead powerlines, 900 ft x 8 ft
533			Other	Other	Other	Routine	open space, overhead powerlines, 40 ft x 8 ft
534			Other	Other	Other	Routine	open space, overhead powerlines, 450 ft x 8 ft
535			Other	Other	Other	Routine	open space, overhead powerlines, 100 ft x 10 ft
536			Other	Other	Other	Routine	open space, overhead powerlines, 45 ft x 10 ft
537			Other	Other	Other	Routine	open space, overhead powerlines, 80 ft x 7 ft
538			Other	Other	Other	Routine	open space, overhead powerlines, 50 ft x 7 ft
539			Other	Other	Other	Routine	open space, overhead powerlines, 90 ft x 10 ft
540			Other	Other	Other	Routine	open space, overhead powerlines, 45 ft x 6 ft
541			Other	Other	Other	Routine	open space, overhead powerlines, between rd and sidewalk, 100 ft x 7 ft
542			Other	Other	Other	Routine	open space, overhead powerlines, between rd and sidewalk, 150 ft x 5 ft
543			Other	Other	Other	Routine	open space, planter, 120 ft x 2 ft
544			Other	Other	Other	Routine	open space, planter, 50 ft x 2 ft
545			Other	Other	Other	Routine	open space, planter, 40 ft x 2 ft
546			Other	Other	Other	Routine	open space, overhead powerlines, 200 ft
547			Other	Other	Other	Routine	open space, overhead powerlines, 40 ft
548			Other	Other	Other	Routine	open space, overhead powerlines, 200 ft
549			Other	Other	Other	Routine	open space, overhead powerlines, 200 ft
550			Other	Other	Other	Routine	open space, mountain ash snd maples planted off row, 1500 ft
551			Other	Other	Other	Routine	open space, overhead powerlines, 30 ft x 10 ft
552			Other	Other	Other	Routine	open space, 300 ft
553			Other	Other	Other	Routine	open space, 30 ft x 8 ft
554			Other	Other	Other	Routine	open space, overhead powerlines, 225 ft x 4 ft
555			Other	Other	Other	Routine	open space, 200 ft
556			Other	Other	Other	Routine	open space, 200 ft
557			Other	Other	Other	Routine	open space, overhead powerlines, 200 ft x 8 ft
558			Other	Other	Other	Routine	open space, overhead powerlines, 40 ft x 8 ft
559			Other	Other	Other	Routine	open space, 250 ft x 6 ft
560			Other	Other	Other	Routine	open space, overhead powerlines, 100 ft
561			Other	Other	Other	Routine	open space, 100 ft x 6 ft
562			Other	Other	Other	Routine	open space, 40 ft
563			Other	Other	Other	Routine	open space, overhead powerlines, 40 ft x 8 ft

Tree List - Existing Trees and Open Planting Spots

Tree #	SPECIES	DBH (in)	CONDITION	PROBLEM	WORKNEEDED	WRKPRIORTY	COMMENTS
564			Other	Other	Other	Routine	open space, 40 ft x 8 ft
565			Other	Other	Other	Routine	open space, 100 ft x 8 ft
566			Other	Other	Other	Routine	open space, 100 ft x 8 ft
567			Other	Other	Other	Routine	open space, overhead powerlines, 50 ft x 9 ft
568			Other	Other	Other	Routine	open space, overhead powerlines, 50 ft x 6 ft
569			Other	Other	Other	Routine	open space, overhead powerlines, 100 ft x 6 ft
570			Other	Other	Other	Routine	open space, overhead powerlines, 50 ft x 12 ft
571			Other	Other	Other	Routine	open space, 250 ft
572			Other	Other	Other	Routine	open space, 20 ft x 10 ft
573			Other	Other	Other	Routine	open space, 50 ft x 4 ft
574			Other	Other	Other	Routine	open space, 35 ft x 4 ft

Appendix II

Tree/Planting Spot Locations Mapped

(West, Middle, and East Sections of Tenino)

(3 pages attached)



550

419

460

418

461

417

416

462

415

548

414

413

546

547

412

404

400

402

401

411

7TH

7TH

406

405

NELSON

HUSTON

HUSTON

7TH

HUSTON

HUSTON

HUSTON

HUSTON

HUSTON

407

410

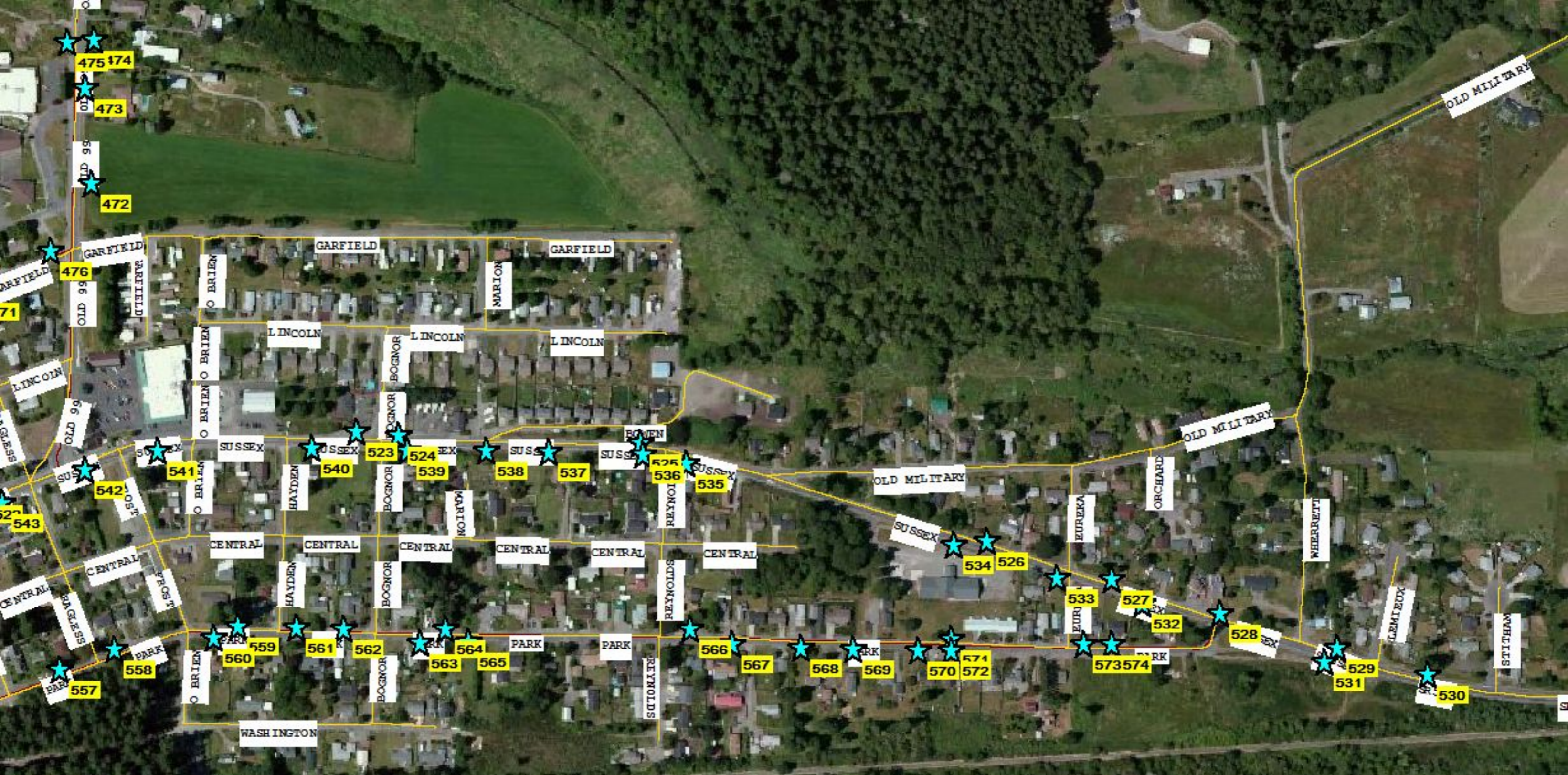
CROWDER

SR507

409

408

UCODA



475 174

473

472

476

471

470

469

468

467

466

465

540

541

542

543

523

524

539

538

537

525

536

535

534

526

533

527

532

528

529

531

530

558

559

561

562

563

564

565

566

567

568

569

570

571

572

573

574

530

WASHINGTON

GARFIELD

GARFIELD

GARFIELD

LINCOLN

LINCOLN

LINCOLN

SUSSEX

SUSSEX

SUSSEX

SUSSEX

OLD MILITARY

OLD MILITARY

CENTRAL

CENTRAL

CENTRAL

CENTRAL

CENTRAL

CENTRAL

SUSSEX

CENTRAL

CENTRAL

CENTRAL

CENTRAL

CENTRAL

CENTRAL

CENTRAL

CENTRAL

PARK

PARK

PARK

PARK

PARK

PARK

PARK

PARK

PARK

PARK

PARK

WHITTAN

GEMLEOX

WHARRETT

ORCHARD

EUREKA

SUSSEX

SUSSEX

SUTOKLATE

REYNOLDS

ROVEN

WALTON

BOGNOR

HAYDEN

BOGNOR

BOGNOR

BOGNOR

BOGNOR

BOGNOR

BOGNOR

BOGNOR

BOGNOR

BOGNOR

OLD MILITARY

Appendix III

Tree Planting Specifications To Be Used for Tenino Street Tree Planting Projects

I. Description of Work

These specifications include standards necessary for and incidental to execution and completion of planting street trees.

A. Specifications for the planting hole design, tree planting, mulching and watering are included.

B. Protection of existing features. During construction, protect all existing trees, shrubs, and other specified vegetation, site features and improvements, structures, and utilities specified herein and/or on submitted drawings. Removal or destruction of existing plantings is prohibited unless specifically authorized by the owner.

II. Applicable Specifications and Standards

A. *Principles and Practice of Planting Trees and Shrubs*. 1997. International Society of Arboriculture, P.O. Box GG, Savoy, IL 61874

B. *American Standard for Nursery Stock*. 1996. American Association of Nurserymen, Inc. 1250 I Street NC Suite 500, Washington, D.C. 20005

C. *Standardized Plant Names*. 1942. American Joint Committee on Horticulture Nomenclature, Horace McFarland Company, Harrisburg, Pennsylvania. (Second edition).

III. Planting Season

A. Planting shall be done within the following dates:

Balled and Burlap (B&B) trees and shrubs: October 15 to May 1st

Containerized trees and other: October 1st to May 1st.

Bare rooted trees and shrubs: February 15th to April 15th.

B. Variance: If special conditions exist that warrant a variance in the above planting dates, a written request shall be submitted to the project owner stating the special conditions and the proposed variance. Permission for the variance will be given if warranted in the opinion of project owner.

IV. Planting Locations

A. The landscape contractor (hereafter referred to as Contractor) shall plant at locations to be determined and marked by the owner or other person representing the owner (hereafter referred to as the Owner's Representative).

B. Locations for individual trees will be supplied by the Owner's Representative. In some cases, the location may be inferred from reference to some identifiable field object or from some line that can be constructed in the field.

C. No tree that grows over 25 feet at maturity shall be planted under electrical utility wires.

D. No tree or shrub shall be planted within 10 feet of fire hydrants, driveways, streetlights, or intersections, or as specified by local ordinance.

V. Underground Utility Location

A. The Contractor shall contact the local utility companies for verification of the location of all underground utility lines in the area of the work. The Contractor shall be responsible for all damage resulting from neglect or failure to comply with the requirement.

B. Trees shall not be planted closer than 10 feet from water service connections, sewer laterals, or gas lines, unless so directed by the Owner's Representative. The Contractor shall be responsible for moving trees if planted closer than the specified distance.

VI. Materials

A. Topsoil provided shall be declared by the Contractor to be free from subsoil, roots, stones over 1 inch (2.5 cm) in diameter, herbicides, contaminants, and other extraneous materials. The Contractor shall dispose of materials removed. Topsoil shall be silt loam or loamy sand with 4 to 6 percent organic matter (by weight). Topsoil shall not be used in a frozen or muddy condition. The Contractor shall remove all surplus materials.

B. Plants shall be true to species and variety specified and nursery-grown in accordance with good horticultural practices under climatic conditions similar to those in the locality of the project for at least 2 years. They shall have been freshly dug (during the most recent favorable harvest season).

Unless specifically noted, all plants shall be of specimen quality, exceptionally heavy, symmetrical, and so trained to be favored in development and appearance as to be unquestionably and outstandingly superior in form, compactness, and symmetry. They shall be sound, healthy, vigorous, well-branched and densely

foliated when in leaf; free of disease and insects, eggs, or larvae' and shall have healthy well-developed root systems. They shall be free from physical damage or other conditions that would prevent vigorous growth.

Trees with multiple leaders, unless specified, will be rejected. Trees with a damaged or crooked leaders, bark abrasions, sunscald, disfiguring knots, insect damage, or cuts of limbs over $\frac{3}{4}$ in (2 cm) in diameter that are not completely closed will be rejected.

Plants shall conform to the measurements specified, except that plants larger than those specified may be used if approved by the Owner's Representative. Use of larger plants shall not increase the contract price. If larger plants are approved, the root ball shall be increased in proportion to the size of the plant.

Caliper measurements shall be taken on the trunk 6 inches (15 cm) above the natural ground line for trees up to and including 4 inches (10 cm) in caliper, and 12 inches (30 cm) above the natural ground line for trees over 4 inches (10 cm) in caliper. Height and spread dimensions specified refer to the main body of the plant and not from branch tip to branch tip. Plants shall be measured when branches are in their normal position. If a range of size is given, no plant shall be less than the minimum size, and no less than 50 percent of the plants shall be as large as the maximum size specified. Measurements specified are minimum size acceptable after pruning, where pruning is required. Plants that meet measurements but do not possess a standard relationship between height and spread, according to the American Standards for Nursery Stock, shall be rejected.

Substitutions of plant materials will not be permitted unless authorized in writing by the Owner's Representative. If proof is submitted in writing that a plant specified is not obtainable, consideration will be given to the nearest available size or similar variety with a corresponding adjustment of the contract price.

C. The plant list at the end of this section is for the Contractor's information only, and no guarantee is expressed or implied that quantities therein are correct or that the list is complete. The Contractor shall satisfy himself that all plant materials shown on the drawings are included in his bid.

D. All plants shall be labeled by plant name and size. Labels shall be attached securely to all plants, bundles, and containers of plant materials when delivered. Plant labels shall be durable and legible, with information given in weather-resistant ink or embossed process lettering.

E. Certificates of Plant Inspections: Certificates of inspection shall accompany invoices for each shipment of plants as may be required by law for transportation. Certificates are to be filed with the Owner's Representative prior to acceptance of the material. Passing inspection by federal or state governments at place of growth does not preclude rejection of plants at the work site.

VII. Selection and Tagging

A. Plants shall be subject to inspection for conformity to specification requirements and approval by the Owner's Representative at their place of growth and upon delivery. Such approval shall not impair the right of inspection and rejection during progress of the work. Inspection outside the state of Washington and Oregon shall be made at the expense of the Contractor. A Contractor's representative shall be present at all inspections.

B. A written request for the inspection of plant material at their place of growth shall be submitted to the Owner's Representative at least 10 calendar days prior to digging. This request shall state the place of growth and the quantity of plants to be inspected. The Owner's Representative may refuse inspection at this time if, in his/her judgment, sufficient quantities of plants are not available for inspection.

C. All plants shall be selected and tagged by the owner at their place of growth. For distant materials, photographs may be submitted for pre-inspection review.

VIII. Digging and Handling Plant Materials

A. Trees designated B&B shall be properly dug with firm natural balls of soil retaining as many fibrous roots as possible in sizes and shapes as specified in the most recent edition of the *American Standard for Nursery Stock*. Balls shall be firmly wrapped with non-synthetic, rottable burlap and secured with nails and heavy non-synthetic, rottable twine. Root collar will be apparent at surface of ball. No trees with loose, broken, or manufactured balls will be planted, **except with special written approval before planting.**

B. Plants grown in containers shall be of appropriate size for the container as specified in the most recent edition of the *American Standard for Nursery Stock*, and be free of circling roots on the exterior and interior of the root ball.

C. All other types of nursery stock shall also conform to the *American Standard for Nursery Stock*.

IX. Transportation and Storage of Plant Material

A. Fresh dug material is given preference over plant material held in storage. Plant material held in storage will be rejected if excessive growth or dieback of branches has occurred in storage.

B. Branches shall be tied with rope or twine only, and in such a manner that no damage will occur to the bark or branches.

C. During transportation of plant material, the Contractor shall exercise care to prevent injury and drying out of the trees. Should the roots be dried out, large

branches broken, balls of earth broken or loosened, or areas of bark torn, the Owner's Representative may reject the injured tree(s) and order them replaced at no additional cost to the owner.

D. Plants must be protected at all times from sun or drying winds. Those that cannot be planted immediately on delivery shall be kept in the shade, well protected with soil covered with wet wood chips or other acceptable material, and kept well watered. Plants shall not remain unplanted any longer than 3 days after delivery. Plants shall not be bound with wire or rope at any time so as to damage the bark or break branches. Plants shall be lifted and handled with suitable support of the soil ball to avoid damaging it.

X. Mechanized Tree Spade Requirements

Trees may be moved and planted with an approved mechanical tree spade. The tree spade shall move trees limited to the maximum size allowed for the similar B&B root ball diameter according to the *American Standard for Nursery Stock*, or the manufacturer's maximum size recommendation for the tree spade being used, whichever is smaller. The machine shall be approved by the Owner's Representative prior to use. Trees shall be *planted* at the designated locations in the manner shown in the plans and in accordance with applicable sections of the specifications.

XI. Excavation of Planted Areas

A. Locations for plants and outlines of areas to be planted are to be staked out at the site. Approval of the Owner's Representative is required before excavation begins. A minimum of 30 percent total planting must be staked out before inspection.

B. Shrub beds are to be excavated to a depth of 1 foot (30 cm) unless otherwise indicated. Ground cover beds are to be excavated to at depth of 6 inches (15 cm), unless otherwise indicated. Tree pits shall be excavated three times wider than the diameter of the ball, unless otherwise specified by the Owner's Representative, and only as deep as the root ball to be placed in the hole. If initially dug too deep, the soil added to bring it up to the correct level should be thoroughly tamped. The sides of all plant holes shall be sloped and the bottoms horizontal. On slopes, the depth of the excavation shall be measured at the center of the hole. Poor quality subgrade soils shall be separated from the topsoil, removed from the area, and not used as backfill or otherwise spread around in the landscape area. Pits shall not be left uncovered or unprotected overnight.

C. Detrimental soil conditions: The Owner's Representative is to be notified, in writing, of soil conditions that the Contractor considers detrimental to the growth of plant material. These conditions are to be described as well as suggestions for correcting them. Proper water drainage must be assured.

D. Obstructions: If rock, underground construction work, tree roots, or obstructions are encountered in the excavation of plant pits, alternate locations may be selected by the Owner's Representative. Where locations cannot be changes as determined by the Owner's Representative, and where digging is permitted, submit cost required to remove the obstruction to the depth of not less than 6 inches (15 cm) below the required hole depth. Proceed with work after approval of the Owner's Representative.

XII. Planting Operations

A. Plants shall be set at the same relationship to finish grade as they were to the ground from which they were dug. Plants must be set plumb and braced in position until prepared topsoil has been places around the ball and roots. Plants shall be set so that they will be the same depth 1 year later. The trunk of the tree is not to be used as a lever in positioning or moving the tree in the planting hole.

B. Ropes, strings, and wrapping from the top half of the root ball are to be removed after the plant has been set. All waterproof or water repellant wrappings shall be removed from the ball. Remove at least the top half of the wire basket before backfilling.

C. The roots of bare root trees shall be pruned at the time of planting to remove damage or undesirable roots (those likely to become a detriment to future growth of the root system). Bare root trees shall have the roots spread to approximate the natural position of the roots and shall be centered in the planting pit. The planting soil backfill shall be worked firmly into and around the roots, with care taken to fill in completely with no air pockets.

D. When specified by the Owner's Representative, amend the backfill soil by adding 4-6 percent (by weight, 20-35 percent by volume, depending on materials) composted organic matter.

E. Basins are to be formed around tree and shrub root ball with a raised ring of soil as indicated on drawing.

F. Planting areas are to be finish graded to conform to grades on drawing after full settlement has occurred.

G. Plants are to be thoroughly watered immediately after planting.

H. Any excess soil, debris, or trimmings shall be removed from the planting site immediately upon completion of each planting operation.

XIII. Guying, Staking, Wrapping, Pruning and Mulching

A. Stake all deciduous trees over 1.5 inch caliper and all conifer trees over 5 feet tall.

B. Staking and guying shall be completed immediately after planting. Trees up to 2.5 inches caliper are to be staked with two stakes and separate flexible ties as shown on drawings. For larger trees, use 3 guy wires and ground anchors. Ground anchors are to be driven at approximately a 45-degree angle to ground plane and distributed at 120 degree intervals around the trunk. Guying cables, turnbuckles, and hose are to be attached securely until the tree is well supported.

C. Guying and staking materials: Ground anchors shall be arrowhead shaped earth anchors of malleable iron castings, aluminum castings, or stamped steel. Staking wire shall be pliable 12-gauge galvanized, twisted two strands. Guying cable shall be 5 strand, 3/16 in (5 mm) diameter steel cable. Vertical supporting stakes shall be sound hardwood or pine. They shall be a minimum of 2 x 2 in. (5 x 8 cm) in diameter, 6-8 feet (2.4 m) long, and pointed at one end. Rubber chain-link ties are to be used to secure the tree to the stakes.

D. Plants are to be pruned at the time of planting and according to best horticulture practices. Pruning of all trees will include the removal of injured branches, double leaders, water sprouts, suckers, and interfering limbs. Healthy lower branches and small twigs close to the center should not be removed, except as necessary to clear sidewalks or streets. All pruning cuts shall be clean and smooth, with the bark intact and uninjured at the edges. In no case shall more than 25% of the branching structure be removed, **leaving the normal shape of the plant intact.**

E. All trees, shrubs, and other planting beds will be mulched with a mixture of composted wood chips or bark previously approved by the owner. The composted mulch will be free of materials injurious to plant growth, branches, leaves, roots, and other extraneous matter. The mulch will be 2 to 3 inches deep on trees and shrubs. The depth of mulch on the planting beds will be 2-3 inches. Mulch must not be placed within 3 inches (8 cm) of the trunks of trees or shrubs.

F. Anti-transpirant, if required, shall be an emulsion that provides a protective film over plant surfaces and is nontoxic to all plants used. It shall be delivered in containers of the manufacturer and mixed according to the manufacturer's directions.

XIV. Maintenance of Trees, Shrubs and Vines

A. Maintenance shall begin immediately after each plant is planted and continue until the Owner's Representative has confirmed its acceptance.

B. Maintenance shall consist of pruning, watering, cultivating, weeding, mulching, tightening and repairing guy and stakes, resetting plants to proper grades and to an upright position, restoration of the planting saucer, and furnishing and applying such sprays or other materials as are necessary to keep planting free of insects and diseases and in vigorous condition.

C. Planting areas and plants shall be protected at all times against trespassing and damage of all kinds for the duration of the maintenance period. If a plant becomes damaged or injured, it shall be treated or replaced as directed by the Owner's Representative at no additional cost.

D. Watering: Contractor shall irrigate, as required, to maintain vigorous and healthy tree growth. Over-watering or flooding shall not be allowed. Contractor shall use existing irrigation facilities and furnish any additional material, equipment, or water to ensure adequate irrigation. During periods of restricted water usage, all governmental regulations (permanent and temporary) shall be followed. Should modifications of existing irrigation systems and/or schedules facilitate adherence to these regulations, the Contractor shall notify the owner of the suggested modifications. The Contractor may have to transport water from other sources when irrigation systems are unavailable.

XV. Acceptance

A. The Owner's Representative shall inspect all work for acceptance upon written request of the Contractor. The request shall be received at least 10 calendar days before the anticipated date of inspection.

B. Acceptance of plant material by the Owner's Representative shall be for general conformance to specified size, character, and quality and shall not relieve the Contractor of responsibility for full conformance to the contract documents, including correct species.

C. Upon completion and re-inspection of all repairs or renewals necessary in the judgment of the Owner's Representative, the Owner's Representative shall certify in writing that the work has been accepted.

XVI. Acceptance in Part

A. Work may be accepted in parts when the Owner's Representative and Contractor deem that practice to be in their mutual interest. Approval must be given in writing by the Owner's Representative to the Contractor verifying that the work is to be completed in parts. Acceptance of work in parts shall not waive any other provisions of this contract.

XVII. Guarantee Period and Replacements

- A. The guarantee period for trees and shrubs shall begin at the date of acceptance.
- B. The Contractor shall guarantee all plant material to be in a healthy and flourishing condition for a period of 1 year from the date of acceptance.
- C. When work is accepted in parts, the guarantee periods extend from each of the partial acceptances to the terminal date of the guarantee of the last acceptance. Thus, all guarantee periods terminate at one time.
- D. The Contractor shall replace, without cost, as soon as weather conditions permit, and within a specified planting period, all plants determined by the Owner's Representative to be dead or in an unacceptable condition during and at the end of the guarantee period. To be considered acceptable, plants shall be free of dead or dying branches and branch tips and shall bear foliage of normal density, size, and color. Replacements shall closely match adjacent specimen of the same species. Replacements shall be subject to all requirements stated in the specifications.
- E. The guarantee of all replacement plants shall extend for an additional period of 1 year from the date of their acceptance after replacement. In the event that a replacement plant is not acceptable during or at the end of the said extended guarantee period, the Owner's Representative may elect subsequent replacement or credit for that item.
- F. The Contractor shall make periodic inspections, at no extra cost, during the guarantee period to determine what changes, if any, should be made in the maintenance program. If changes are recommended, they shall be submitted in writing to the Owner's Representative.

XVIII. Final Inspection and Final Acceptance

- A. At the end of the guarantee period and upon written request of the Contractor, the Owner's Representative will inspect all guaranteed work for final acceptance. The request shall be received at least 10 calendar days before the anticipated date for final inspection. Upon completion and re-inspection of all repairs or renewals necessary in the judgment of the Owner's Representative at that time, the Owner's Representative shall certify, in writing, that the project has received final acceptance.

XIX. Planting Diagram - STREET TREE PLANTING DETAIL

