CITY OF VENETA

TRANSPORTATION SYSTEM PLAN

VOLUME ONE

APRIL 2019

Adopted by Ordinance No. 549

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A special acknowledgement goes out to the Veneta residents, property owners, and visitors who attended community meetings or submitted comments, and to the Oregon Department of Transportation, which financed the project and provided invaluable staff support.

CONTENTS

Volume 2 of the Veneta Transportation System Plan (TSP) includes all background memoranda, meeting summaries, and technical data that were the basis for its development. The contents of Volume 2 represent an iterative process in the development of the TSP. Refinements to various plan elements occurred throughout the process as new information was obtained. In all cases, the contents of Volume 1 supersede those in Volume 2.

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CHAPTER ONE

EXECUTIVE SUMMARY

This update of Veneta's Transportation System Plan (TSP) reflects changes since the previous TSP was adopted in 1998. This included a new discussion about community values related to transportation, an assessment of current transportation conditions and needs, acknowledgment of projected growth in housing and employment through the planning horizon year 2040, and updates to transportation standards and project lists to help achieve Veneta's long-range vision for the movement of people and goods.

The TSP is the City of Veneta's long-range transportation plan and is adopted as an element of the Comprehensive Plan. The TSP update effort spanned two years and included a substantial public involvement process to ensure that decisions were informed by the priorities, needs, and issues important to the community.

This update to the 1998 TSP was needed to account for changing economic and social circumstances and to ensure consistency with state and regional planning policies. It provides a plan for the City to support the transportation needs from land use growth within the urban growth boundary through the 2040 planning horizon. This Plan will be used by the City to make strategic decisions about transportation system investments and will be instrumental in supporting grant applications to fund future projects.

The State of Oregon Transportation Planning Rule (TPR) defines the primary elements of a TSP. These include a review of the existing transportation system performance, a projection of community growth over the 20-year planning period, and evaluation of how the projected growth could change the system performance, and a list of projects, called the Financially Constrained list, to improve the transportation system within the constraints of the known funding likely to be available in the next 20 years.

The TSP update effort began by working with a Citizen Advisory Committee (CAC) to revisit the community's vision for the transportation system and establish a set of goals and objectives to guide decision making. The resulting vision and nine supporting goals, which are described in detail in Chapter 3, are summarized below.

THE VISION

Veneta will support its residents' pursuit of healthy and prosperous lives through developing a transportation system that meets the needs of the present and anticipates the future.

GOALS

1. SAFETY
Improve the safety of all users of the system for all modes of travel.

2. MOBILITY AND ACCESSIBILITY
Promote efficient travel that provides access to goods, services, and employment to meet the daily needs of all users, as well as to local and regional major activity centers.

3. ACTIVE TRANSPORTATION
Complete safe networks of facilities that make walking and biking an attractive choice by people of all ages and abilities.

4. GROW THE ECONOMY
Develop a transportation system that facilitates economic activity and draws business to the area.

5. ENVIRONMENT
Minimize environmental impacts on natural resources and encourage non-polluting transportation alternatives.

6. SUPPORT HEALTHY LIVING
Support options for exercise and healthy lifestyles to enhance the quality of life.

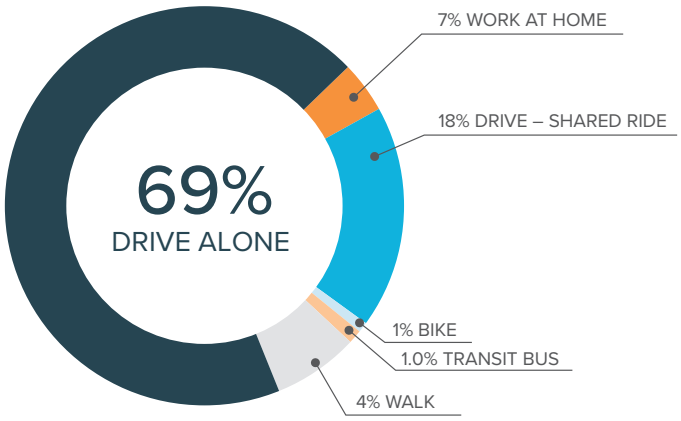
7. PREPARE FOR CHANGE
Ensure that the choices being made today make sense at a time when Veneta is growing and the transportation industry is rapidly changing.

8. FISCAL RESPONSIBILITY
Sustain an economically viable transportation system.

9. WORK WITH REGIONAL PARTNERS
Partner with other jurisdictions to plan and fund projects that better connect Veneta with the region.

An important step in planning for the future is an evaluation of the transportation system as it is used and exists today. On a typical day, approximately 1,700 Veneta residents leave town to go to jobs in other cities, while only about 100 live and work in Veneta. At the same time, Veneta imports approximately 900 employees from other cities. On average, almost 70 percent of Veneta residents commute to work using single-occupant motor vehicles. About 18 percent of residents carpool to work, which is significant, but use of transit and bicycles for commuting is far less common, representing about 1 percent of commuters each (Figure 1).

Figure 1. Veneta Commuter Mode Share



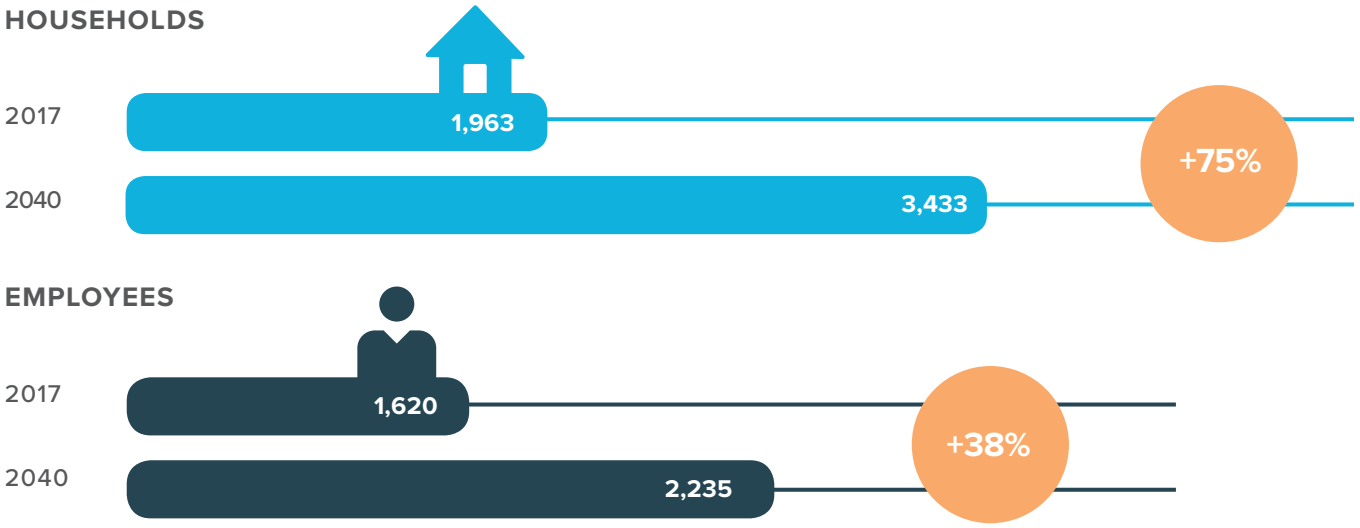
SOURCE: US Census Bureau, 2011-2015 American Community Survey 5-year Estimate

A comprehensive multimodal conditions analysis was conducted to identify what was needed to better accommodate the desired activities of the community. An assessment of current transportation system improvement needs is summarized below, and discussed in more detail Chapter 4.

- Improved north-south connectivity for all modes
- Enhanced pedestrian crossings on OR 126
- Pedestrian crossing improvements at intersections
- Railroad crossing improvements for ADA compliance
- Sidewalk infill or upgrade
- Safe routes to schools
- Enhanced pedestrian crossings on Territorial Highway
- Separate and comfortable bicycle facilities on major and minor collectors
- Territorial Highway/Jeans Road intersection congestion and safety
- Improved bus frequency
- Improved bus stops
- Improved transit access to the west of Veneta
- More public transportation options

Following that evaluation, the future transportation system operation was projected, taking into account the assumed growth in households and employment through the 2040 planning horizon. Using the Comprehensive Plan land use designations, a scenario was created estimating where growth would occur. In general, the 2040 scenario reflects growth in population and housing of about 75 percent, while employment is projected to grow by only 38 percent (Figure 2). This suggests that the trend of having most Veneta residents commuting to other cities for work will continue.

Figure 2. Veneta TSP Study Area (Urban Growth Boundary) Growth Summary



SOURCE: Portland State University Population Research Center Coordinated Population Forecast, 2015 through 2065, for Lane County Urban Growth Boundaries (UGB) and Area Outside UGBs; US Census 2015 Planning Database Block Group Data; City of Veneta Residential Buildable Land Inventory and Housing Needs Analysis (2013); City of Veneta Economic Opportunities Analysis (2015).

Projects to address system needs were crafted with input from the public. The projects were categorized by their primary purpose, resulting in project lists for: Connectivity and Congestion, Safety, Active Transportation, and Transit (Chapter 7). The descriptions of the projects are not intended to be at a design level, but are purposely general to provide flexibility as circumstances change over time.

Projects were initially evaluated and ranked using a set of criteria that reflect how well a project achieves the transportation goals and objectives described in Chapter 4. Each project was also evaluated for potential impacts to environmental resources and Title VI populations (e.g., low-income, minorities, and people with disabilities). The initial rankings of project priorities were refined using input from the CAC and public. The final priority ranks (e.g., High, Medium, or Low) are listed in the project tables in Chapter 7. The project priority rankings do not create an obligation to construct projects in any order and it is recognized that these priorities may change over time. The City of Veneta will use the priorities listed in this TSP to guide investment decisions, but will also regularly reassess local priorities to leverage new opportunities and reflect evolving community interests.

The overall portfolio of projects, referred to as the Aspirational Projects, are estimated to cost approximately $152.8 million to construct (Figure 3). Because Veneta is only anticipating to have approximately $11.5 million to construct projects in this TSP through the year 2040, High Priority and Financially Constrained project lists were provided set realistic expectations for Plan implementation (Chapter 8). The High Priority projects list emphasizes improvements for safety and active transportation, totaling approximately $10.9 million. The Financially Constrained projects that can reasonably be expected to be funded by 2040 given the type and amount of funding assumed to be available. These do not always include High Priority projects due to the use restrictions of some funding types. The Financially Constrained list totals approximately $11.5 million, and relies primarily on future funds from System Development Charges, State Highway Fund distributions, ODOT Statewide Transportation Improvement Program (STIP) Enhance Funding, and a portion of new revenue from House Bill 2017.

Figure 3. TSP Aspirational Transportation Project Solutions

The City is not required to implement projects identified on the Financially Constrained list first. Priorities may change over time and unexpected opportunities may arise to fund particular projects. The City is free pursue any of these opportunities at any time. The purpose of the Financially Constrained project list is to establish reasonable expectations for the level of improvements that will occur and give the City initial direction on where funds should be allocated.

Overall, this TSP provides an opportunity for Veneta to build on past successes while focusing improvements to better achieve community values and accommodate future growth. While an effort was made to capture all that was known at the time of its development, circumstances change and a TSP is expected to change with them.


DOWNTOWN
VENETA

CHAPTER TWO

CONTEXT

A TSP is a long-range plan that sets the vision for a community's transportation system for the next 20 years and beyond. This Plan was developed with community input and is based on the transportation system's needs, opportunities, and anticipated funding.

PURPOSE OF THE TSP

The Veneta TSP is a guide for future transportation investments to ensure that they align with the community's goals, values, and vision for the future. The TSP is a key resource for implementing transportation system improvements that address current deficiencies and will also serve expected local and regional growth.

The State of Oregon Transportation Planning Rule (TPR) established the requirement for cities to adopt TSPs, and Oregon Administrative Rule (OAR) 660-012-0015 defines the required primary elements. A city TSP must include the following components.

- A comprehensive understanding of the existing multimodal transportation system that serves the City and how well that system performs its expected function today
- A reasonable basis for estimating how the City and the surrounding region might grow in its population and employment over the next 20 years
- An evaluation of how the expected growth could change the system performance
- A set of goals, policies, and transportation system improvements that address community multimodal transportation needs
- An understanding of the on-going funding required to build and support the transportation system as the city grows and establishment of a financially-constrained project list

The Veneta TSP documents the operational and safety performance of the City's existing and future transportation system and provides strategies that will support growth in and around the community through the year 2040.

EXPECTED GROWTH

As growth occurs to the year 2040, the demands on the city's transportation system will be influenced by changes in population, housing, and employment. These changes in travel demands may require better ways to manage the system, more choices for getting around, and targeted improvements to make the system safer and more efficient. Over the next 20 years, it is expected that the population and number of households in Veneta will both grow by 75%, while employment will grow by 38%.

FUNDING CHALLENGES

Based on historical funding levels, the City expects to have about $11.5 million available through the year 2040 to fund the transportation projects in this TSP. This is far below the funding required to implement all of the projects in this plan, which total approximately $152.8 million, but may be sufficient to advance many of the higher priority projects in the community. The City may consider increasing existing fee levels, such as the System Development Charge rates, or adding new funding options to close these gaps and better prepare to accommodate growth.

The current funding sources available to the City of Veneta include the following mix of City and State funding programs. Refer to Chapter 7 for a more complete description of transportation funding issues facing the City.

CITY FUNDING PROGRAMS

Street Utility Fees

In 2016, Veneta implemented a street utility fee, which is a recurring monthly charge paid by all residences and businesses within the city. These funds are restricted for transportation operations and maintenance related projects only.

Local Motor Vehicle Fuel Tax

Veneta has also adopted a local, 3 cents per gallon fuel tax (on both gasoline and diesel) that is

collected by fuel distributors within the city. These funds do not have any restrictions and may be applied to any transportation improvement.

Transportation System Development Charges

Veneta collects a System Development Charge (SDC) from new developments to fund capacity-adding projects, generally for constructing or improving portions of roadways impacted by applicable development. The transportation SDC is a one-time fee, with a rate that is currently set at $2,425 per equivalent single-family dwelling unit.

STATE TRANSPORTATION FUNDING PROGRAMS

State Highway Fund Revenue

Revenue from the State Highway Fund comes from state motor vehicle fuel taxes, vehicle registration fees, and truck weight-mile fees, and are distributed on a per capita basis.

ODOT Statewide Transportation Improvement Program (STIP) Enhance Funding

ODOT has modified the process for selecting projects that receive STIP funding to allow local agencies to receive funding for projects off the state system. Projects that enhance system connectivity and improve multimodal travel options are the focus. The updated TSP prepares the City to apply for STIP funding.

CHAPTER THREE

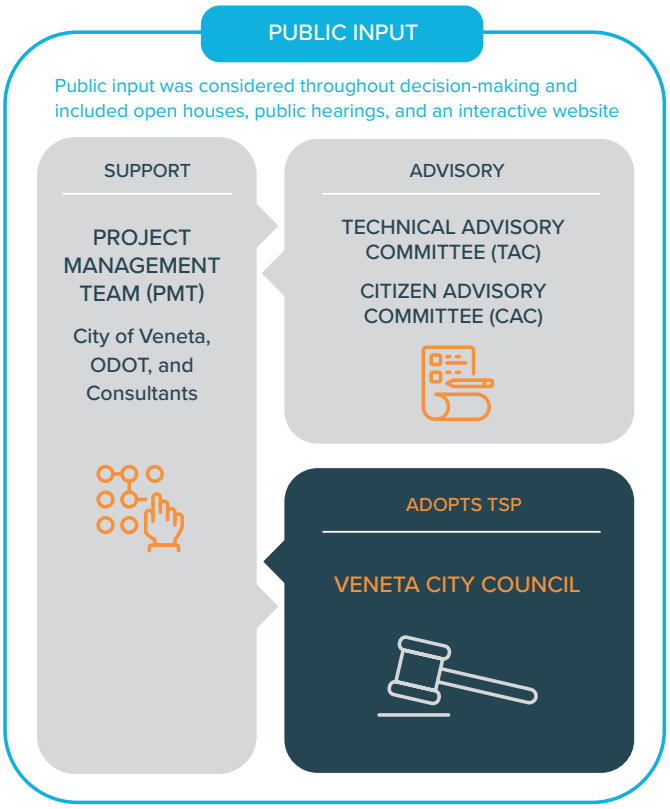
PROCESS

This chapter describes how the TSP was updated. The process involved structured technical analysis, community engagement, and a formal decision-making structure.

PROJECT ROLES AND DECISION MAKING

The decision-making structure (Figure 4) established a framework for broad-based community support for the project. This approach ensured an open, inclusive process.

Figure 4. Veneta TSP Roles and Responsibilities



The City Council made all final decisions pertaining to this TSP update. The Project Management Team (PMT) made recommendations to the City Council based on technical analysis and community input. The decision-making structure for the TSP was developed to establish clear roles and responsibilities throughout the project.

To support development of a credible decision-making process, a Citizen Advisory Committee (CAC) was formed to provide community-based recommendations. The CAC was the primary recommendation body for the project team and met six times throughout the project duration at key milestones. The CAC was comprised of citizens, representation from the Veneta Economic Development Committee and Fern Ridge School District, Planning Commissioners, City Councilors, and the Mayor. CAC meetings were open to the public and included a public comment period.

A Technical Advisory Committee (TAC), primarily consisting of various state and local agency representatives, also supported the PMT. The TAC's role was to provide regulatory reviews of work products and to strengthen coordination between the TSP update and other related planning efforts in the region. The TAC meetings were held jointly with the CAC meetings.

PUBLIC ENGAGEMENT

The purpose of public involvement for the project was to share information and gather input on the needs and issues of the stakeholders in Veneta and the surrounding area.

The project's public involvement and communication goals were to:

- Communicate complete, accurate, understandable, and timely information.
- Actively seek public input throughout the project and engage a broad and diverse audience.
- Provide meaningful public involvement opportunities and demonstrate how input has influenced the process.
- Seek participation of potentially affected and/or interested individuals, neighborhoods, businesses, and organizations.
- Comply with Civil Rights Act of 1964 Title VI requirements. Title VI and its implementing regulations provide that no person shall be subjected to discrimination on the basis of race, color or national origin under any program or activity that receives federal financial assistance.

- Ensure that the public involvement process is consistent with applicable state and federal laws and requirements, and is sensitive to local policies, goals, and objectives.

Getting community members and organizations involved in the TSP process was important for the success of the TSP update. The engagement effort sought out participants of potentially affected and/or interested individuals, neighborhoods, businesses, and organizations. A wide range of outreach tools were used to publicize the project and encourage public participation, including:

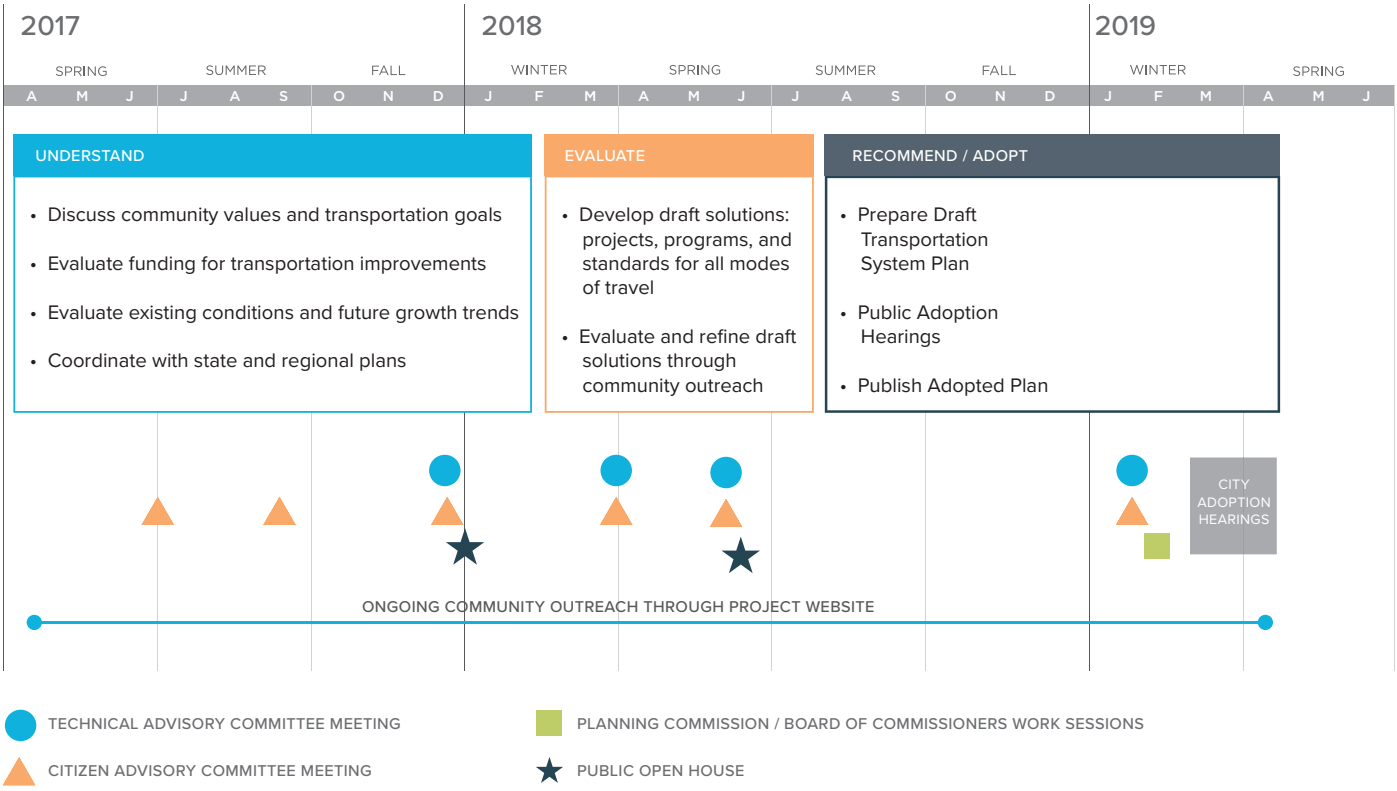
- A project website (venetatsp.org) where project documents were shared, upcoming meetings were announced, and comments could be provided to the project team
- Two public open houses and six CAC meetings, which were open to the public and included a public comment period
- Updates from the City's Facebook account
- Advertisements in the local newspaper (Fern Ridge Review)
- Announcements in the City newsletter
- Project flyers posted at City Hall, the library, local businesses, Veneta Senior Center, and affordable housing developments
- Emails sent from the Chamber of Commerce to a list of interested parties

Project announcement flyers advertising upcoming open houses were provided in Spanish and translation services were offered upon request.

TECHNICAL DEVELOPMENT

Figure 5 illustrates the overall TSP process that began in Spring 2017 and concludes in Winter 2019. The public involvement events included a series of CAC and TAC meetings, two public open houses, and a joint work session with the City Council and Planning Commission to review plan recommendations. Online public outreach was provided through the project website.

Figure 5. City of Veneta TSP Development Process



CHAPTER FOUR

THE VISION

A clear vision combined with attainable goals and well-defined objectives is the cornerstone of a TSP that best fits Veneta's values and priorities.

The TSP vision, goals, and objectives were established with guidance from the CAC and general public. They were used to guide the project team in the development, evaluation, and prioritization of solutions that best fit the community and provided the basis for policies to support Plan implementation.

The vision, goals, and objectives for this TSP are captured below. The vision statement sets the overall tone of the transportation goals. The goals are brief, clear statements of the outcomes to achieve the vision. For each of the nine transportation goal areas, a series of objectives were developed that include specific actions to be taken to accomplish the goals.

THE VISION

Veneta will support its residents' pursuit of healthy and prosperous lives through the development of a transportation system that meets the needs of the present and anticipates the future.

GOALS AND OBJECTIVES

GOAL 1

SAFETY

Improve the safety of all users of the system for all modes of travel.

OBJECTIVES

a. Reduce the frequency of crashes and strive to eliminate crashes resulting in serious injuries and fatalities.

b. Proactively improve areas where crash risk factors are present.

c. Develop and implement Safe Routes to Schools plans.

d. Improve the safety of north-south travel across OR 126.

e. Apply a comprehensive approach to improving transportation safety that involves the five E's (engineering, education, enforcement, emergency medical services, and evaluation).

GOAL 2

MOBILITY AND ACCESSIBILITY

Promote efficient travel that provides access to goods, services, and employment to meet the daily needs of all users, as well as to local and regional major activity centers.

OBJECTIVES

a. Support expansions of the transit network and service.

b. Support efforts to implement future improvements that enhance the capacity of OR 126.

c. Manage congestion according to adopted mobility standards.

d. Support transportation options for people of all ages and abilities.

e. Ensure safe access to schools, parks, and other activity centers for all members of the community, including children, people with disabilities, older adults, and people with limited means.

f. Provide an interconnected network of streets to allow for efficient travel.

GOAL 3

ACTIVE TRANSPORTATION

Complete safe networks of facilities that make walking and biking an attractive choice by people of all ages and abilities.

OBJECTIVES

a. Continuously improve existing transportation facilities to meet applicable City of Veneta and Americans with Disabilities Act (ADA) standards.

b. Provide walking facilities that are physically separated from auto traffic on all arterials and collectors.

c. Consider low-cost, interim improvements to enhance walking and biking safety on all arterials and collectors.

d. Provide safe street crossing opportunities on high-volume, high-speed streets.

e. Provide complete walking access to transit routes and major activity centers in the city.

f. Progressively close gaps in the existing sidewalk network.

g. Provide biking facilities that are comfortable and attractive for users of all ages and abilities on all arterials and collectors.

h. Provide biking access to transit routes, major activity centers in the city, and regional destinations and recreational routes.

GOAL 4

GROW THE ECONOMY

Develop a transportation system that facilitates economic activity and draws business to the area.

OBJECTIVES

a. Support improvements that make the downtown a safe and comfortable place to explore on foot.

b. Manage congestion according to adopted mobility standards, with a priority on freight routes and major employment centers.

c. Support regional tourism and strategies to encourage stops in Veneta.

d. Ensure downtown parking requirements are compatible with new development.

GOAL 5

ENVIRONMENT

Minimize environmental impacts on natural resources and encourage non-polluting transportation alternatives.

OBJECTIVES

a. Provide access to alternative fuel sources.

b. Support strategies that encourage a reduction in trips made by single-occupant vehicles.

c. Minimize negative impacts to natural resources and scenic areas, and restore or enhance habitat, where feasible.

d. Consider facility design and construction practices that have reduced impacts on the environment.

GOAL 6

SUPPORT HEALTHY LIVING

Support options for exercise and healthy lifestyles to enhance the quality of life.

OBJECTIVES

a. Develop a connected network of attractive walking and biking facilities, including off-street trails, which includes recreational routes as well as access to employment, schools, shopping, and transit routes.

b. Provide active transportation connections between neighborhoods and parks/open spaces.

GOAL 7

PREPARE FOR CHANGE

Ensure that the choices being made today make sense at a time when Veneta is growing and the transportation industry is rapidly changing.

OBJECTIVES

a. Anticipate the impacts and needs of connected and automated vehicles.

b. Seek to supplement traditional transportation options with new alternatives such as car sharing, bike sharing, driverless vehicles, and ridesourcing.

c. Explore opportunities to partner with state, regional, and private entities to provide innovative travel options.

GOAL 8

FISCAL RESPONSIBILITY

Sustain an economically viable transportation system.

OBJECTIVES

a. Identify and develop diverse and stable funding sources to implement transportation projects in a timely fashion and ensure sustained funding for transportation projects and maintenance.

b. Preserve and maintain existing transportation facilities to extend their useful life.

c. Seek to improve the efficiency of existing transportation facilities before adding capacity.

d. Ensure that development within Veneta is consistent with, and contributes to, the City's planned transportation system.

GOAL 9

WORK WITH REGIONAL PARTNERS

Partner with other jurisdictions to plan and fund projects that better connect Veneta with the region.

OBJECTIVES

a. Coordinate projects, policy issues, and development actions with all affected government agencies in the area.

b. Build support with regional partners for the improvement of regional connections.


SCHOOL BUS
WILLAMETTE LEADERSHIP ACADEMY
7
BLUE BIRD
07839
SILVAN RIDGE WINERY
SWEET CHEEKS WINERY
SARVER WINERY

CHAPTER FIVE

NEEDS: VENETA TODAY & TOMORROW

This chapter identifies the needs for the Veneta transportation system. The needs reflect where the transportation system can better accommodate the desired activities of the community. Needs were determined based on a comprehensive multimodal existing conditions analysis and projecting future conditions through the planning horizon (2040) based on assumed growth in households and employment.

RELATIONSHIP BETWEEN LAND USE AND TRANSPORTATION

Land use is a key factor in transportation system planning. The amount of land to be developed, the types of land uses, and their proximity to each other directly affect demands on the transportation system.

In Veneta, there are over 200 acres of wetlands, most of which formed along the channels that carry storm water runoff in a northeasterly direction towards Fern Ridge Reservoir, or northwest towards the Long Tom River.[1] While wetlands and greenways are community assets, they can create barriers for transportation and in Veneta they have limited north/south connectivity. Wetlands and greenways are mapped in Figure 6.

OR 126 (Florence-Eugene Highway) and the Coos Bay Railroad have also been identified as major barriers for north/south connectivity within Veneta. Many of Veneta's employment and commercial destinations, including the grocery store, restaurants, and most of the city's retail, are located north of the highway and railroad, while the majority of the residential areas are located to the south (see Comprehensive Plan designations in Figure 7). The railroad limits north-south crossing opportunities and the highway can be challenging for people walking and biking to cross.

Veneta is also a common destination for residents that live in surrounding communities, such as unincorporated Elmira, Crow, and Noti, that may not have essential services like grocery stores and post offices. Additionally, while Veneta Elementary School is located within the city limits, students attending middle school and high school, or the other elementary school, must travel north to unincorporated Elmira.

Being between the Oregon Coast and the Eugene/Springfield metropolitan area and I-5 corridor, Veneta is also impacted by a significant amount of regional travel on OR 126. This regional recreation-based travel significantly increases traffic volumes on OR 126 in the summer months.

1. City of Veneta, "What can I do with wetlands?". <http://www.venetaoregon.gov/sites/default/files/fileattachments/planning/page/978/wetlands_vs_ditches.pdf>

Figure 6. Local Activity Generators and Natural Features

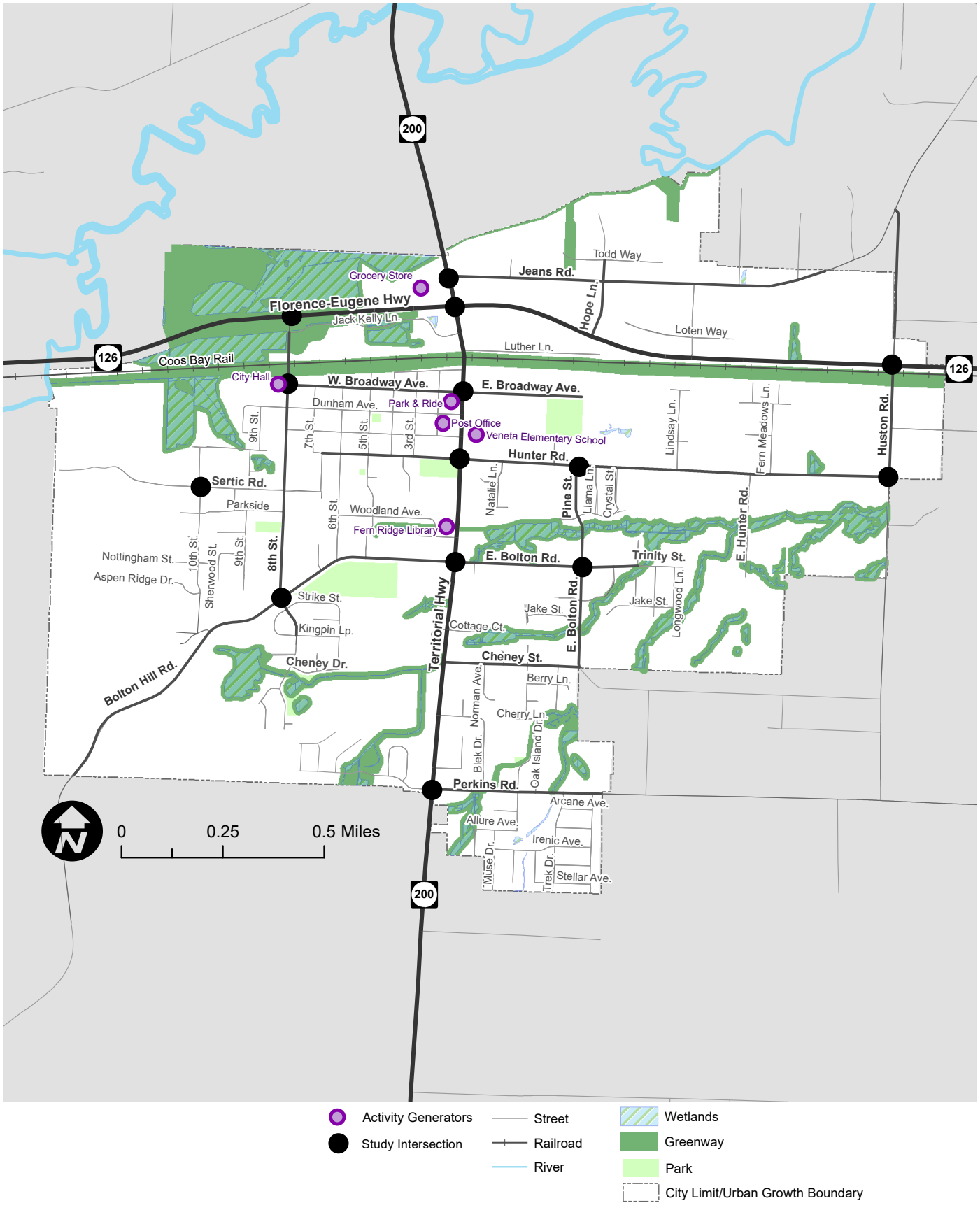
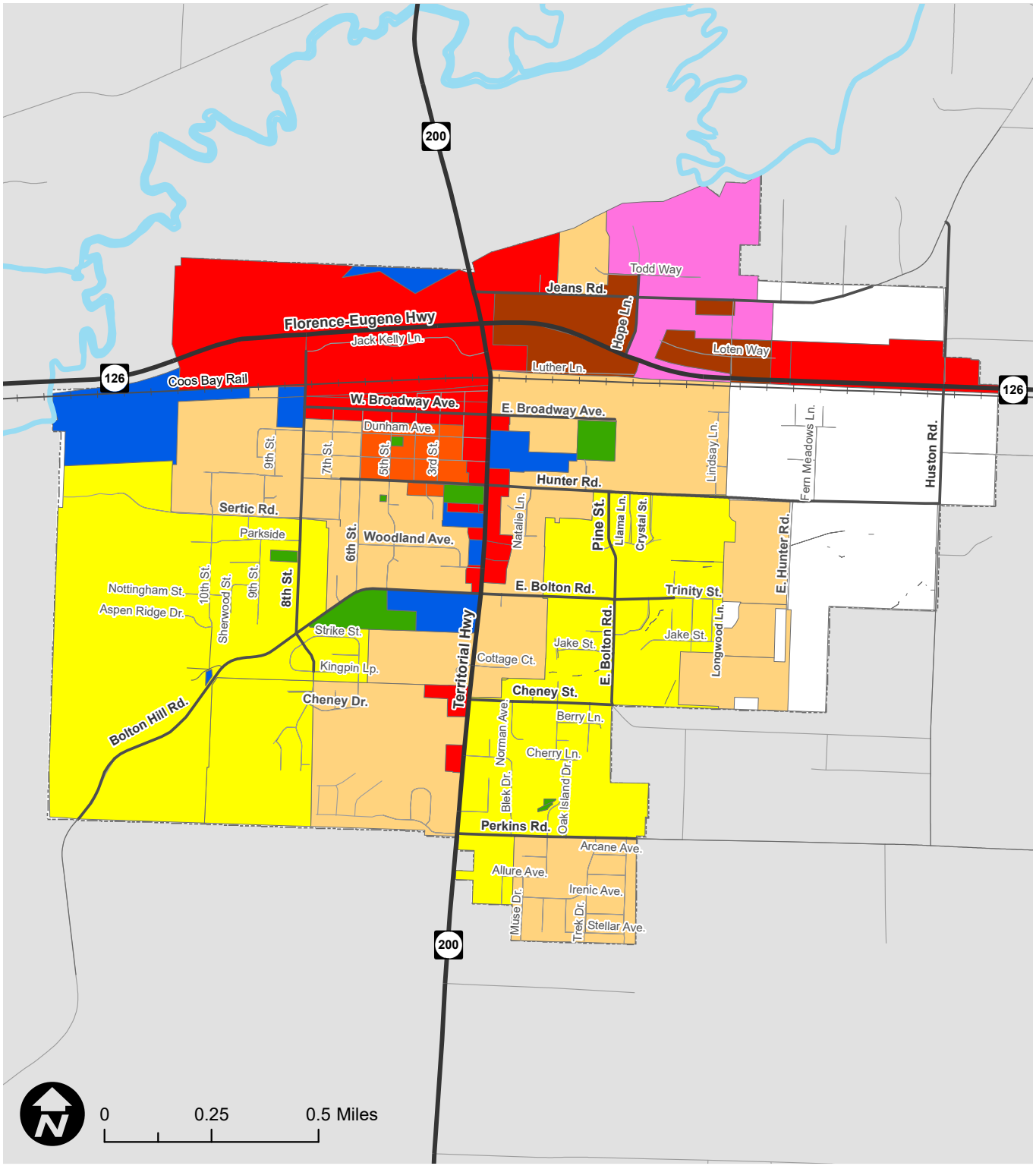


Figure 7. Comprehensive Plan Map



Comprehensive Plan Designation

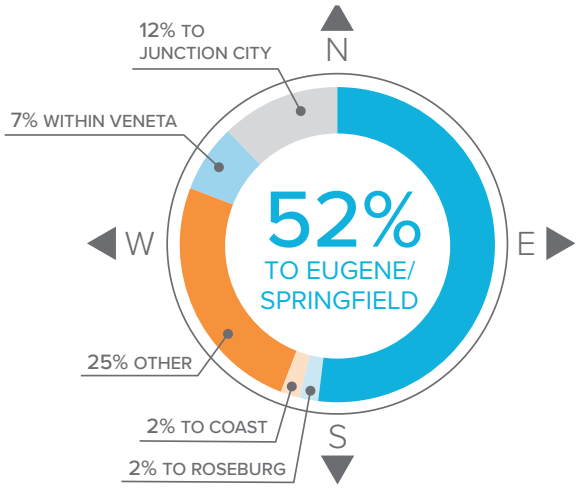
- R - Rural Residential
- L - Low Density Residential
- M - Medium Density Residential
- U - Commercial/General Residential
- C - Commercial
- D - Idustrial-Commercial
- I - Idustrial
- X - Public
- P - Parks
- River
- Street
- Railroad
- City Limit/Urban Growth Boundary

COMMUTING PATTERNS

Much of the traffic in Veneta during the more congested weekday peak periods is related to employment travel. On a typical day, approximately 1,700 Veneta residents leave town to go to jobs in other cities, while only about 100 live and work in Veneta. At the same time, Veneta imports approximately 900 employees from other cities.[2]

Figure 8 shows where Veneta residents work.[3] Only 7 percent of Veneta residents work in Veneta, while about half (52 percent) work in Eugene or Springfield. Considering the most common locations associated with Veneta employment, most of the 1,700 residents leaving town for work are likely headed eastbound in the morning and westbound in the afternoon. The opposite would be true for most of the 900 employees coming to Veneta every day.

Figure 8. Travel Direction for Veneta Commuters



MODE CHOICES FOR COMMUTERS

Table 1 compares the commuter travel mode choices of Veneta residents with other neighboring cities. On average, about 70 percent of Veneta residents commuted to work using single-occupant motor vehicles between the years of 2011 and 2015, while less than 20 percent carpooled to work.[4] Less than 15 percent of Veneta residents walked, biked, rode public transportation, or worked from home.

Table 1. Commuter Mode Share in Veneta and Neighboring Cities

	VENETA	EUGENE	FLORENCE	COTTAGE GROVE	JUNCTION CITY
WORKERS OVER 16 YEARS OF AGE	1,807	71,532	2,628	3,503	2,430
TRANSPORTATION MODE	*Percent of Commuters*				
Pedestrian	4%	7%	2%	9%	7%
Bicycle / Other	1%	9%	4%	2%	1%
Public Transportation	1%	4%	<1%	2%	0%
Motor Vehicle – Single-Occupant	69%	65%	69%	68%	75%
Motor Vehicle – Carpool	18%	9%	14%	14%	12%
Worked at Home	7%	6%	11%	5%	5%

Source: US Census Bureau, 2011-2015 American Community Survey 5-Year Estimates

Although the U.S. Census Bureau is a valuable source of information for work-related commute patterns in Veneta, it does not truly represent the transportation modes used to reach other activity generators like schools, recreation, or shopping.

2. Work Destination Analysis by Places. On the Map U.S. Census Bureau. 2011-2015. Accessed November 2017.
3. United States Census Bureau. Census Bureau Commuting Edition. 2015. Accessed November 2017.
4. United States Census Bureau. Census Bureau Commuting Edition. 2015. Accessed November 2017.

SUMMARY OF EXISTING TRANSPORTATION SYSTEM NEEDS

Several existing transportation system needs were identified, as summarized below by mode of travel.

PEDESTRIAN

- **Improved north-south pedestrian connectivity.** North-south pedestrian connectivity between the residential and commercial areas is difficult due to barriers including OR 126, the railroad tracks, greenways, and wetlands.
- **Enhanced pedestrian crossings on OR 126.** The only marked crossing is located at the Territorial Highway intersection, although it is considered highly stressful due to the lack of a median refuge and high volume of motor vehicle traffic.
- **Pedestrian crossing improvements at intersections.** Seven intersections (OR 126/8th Street, OR 126/ Territorial Highway, OR 126/Hope Lane, OR 126/Cornerstone Drive, OR 126/Huston Road, Territorial Highway/Jeans Road, and Territorial Highway/Perkins Road) were identified as highly stressful pedestrian crossing locations.
- **Railroad crossing improvements.** Uneven pavement crossing the railroad tracks at Territorial Highway presents ADA compliance issues and can make travel difficult for people using mobility devices.
- **Sidewalk infill or upgrade.** This is needed along Hunter Road, Huston Road, Bolton Road, Perkins Road, and 8th Street.
- **Safe routes to schools.** There is a lack of safe pedestrian connections between Veneta and the schools in Elmira due to lack of dedicated pedestrian facilities and high motor vehicle travel speeds.
- **Enhanced pedestrian crossings on Territorial Highway.** There is a lack of enhanced roadway crossings along Territorial Highway especially at key intersections and destinations, including Bolton Hill Road (access to Central Little School and Bolton Hill Sports Fields), Hunter Road (access to Territorial Park/Skate Park), and Fern Ridge Library.

BICYCLE

- **Improved north-south bicycle connectivity.** North-south bicycle connectivity between the residential and commercial areas is difficult due to barriers including OR 126, the railroad tracks, greenways, and wetlands.
- **Separate and comfortable bicycle facilities.** Many streets in Veneta lack separate bicycle facilities (e.g., Perkins Road, Jeans Road, Hunter Road, Huston Road, and Cheney Street). In other places like OR 126 and Territorial Highway where shoulders or bike lanes are present, cyclists must ride next to high-speed traffic.
- **Safe routes to schools.** Bike lanes and shoulders are available between Veneta and the schools in Elmira, but can be stressful to ride on due to high vehicle volumes and speeds.

MOTOR VEHICLE

- **Improved north-south connectivity.** North-south motor vehicle connectivity is limited by the railroad, greenways, and wetlands.
- **Territorial Highway/Jeans Road intersection congestion and safety.** The Territorial Highway/Jeans Road intersection fails to meet mobility targets and the proximity to other driveways and intersections creates unsafe conflicts.

TRANSIT

- **Improved bus frequency.** The frequency of Lane Transit District routes is limited, making some trips inconvenient or not possible.
- **Improved bus stops.** There is a lack of bus amenities, such as shelters and benches, at most transit stops.
- **Improved transit access to the west of Veneta.** There is a lack of consistent transit options to travel west out of the city.
- **More public transportation options.** Limited transit options are available for individuals who no longer drive for personal needs and are not eligible for transportation services through the Oregon Health Plan.

GROWTH ASSUMPTIONS TO 2040

The 2040 planning horizon for the Veneta TSP represents a growth scenario that is based on historical trends, projected housing and employment growth, and the City's current land use designations. The scale and location of local growth in housing, employment, and retail services will influence how transportation system needs are expected to change over time. However, it is also recognized that the pace of growth is uncertain. New development and community investments are subject to state and federal economic cycles, and external factors that may accelerate or delay expected growth. The essential element of the growth forecast, and why it is important to the Transportation System Plan process, is that it provides an understanding of what new transportation issues the City will be facing and what kind of additional investments may be required to support growth when it does happen.

Veneta's growth to 2040 was estimated based on an inventory of existing land use, as well as adopted zoning and anticipated development patterns. Household and employment forecasts, specifically, relied on external studies including:

- The Portland State University Population Research Center Coordinated Population Forecast, 2015 through 2065, for Lane County Urban Growth Boundaries (UGB) and Area Outside UGBs, which provided the population forecast data.
- The US Census 2015 Planning Database Block Group Data, which provided average persons per household data.
- The City of Veneta Residential Buildable Land Inventory and Housing Needs Analysis (2013), which provided group quarter data based on Population Forecasts for Lane County, its Cities and Unincorporated Area 2008-2035, May 2009.

- The City of Veneta Economic Opportunities Analysis (2015), prepared by the University of Oregon Community Planning Workshop, provided employment forecast data.

Table 2 summarizes the baseline and expected 2040 totals for population, households, and employment within Veneta. Overall, the City's population is expected to grow by about 3,600 people, while employment opportunities grow by 2,200 jobs.

2040 travel demand on roadways and at intersections in Veneta were estimated using the ODOT Analysis Procedures Manual methodology for enhanced zonal cumulative analysis. Travel forecasting was performed for the 30th highest hour conditions (roughly equivalent to weekday p.m. peak hour conditions in the summer). A detailed account of the process used for forecasting future travel demand on Veneta roadways can be found in Technical Memorandum #6 in Volume 2 of this TSP.

Table 2. Veneta Population and Employment Growth Within Urban Growth Boundary

LAND USE/ GROWTH CATEGORY	EXISTING 2017	GROWTH TO 2040	FUTURE 2040
Population	4,755	3,578 (+75%)	8,333
Households	1,963	1,470(+75%)	3,433
Employees			
Retail	359	88 (+25%)	447
Service	789	417 (+53%)	1,206
Education	42	37 (+88%)	79
Other	430	73 (+17%)	503
Total	1,620	615 (+38%)	2,235

NEW TRANSPORTATION SYSTEM NEEDS BY 2040

As Veneta grows, the existing transportation system conditions will change and present new issues to be addressed. An evaluation of the City's transportation system under these conditions was performed to better understand how future transportation needs may evolve if no further investments are made to improve the system. The new 2040 conditions evaluation revealed the following needs.

- Motor vehicle congestion will significantly increase along OR 126 and Territorial Highway. Four major intersections would fail to meet adopted mobility targets/standards by 2040. These intersections include: Territorial Highway/Jeans Road, OR 126/Territorial Highway, OR 126/Huston Road, and Territorial Highway/Broadway.
- The Territorial Highway/Jeans Road intersection is projected to require upgraded traffic controls, such as a traffic signal. However, the proximity to the existing traffic signal at OR 126/Territorial Highway may make the construction of such a traffic signal challenging.
- There may be needs for expanded transit service and improved access to transit to support high growth areas, such as high projected housing growth in the southwest, east, and northeast areas of the city and high projected employment growth in the northeast area of the city. Providing sidewalk access to transit stops and rerouting to Jeans Road to provide direct access to future employment may be key improvement strategies.
- OR 126 and Territorial Highway will continue to be barriers for active transportation. High motor vehicle travel speeds and lack of or limited enhanced crossing opportunities will impact active transportation. Three intersections on Territorial Highway at Broadway Avenue, Hunter Road, and Bolton Hill Road will be highly stressful pedestrian crossing locations without improvements.
- As Veneta grows and traffic volumes on areas streets increase, potential conflicts between people on bikes and people in cars will increase as well. Biking will become less comfortable without separate biking facilities.
- In areas where new roads[5] are not feasible to construct, or may be limited due to wetlands and greenways, shared-use paths should be considered to provide additional connectivity for people walking and biking.

JURISDICTIONAL TRANSFER OF TERRITORIAL HIGHWAY

As this TSP was being updated, ODOT and Lane County were in the process of transferring the jurisdiction of Territorial Highway from the State to the County. Should this process be successfully completed, Veneta must obtain approval from Lane County for any actions related to the maintenance, operation, and design of Territorial Highway. This transfer may also make it less likely that ODOT would be a funding partner in future improvements to Territorial Highway.

5. It is assumed that new roads would include the construction of separated bicycle facilities such as bike lanes.

CHAPTER SIX

THE STANDARDS

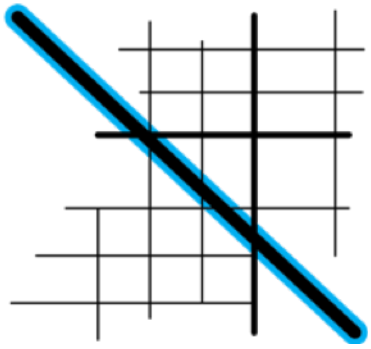
Veneta applies transportation standards and regulations to the construction of new transportation facilities and to the operation of all facilities to ensure that the system functions as intended and that investments are used efficiently. These standards enable consistent future actions that reflect the goals of the City for a safe and efficient transportation system.

STREET FUNCTIONAL CLASSIFICATION

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

The street functional classification system for roadways in the City of Veneta is described below. The functional classification map (Figure 9) shows the designated classification for all roadways in the city, including new street extensions proposed as part of this plan.

Classifications shown for County roads inside the Veneta Urban Growth Boundary (UGB) reflect the City's desired function for those facilities. These classifications may not match those shown in Lane County's TSP. However, Lane County policy is to apply City standards to County facilities within UGBs. Therefore, it is anticipated that Veneta standards will be applied to County roads.



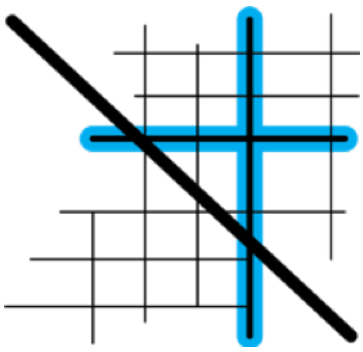
PRINCIPAL AND MINOR ARTERIALS

Principal arterials provide a high degree of mobility between major centers of metropolitan areas, as well as rural areas. They often serve high volumes of traffic (>10,000 daily vehicles) over long distances, typically maintain higher posted speeds (45 mph to 55 mph), and minimize direct access to adjacent land to support the safe and efficient movement of people and goods. Inside UGBs, speeds may be reduced to reflect the roadside environment and surrounding land uses. OR 126 is the only principal arterial in the city.

Minor arterials provide service for trips of moderate length and serve geographic areas that are smaller than their higher-volume principal arterial counterparts. Because they primarily serve longer trips within the city, they should, where feasible, be provided in continuous lengths of multiple miles rather than in short segments. In an urban context, they are often used as a transition between principal arterials and collectors. Minor arterials typically serve higher volumes of traffic (>5,000 daily vehicles) at moderate to high speeds, with posted speeds generally no lower than 30 mph, unless they are passing through a downtown area. Territorial Highway is the only minor arterial in the city.

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

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

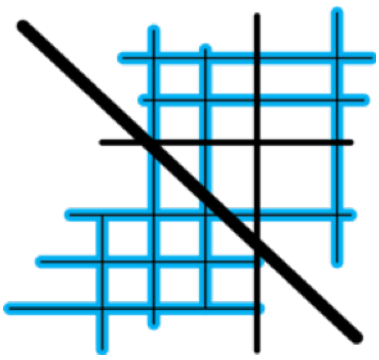


MAJOR AND MINOR COLLECTORS

Collectors serve a critical role in the roadway network by connecting traffic from local streets with the arterial network. Major collector routes are generally distinguished from minor collector routes by longer length, lower connecting driveway densities, higher speed limits, greater spacing intervals, higher traffic volumes, and may have more travel lanes. The general traffic volume on a major collector ranges from 1,200 to 5,000 daily vehicles and speeds are often managed between 25 mph and 35 mph. The typical traffic volume on a minor collector ranges from 1,200 to 3,000 daily vehicles and speeds are managed to no more than 25 mph.

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

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

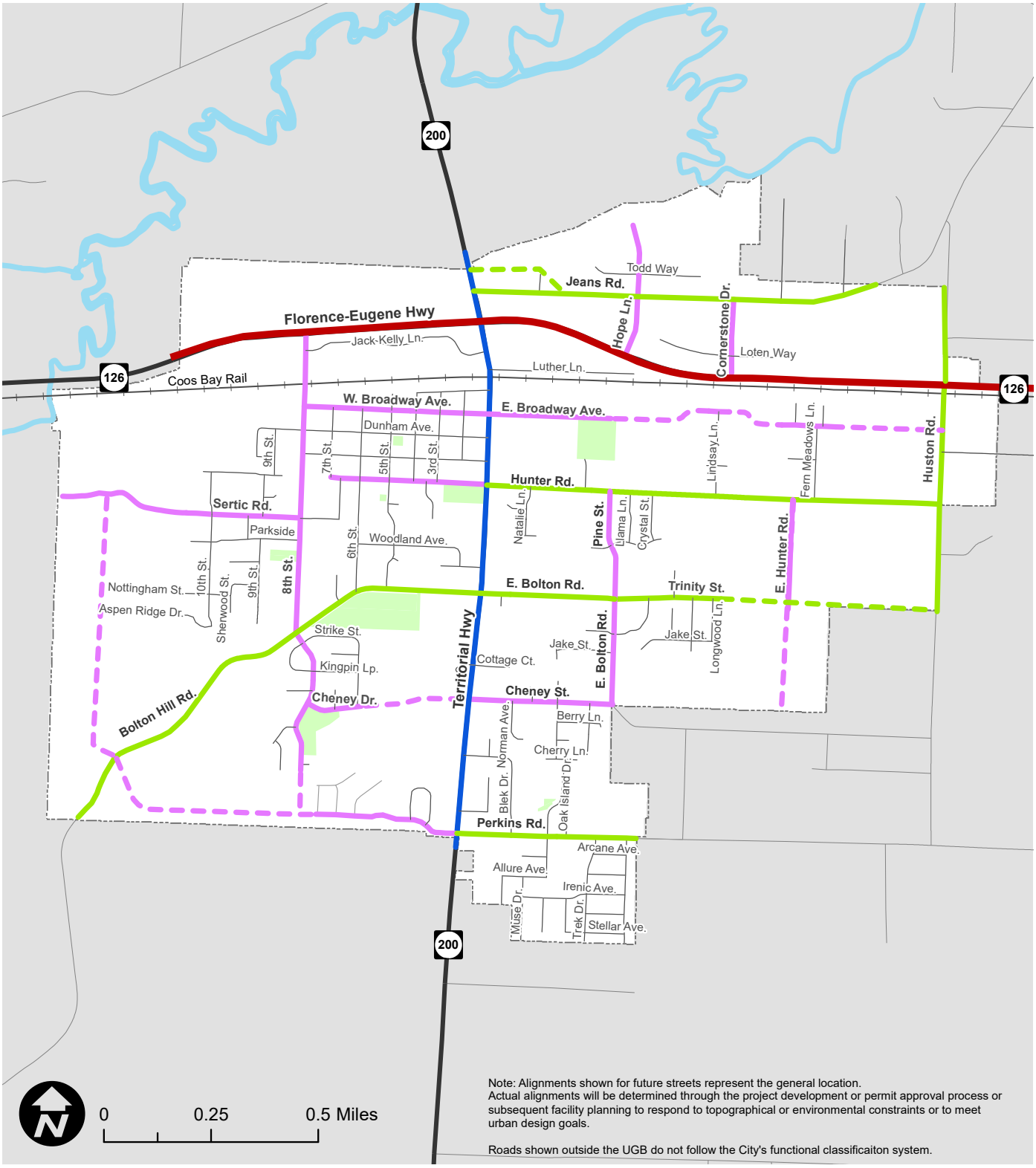


LOCAL STREETS

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

Local streets typically provide low-stress travel routes for people walking and biking. Due to lower vehicle volumes and speeds, dedicated bicycle facilities are not required on local streets and cyclists can share the lane with vehicles. Dedicated pedestrian facilities are required, and even curb-adjacent sidewalks on local streets can still provide a high level of comfort.

Figure 9. Street Network by Functional Classification



Functional Classification

Existing Roads
- Principal Arterial
- Minor Arterial
- Major Collector
- Minor Collector
- Local

Future Roads
- Major Collector
- Minor Collector

- Street
- Railroad
- River
- Park
- City Limit/Urban Growth Boundary

For new roadways within the community, the appropriate functional classification was selected based on the adjoining land use, expected travel demands, and access requirements for each facility. Table 3 lists the specific functional classifications for all planned, new roadways in Veneta.

Table 3. Functional Classifications Applied to Future Roadways

ROADWAY	FUNCTIONAL CLASSIFICATION
E. Broadway Avenue between Veneta Public Works Yard and Lindsay Lane	Minor Collector
E. Broadway Avenue between Lindsay Lane and Fern Meadows Lane	Minor Collector
E. Broadway Avenue between Fern Meadows Lane and Huston Road	Minor Collector
E. Hunter Road (formerly Baker Lane) between South Terminus and South UGB	Minor Collector
Trinity Street between East Terminus and Huston Road	Major Collector
Cheney Drive between Strike Street and Territorial Highway	Minor Collector
8th Street between South Terminus and Perkins Road	Minor Collector
Perkins Road between West Terminus and Sertic Road	Minor Collector

As part of this TSP update, the previously designated street functional classifications were reviewed and some changes were made to better align with expected travel demand and to provide a more consistent network better suited for reducing vehicle-mile traveled and minimizing longer distance trips on local streets. The functional classification changes to existing streets are listed in Table 4.

Table 4. Proposed Functional Classification Changes to Existing Roadways

ROADWAY	PREVIOUS FUNCTIONAL CLASSIFICATION	NEW FUNCTIONAL CLASSIFICATION
Sertic Road between 8th Street and West UGB	Local	Minor Collector
E. Hunter Road (Baker Lane) between Hunter Road and South Terminus	Local	Minor Collector
Perkins Road between Territorial Highway and West Terminus	Major Collector	Minor Collector

All changes to the Veneta street functional classification map will require coordination with ODOT to follow the formal process to update the federal functional classification map.

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TYPICAL STREET CROSS-SECTION STANDARDS

Street cross-section standards identify the design characteristics needed to meet the function and demand for each facility type for Veneta streets. Since the actual design of a roadway can vary from segment to segment due to adjacent land uses and demands, this system allows standardization of key characteristics to provide consistency, while providing application criteria that allows some flexibility within the design standards.

Figure 10 through Figure 17 and Table 5 through Table 9 illustrate the standard cross-sections for minor arterials, major collectors, minor collectors, local streets, alleys, and shared-use paths in Veneta. These street standards are compliant with the Oregon Transportation Planning Rule (TPR), which specifies that local governments limit excessive roadway widths for local streets and accessways in order to reduce construction costs, provide more efficient use of urban land, discourage inappropriate traffic volumes and speeds, and accommodate convenient pedestrian and bicycle circulation.[1] Planning level right-of-way needs can be determined using these figures. Under some conditions a variance to the street standards may be requested from the City Engineer to consider the alternative minimum cross-section or other adjustments. The City will coordinate with Lane Fire Authority prior to approving the use of alternative minimum widths for street elements.

Typical conditions that may warrant consideration of a variance include:

- Infill sites
- Innovative designs (e.g., roundabouts)
- Reallocation of right-of-way between modes (e.g., narrow travel lanes to accommodate wider bike lanes)
- Severe constraints presented by topography, environmental, or other resources present
- Existing developments and/or buildings that make it extremely difficult or impossible to meet the standards

Roadways under ODOT jurisdiction are subject to design standards in ODOT's Highway Design Manual.[2] Roadways under Lane County jurisdiction are subject to design standards in the Lane County TSP[3], however, the County defers to City standards inside Urban Growth Boundaries.

1. OAR 660-012-0045 (7)
2. Highway Design Manual, Oregon Department of Transportation, 2012.
3. Lane County Transportation System Plan, September 2017.

Figure 10. Minor Arterial Typical Cross-Section Standards

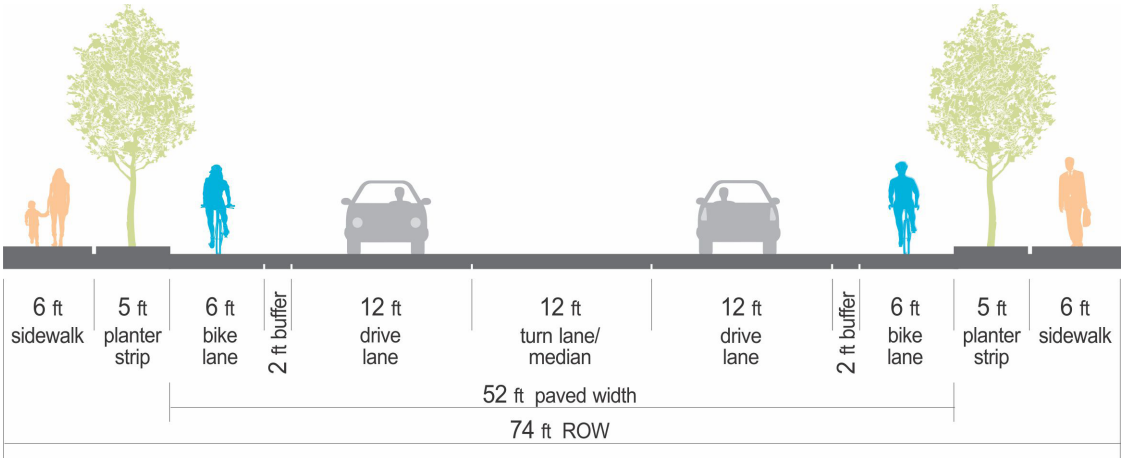


Table 5. Minor Arterial Cross-Section Standards and Alternative Minimum Standard

STREET ELEMENT	STANDARD WIDTH	ALTERNATIVE MINIMUM WIDTH
Right-of-Way Width	74 ft.	59 ft.
Paved Width (Curb-to-Curb)	52 ft.	41 ft.
Drive Lanes	2 lanes (12 ft.)	2 lanes (11 ft.)
Turn Lane/Median	1 lane (12 ft.)	1 lane (11 ft.)
Bike Facilities	2 bike lanes (6 ft. with 2 ft. buffer)	2 bike lanes (5 ft.)
On-Street Parking	No	No
Pedestrian Facilities	2 sidewalks (6 ft.)	2 sidewalks (5 ft.)
Planter Strip	2 strips (5 ft.)	2 strips (4 ft.)

CONSIDERATIONS

Center left turn lane is optional depending on surrounding land use and available right-of-way.

The standard design should be provided where feasible. In constrained areas where providing the standard widths are not practical, alternative minimum design requirements may be applied with approval of the City Engineer.

On designated Freight Routes, reductions in the standard roadway paved width (curb-to-curb) are discouraged and should be limited to only short, constrained segments.

On-street parking is not permitted.

Figure 11. Major Collector Typical Cross-Section Standards

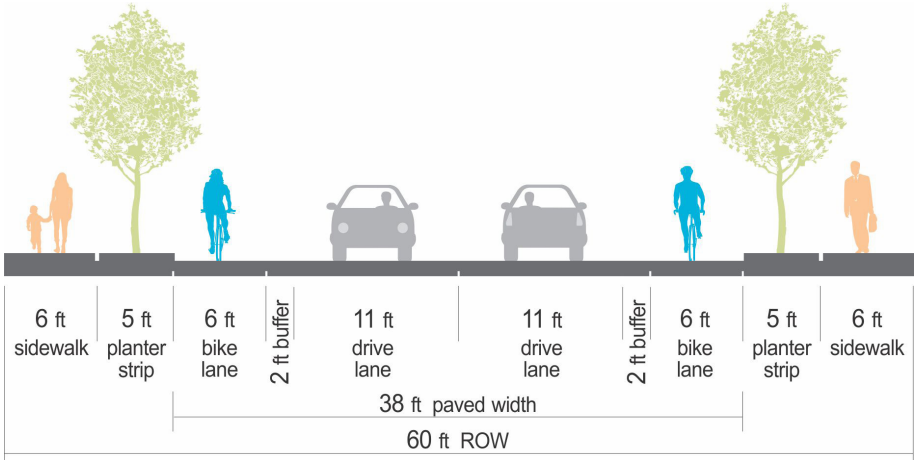


Table 6. Major Collector Cross-Section Standards and Alternative Minimum Standard

STREET ELEMENT	STANDARD WIDTH	ALTERNATIVE MINIMUM WIDTH
Right-of-Way Width	60 ft.	48 ft.
Paved Width (Curb-to-Curb)	38 ft.	30 ft.
Drive Lanes	2 lanes (11 ft.)	2 lanes (10 ft.)
Bike Facilities	2 bike lanes (6 ft. with 2 ft. buffer)	2 bike lanes (5 ft.)
On-Street Parking	No	No
Pedestrian Facilities	2 sidewalks (6 ft.)	2 sidewalks (5 ft.)
Planter Strip	2 strips (5 ft.)	2 strips (4 ft.)

CONSIDERATIONS

The standard design should be provided where feasible. In constrained areas where providing the standard widths are not practical, alternative minimum design requirements may be applied with approval of the City Engineer.

On designated Freight Routes, reductions in the standard roadway paved width (curb-to-curb) are discouraged and should be limited to short, constrained segments.

On-street parking is not permitted.

Figure 12. Minor Collector Typical Cross-Section Standards

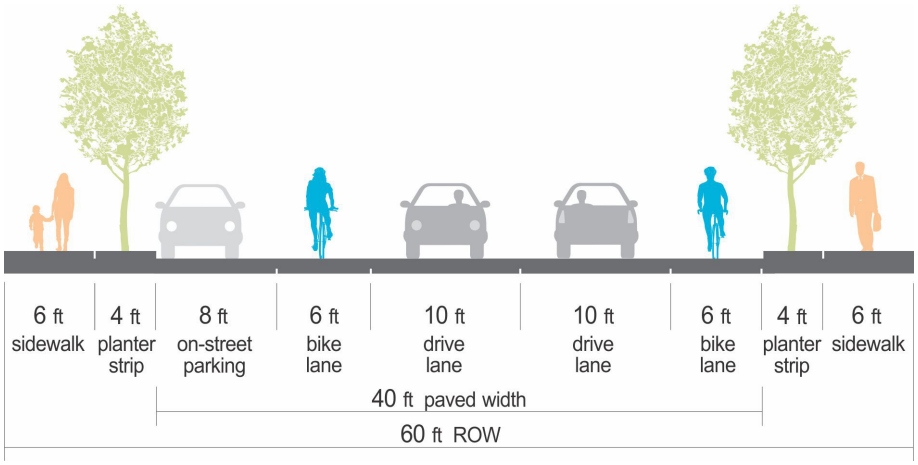


Table 7. Minor Collector Cross-Section Standards and Alternative Minimum Standard

STREET ELEMENT	STANDARD WIDTH	ALTERNATIVE MINIMUM WIDTH
Right-of-Way Width	60 ft.	55 ft.
Paved Width (Curb-to-Curb)	40 ft.	37 ft.
Drive Lanes	2 lanes (10 ft.)	2 lanes (10 ft.)
Bike Facilities	2 bike lanes (6 ft.)	2 bike lanes (5 ft.)
On-Street Parking	One side (8 ft.)	One side (7 ft.)
Pedestrian Facilities	2 sidewalks (6 ft.)	2 sidewalks (5 ft.)
Planter Strip	2 strips (4 ft.)	2 strips (4 ft.)

CONSIDERATIONS

The standard design should be provided where feasible. In constrained areas where providing the standard widths are not practical, alternative minimum design requirements may be applied with approval of the City Engineer.

On designated Freight Routes, reductions in the standard roadway paved width (curb-to-curb) are discouraged and should be limited to short, constrained segments.

On-street parking is optional and may be provided where it would support adjacent land uses. On-street parking is discouraged where posted speeds are greater than 35 mph.

Figure 13. Local Street Typical Cross-Section Standards

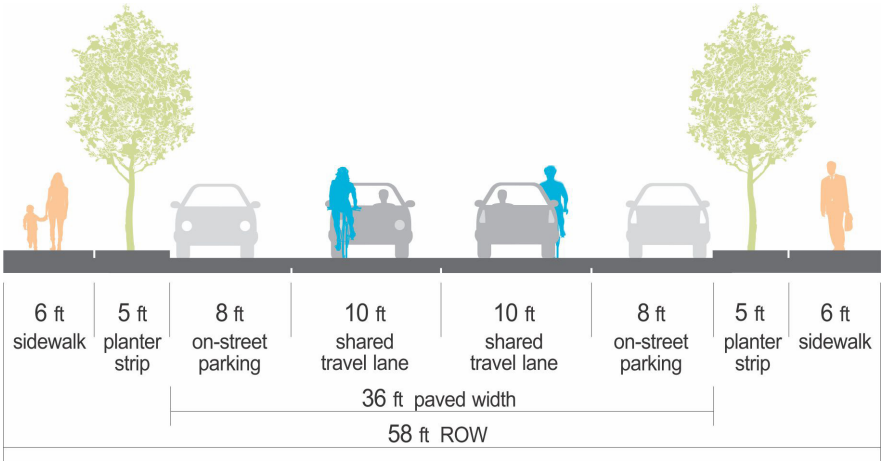


Table 8. Local Street Cross-Section Standards and Alternative Minimum Standard

STREET ELEMENT	STANDARD WIDTH	ALTERNATIVE MINIMUM WIDTH
Right-of-Way Width	58 ft.	54 ft.
Paved Width (Curb-to-Curb)	36 ft.	36 ft.
Drive Lanes	2 lanes (10 ft.)	2 lanes (10 ft.)
Bike Facilities	shared street	shared street
On-Street Parking	both sides (8 ft. each)	both sides (8 ft. each)
Pedestrian Facilities	2 sidewalks (6 ft.)	2 sidewalks (5 ft.)
Planter Strip	2 strips (5 ft.)	2 strips (4 ft.)

CONSIDERATIONS

Parking on residential local streets may be allowed on one side only in constrained areas or where approved by the City Engineer, resulting in a curb-to-curb width of 28 feet.

Furthermore, in severely constrained areas or where approved by the City Engineer curbside sidewalks, or no planter strip, on local streets is allowed.

Figure 14. Neighborhood Local Street Typical Cross-Section Standards

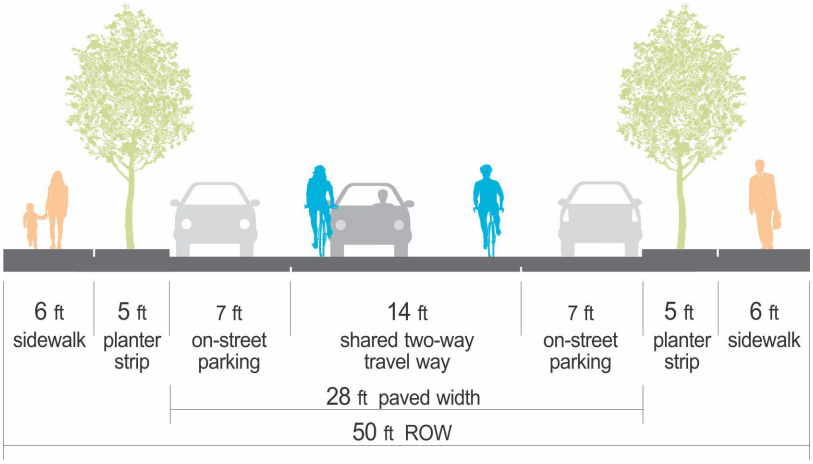


Table 9. Neighborhood Local Street Cross-Section Standards and Alternative Minimum Standard

STREET ELEMENT	STANDARD WIDTH	ALTERNATIVE MINIMUM WIDTH
Right-of-Way Width	50 ft.	46 ft.
Paved Width (Curb-to-Curb)	28 ft.	28 ft.
Drive Lanes	1 lane (14 ft.)	1 lane (14 ft.)
Bike Facilities	shared street	shared street
On-Street Parking	both sides (7 ft. each)	both sides (7 ft. each)
Pedestrian Facilities	2 sidewalks (6 ft.)	2 sidewalks (5 ft.)
Planter Strip	2 strips (5 ft.)	2 strips (4 ft.)

CONSIDERATIONS

In severely constrained areas or where approved by the City Engineer, curbside sidewalks, or no planter strip, on neighborhood local streets is allowed.

Application of the Neighborhood Local Street design is recommended for Local Streets with a projected average daily traffic volume less than 1,000 vehicles per day.

Emergency service providers, including Lane Fire Authority, will be consulted prior to approving the construction of Neighborhood Local Streets.

Figure 15. Shared-Use Path Typical Cross-Section Standards

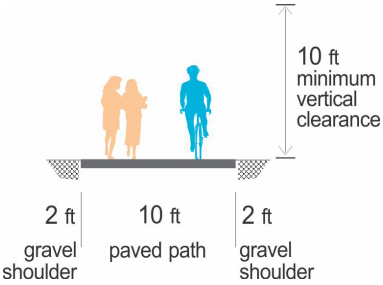


Figure 16. Alley Cross-Section Standards

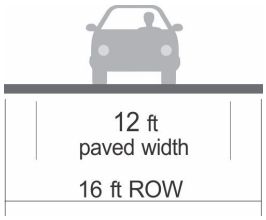
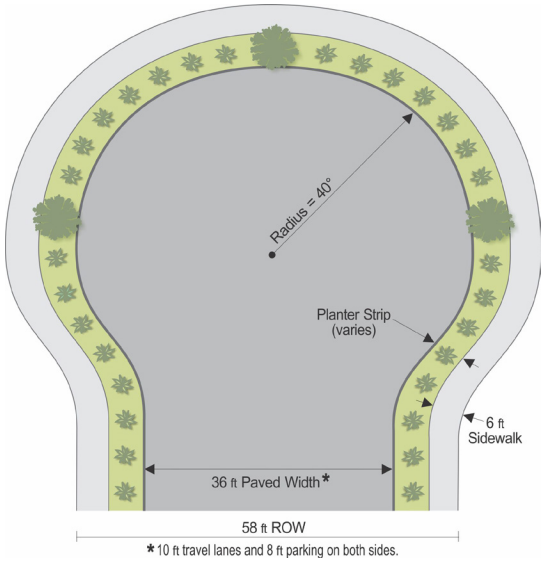


Figure 17. Cul-de-Sac Cross-Section Standards (this diagram applies to the local street cross-section)



MOBILITY STANDARDS

Mobility standards (or "targets" if referring to ODOT facilities) are the thresholds set by an agency for the maximum amount of congestion that is acceptable for a given roadway. The City of Veneta uses Level of Service (LOS) as the measure of congestion for their mobility standards. LOS D is the minimum acceptable operating condition for both signalized and unsignalized intersections in Veneta. LOS D means the maximum allowed average delay per vehicle is 55 seconds at signalized intersections and 35 seconds at stop-controlled intersections. When calculating LOS, the methodology from the latest published Highway Capacity Manual by the Transportation Research Board must be applied.

For roadways within Veneta that are under ODOT or Lane County jurisdiction, the mobility standards/targets of those agencies will apply. All intersections under ODOT jurisdiction must comply with the volume to capacity (v/c) ratio targets in the Oregon Highway Plan (OHP).[4]

It is important to note that the Lane County TSP has recommended an Alternative Mobility Target (AMT) for the OR 126/Territorial Highway intersection that would maintain the current maximum v/c threshold at 0.80, but would allow for its calculation using a peak hour factor of 1.0. This would essentially measure congestion across the whole peak hour rather than across the peak 15 minutes, which is the standard practice. The City of Veneta supports the adoption of an AMT at the OR 126/Territorial Highway intersection and will work with ODOT and Lane County to accomplish that. However, until ODOT adopts any proposed AMT, the current ODOT standards will still apply.

4. 1999 Oregon Highway Plan, Oregon Department of Transportation, as amended May 2015.

ACCESS MANAGEMENT

The number and spacing of access points, such as driveways and street intersections, along a roadway affects its function and capacity. Access Management is the control of these access points to match the functionality and capacity intended by the roadway's functional classification.

Access management is especially important on arterial and collector facilities to reduce congestion and improve safety. Since each access presents an additional conflict point, especially for people walking and biking, reducing or consolidating driveways on these facilities can decrease collisions and preserve capacity on higher volume roads, maintaining traffic flow and mobility within the city. Balancing access and good mobility can be achieved through various access management strategies, including establishing access spacing standards for driveways and intersections.

Table 10 contains access spacing standards for streets under the City of Veneta's jurisdiction. New access points shall meet or exceed these minimum spacing requirements. However, where no reasonable alternatives exist or where strict application of the standards would create a safety hazard, the City may allow a variance.

Table 10. City of Veneta Access Spacing Standards

FUNCTIONAL CLASSIFICATIONS	MINIMUM ACCESS SPACING
Minor Arterial	300 ft.
Major Collector	200 ft.
Minor Collector	100 ft.
Local Street	10 ft.

Access spacing standards are for the minimum separation required between all access points (public or private) to a roadway. For minor arterials, major collectors, and minor collectors, the spacing is measured from center to center of adjacent access points on the same side of the roadway. For local streets, the spacing is measured from edge to edge of adjacent driveways.

Lane County and ODOT maintain access regulations for roadways under their jurisdiction. ODOT access spacing standards are defined in the Oregon Highway Plan, OAR 734-051, and ODOT's Highway Design Manual.

FREIGHT ROUTE DESIGNATIONS

Streets designated as Freight Routes in Veneta are recognized as being appropriate and commonly traveled corridors for truck passage. Decisions affecting maintenance, operation, or construction on a designated freight route must address potential impacts on the safe and efficient movement of truck traffic. However, the intent is not to compromise the safety of other street users to accommodate truck traffic, especially in areas where many conflicts with vulnerable travelers (e.g., people walking and biking) may be present.

OR 126 has been designated by the state and federal government as a State Freight Route, Federal Truck Route, Reduction Review Route, and part of the National Highway System (NHS). Therefore, the design and management of the highway through Veneta is subject to a number of policies and standards in the Oregon Highway Plan and Highway Design Manual intended to maintain safe and efficient movement of large vehicles. In addition, Reduction Review Routes are highways that require review with any proposed changes to determine if there will be a reduction of vehicle-carrying capacity.[5]

The following roadway segments are designated by the City of Veneta as local freight routes to support access to industrial businesses by truck traffic.

- Jeans Road from Territorial Highway to Cornerstone Drive
- Cornerstone Drive from Jeans Road to OR 126
- Hope Lane from Jeans Road to OR 126

5. See ORS 366.215.

Designating these streets as local freight routes establishes the movement of truck traffic as a priority when considering future decisions such as whether to allow on-street parking, address requests for traffic calming, determining the need for separate biking facilities, or making changes to the physical curb-to-curb width and corner radii.

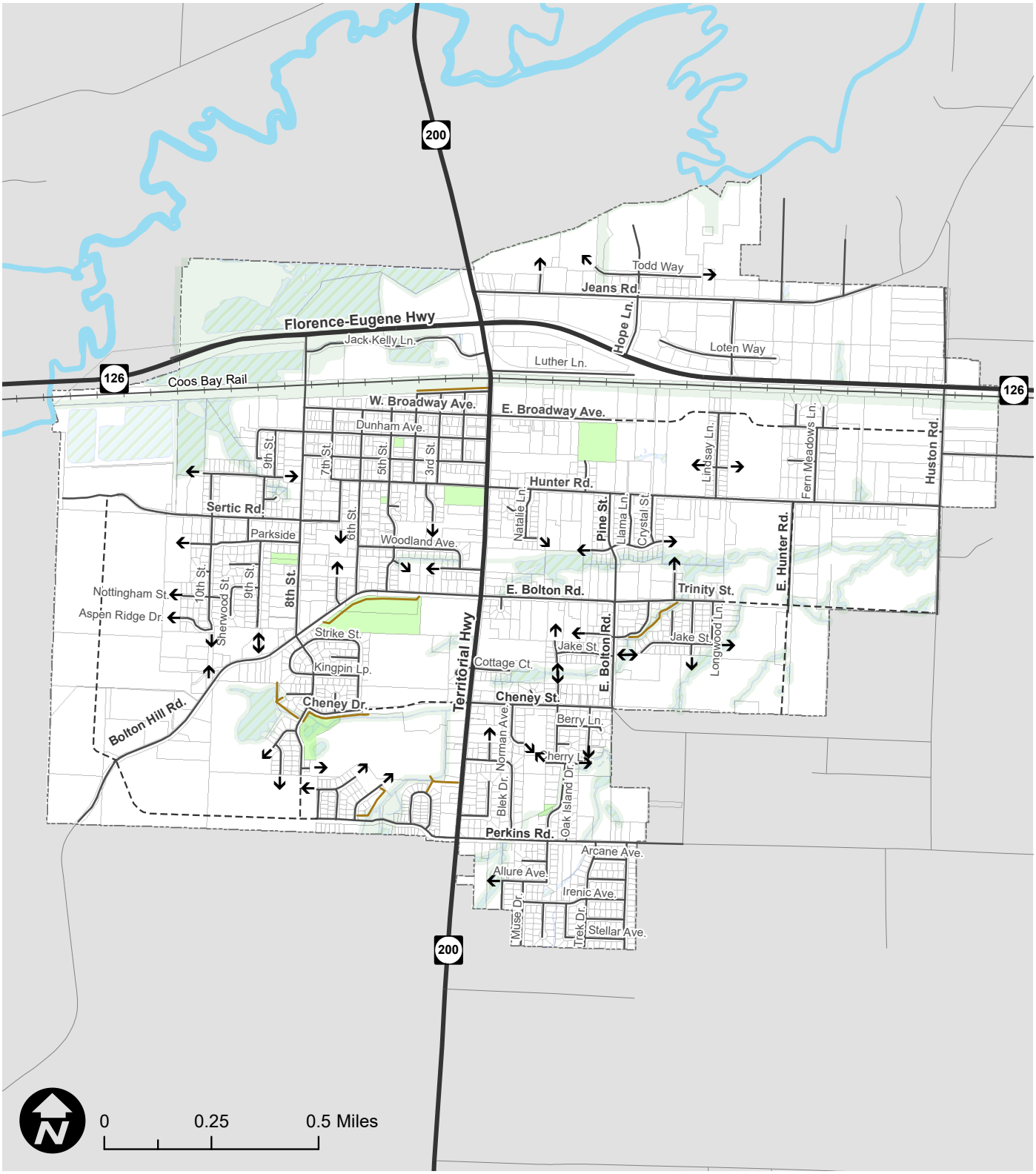
LOCAL STREET CONNECTIVITY

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

Veneta's existing street connectivity is constrained by natural features such as greenways and wetlands, as well as railroads, highways, and undeveloped areas. The Local Street Connectivity Plan shown in Figure 18 identifies approximate locations where new local street connections should be installed as areas continue to develop.

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

Figure 18. Local Street Connectivity Plan



CHAPTER SEVEN

PROJECTS

This chapter describes the transportation system improvement projects identified to address the system needs discussed in Chapter 5.

PROCESS FOR DEVELOPING AND EVALUATING PROJECTS

The project team developed the recommended transportation solutions using guidance provided by the project goals and objectives and with input from three main sources:

- Stakeholders (via committee meetings, public open houses, and project website comments)
- Previous Plans (such as the 1998 TSP and Highway 126 Fern Ridge Corridor Plan)
- Independent Project Team Evaluation (Technical Memoranda #5 through #7)

Consistent with the project goals, solutions development focused on creating a balanced system able to provide travel options for a wide variety of needs and users. The solutions include lower-cost improvements to enhance existing infrastructure and extend its useful life rather than relying solely on the construction of new facilities, which require substantial funding and may have greater impacts on the environment and adjacent property.

Potential projects were initially evaluated and ranked using a set of evaluation criteria that reflect how well a project achieves the transportation goals and objectives described in Chapter 4. Each project was also evaluated for potential impacts to environmental resources and Title VI populations (e.g., low-income, minorities, and people with disabilities). The process for identifying potential impacts applied a high-level spatial analysis to see if a project would have a substantial impact on a known environmentally sensitive area or might disproportionately impact an area of Veneta where Title VI populations are known to be higher (mapped in Technical Memorandum #1). None of the projects disproportionately impacted Title VI populations. The following environmental resources were included in this evaluation:

- Wetlands
- Greenways
- Parks
- Streams
- Wildlife Habitat Sites

The initial rankings of project priorities were refined using input from the CAC and public. The final priority ranks (e.g., High, Medium, or Low) are listed in the project tables below. The project priority rankings do not create an obligation to construct projects in any order and it is recognized that these priorities may change over time. The City of Veneta will use the priorities listed in this TSP to guide investment decisions, but will also regularly reassess local priorities to leverage new opportunities and reflect evolving community interests.

FUNDING CONSTRAINTS

The amount of funding assumed to be available to construct projects in this TSP was estimated by reviewing transportation funding sources currently in place and projecting total revenue through 2040 based on past annual allocations. Table 11 lists all of the revenue sources assumed to be available to the City, and indicates how much revenue is assumed to be available to implement the projects in this TSP. Overall, it is reasonable to assume that Veneta will have approximately $11.5 million to apply towards project implementation. It should be noted that some revenue sources have restrictions on the types of projects for which they can be used. With an estimated $152.8 million worth of transportation system projects, the City must make reasonable investment decisions to develop a set of transportation improvements that will likely be funded to meet identified needs through 2040.

Table 11. Summary of Funding Expectations and Restrictions (2017 dollars)

REVENUE SOURCE	FUNDING RESTRICTIONS	ESTIMATED THROUGH 2040	ASSUMED OPERATIONS & MAINTENANCE ALLOCATION	AVAILABLE AMOUNT FOR TSP PROJECTS
Franchise Fees	Unrestricted	$2,564,500	$2,564,500	$0
Street Utility Fees	Operations and Maintenance	$2,392,000	$2,392,000	$0
Local Fuel Tax	Unrestricted	$3,208,500	$3,208,500	$0
System Development Charges (SDC)	Capacity-adding Projects	$3,860,500	$0	$3,860,500
State Highway Fund	1% for bike/ped projects; remainder is unrestricted	$8,544,500	$7,824,626	$719,874
Additional State Highway Fund Revenue Provided by HB 2017	Unrestricted	$1,138,400	$694,424	$443,976
Urban Renewal District	Restricted to projects within the Urban Renewal District boundary	$2,000,000	$0	$2,000,000
Miscellaneous Revenue (e.g. License and Permits, Transfers In, Interest Income)	Unrestricted	$1,759,500	$1,759,500	$0
ODOT STIP Enhance Funding	Projects that benefit a state highway	$4,431,000	$0	$4,431,000
Total		$30,398,900	$18,443,550	$11,455,350

For planning purposes, each project was assigned a primary source of funding (City, County, State, or private development), although such designations do not create any obligation for funding. The City could use the prioritized list of State projects to make decisions for applying for grants or other funding mechanisms. While there may be County projects that the City would like to prioritize in the next 20 years, these decisions are ultimately up to the County. The City can, however, choose to provide funds to help support State or County projects — expediting the timeline on those projects the City would like prioritized. 'Private development' projects will likely be built in coordination with land use actions and future development.

All projects in the TSP were further categorized to describe their level of importance and likelihood of being funded. The three category definitions used are:

- **Aspirational Projects.** These include all projects in the TSP.
- **High Priority Projects.** These include only the projects ranked as "High" priority. These projects rose to the top of the prioritization process based on the evaluation criteria developed to measure alignment with the community's transportation goals and objectives, as well as input from the public and CAC. The High Priority project list is not constrained by anticipated funding levels, so additional revenue may be needed to implement these projects.
- **Financially Constrained Projects.** These include projects that can reasonably be expected to be funded by 2040 given the type and amount of funding assumed to be available. These do not always include High Priority projects due to the use restrictions of some funding types.

The City is not required to implement projects identified on the Financially Constrained list first. Priorities may change over time and unexpected opportunities may arise to fund particular projects. The City is free to pursue any of these opportunities at any time. The purpose of the Financially Constrained project list is to establish reasonable expectations for the level of improvements that will occur and give the City initial direction on where funds should be allocated.

ASPIRATIONAL PROJECTS

The Aspirational Projects are described in Table 12 through Table 15 and illustrated in Figure 19 through Figure 22. They are presented in four categories:

- **Connectivity and Congestion** – primarily improvements for efficient motor vehicle travel, but also enhancing connectivity for all modes.
- **Safety** – targeted at locations where safety is a concern.
- **Active Transportation** – improving conditions for people walking and biking.
- **Transit** – promoting the utility and attractiveness of public transportation.

The order of these categories does not imply priority. The High Priority projects are presented in Table 16 and Figure 25, and the Financially Constrained projects are presented in Table 17 and Figure 26.

The project design elements depicted are identified for the purpose of creating a reasonable cost estimate for planning purposes. The actual design elements for any project are subject to change and will ultimately be determined through a preliminary and final design process, and are subject to City, County and/or ODOT approval. All recommended projects along OR 126 will also be subject to review for a reduction in vehicle-carrying capacity.

CONNECTIVITY AND CONGESTION

These projects seek to create a connected local and regional transportation network in Veneta and address a limited number of key bottlenecks. New roadways should be aligned with existing street intersections when constructed. Alignments shown on maps within this document represent general locations. Actual alignments will be determined through the project development or permit approval process or subsequent facility planning to respond to topographical or environmental constraints or to meet urban design goals.

Table 12. Connectivity and Congestion Projects

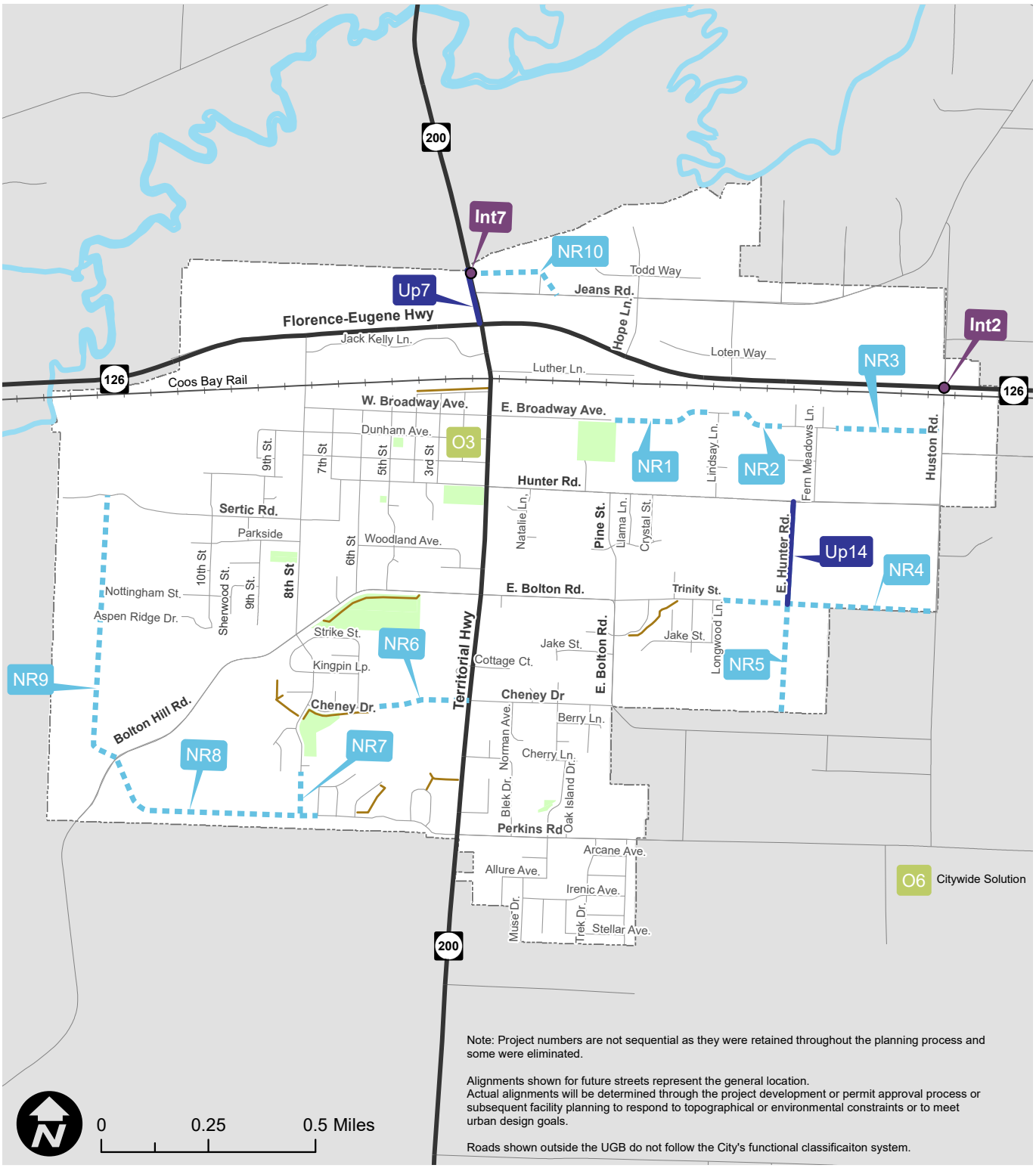
PROJECT ID	PROJECT TYPE	PROJECT NAME	COST ESTIMATE (2017 DOLLARS)	PRIMARY FUNDING SOURCE	PRIORITY	SOURCE
Int2	Capacity Improvement	OR 126/ Huston Road Intersection Improvements	$1,024,000	ODOT/City	High	Project Team
	Intersection capacity improvements could include constructing a southbound right turn lane and northbound right turn lane. Consider improving street lighting. Coordinate with Project Up4, Project CR10, Project Int10, and Project T4.					
Int7	Capacity Improvement	Jeans Road/ Territorial Highway Intersection Improvement	$5,944,000	ODOT*/ City	Medium	Veneta 1998 TSP
	This is an expansion (PHASE 2) of Project NR10. After Jeans Road has been realigned to the north, install appropriate traffic control to improve intersection capacity. Could include a traffic signal or roundabout (cost estimate assumes roundabout). Both phases will include pedestrian and bicycle crossing improvements.					
NR1	New Roadway	Broadway Avenue Extension	$4,628,000	Developer/ City	Low	Veneta 1998 TSP
	New roadway extension: Construct Broadway Avenue Extension to minor collector standards between existing Terminus (near the Veneta City Park) and Lindsay Lane.					
NR2	New Roadway	Broadway Avenue Extension	$2,892,000	Developer/ City	Low	Veneta 1998 TSP
	New roadway extension: Construct Broadway Avenue Extension to minor collector standards between existing Terminus (east of Lindsay Lane) and existing Terminus (west of Fern Meadows Lane).					

PROJECT ID	PROJECT TYPE	PROJECT NAME	COST ESTIMATE (2017 DOLLARS)	PRIMARY FUNDING SOURCE	PRIORITY	SOURCE
NR3	New Roadway	Broadway Avenue Extension	$5,206,000	Developer/ City	Low	Veneta 1998 TSP
	New roadway extension: Construct Broadway Avenue Extension to minor collector standards between existing Terminus (east of Fern Meadows Lane) and Huston Road.					
NR4	New Roadway	Trinity Street Extension	$10,220,000	Developer/ City	Low	Veneta 1998 TSP
	New roadway extension: Construct Trinity Street Extension to major collector standards between existing Terminus (east of Longwood Lane) and Huston Road. Project has potential impacts to or may be constrained by environmental resources.					
NR5	New Roadway	E. Hunter Road Extension	$3,856,000	Developer/ City	Low	Veneta 1998 TSP
	New roadway extension: Construct E. Hunter Road Extension to minor collector standards between Trinity Street (NR4) and the South UGB. E. Hunter Road Extension will be continued to the south to connect to E. Bolton Road if the South UGB is expanded that far in the future. Project has potential impacts to or may be constrained by environmental resources.					
NR6	New Roadway	Cheney Drive Extension	$5,206,000	Developer/ City	Low	Veneta 1998 TSP
	New roadway extension: Construct Cheney Drive Extension to minor collector standards between existing Terminus (east of Strike Street) and Territorial Highway. Project has potential impacts to or may be constrained by environmental resources.					
NR7	New Roadway	8th Street Extension	$2,121,000	Developer/ City	Low	Veneta 1998 TSP
	New roadway extension: Construct 8th Street Extension to minor collector standards between existing Terminus (south of Cheney Drive) and Perkins Road.					
NR8	New Roadway	Perkins Road Extension	$11,184,000	Developer/ City	Low	Veneta 1998 TSP
	New roadway extension: Construct Perkins Road Extension to minor collector standards between existing Terminus (at Greenley Street) and Bolton Hill Road. Project has potential impacts to or may be constrained by environmental resources.					
NR9	New Roadway	New N/S Roadway	$12,741,000	Developer/ City	Low	Veneta 1998 TSP
	New roadway: Construct New N/S Roadway to minor collector standards between Bolton Hill Road and Sertic Road. Project has potential impacts to or may be constrained by environmental resources.					

PROJECT ID	PROJECT TYPE	PROJECT NAME	COST ESTIMATE (2017 DOLLARS)	PRIMARY FUNDING SOURCE	PRIORITY	SOURCE
NR10	Capacity Improvement	Jeans Road/ Territorial Highway Realignment	$5,150,000	ODOT*/City	High	Veneta 1998 TSP
	This is PHASE 1 of a two phase project (PHASE 2 is described in Project Int7). Realign Jeans Road to the north to create a new "T" intersection (two-way stop-controlled) with Territorial Highway. Construct new Jeans Road realignment to major collector standard. Construct westbound and southbound left-turn lanes at the new "T" intersection. At the current Jeans Road/Territorial Highway intersection, the east leg of Jeans Road will be converted to one-way (eastbound).					
O3	Study	Downtown Parking Study	$100,000	City	Low	Project Team
	Downtown parking study to review downtown parking standards and explore opportunities for shared parking or using City-owned property to build a public parking lot.					
O6	Study	Mobility Hub Study	$100,000	City	Low	Project Team
	Conduct a study to determine the feasibility of a mobility hub that would include facilities and services promoting the use of connected vehicles, automated vehicles, shared vehicles, and electric vehicles as well as transit, carpools, and non-vehicular modes. The study would also explore preferred locations, such as the existing park and ride facility.					
Up7	TSM	Territorial Highway Access Management	$48,000	Developer/ City	Medium	TAC and CAC
	Consolidate driveways on Territorial Highway between OR 126 and North UGB.					
UP14	Full Street Upgrade	E. Hunter Road Extension	$2,643,000	Developer/ City	Low	Veneta 1998 TSP
	Reconstruct E. Hunter Road between Hunter Road and Trinity Street (NR4) to minor collector standards. Project has potential impacts to or may be constrained by environmental resources.					

*If Territorial Highway is transferred from ODOT jurisdiction to Lane County as anticipated, the County would become the primary funding source.

Figure 19. Connectivity and Congestion Projects



SAFETY

Safety projects were primarily developed to target documented crash histories or reported concerns. These projects seek to create a safer transportation system and reduce the harm done by vehicle collisions.

Table 13. Safety Projects

PROJECT ID	PROJECT TYPE	PROJECT NAME	COST ESTIMATE (2017 DOLLARS)	PRIMARY FUNDING SOURCE	PRIORITY	SOURCE
S1	Safety Improvement	Territorial Highway School Zone	$144,000	ODOT*/City	Low	Project Team/Public Comment
	Upgrade school zone signing to use "20 mph when flashing" along Territorial Highway between Hunter Road and Dunham Road (near Veneta Elementary School).					
S2	Safety Improvement	OR 126 Safety Improvements	$55,900	ODOT	Low	Lane County TSP (#78)
	Construct safety improvements on OR 126 from Territorial Highway to East UGB including shoulder rumble strips and fixed object removal.					
CR9	Rail Crossing	Territorial Highway Rail Crossing	$109,000	ODOT*/ City	High	Project Team
	At-grade crossing improvements at the Territorial Highway railroad crossing to ensure multimodal safety and mobility including reconstructing sidewalks on both sides.					
CR10	Rail Crossing	Huston Road Rail Crossing	$1,044,000	City	Medium	Project Team
	At-grade crossing improvements at the Huston Road railroad crossing to support multimodal safety. Project may include sidewalks, bike lanes, and repaving Huston Road. Evaluate need for increased vehicle storage on OR 126 for eastbound right turns and westbound left turns to accommodate waiting vehicles during train crossings. Coordinate with Project Up4, Project Int2, Project Int10, and Project T4.					
Int1	Safety Improvement	8th Street/ Bolton Hill Road Intersection Improvement	$37,000	City	Low	Veneta 1998 TSP
	Add a channelized right-turn lane for westbound traffic on Bolton Hill Road to alleviate problems caused by an acute intersection angle. Include additional safety features for people walking and biking such as a pedestrian refuge island, signage (e.g. "Yield to Pedestrians and Bikes"), and pavement markings.					

PROJECT ID	PROJECT TYPE	PROJECT NAME	COST ESTIMATE (2017 DOLLARS)	PRIMARY FUNDING SOURCE	PRIORITY	SOURCE
Int3	Safety Improvement	Territorial Highway/ Broadway Avenue Intersection Improvement	$639,000	ODOT*/ City	Medium	Veneta 1998 TSP/Project Team
	Intersection safety improvements that may include a reconfiguration, additional lanes, roundabout or traffic signal. An engineering investigation must be performed to determine the appropriate treatment to get the necessary approval for installation on the state highway system. Initial cost estimate assumes a traffic signal is constructed.					
Int4	Safety Improvement	Territorial Highway Fire Station Access Improvements	$144,000	ODOT*/ City	Low	Project Team/Public Comment
	Install warning signs with flashers or fire signal on Territorial Highway at the Lane Fire Authority that can be activated by the fire station. An engineering investigation must be performed to determine the appropriate treatment to get the necessary approval for installation on the state highway system. Project is subject to ODOT approval.					
Int6	Safety Improvement	Bolton Hill Road/Territorial Highway Intersection Improvement	$639,000	ODOT*/ City	Medium	Veneta 1998 TSP/Lane County TSP (#142)
	Intersection safety improvements that may include a reconfiguration, additional lanes, roundabout or traffic signal. An engineering investigation must be performed to determine the appropriate treatment to get the necessary approval for installation on the state highway system. Initial cost estimate assumes a traffic signal is constructed.					
O1	Safety Improvement	Veneta Gateway Treatments	$40,000	ODOT/City	Medium	Project Team/ Veneta By Design/Public Comment
	Provide gateway treatment along OR 126 at the east and west ends of the city limits to warn drivers that they are entering an urban area and encourage slower travel speeds. Treatments could include wayfinding signage to destinations in Veneta or large-scale artwork unique to Veneta. Initial cost assumes $20,000 per location. This will require approval and a permit from ODOT if it is intended to be placed within state highway ROW.					

PROJECT ID	PROJECT TYPE	PROJECT NAME	COST ESTIMATE (2017 DOLLARS)	PRIMARY FUNDING SOURCE	PRIORITY	SOURCE
O2	Program	Neighborhood Traffic Calming Program	$50,000	City	Medium	Technical Advisory and Citizen Advisory Committee/ Public Comment
	Implement program to process community requests for neighborhood traffic calming, investigating options, and implementing improvements. Cost is for an assumed amount of investment in traffic calming strategies.					
O4	Study	Safe Routes to School Plan	$75,000	City	Medium	Project Team
	Develop a Safe Routes to School Plan to identify walking and biking improvements in Veneta to Veneta Elementary School and connections to the high school, middle school and elementary school in Elmira.					
O5	Study	OR 126 Refinement Plan	$150,000	ODOT/City	High	Project Team
	Complete a OR 126 Refinement Plan to address motor vehicle travel speeds, gateway treatments, active transportation, and safety needs along OR 126 within Veneta. Initial cost estimate only includes the cost to complete the study.					

*If Territorial Highway is transferred from ODOT jurisdiction to Lane County as anticipated, the County would become the primary funding source.

Figure 20. Safety Projects

Project Type

- Safety Improvement (S#)
- Intersection Improvement (Int#)
- Enhanced Pedestrian Crossing (CR#)
- Other Projects (O#)
- Street
- Railroad
- River
- Shared-Use Path
- Park
- City Limit/Urban Growth Boundary

ACTIVE TRANSPORTATION

Active transportation investments provide safer designated spaces for walking and biking that make travel by these modes more comfortable and attractive in Veneta. Investing in high-quality active transportation facilities creates more travel options for people of all ages and abilities and supports healthy lifestyles. Active transportation projects are described in Table 14 and mapped in Figure 21 and Figure 22.

Regional active transportation facilities connect Veneta to neighboring communities, can invite recreational tourism, and provide longer routes for exercising. Examples of key regional routes include the planned OR 126 Fern Ridge Multi-Use Path between Eugene and Veneta that would connect to Veneta at Perkins Road, as well as the planned Veneta-Elmira Multi-Use Path along Territorial Highway between OR 126 and Suttle Road. Because such connections are largely outside of Veneta's UGB, the full projects are not included in this TSP. However, projects and policies supporting these regional routes are included.

Sidewalk infill projects on local streets are not included in Veneta's TSP update. However, in 2015, PSI Pavement Services Inc. conducted a sidewalk and bike lane inventory as part of their Pavement Condition Index Survey & Evaluation of the City's street network. The inventory identified the location, width, and condition of sidewalk and bike lanes within the city in order to identify gaps within the existing network. City staff prepared a Sidewalk and Bike Lane Inventory Summary and criterion to prioritize sidewalk and bike projects. It is the City's intent to use this information to initiate future sidewalk and street upgrade projects.

Veneta participated in a Travel Oregon Bike Tourism Studio (BTS) Program, which is a community-based planning program that is intended to strengthen local awareness of the growing cycling tourism market, foster key connections among local leaders and with regional, state and national organizations, and focus community energy on the development of appropriate bicycling infrastructure, business services, and marketing activities. The group identified bike routes that connect the participating communities. A route connection at Bolton Hill Road was identified in Veneta that provides connections to Vaughn, Crow, and eventually Eugene. Project Up12, Bolton Hill Road Upgrade between Dogwood Lane and West UGB, supports this initiative. These regional connections are shown in green in Figure 21 and Figure 22.

Table 14. Active Transportation Projects

PROJECT ID	PROJECT TYPE	PROJECT NAME	COST ESTIMATE (2017 DOLLARS)	PRIMARY FUNDING SOURCE	PRIORITY	SOURCE
B1	Bike Facilities	Cheney Drive Shared Roadway	$17,000	City	Low	Veneta 1998 TSP
	Install "Share the Road" signs and pavement markings on Cheney Drive between Territorial Highway and E. Bolton Road.					
B2	Bike Lanes	Jeans Road Bike Lane Upgrade	$26,000	Developer/ City	Medium	Project Team
	Restripe Jeans Road between Territorial Highway and East UGB to provide buffered bike lanes. On-street parking will not be allowed since Jeans Road is a designated local freight route. Project has potential impacts to or may be constrained by environmental resources.					

PROJECT ID	PROJECT TYPE	PROJECT NAME	COST ESTIMATE (2017 DOLLARS)	PRIMARY FUNDING SOURCE	PRIORITY	SOURCE
B3	Bike Lanes	Territorial Highway Buffered Bike Lanes	$3,227,000	ODOT*/ City	Medium	Project Team
	Restripe Territorial Highway between South UGB and OR 126 to include 11-foot travel lanes, 12-foot center turn lane, and 8-foot buffered bike lanes (2-foot painted buffer and 6-foot bike lane). Improvement will likely require resurfacing, which substantially increased the project cost. Thus, the timing of construction will depend on the timing of the next paving project on Territorial Highway.					
B4	Bike Lanes	W. Broadway Bicycle Improvements	$13,000	City	Medium	Project Team
	Install "Share the Road" signs and pavement markings on W. Broadway between Territorial Highway and 6th Street.					
B5	Bike Lanes	W. Broadway Bike Lanes	$5,000	City	Low	Project Team
	Restripe W. Broadway between 6th Street and 8th Street to provide 6-foot bike lanes including on-street parking on one side of the roadway.					
B6	Bike Lanes	Hope Lane Bike Lanes	$5,000	Developer/ City	Low	Project Team
	Restripe Hope Lane between OR 126 and Jeans Road to provide 6-foot bike lanes and 12-foot travel lanes. On-street parking will not be allowed.					
B7	Bike Lanes	Cornerstone Drive Bike Lanes	$191,000	Developer/ City	Medium	Project Team
	Restripe Cornerstone Drive between OR 126 and Jeans Road to provide 6-foot bike lanes and 11-foot travel lanes. On-street parking will not be allowed. In addition, a portion along this segment near the Bulk Water Station will need to be widened to accommodate a loading area for large trucks.					
B8	Bike Lanes	Hunter Road Bike Lanes	$758,000	City	Medium	Project Team
	Widen roadway to construct bike lanes on Hunter Road between Territorial Highway and 7th Street. Initial cost assumes on-street parking will be limited to one side of the roadway and alternative minimum cross-sections standard widths.					
B9	Bike Lanes	8th Street Bike Lanes	$5,000	City	Medium	Project Team
	Restripe 8th Street between W. Broadway and Dunham Road to provide 6-foot bike lanes. On-street parking will not be provided along this segment. Coordinate with Project Up1.					

PROJECT ID	PROJECT TYPE	PROJECT NAME	COST ESTIMATE (2017 DOLLARS)	PRIMARY FUNDING SOURCE	PRIORITY	SOURCE
B10	Bike Lanes	Perkins Road Bike Lanes	$5,000	City	Medium	Project Team
	Restripe Perkins Road between Territorial Highway and Sun Ridge Way to provide bike lanes. Initial cost assumes on-street parking will be limited to one side of the roadway and alternative minimum cross-sections standard widths.					
CR3	Pedestrian Crossing Improvement	Territorial Highway/ Perkins Road Pedestrian Crossing Improvement	$284,000	ODOT*/ City	Medium	Project Team/ Safe Routes to School Project List 2006
	Provide an enhanced pedestrian crossing on Territorial Highway at Perkins Road, which could include solutions such as a Rectangular Rapid-Flashing Beacon, Pedestrian HAWK Signal, median refuge island, curb extensions, improved lighting, and pavement markings. Initial cost assumes a Rectangular Rapid-Flashing Beacon, curb extensions, and improved lighting.					
CR5	Pedestrian Crossing Improvement	Territorial Highway/Fern Ridge Library Pedestrian Crossing Improvement	$219,000	ODOT*/ City	Medium	Project Team/ Safe Routes to School Project List 2006
	Provide an enhanced pedestrian crossing on Territorial Highway at Fern Ridge Library, which could include solutions such as a Rectangular Rapid-Flashing Beacon, Pedestrian HAWK Signal, median refuge island, curb extensions, improved lighting, and pavement markings. Initial cost assumes a Rectangular Rapid-Flashing Beacon, median refuge island, and improved lighting. Project has potential impacts to or may be constrained by environmental resources.					
CR6	Pedestrian Crossing Improvement	Territorial Highway/ McCutcheon Street Crossing Improvement	$107,000	ODOT*/ City	High	Project Team/ Safe Routes to School Project List 2006/Public Comment
	Install a Rectangular Rapid-Flashing Beacon or Pedestrian Hybrid Beacon at the Territorial Highway/McCutcheon Street intersection. Before a signal can be installed, an engineering investigation must be conducted and reviewed by the Region Traffic Engineer who will forward intersection traffic control recommendations to ODOT headquarters. Traffic signal warrants must be met and the State Traffic Engineer's approval obtained before a traffic signal can be installed on a state highway. Initial cost assumes a Rectangular Rapid-Flashing Beacon.					

PROJECT ID	PROJECT TYPE	PROJECT NAME	COST ESTIMATE (2017 DOLLARS)	PRIMARY FUNDING SOURCE	PRIORITY	SOURCE
CR7	Pedestrian Crossing Improvement	Territorial Highway/ Blek Drive Pedestrian Crossing	$219,000	ODOT*/ City	Medium	Project Team/ Safe Routes to School Project List 2006/Public Comment
	Provide an enhanced pedestrian crossing on Territorial Highway at Blek Drive, which could include solutions such as a Rectangular Rapid-Flashing Beacon, Pedestrian HAWK Signal, median refuge island, curb extensions, improved lighting, and pavement markings. Initial cost assumes a Rectangular Rapid-Flashing Beacon, median refuge island, and improved lighting.					
CR8	Pedestrian Crossing Improvement	Perkins Road/Oak Island Drive Pedestrian Crossing	$82,000	City	High	Project Team/Public Comment
	Provide an enhanced pedestrian crossing on Perkins Road at Oak Island Drive, which could include solutions such as a Rectangular Rapid-Flashing Beacon, median refuge island, curb extensions, improved lighting, and pavement markings. Initial cost assumes improved lighting and pavement markings.					
CR11	Pedestrian Crossing Improvement	E. Hunter Road Pedestrian Crossing Improvement	$184,000	City	High	Safe Routes to School Project List 2006
	Provide an enhanced pedestrian crossing on E. Hunter Road at Pine Street, which could include solutions such as a Rectangular Rapid-Flashing Beacon, Pedestrian HAWK Signal, median refuge island, curb extensions, improved lighting, and pavement markings. Initial cost assumes a Rectangular Rapid-Flashing Beacon and improved lighting. Coordinate with Project SUP4.					
SUP1	Shared-use Path	Elmira-Veneta Multi-Use Path Study - Phase 1	$105,000	ODOT*/ City	High	Lane County TSP (#144a)
	Preliminary engineering to design off-street shared-use path along Territorial Highway (Phase 1) – not including the design of bridge widening. Initial cost represents the portion of the path within Veneta.					

PROJECT ID	PROJECT TYPE	PROJECT NAME	COST ESTIMATE (2017 DOLLARS)	PRIMARY FUNDING SOURCE	PRIORITY	SOURCE
SUP2	Shared-use Path	Territorial Highway Multi-use Path	$203,300	ODOT*/ City	High	Lane County TSP (#144b)
	Construct a shared-use path west of Territorial Highway between OR 126 and North UGB including bicycle improvements at the OR 126/Territorial Highway intersection to install two-stage turn queue bike boxes. Two-stage turn queue boxes provide a safe way to make left-turns at multi-lane signalized intersections from a right-side bike lane. The two-stage turn queue bike box will be installed on the northeast corner of the intersection, to provide northbound cyclists along Territorial Highway a lower stress option to connect to the shared-use path. The first phase does not include constructing to widen the bridges, thus pedestrians and cyclists will need to use the bridge shoulder. Initial cost represents the portion of the path within Veneta.					
SUP3	Shared-use Path	Huston Road to Broadway Avenue/City Park Shared-use Path	$2,072,000	City	Medium	Veneta 1998 TSP
	Construct a shared use path that connects proposed SUP7 on the west (connecting to Broadway Avenue and City Park) to Huston Road on the east. The alignment primarily follows the edge of the railroad right-of-way and connects to Broadway Avenue (see projects NR2 and NR3) on either end through the existing neighborhood.					
SUP4	Shared-use Path	Veneta Elementary School to Hunter Road Shared-use Path	$587,000	City	Medium	Safe Routes to School Project List 2006
	Construct a shared-use path from back of Veneta Elementary School through south end of City Park and down to E. Hunter Road. Coordinate with Project CR11. Project has potential impacts to or may be constrained by environmental resources.					
SUP6	Shared-use Path	Territorial Highway to 7th Street Shared-use Path	$978,000	City	Medium	Veneta 1998 TSP
	Construct a shared-use path north of W. Broadway Street from the existing shared-use path terminus at 4th Street and connecting to W. Broadway Street at the intersection with 7th Street.					
SUP7	Shared-use Path	City Park to OR 126 Shared-use Path	$1,195,000	City	Medium	Veneta 1998 TSP
	Construct a shared-use path that connects the Veneta City Park on the south end to OR 126 near Hope Lane on the north end. Project has potential impacts to or may be constrained by environmental resources and requires approval for an at-grade railroad crossing.					

PROJECT ID	PROJECT TYPE	PROJECT NAME	COST ESTIMATE (2017 DOLLARS)	PRIMARY FUNDING SOURCE	PRIORITY	SOURCE
SUP8	Shared-use Path	Territorial Highway to Corky Lane Shared-use Path	$587,000	City	Medium	Veneta 1998 TSP
	Construct a shared-use path that connects Territorial Highway (near the Fern Ridge Library) to the west terminus of Corky Lane. Project has potential impacts to or may be constrained by environmental resources. Coordinate with Project SUP9.					
SUP9	Shared-use Path	Corky Lane to E. Hunter Road Shared-use Path	$704,000	City	Medium	Veneta 1998 TSP
	Construct a shared-use path that connects the east terminus of Corky Lane to E. Hunter Road. Project has potential impacts to or may be constrained by environmental resources. Coordinate with Projects SUP8, SUP10, and UP14.					
SUP10	Shared-use Path	SUP9 to South UGB Shared-use Path	$978,000	City	Medium	Veneta 1998 TSP
	Construct a shared-use path that connects the proposed Corky Lane to E. Hunter Road shared-use path (SUP9) with the South UGB. SUP10 will be continued to the south to connect to E. Bolton Road if the South UGB is expanded that far in the future. Project has potential impacts to or may be constrained by environmental resources. Coordinate with Project SUP9.					
SUP11	Shared-use Path	Cottage Court to E. Bolton Road Shared-use Path	$547,000	City	Medium	Veneta 1998 TSP
	Construct a shared-use path that connects the east terminus of Cottage Court to E. Bolton Road to the east. Project has potential impacts to or may be constrained by environmental resources.					
SUP12	Shared-use Path	Sun Ridge Way to Cheney Drive Shared-use Path	$810,000	City/ Developer	Medium	Development Master Plan
	Construct a shared-use path that connects the existing shared-use path along Sun Ridge Way to the future extension of Cheney Drive. Project may have greenway impacts.					
SUP13	Shared-use Path	Cheney Drive Shared-use Path	$425,000	City/ Developer	Medium	Development Master Plan
	Extend the shared-use path south of Cheney Drive to the east approximately 825 feet, connecting to SUP12. Project may have greenway impacts.					

PROJECT ID	PROJECT TYPE	PROJECT NAME	COST ESTIMATE (2017 DOLLARS)	PRIMARY FUNDING SOURCE	PRIORITY	SOURCE
SUP14	Shared-use Path	Cheney Drive to Sun Ridge Way Shared-use Path	$230,000	City/ Developer	Medium	Development Master Plan
	Construct a shared-use path from the existing shared-use path south of Cheney Drive, opposite Strike Street, to Sun Ridge Way. Project may have greenway impacts.					
SUP15	Shared-use Path	8th Street to Sun Ridge Way Shared-use Path	$75,000	City/ Developer	Medium	Development Master Plan
	Construct a shared-use path from 8th Street to the east, to a future trail that will connect to SUP14. Project may have wetland and greenway impacts.					
SUP16	Shared-use Path	8th Street to Hawk View Drive Shared-use Path	$335,000	City/ Developer	Medium	Development Master Plan
	Construct a shared-use path from 8th Street to the west, to a future trail that will connect to Hawk View Drive. Project may have wetland and greenway impacts.					
SUP17	Shared-use Path	Greenbrier Court to Hawk View Drive Shared-use Path	$335,000	City/ Developer	Medium	Development Master Plan
	Extend the shared-use path west of Greenbrier Court to a future extension of Hawk View Drive to the west. Project may have wetland and greenway impacts.					
SW7	Sidewalk Gap Infill	Pine Street Sidewalk Infill	$137,000	City	Medium	Project Team
	Construct sidewalks on Pine Street between Corky Lane and E. Bolton Road on the west side of the street. Initial cost assumes no planter strip. Project has potential impacts to or may be constrained by environmental resources.					
SW8	Sidewalk Gap Infill	Jeans Road Sidewalk Infill	$1,339,000	Developer/ City	Medium	Project Team
	Construct sidewalks on Jeans Road between Territorial Highway and East UGB. Project has potential impacts to or may be constrained by environmental resources.					
SW9	Sidewalk Gap Infill	Hunter Road Sidewalks	$173,000	City	High	Project Team
	Construct sidewalks on Hunter Road between 3rd Street and 5th Street on one side of the roadway. Initial cost assumes no planter strip and alternative minimum cross-sections standard widths.					

PROJECT ID	PROJECT TYPE	PROJECT NAME	COST ESTIMATE (2017 DOLLARS)	PRIMARY FUNDING SOURCE	PRIORITY	SOURCE
SW10	Sidewalk Gap Infill	Hunter Road Sidewalks	$33,000	City	High	Project Team
	Construct sidewalks on Hunter Road between 6th Street and 5th Street. Initial cost assumes no planter strip and alternative minimum cross-sections standard widths.					
SW11	Sidewalk Gap Infill	Hope Lane Sidewalks	$559,000	Developer/ City	Low	Veneta 1998 TSP
	Construct sidewalks on Hope Lane between OR 126 and Jeans Road. Sidewalks are present on one side of the roadway.					
Up1	Full Street Upgrade	8th Street Urban Upgrade	$4,230,000	City	Medium	Veneta 1998 TSP
	Widen 8th Street to minor collector standard between Dunham Road and Bolton Hill Road including bike lanes and sidewalks. Initial cost assumes on-street parking will not be provided and alternative minimum cross-sections standard widths.					
Up2	Full Street Upgrade	Perkins Road Urban Upgrade	$3,646,000	City	Low	Veneta 1998 TSP
	Widen Perkins Road to major collector standard between Territorial Highway and East UGB including buffered bike lanes and sidewalks. Initial cost assumes alternative minimum cross-sections standard widths. Project has potential impacts to or may be constrained by environmental resources.					
Up3	Full Street Upgrade	E. Bolton Road Urban Upgrade	$2,809,000	City	Low	Veneta 1998 TSP
	Widen E Bolton Road to major collector standards between Territorial Highway and Pine Street including bike lanes and sidewalks. Initial cost assumes no planter strip to match the existing Trinity Street cross-section. Project has potential impacts to or may be constrained by environmental resources.					
Up4	Full Street Upgrade	Huston Road Urban Upgrade	$5,444,000	City	Low	Veneta 1998 TSP
	Widen Huston Road to major collector standard between North UGB and South UGB including buffered bike lanes and sidewalks. Project has potential impacts to or may be constrained by environmental resources.					

PROJECT ID	PROJECT TYPE	PROJECT NAME	COST ESTIMATE (2017 DOLLARS)	PRIMARY FUNDING SOURCE	PRIORITY	SOURCE
Up5	Full Street Upgrade	E. Hunter Road Urban Upgrade	$3,553,000	City	High	Veneta 1998 TSP/ Safe Routes to School Project List 2006
	Widen E. Hunter Road to major collector standard between Territorial Highway and Crystal Street including buffered bike lanes and sidewalks. Initial cost assumes alternative minimum cross-sections standard widths.					
Up6	Full Street Upgrade	E. Hunter Road Urban Upgrade	$6,092,000	Developer/ City	Medium	Veneta 1998 TSP
	Widen E. Hunter Road to major collector standard between Crystal Street and Huston Road including buffered bike lanes and sidewalks. Initial cost assumes alternative minimum cross-sections standard widths.					
Up8	Full Street Upgrade	OR 126 Improvements	$19,289,000	ODOT	Low	Project Team
	Construct buffered bike lanes and sidewalks on OR 126 between the West UGB and East UGB. Project has potential impacts to or may be constrained by environmental resources.					
Up9	Full Street Upgrade	E. Bolton Road Urban Upgrade	$2,061,000	City	Low	Veneta 1998 TSP
	Widen E. Bolton Road to minor collector standards between Pine Street and Cheney Drive including bike lanes and sidewalks. Initial cost assumes no planter strip and alternative minimum cross-sections standard widths. Project has potential impacts to or may be constrained by environmental resources.					
Up10	Full Street Upgrade	Sertic Road Urban Upgrade	$1,662,000	City	Low	Project Team
	Widen Sertic Road to minor collector standards between 8th Street and 10th Street including bike lanes and sidewalks. Initial cost assumes no planter strip, no provided on-street parking, and alternative minimum cross-sections standard widths.					
Up11	Full Street Upgrade	Sertic Road Urban Upgrade	$4,452,000	City	Low	Project Team
	Widen Sertic Road to minor collector standards between 10th Street and New N/S Roadway (NR9) including bike lanes and sidewalks. Project has potential impacts to or may be constrained by environmental resources.					

PROJECT ID	PROJECT TYPE	PROJECT NAME	COST ESTIMATE (2017 DOLLARS)	PRIMARY FUNDING SOURCE	PRIORITY	SOURCE
Up12	Full Street Upgrade	Bolton Hill Road Upgrade	$4,856,000	Lane County	Low	Project Team
	Widen Bolton Hill Road to major collector standard between Dogwood Lane and West UGB including bike lanes and sidewalks. Project has potential impacts to or may be constrained by environmental resources.					
PB1	Interim Bicycle and Pedestrian Improvement	E. Bolton Road Interim Improvements	$13,000	City	Medium	Project Team
	Low-cost interim safety improvement on E. Bolton Road between Cheney Drive and Trinity Street until full minor collector street upgrades are constructed could include: 1) Reallocating existing paved width to provide an advisory shoulder which includes one 14-foot two-way center travel lane and two 5.5-foot advisory shoulders or 2) Installing “Share the Road” signs and pavement marking. Initial cost assumes Option 1. In order to install advisory shoulders, an approved Request to Experiment is required as detailed in Section 1A.10 of the MUTCD. Furthermore, Oregon Revised Statutes (OSR 811.432) currently prohibit motor vehicles from driving in a bicycle lane or path. A change in this law may be required before an advisory shoulder could be implemented.					
PB2	Interim Bicycle and Pedestrian Improvement	E. Bolton Road Interim Improvements	$17,000	City	Medium	Project Team
	Low-cost interim safety improvement on E. Bolton Road between Territorial Highway and Pine Street until full minor collector street upgrades are constructed could include: 1) Reallocating existing paved width to provide an advisory shoulder which includes one 11-foot two-way center travel lane and two 5.5-foot advisory shoulders or 2) Installing “Share the Road” signs and pavement marking. Initial cost assumes Option 1. In order to install advisory shoulders, an approved Request to Experiment is required as detailed in Section 1A.10 of the MUTCD. Furthermore, Oregon Revised Statutes (OSR 811.432) currently prohibit motor vehicles from driving in a bicycle lane or path. A change in this law may be required before an advisory shoulder could be implemented.					

PROJECT ID	PROJECT TYPE	PROJECT NAME	COST ESTIMATE (2017 DOLLARS)	PRIMARY FUNDING SOURCE	PRIORITY	SOURCE
PB5	Interim Bicycle and Pedestrian Improvement	8th Street Interim Improvements	$26,000	City	Medium	Project Team
	Low-cost interim safety improvement on 8th Street between Dunham Road and Bolton Hill Road until full minor collector street upgrades are constructed could include: 1) Reallocating existing paved width to provide an advisory shoulder which includes one 14-foot two-way center travel lane and two 5.5-foot advisory shoulders or 2) Installing "Share the Road" signs and pavement marking. Initial cost assumes Option 1. In order to install advisory shoulders, an approved Request to Experiment is required as detailed in Section 1A.10 of the MUTCD. Furthermore, Oregon Revised Statutes (OSR 811.432) currently prohibit motor vehicles from driving in a bicycle lane or path. A change in this law may be required before an advisory shoulder could be implemented.					
PB6	Interim Bicycle and Pedestrian Improvement	Hunter Road Interim Improvements	$20,000	City	Medium	Project Team
	Low-cost interim safety improvement on Hunter Road between Territorial Highway and 7th Street includes installing "Share the Road" signs and pavement marking until full minor collector street upgrades are constructed.					
PB7	Interim Bicycle and Pedestrian Improvement	E Hunter Road Interim Improvements	$22,000	City	Medium	Project Team
	Low-cost interim safety improvement on Hunter Road between Territorial Highway and Crystal Street until full major collector street upgrades are constructed could include: 1) Reallocating existing paved width to provide an advisory shoulder which includes one 11-foot two-way center travel lane and two 5.5-foot advisory shoulders or 2) Installing "Share the Road" signs and pavement marking. Initial cost assumes Option 1. In order to install advisory shoulders, an approved Request to Experiment is required as detailed in Section 1A.10 of the MUTCD. Furthermore, Oregon Revised Statutes (OSR 811.432) currently prohibit motor vehicles from driving in a bicycle lane or path. A change in this law may be required before an advisory shoulder could be implemented.					

PROJECT ID	PROJECT TYPE	PROJECT NAME	COST ESTIMATE (2017 DOLLARS)	PRIMARY FUNDING SOURCE	PRIORITY	SOURCE
PB8	Interim Bicycle and Pedestrian Improvement	E Hunter Road Interim Improvements	$37,000	City	Medium	Project Team
	Low-cost interim safety improvement on Hunter Road between Crystal Street and Huston Road until full major collector street upgrades are constructed could include: 1) Reallocating existing paved width to provide an advisory shoulder which includes one 11-foot two-way center travel lane and two 5.5-foot advisory shoulders or 2) Installing “Share the Road” signs and pavement marking. Initial cost assumes Option 1. In order to install advisory shoulders, an approved Request to Experiment is required as detailed in Section 1A.10 of the MUTCD. Furthermore, Oregon Revised Statutes (OSR 811.432) currently prohibit motor vehicles from driving in a bicycle lane or path. A change in this law may be required before an advisory shoulder could be implemented.					
PB9	Interim Bicycle and Pedestrian Improvement	Huston Road Interim Improvements	$31,000	City	Medium	Project Team
	Low-cost interim safety improvement on Huston Road between North UGB and Hunter Road includes installing “Bike May Use Full Lane” signs and pavement marking until full major collector street upgrades are constructed.					
PB10	Interim Bicycle and Pedestrian Improvement	Perkins Road Interim Improvements	$26,000	City	Medium	Project Team
	Low-cost interim safety improvement on Perkins Road between Territorial Highway and East UGB includes installing “Bike May Use Full Lane” signs and pavement marking until full major collector street upgrades are constructed.					
PB11	Interim Bicycle and Pedestrian Improvement	Sertic Road Interim Improvements	$11,000	City	Low	Project Team
	Low-cost interim safety improvement on Sertic Road between 10th Street and 8th Street until full minor collector street upgrades are constructed could include: 1) Reallocating existing paved width to provide an advisory shoulder which includes one 11-foot two-way center travel lane and two 5.5-foot advisory shoulders or 2) Installing “Share the Road” signs and pavement marking. Initial cost assumes Option 1. In order to install advisory shoulders, an approved Request to Experiment is required as detailed in Section 1A.10 of the MUTCD. Furthermore, Oregon Revised Statutes (OSR 811.432) currently prohibit motor vehicles from driving in a bicycle lane or path. A change in this law may be required before an advisory shoulder could be implemented.					

*If Territorial Highway is transferred from ODOT jurisdiction to Lane County as anticipated, the County would become the primary funding source.

Figure 21. Pedestrian and Transit Projects

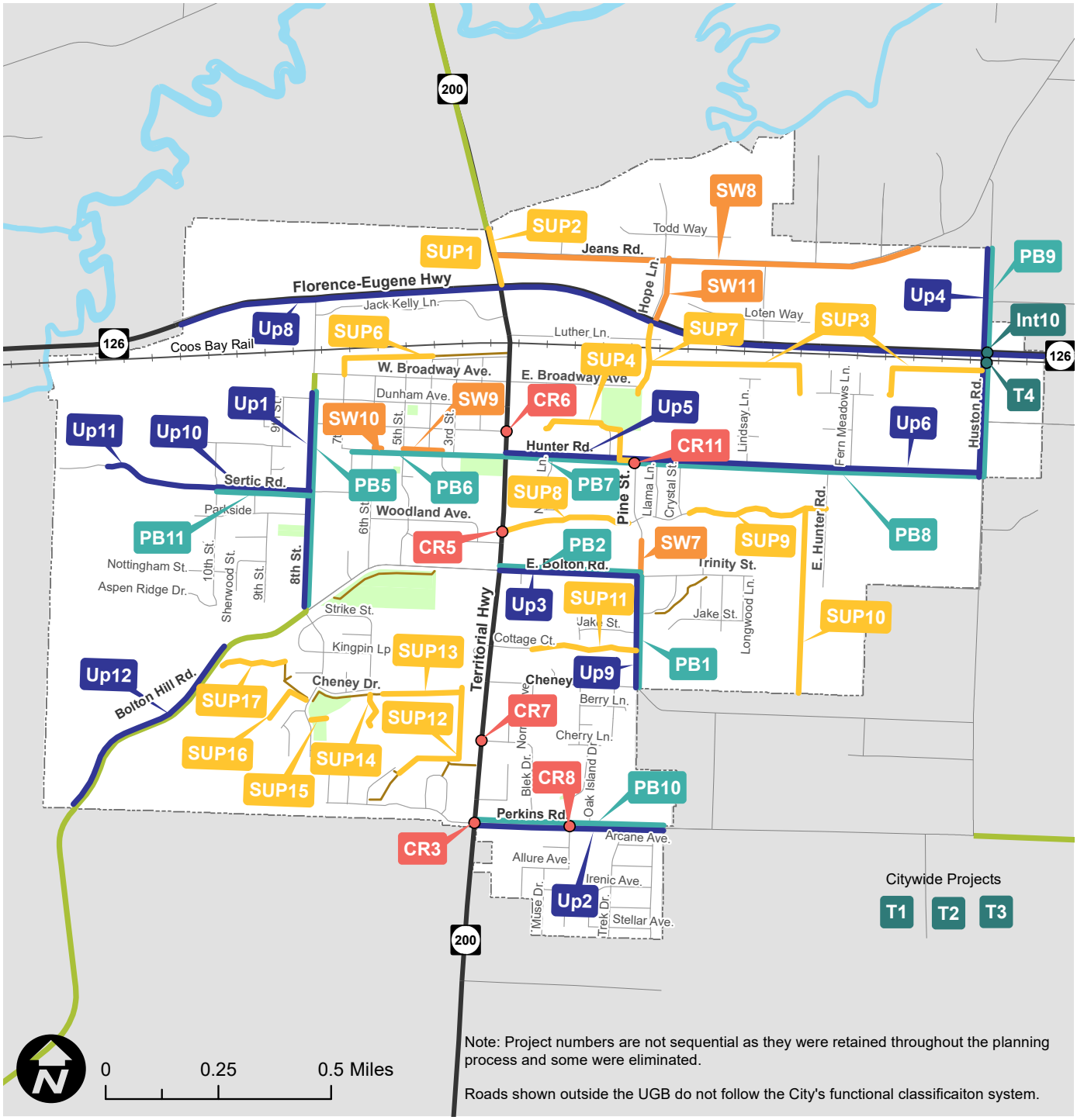
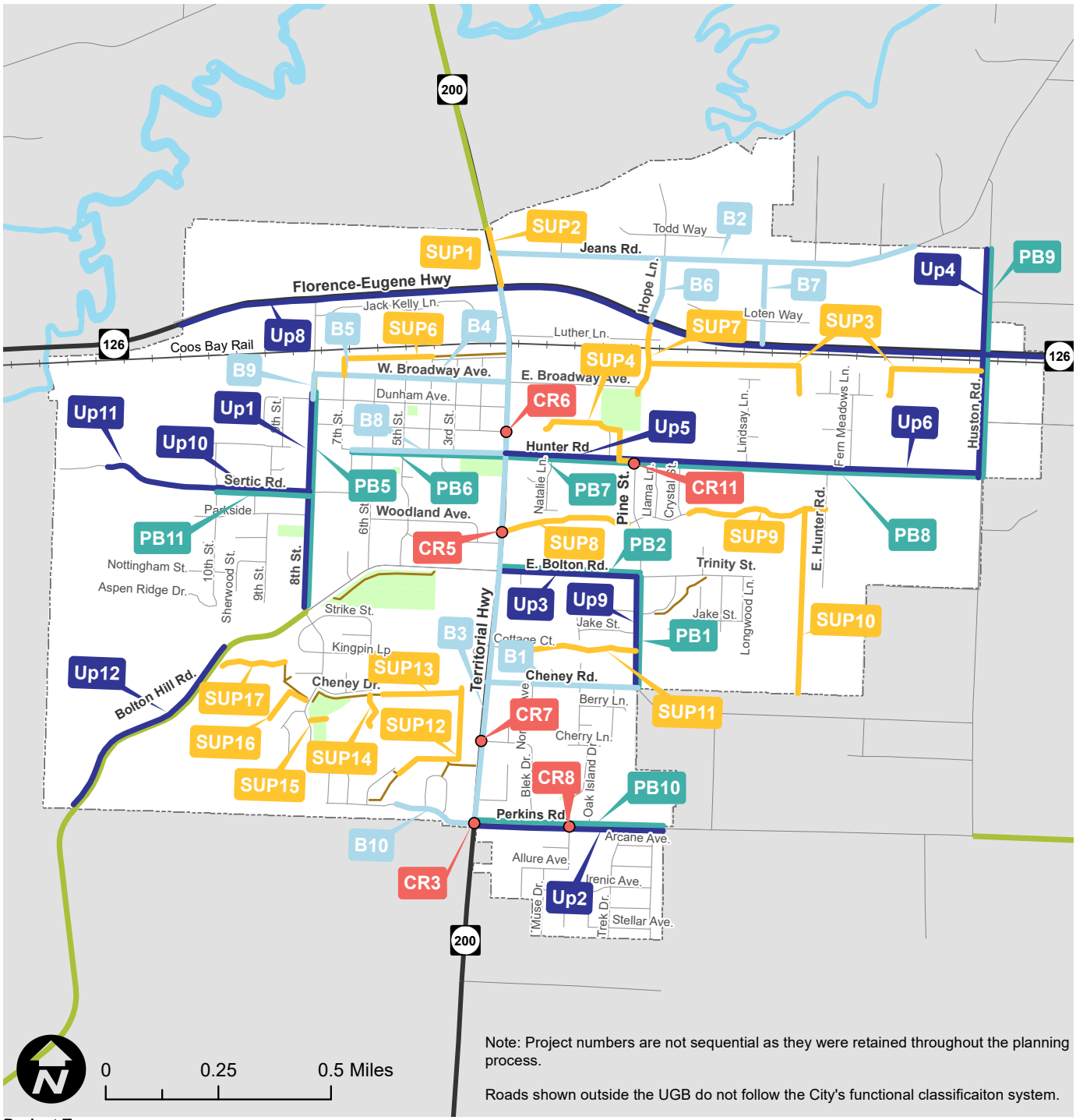


Figure 22. Bicycle Projects



INTERIM COLLECTOR STREET IMPROVEMENTS

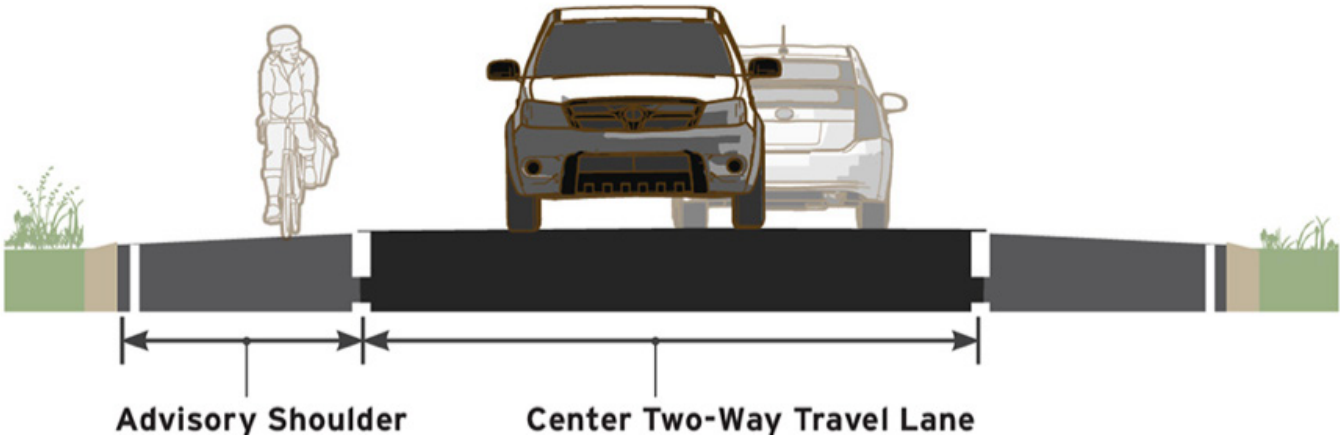
Veneta's established neighborhoods have many existing collector streets that do not provide separated pedestrian or bicycle facilities. Ultimately, the City will construct sidewalks and bike lanes on such streets. However, recognizing that sidewalk and bike lane construction through existing neighborhoods can be can be challenging, costly, and likely take a long time to complete, low-cost interim improvements will be implemented to support pedestrian and bicycle safety.

The Federal Highway Administration's recently published Small Town and Rural Multimodal Networks guidebook describes treatments that may be appropriate for these situations. In particular, a treatment referred to as an "Advisory Shoulder" would provide near-term benefits at a minimal investment.

Advisory Shoulders are intended for very low volume (up to about 4,000 vehicles per day) and low speed (25 mph or less) streets. As illustrated in Figure 23, the paved two-way center travel lane should be narrow (10 to 14 feet) to encourage slow travel speeds and the preferred width of an advisory shoulder is 6 feet (minimum 4 feet). Advisory shoulders provide a prioritized space for people walking and biking without (or little) roadway widening. Vehicles may not enter the advisory shoulder area if there is a pedestrian or cyclist present and requires courtesy yielding when vehicles traveling in opposite directions meet. If there are no pedestrians or cyclists present, vehicles may encroach into the advisory shoulder space when two motor vehicles meet.

It is important to note that advisory shoulders are a new treatment type in the United States and no performance data has yet been collected to compare to a substantial body of international experience. In order to install advisory shoulders, an approved Request to Experiment is required as detailed in Section 1A.10 of the MUTCD. Furthermore, Oregon Revised Statutes (OSR 811.432) currently prohibit motor vehicles from driving in a bicycle lane or path. A change in this law may be required before an advisory shoulder could be implemented. Veneta will work with the Oregon Department of Transportation and other interested agencies such as the City of Portland to encourage this change.

Figure 23. Illustration of a Typical Advisory Shoulder Cross-section



Source: Small Town and Rural Multimodal Networks guidebook

Broken lane lines are used to delineate the advisory shoulder and contrasting pavement materials (between the center lane and advisory shoulder) should be considered as part of an advisory shoulder treatment. Warning signing should also be installed to increase driver awareness when sharing the road with people walking, people biking, and other drivers. Potential signage could include an unmodified Two-Way Traffic warning sign to clarify two-way operation, as shown at right. Figure 24 shows an example of an advisory shoulder in New Hampshire.

Figure 24. Advisory Shoulder in New Hampshire

Source: streets.mn

TRANSIT

These projects promote the utility and attractiveness of transit in Veneta, and would be implemented in partnership with the Lane Transit District (LTD). Transit projects are described below in Table 15, and are mapped where appropriate in Figure 21.

Table 15. Transit Projects

PROJECT ID	PROJECT TYPE	PROJECT NAME	COST ESTIMATE (2017 DOLLARS)	PRIMARY FUNDING SOURCE	PRIORITY	SOURCE
T1	Transit Improvement	Senior & Disabled Shuttle Service	$14,000 (annually)	City	Medium	Project Team
	Pilot: Provide a shopper-medical shuttle once per week. Initial cost estimate assumes annual operating costs only.					
T2	Transit Improvement	Bus Stop Amenities	$99,000	City/Lane Transit District	Low	Project Team
	Improve high-usage bus stops with additional amenities. Improvements assume a bench, shelter, and schedule at three locations. The locations are to be determined. Cost assumed to be approximately $33,000 per stop.					
T3	Transit Improvement	Transit Informational Program	$10,000	City/Lane Transit District	Medium	Public Comment
	Transit Informational Program to provide transit information for new users and encourage ridership.					
T4	Transit Improvement	Huston Road Transit Stop	$60,000	City/Lane Transit District	Low	Lane County TSP(#77g)/ Fern Ridge Corridor Plan
	Relocate bus stop to just south of rail crossing on Huston Road and add bus pull-out, landing pad and bench. Project has potential impacts to or may be constrained by environmental resources.					
Int10	Transit Improvement	OR 126/ Huston Road Transit Improvements	$86,000	ODOT/City/ Lane Transit District	Low	Lane County TSP(#77g)/ Fern Ridge Corridor Plan
	Investigate enhanced pedestrian crossing at the OR 126/Huston Road intersection. Lane County TSP identified the following improvement: Construct crosswalks. Relocate bus stop on south-side to far side of intersection on OR 126W and add bus pullout, landing pad, and bench. Add sidewalks along OR 126W from crosswalk to bus stops. Investigate the need for a traffic signal (cost estimate does not include signal).					

OTHER MODES

This section describes other modes of travel that may affect residents of Veneta even though they may not be available within the UGB and the City may not own or operate any facilities.

RAIL LINES

The Central Oregon and Pacific Railroad currently operates its Coos Bay Branch Line through Veneta, with freight service from the Port of Coquille to Eugene where it joins the Union Pacific Railroad. Approximately $275 million worth of freight is transported in and out of the region every year on this rail line, with about 99% of it being related to the timber industry. Travel speeds are relatively low with track conditions varying from Federal Railroad Administration Class 1 (limit of 10 mph) between Coquille and Coos Bay to Class 2 (25 mph) between Coos Bay and Eugene.

The Eugene Station provides the nearest passenger rail service, with Amtrak Routes running north to Canada and south to California. These lines account for significant passenger activity due to Amtrak's Coast Starlight train, which has stops in Seattle, Portland, Salem, Albany, and Eugene, as well as connections to Chemult, Klamath Falls, and points south all the way to Los Angeles.

There is only one rail siding in the city limits, on a 2.5-acre parcel near Broadway Avenue at 5th Street, but it would require upgrading before it could be used.

At-grade Crossings

The characteristics of each of the two at-grade rail crossings of public streets are described below. The Federal Railroad Administration Office of Safety and Analysis keeps records of all crashes or other incidents involving trains at at-grade crossings. No incidents have been reported in Veneta in the past 25 years. Additionally, ODOT crash data includes no crashes related to railroad crossings or equipment between 2011 and 2015.

Territorial Highway Crossing:

- One set of tracks
- Paved (asphalt) crossing with sidewalks and asphalt walkway in poor condition
- Railroad crossing signal with gate arms and advance warning signs and pavement markings located approximately 100 feet on either side of the crossing
- Approximately two trains per day traveling no more than 25 mph

Huston Road Crossing:

- One set of tracks
- Paved crossing without sidewalks
- Railroad crossing signal with gate arms and advance warning signs and pavement markings located approximately 100 feet on northbound side of the crossing, no pavement marking southbound (due to proximity to OR 126)
- Intersection with OR 126 located on north side of crossing, approximately 60 feet away
- Approximately two trains per day traveling no more than 25 mph

As the volume of goods that are transported along this rail line grows, the speed and number of trains will increase as well. This will help to improve operations by increasing the carrying capacity of the line and reducing travel time. However, this also highlights the need for at-grade crossing improvements or even grade-separated crossings to ensure multimodal safety and mobility.

Air Travel

There are no airports located within the Veneta UGB. The closest operating public airport is the Eugene Airport, about seven miles northeast of Veneta. Owned and operated by the City of Eugene, the public airport last completed a master plan update in 2010. The airport serves public commercial and cargo needs. Nearly 900,000 passengers used the airport over the course of about 62,400 operations in 2015, primarily through Alaska Airlines and United Express.

There are five additional regional airports within approximately two hours of Veneta in the cities of Albany, Salem, Newport, North Bend, and McMinnville.

WATERWAY AND PIPELINE

There are currently no known waterway or major pipeline transportation facilities in the Veneta UGB.

CHAPTER EIGHT

PRIORITIES

The Aspirational Projects lists presented in Chapter 7 were prioritized to assess which ones would best meet community goals and objectives. The prioritization process used evaluation criteria developed from the goals and objectives that were explained in Chapter 4. The initial scored assessments were discussed with the Citizen Advisory Committee and shared with the public, and the prioritization of projects was refined based on feedback received. The following High Priority Projects section represents the outcomes of this evaluation process, listing the projects deemed to be of highest priority to the community.

This Chapter also identifies the subset of solutions that are “reasonably likely to be funded” based on transportation funding level estimates from current revenue sources extrapolated over the years of the planning horizon (Financially Constrained Project List).

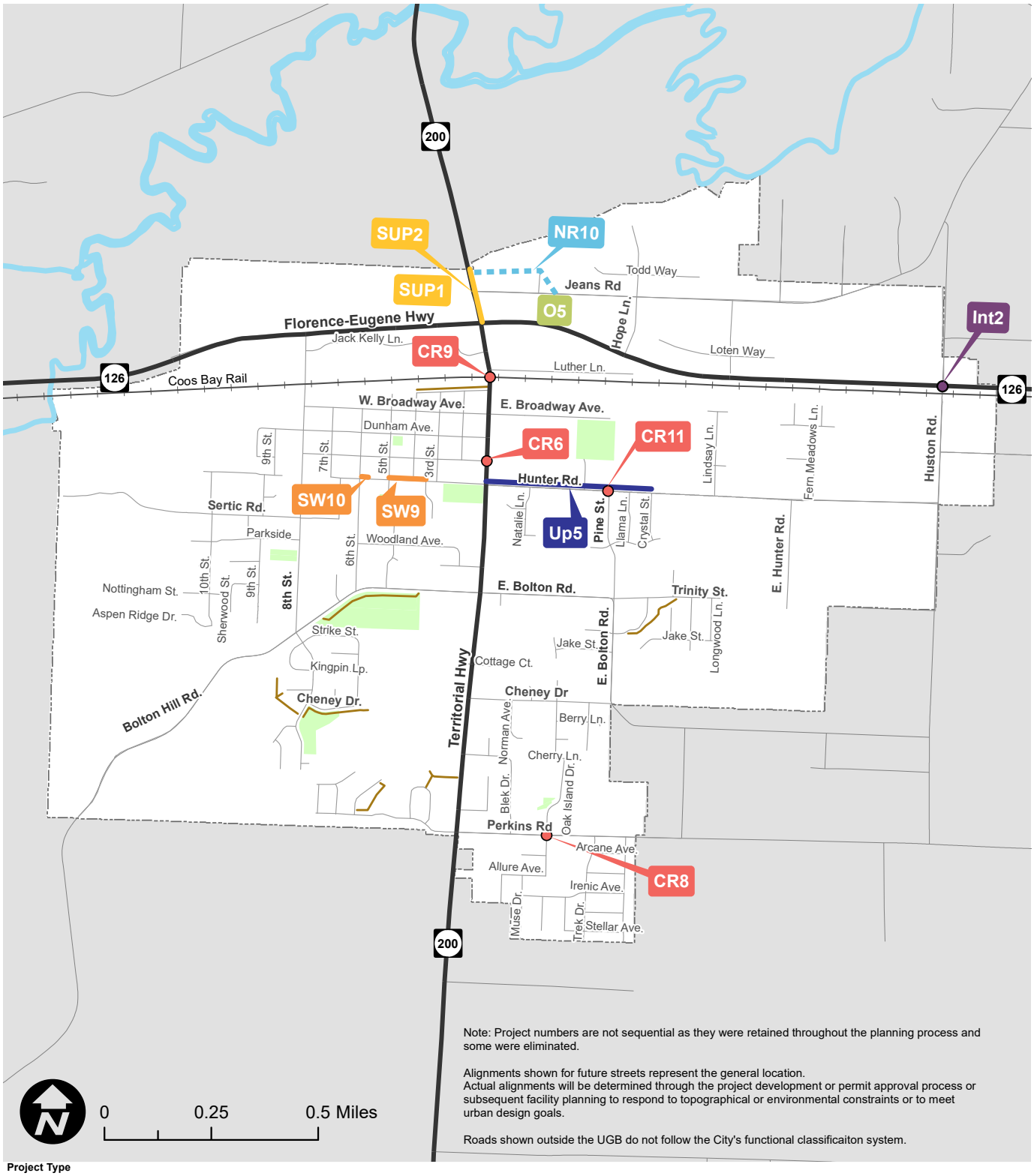
HIGH PRIORITY PROJECTS

The highest value transportation solutions for Veneta, regardless of the likelihood of funding or implementation, are summarized in Table 16 (listed in project number order). These projects rose to the top of the prioritization process based on the evaluation criteria developed to measure alignment with the community's transportation goals and objectives, as well as input from the public and CAC. Although many transportation projects will require inter-agency coordination, the identified lead agency (i.e. "Primary Funding Source") is anticipated to be responsible for project development, design, and construction. Figure 25 illustrates the location of the High Priority projects.

Table 16. High Priority Projects

PROJECT ID	PROJECT NAME	COST ESTIMATE (2017 DOLLARS)	PRIMARY FUNDING SOURCE
CR6	Territorial Highway/McCutcheon Street Crossing Improvement	$107,000	ODOT/City
CR8	Perkins Road/Oak Island Drive Pedestrian Crossing	$82,000	City
CR9	Territorial Highway Rail Crossing	$109,000	ODOT/City
CR11	E. Hunter Road Pedestrian Crossing Improvement	$184,000	City
Int2	OR 126/Huston Road Intersection Improvements	$1,024,000	ODOT/City
NR10	Jeans Road/Territorial Highway Realignment	$5,150,000	ODOT/City
O5	OR 126 Refinement Plan	$150,000	ODOT/City
SUP1	Elmira-Veneta Multi-use Path Study - Phase 1	$105,000	ODOT/City
SUP2	Territorial Highway Multi-use Path	$203,300	ODOT/City
SW9	Hunter Road Sidewalks	$173,000	City
SW10	Hunter Road Sidewalks	$33,000	City
UP5	E. Hunter Road Urban Upgrade	$3,553,000	City
Total		$10,873,300	

Figure 25. High Priority Projects



FINANCIALLY CONSTRAINED PROJECTS

The Oregon Transportation Planning Rule (OAR 660-012) requires that local agencies identify a Financially Constrained list of projects within their TSP. Aside from complying with this regulation, this project list and expected funding value provides a basis of comparison for subsequent proposed land use amendments that may affect the TSP. For example, if a major land use amendment such as up-zoning from residential to commercial use is proposed, significantly intensifying travel activity beyond what is identified in the TSP, the City would need to demonstrate that the transportation system could still adequately serve the increased needs in the 2040 horizon year. In answering that question, the Financially Constrained system improvements would be assumed to be in place since it is reasonably likely, based on historical trends, that enough funding would be available to construct them.

The Financially Constrained project list Table 17 and Figure 26) is different than the High Priority project list because it is limited by the amount and type of funding anticipated to be available, whereas the High Priority project list is not constrained by funding. However, nearly all High Priority projects were able to be included on the Financially Constrained project list (10 of 12).

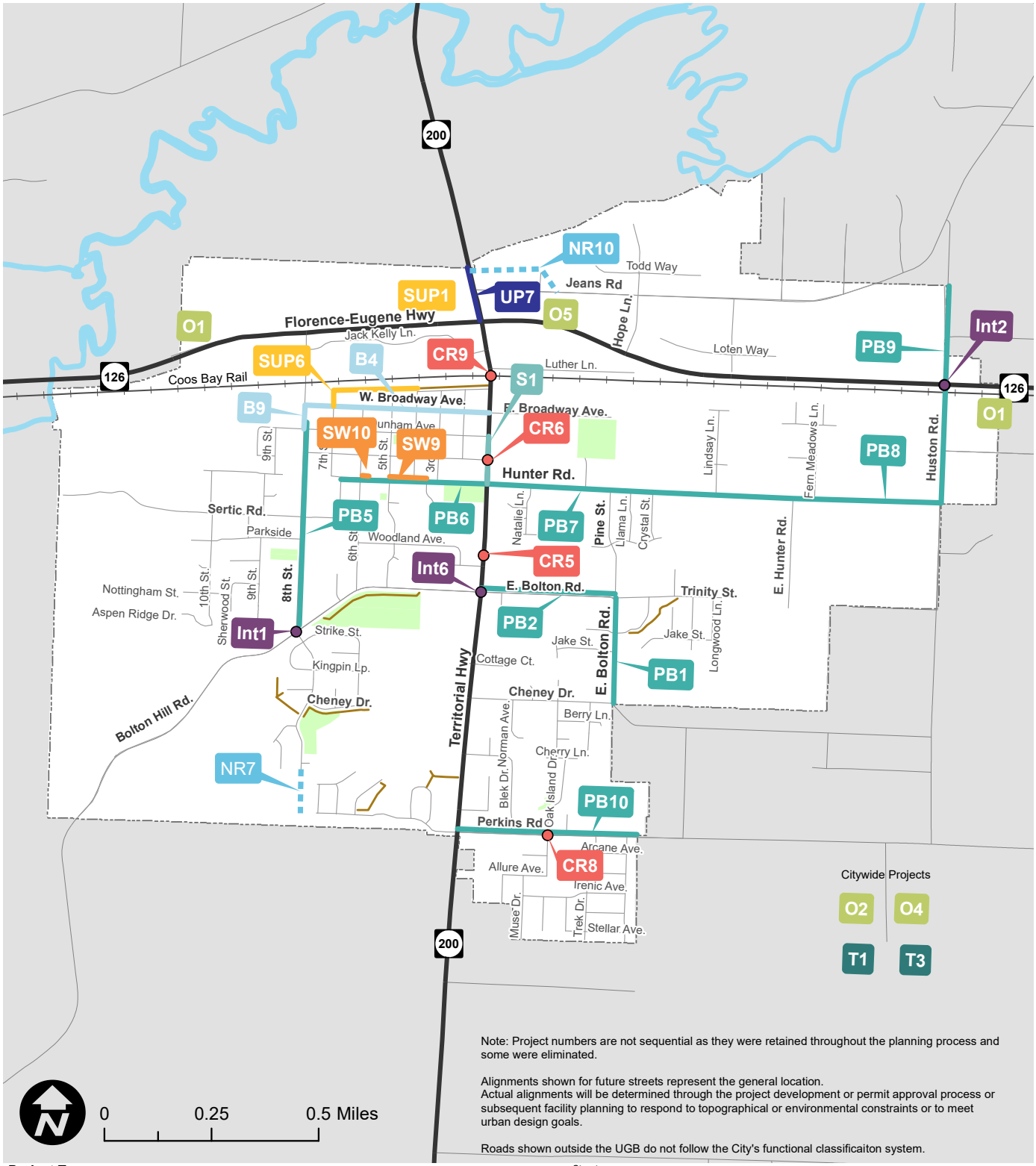
It is important to note that projects on the Financially Constrained list do not limit the City or ODOT from advancing other projects in the City's TSP in response to changes in development patterns and funding opportunities that are not known at the time of this plan. Furthermore, the City may amend the Financially Constrained list as desired prior to the next substantial TSP update.

Table 17. Financially Constrained Project List

PROJECT ID	PROJECT NAME	COST ESTIMATE (2017 DOLLARS)	PRIMARY FUNDING SOURCE
B4	W. Broadway Bicycle Improvements	$13,000	City
B9	8th Street Bike Lanes (Broadway to Dunham)	$5,000	City
CR5	Territorial Highway/Fern Ridge Library Pedestrian Crossing Improvement	$219,000	ODOT/City
CR6	Territorial Highway/McCutcheon Street Crossing Improvement	$107,000	ODOT/City
CR8	Perkins Road/Oak Island Drive Pedestrian Crossing	$82,000	City
CR9	Territorial Highway Rail Crossing	$109,000	ODOT/City
Int1	8th Street/Bolton Hill Road Intersection Improvement	$37,000	City
Int2	OR 126/Huston Road Intersection Improvements	$1,024,000	ODOT/City
Int6	Bolton Hill Road/Territorial Highway Intersection Improvement	$639,000	ODOT/City

PROJECT ID	PROJECT NAME	COST ESTIMATE (2017 DOLLARS)	PRIMARY FUNDING SOURCE
NR10	Jeans Road/Territorial Highway Realignment	$5,150,000	ODOT/City
NR7	8th Street Extension	$2,121,000	Developer/City
O1	Veneta Gateway Treatments	$40,000	ODOT/City
O2	Neighborhood Traffic Calming Program	$50,000	City
O4	Safe Routes to School Plan	$75,000	City
O5	OR 126 Refinement Plan	$150,000	ODOT/City
PB1	E. Bolton Road Interim Improvements	$13,000	City
PB2	E. Bolton Road Interim Improvements	$17,000	City
PB5	8th Street Interim Improvements	$26,000	City
PB6	Hunter Road Interim Improvements	$20,000	City
PB7	E Hunter Road Interim Improvements	$22,000	City
PB8	E Hunter Road Interim Improvements	$37,000	City
PB9	Huston Road Interim Improvements	$31,000	City
PB10	Perkins Road Interim Improvements	$26,000	City
S1	Territorial Highway School Zone	$144,000	ODOT/City
SUP1	Elmira-Veneta Multi-Use Path Study - Phase 1	$105,000	ODOT/City
SUP6	Territorial Highway to 7th Street Shared-use Path	$978,000	City
SW9	Hunter Road Sidewalks	$173,000	City
SW10	Hunter Road Sidewalks	$33,000	City
T1	Senior & Disabled Shuttle Service	$14,000	City
T3	Transit Informational Program	$10,000	City/Lane Transit District
UP7	Territorial Highway Access Management	$48,000	Developer/City
Total		$11,518,000	

Figure 26. Financially Constrained Projects



CHAPTER NINE

STRATEGIES

Finding solutions to identified needs requires strategic approaches to make the most of investments in infrastructure. This chapter presents the strategies around travel demand management, supporting healthy lifestyles and travel options, and preparing for advancements in transportation through technology. Many of these strategies will help Veneta achieve their transportation goals by supplementing the Plan projects with approaches to changing people's behavior.

NEIGHBORHOOD TRAFFIC MANAGEMENT TOOLS

Neighborhood Traffic Management (NTM) describes strategies that can be deployed to slow traffic, and potentially reduce volumes, creating a more inviting environment for pedestrians and bicyclists. NTM strategies are primarily traffic calming techniques for improving neighborhood livability on local streets, though a limited set of strategies can also be applied to collectors and arterials. Mitigation measures for neighborhood traffic impacts must balance the need to manage vehicle speeds and volumes with the need to maintain mobility, circulation, and function for service providers, such as emergency responders. Following adoption of this TSP, the City of Veneta will develop and implement a formal neighborhood traffic management program. Figure 27 includes a visual summary of common neighborhood traffic management strategies.

Figure 27. Neighborhood Traffic Management Strategies

Chicanes

www.pedbikeimages.org/Dan Burden

Chokers

www.pedbikeimages.org/Dan Burden

Curb Extensions

www.pedbikeimages.org/Carl Sundstrom

Diverters

www.pedbikeimages.org/Adam Fukushima

Median Islands

www.pedbikeimages.org/Dan Burden

Raised Crosswalks

www.pedbikeimages.org/Tom Harned

Speed Cushions

NACTO Urban Street Design Guide

Speed Hump

www.pedbikeimages.org/Dan Burden

Traffic Circles

www.pedbikeimages.org/Carl Sundstrom

Table 18 lists common NTM applications. Any NTM project will include coordination with emergency response staff to ensure that public safety is not compromised. NTM strategies implemented on a state freight route, such as OR 126, will require input from ODOT regarding freight mobility considerations.

Table 18. Application of Neighborhood Traffic Management Strategies

NTM APPLICATION	USE BY FUNCTION CLASSIFICATION			IMPACT	
	PRINCIPAL AND MINOR ARTERIALS*	MAJOR AND MINOR COLLECTORS	LOCAL STREETS	SPEED REDUCTION	TRAFFIC DIVERSION
Chicanes			✓	✓	✓
Chokers			✓	✓	✓
Curb Extensions	✓	✓	✓	✓	
Diverters (with emergency vehicle pass-through)		✓	✓		✓
Median Islands	✓	✓	✓	✓	
Raised Crosswalks			✓	✓	✓
Speed Cushions (with emergency vehicle pass-through)			✓	✓	✓
Speed Hump			✓	✓	✓
Traffic Circles			✓	✓	✓

*Streets designated as Freight Routes in Veneta are recognized as being appropriate and commonly traveled corridors for truck passage. Thus, design elements such as median islands on fright routes can be difficult. The design and management of state facilities in Veneta are subject to a number of policies and standards in the Oregon Highway Plan and Highway Design Manual intended to maintain safe and efficient movement of large vehicles.

For land use proposals, in addition to assessing impacts to the entire transportation network, traffic studies for new developments must also assess impacts to residential streets. If the proposed project at ultimate build out increases through traffic on any one residential street by 200 or more vehicles per day, additional analysis of potential neighborhood livability will be required. Once the analysis is performed, the threshold used to determine if residential streets are impacted will be if their daily traffic volume exceeds 1,200 vehicles.

SAFE ROUTES TO SCHOOLS

The City of Veneta has expressed interest in starting a Safe Routes to School (SRTS) program to improve the safety of not just students, but all people who bike and walk in the city. In Oregon, SRTS programs and funding are administered by ODOT. As part of the 2017 transportation package passed by the Oregon Legislature, the SRTS program was allocated $10 million per year in funding, increasing to $15 million per year in 2023. In the coming years, there will be ample funding available to improve the safety of students and encourage an active, healthy lifestyle for Veneta's youngest residents. The City will coordinate with ODOT staff to initiate a SRTS program and identify improvement projects within the walking boundaries of local schools, including those in Elmira.

TRANSPORTATION DEMAND MANAGEMENT

Transportation Demand Management (TDM) is the general term used to describe actions that remove single-occupant vehicle trips from the roadway network during peak travel demand periods. As growth in the Veneta area occurs, the number of vehicle trips and travel demand in the area will also increase. Changing people's travel behavior and providing alternative mode choices will help accommodate this growth by reducing the need to build new or expanded roadways. Potential projects such as sidewalks, bicycle routes, and transit enhancements which support TDM are detailed as part of the active transportation and transit system project sections. However, other TDM strategies described below will be pursued as well.

- **Education and outreach** – Veneta will support the creation of education programs or community groups to help promote and encourage walking, biking, and transit use.
- **Trip Reduction Strategies** – Veneta will work with larger employers (e.g., 50 employees or more) to provide incentives for reducing single-occupancy vehicle trips.
- **Transit Improvements** – Advancing transit improvements in this Plan could encourage less single-occupancy vehicle use. Residents in Veneta identified improving transit service as a key need in the community. This includes increasing the frequency of existing routes, adding new routes, improving transit stop facilities, and providing first/last-mile solutions that connect transit with destinations or other accessible modes of travel. The City will coordinate with the LTD to identify opportunities for improving transit service in and around Veneta.
- **Supporting Travel by Walking and Biking** – Nearly all of Veneta's transportation goals can be partially addressed through the promotion of active transportation. Increasing the accessibility and comfort of travel by walking and biking in and around Veneta will provide mobility options for all users, support healthy living, minimize impacts to the environment, and help Veneta grow in a way that is sustainable. Veneta will support plans for regional multimodal travel improvements, such as shared-use paths and bike tourism routes, that provide ideal opportunities to connect Veneta's existing and future facilities to regional travel options. Furthermore, in addition to the many projects in the active transportation list, Veneta will increase bicycle parking availability in the downtown.

PARKING SUPPLY AND MANAGEMENT

The current parking supply in downtown Veneta has not been recently evaluated. If future parking demand significantly outpaces supply, there are a variety of management options that Veneta will consider. Some options include:

- **Time-limited parking regulations.** Creates time limits on continuous parking duration, encouraging vehicle turn-over and thereby providing more parking opportunities.
- **Pay-to-park meters.** Puts a cost on parking, often paired with time limits, applying economic incentives to encourage vehicle turn-over and thereby providing more parking opportunities. Various systems are available that could allow the City to price and manage parking differentially during high-demand time periods or in high-demand locations.
- **Resident and Employer permits.** Allows exemptions for local residents and employers from a time-limited or pay-to-park system. This encourages visitors to limit their parking duration while allowing flexibility for other uses. May be used with any other managerial system.

If implementing these management tools do not provide adequate parking availability, off-street parking lots or structures are an option for increasing the supply of parking. If off-street parking capacity is created, it is important that it is implemented as part of an overall parking management plan that encourages drivers to choose off-street parking. Ideally, off-street parking structures should be designed in a way that maintains the potential for current mixed-use or future repurposing. Mixed-use designs include features such as ground-floor retail, while design for future repurposing includes features such as level floors and exterior access ramps.

Other elements to consider when implementing parking policy reform include:

- **Bicycle parking.** Convenient and secure bicycle parking is an essential element of a complete multimodal transportation system. The City can improve the supply of bicycle parking by installing additional racks and setting standards for high-quality designs.
- **Loading zones.** In areas where business activity requires dedicated loading zones, or where private pick-up and drop-off activity is high, a loading zone can ensure curb availability even during high parking demand.
- **Minimum parking requirements.** The City could consider revising the minimum on-site parking requirements for small downtown lots to remove potential barriers to new development and encourage shared parking lots for compatible businesses.

LAND USE PLANNING

There is a fundamental relationship between transportation and land use. Travel demand is influenced by land use types and intensities, and by how they are connected to the community transportation services. Locating a robust, balanced mix of high-density land uses in a diverse, highly connected transportation system offers local travelers and freight operators a superior experience in terms of convenience, safety, mobility, and accessibility. In addition, strategic decisions about the location and type of development can leverage investments in the transportation system, such as increased transit ridership, and help to achieve community goals such as encouraging active transportation and reducing the number of trips made by single-occupant vehicles.

Some key strategies for successfully implementing high-density, mixed-use developments include promoting a diversity of tenants, accommodating a wide range of tenant income levels, placing developments in strategic locations served by all modes of travel, and having a long-term plan for surrounding development and infrastructure improvements that support it.

PREPARING FOR SMART MOBILITY

Emerging transportation technologies will shape our roads, communities, and daily lives for generations. Vehicles are becoming more connected, automated, shared, and electric. This future is highly uncertain, but it will have significant impacts for how we plan, design, build, and use our transportation system. Below are some important definitions that provide the basis for the impacts, policies, and action items discussed in the following sections.

CONNECTED VEHICLES (CVs) will enable communications between vehicles, infrastructure, and other road users. This means that our vehicles will be able to assist human drivers and prevent crashes while making our system operate more smoothly.

AUTOMATED VEHICLES (AVs) will, to varying degrees, take over driving functions and allow travelers to focus their attention on other matters. Already today we have vehicles with combined automated functions like lane keeping and adaptive cruise control. However, these still require constant driver oversight. In the future, more sophisticated sensing and programming technology will allow vehicles to operate with little to no operator oversight.

SHARED VEHICLES (SVs) allow ride-hailing companies to offer customers access to vehicles through cell phone applications. Ride-hailing applications allow for on-demand transportation with comparable convenience to car ownership without the hassle of maintenance and parking. Ride-hailing applications can enable customers to choose whether toshare a trip with another person along their route, or travel alone.

ELECTRIC VEHICLES (EVs) have been on the road for decades and are becoming more economically feasible as the production costs of batteries decline.

Many of these vehicles will not be exclusive of the others and it is important to think of the host of implications that arise from the combination of these technologies. When discussing these vehicles as a whole, they can be referred to as connected, automated, shared, and electric (CASE) vehicles.

IMPACTS OF CASE VEHICLES

There are several competing forces that will unfold as connected, automated, and shared vehicles are deployed. It is difficult to predict how these vehicles will influence congestion and road capacity. The following factors will transform how people use our roadways:

- AVs will provide a more relaxing or productive ride experience and people will have less resistance to longer commutes.
- Shared AVs will likely cost significantly less on a per-mile basis which will increase demand for travel.
- CV technology will allow vehicles to operate safely with closer following distance, less unnecessary braking, and better coordinated traffic control. This will increase road capacity in the long run as CVs and AVs comprise increasing portions of the public and private fleet of vehicles.
- In the near term, as AVs still make up a fraction of the fleet of vehicles, road capacity could decrease as AVs will operate more slowly and cautiously than regular vehicles.
- A new class of traffic – zero-occupant vehicles – will increase traffic congestion.
- Roadways may need to be redesigned or better maintained to accommodate the needs of automated driving systems. For instance, striping may need to be wider and more consistently maintained.

Congestion and Road Capacity

The following questions remain open and should be followed closely to understand the degree to which CASE vehicles will impact road capacity and congestion:

- How much will AVs cost for people to own them personally?
- How much will AVs cost if they are used as a shared fleet?
- How does cost and the improved ride experience of AVs influence travel behavior?
- How much more efficiently will AVs operate compared to regular human-driven vehicles once they dominate the vehicle fleet?
- How will AVs impact road capacity in the near term as they are deployed in mixed traffic with human-driven vehicles?
- What portion of traffic will be zero-occupant vehicles and what areas will likely generate the highest portion of zero-occupant vehicles looking for parking or waiting for their next passenger?
-

TRANSIT

AVs could become cost competitive with transit and undermine transit ridership as riders prefer a more convenient alternative. However, transit will remain the most efficient way to move high volumes of people through constricted urban environments. AVs will not eliminate congestion and as discussed above, could exacerbate it – especially in the early phases of AV adoption. In addition, shared AVs may not serve all areas of a community and underserved communities will still require access to transit to meet their daily needs.

PARKING

Because AVs will be able to park themselves, travelers will elect to get dropped off at their destination while their vehicle goes to find parking or their next passenger. Shared AVs will have an even greater impact on parking because parking next to your destination will no longer be a priority for the traveling public. This means that parking

may be over-supplied in many areas and new opportunities to reconfigure land use will emerge. Outstanding questions related to parking that should be closely followed include:

- How does vehicle ownership impact parking behavior?
- What portion of the AV fleet will be shared?
- How far out of the downtown area will AVs be able to park while remaining convenient and readily available?

CURB SPACE

In addition to parking impacts, the ability to be dropped off at your destination will create more potential for conflicts in the right-of-way between vehicles that are dropping passengers off, vehicles moving through traffic, and vehicles parked on the street. This issue is already occurring in many urban areas with ride-hailing companies where popular destinations are experiencing significant double-parking issues.

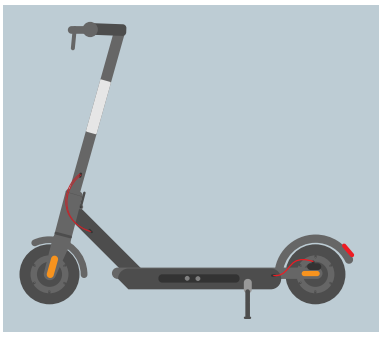
PACKAGE DELIVERY

AVs will also be used to deliver packages, food, and expanded services. This may mean that delivery vehicles will need to be accommodated in new portions of the right-of-way. For instance, if the AV parks at the curb in a neighborhood and smaller robots are used to deliver packages from door to door, new conflicts will arise between vehicles, pedestrians, and bicyclists.

ELECTRIC VEHICLE CHARGING

To accommodate a future where electric vehicles will come to dominate our vehicle fleet, we will need to build new charging capacity. In addition to charging stations, cities, electric utilities, regions, and states will need to work together to create enough electricity to supply the significant increase in demand.

ELECTRIC SCOOTERS



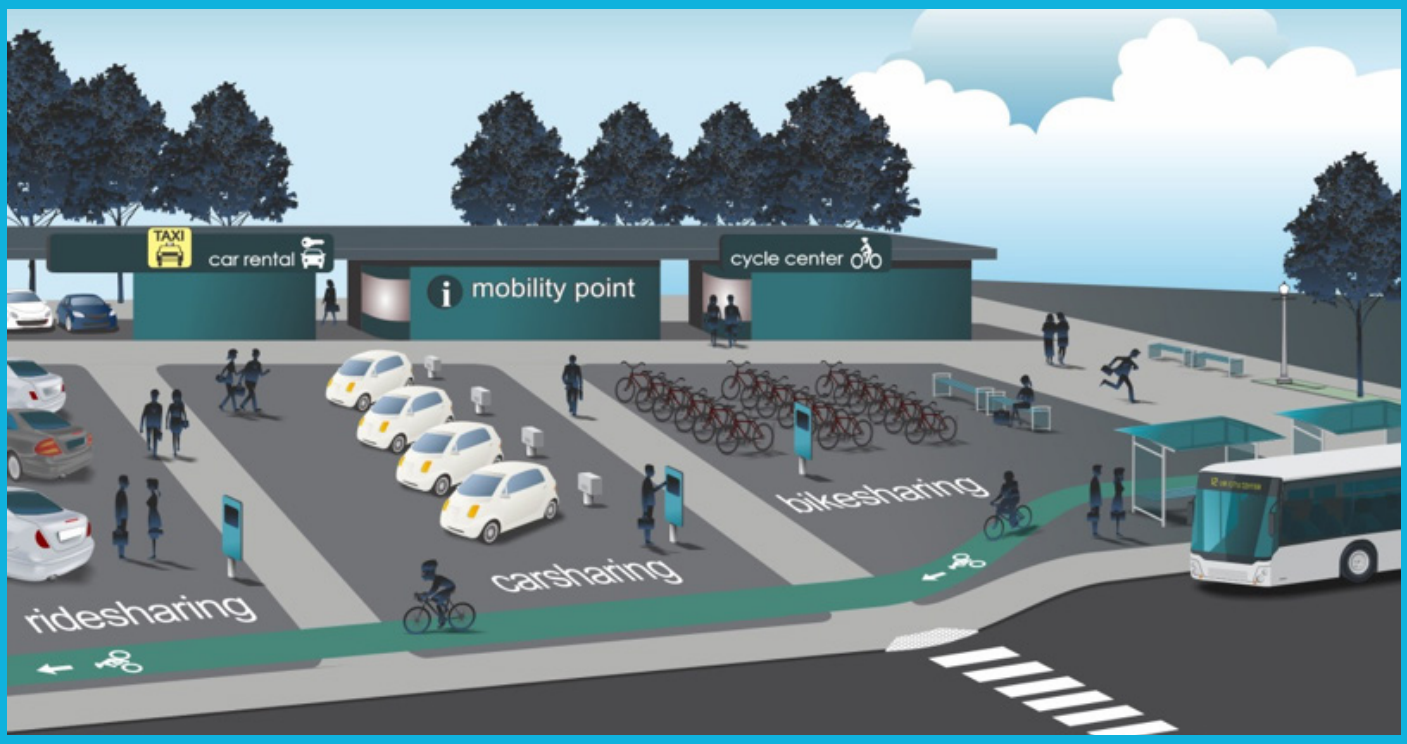
Fleets of dockless electric scooters have arrived in many cities across the nation. The scooters are activated with a smartphone app and can be left at the end destination. Their convenience and low cost make them an attractive option for many making shorter trips, which could reduce the number of short trips made by motor vehicles. Public safety has been a concern in other cities as many riders do not wear helmets or they ride on sidewalks, which creates conflicts with pedestrians. In addition, many riders do not park them properly and leave them in places that obstruct pedestrian pathways.

POLICIES AND ACTION ITEMS

Mobility Hubs

A mobility hub is a central location that serves as a multimodal connection point for transit, car share, bike share, and ride share stations. (see Figure 28). This system can serve as a tool to encourage travelers to take seamless multimodal trips that are well-timed and convenient. Mobility hubs make the most sense to put in transit centers that are located near urbanized areas with multimodal supportive infrastructure (e.g., protected bike lanes) to maximize connectivity for first and last-mile solutions. The location of Veneta's Park and Ride downtown or the lot on the northeast corner of Territorial Highway at Luther Lane present opportunities to create a mobility hub.

Figure 28. Conceptual Design Example of a Mobility Hub



ROAD PLANNING AND CAPACITY

It is difficult to plan for the impacts of CASE vehicles on road capacity at this point in their development. Because there is a high potential that ultimately road capacity will increase after CASE vehicles are widely adopted along with a corresponding increase in traffic demand, we can expect that congestion will continue to persist.

However, CASE vehicles provide a much greater opportunity for effective transportation demand management solutions because the expected congestion can be used to encourage use of transit, shared vehicles, and bike share. These modes could all be encouraged through pricing mechanisms that are vastly less expensive to implement than building more road capacity. A variety of pricing mechanisms and alternatives to the State gasoline tax are enabled with CASE technology because these vehicles will be tracked geographically, and by time of day. With time/location data, transportation system operators will be able to develop pricing mechanisms that reduce congestion at a lower cost than other roadway improvements. Larger cities will be the first to implement these strategies, but Veneta will follow these developments closely.

PARKING

As CASE vehicles are more widely adopted, Veneta will periodically review its parking standards.

- Consider revising minimum parking requirements for new developments, especially in areas that are within one mile of transit.
- Explore public/private partnerships to fund the installation of electric vehicle charging stations.

CURB-SPACE MANAGEMENT

- Inventory parking utilization and identify areas that could be converted from parking to curbside pick-up and drop-off zones.

TRANSIT

To avoid potential equity and congestion issues, transit agencies need to work together to integrate the use of automated vehicles and transit. Transit needs to adapt to new competition in the transportation marketplace as well as consider adopting CASE technologies to support transit operations. Veneta and Lane Transit District may consider:

- Partnering with ride-hailing companies to provide first and last-mile solutions.
- Working with ride-hailing companies and bike share to integrate payment platforms and enable one button purchase of a suite of transportation options for multimodal trips.
- Using fixed route autonomous shuttles to provide first and last-mile solutions.
- Using on-demand autonomous shuttles to provide first and last-mile solutions.

INTELLIGENT TRANSPORTATION SYSTEMS

An Intelligent Transportation System (ITS) utilizes technology and innovative services to promote a safer and “smarter” transportation experience where all types of users are better informed and can make more efficient use of the transportation system. Veneta does not own or operate ITS infrastructure, or even traffic signals, at this time. It is unlikely that the City of Veneta will invest in ITS on its own, but will support regional partners on larger scale efforts that would benefit Veneta residents. Such cooperation could range from agreements to share information and data or allow use of City right-of-way for regional ITS infrastructure.