CORVALLIS TRANSPORTATION SYSTEM PLAN

EFFECTIVE JANUARY 1, 2019

CORVALLIS
TRANSPORTATION SYSTEM PLAN

ACKNOWLEDGEMENTS

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CONTENTS

Volume 2 of the Corvallis Transportation System Plan 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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ROAD CLOSED
TO THRU TRAFFIC
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STEEL PLATE
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EXECUTIVE SUMMARY

Corvallis has developed a successful multimodal transportation system that serves a vibrant downtown, a major state university and large employment centers. Residents and visitors are able to get to destinations around the community safely and efficiently via the interconnected street system, the robust active transportation walking and biking systems, or the heavily-used public transit system. The Transportation System Plan outlined in this document builds on these existing successes to provide for the anticipated needs of the community over the 20-year planning horizon.

The Transportation System Plan (TSP) is the City of Corvallis's long-term transportation plan and is adopted as an element of the Comprehensive Plan. The TSP planning effort spanned four years and included a substantial public involvement component to ensure that decisions were informed by the priorities, needs, and issues important to the community.

An update to the 1996 TSP is needed to account for changing economic and social circumstances and to ensure consistency with state and regional planning policies. It ensures the City will be prepared to support the transportation needs from land use growth within the urban growth boundary through the 2040 planning horizon.

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, an evaluation of how the projected growth could change the system performance, and a list of projects, called the Financially Constrained List, to improve the system to meet the TSP goals within the constraints of the known funding likely to be available in the next 20 years.

This TSP builds upon prior adopted plans, including the 1996 TSP, the North Corvallis Area Plan, the South Corvallis Area Refinement Plan, the Airport Master Plan, and the Parks Master Plan. Where these documents, or any other area or corridor plans or special studies existing when the TSP is adopted, may be in conflict with the TSP, this TSP takes precedence.

In addition, the Oregon Department of Transportation US 20-OR 34 Optimization Study, the Corvallis Area Metropolitan Planning Organization Regional Transportation Plan and the Benton County Transportation System Plan were consulted during this update, ensuring coordination between those documents and this one.

The TSP update effort began with the vision. As Corvallis grows, it is essential for the community to work collaboratively toward its shared vision outlined in the Imagine Corvallis 2040 Vision and in the Comprehensive Plan. The TSP supports and advances the community values reflected in those documents. Goals and objectives for the TSP update were arrived at through a public process, including input from the project Steering Committee and the City Council. The four TSP goals promote a transportation system that:

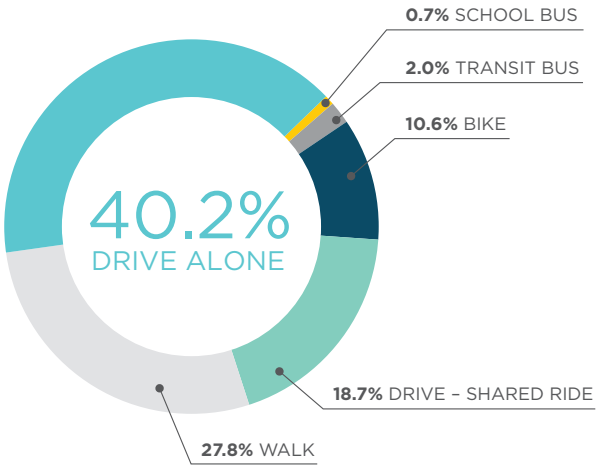
1. Is efficient and supports economic vitality,
2. Enhances the health and safety of community members,
3. Ensures mobility for all members of the community and provides viable alternatives to automobile travel, and
4. Is sustainable using responsible stewardship of financial and environmental resources.

The TSP goals and objectives (Chapter 2) support a multimodal approach to transportation, which means that the system accommodates users of all travel modes, whether they walk, bike, drive or take the bus (Figure 1).

An important step in planning for the future is an evaluation of the transportation system as it exists today. A comprehensive multimodal condition analysis was conducted to identify what was needed for the systems to better accommodate the desired activities of the community. Corvallis has a strong network of bike infrastructure which will facilitate the shift from one driver vehicles, focusing

on vehicle-miles traveled (VMT) per capita and greenhouse gas reduction targets. An assessment of the current condition against the criteria of safety, connectivity, access and mobility is presented in Chapter 4.

Figure 1. Corvallis TSP Study Area Daily Trip Mode Share



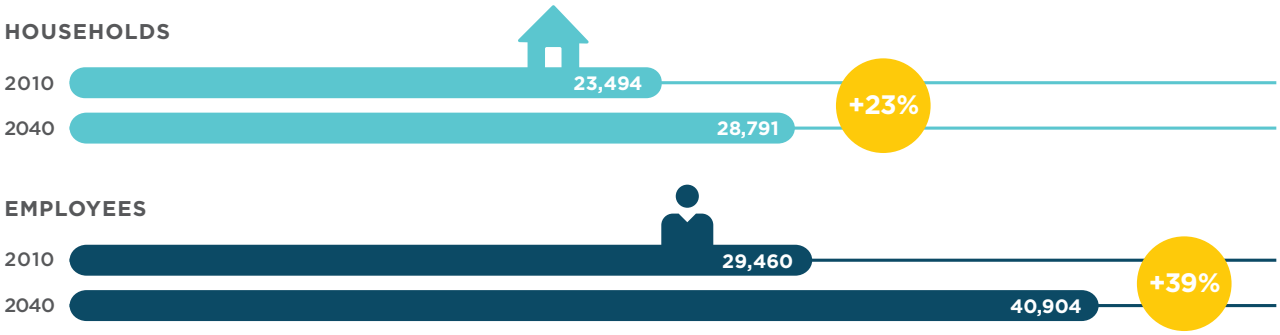
SOURCE: Corvallis Albany Lebanon Area Model (CALM)

NOTE: The values shown above represent daily mode choice, which includes many trip types other than commuting. Travel behavior represented in the CALM model is based on household travel surveys from similar communities in the State.

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 and zoning designations, along with population forecasts, a scenario was created estimating where growth would occur (Chapter 1). In general, the 2040 scenario reflects about double the employment growth compared to housing growth, suggesting that more workers will be commuting into Corvallis for these jobs (Figure 2). An imbalance of jobs to housing may increase demands for motor vehicle travel on regional routes, contributing to congestion on State highways and vehicle parking demands within the city.

The City Council recognizes that this is not a desirable trend for many reasons, including that it is contrary to their greenhouse gas reduction goal adopted in the Corvallis Climate Action Plan. Increasing the affordable housing stock in the city is a top priority for the Council and a situation they have actively sought to improve through the policy decisions they make. The Council's intent is to continue this work and to reduce the number and length of commute trips and the resulting greenhouse gas emissions from transportation.

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



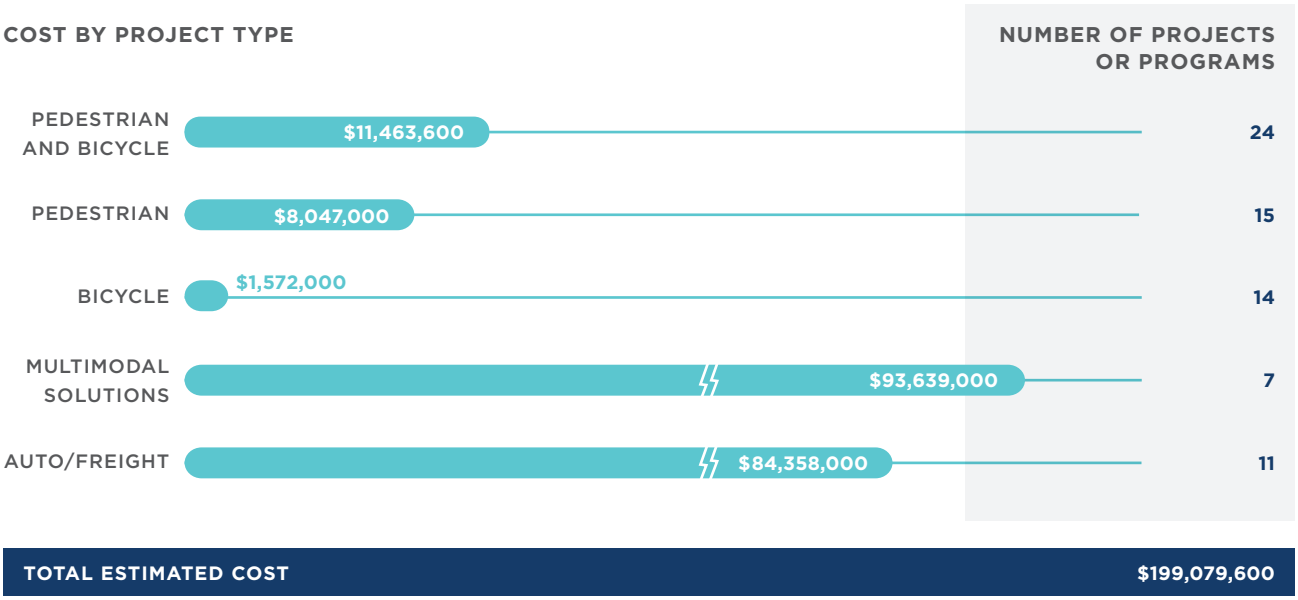
Source: Corvallis Albany Lebanon Area Model (CALM) land use data (ODOT) and DKS Technical Memorandum #11a, Dec. 9, 2017 for Revised 2040 Land Use.

The technical analysis conducted for this plan is documented in a series of Technical Memoranda contained in Volume 2 of the TSP. That analysis identified the gaps and deficiencies in the transportation system that currently exist or are anticipated to arise through 2040 as additional development occurs (Chapter 4). Solutions were crafted with input from public surveys and outreach events. The solution projects were categorized by the transportation mode the project supported—Pedestrian, Bicycle, Pedestrian/Bicycle, Multimodal, or Auto/Freight (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.

The Multimodal solutions include new arterial and collector roadways in currently undeveloped areas needed to serve the population that will eventually reside or work there, and to provide efficient connectivity to any traveler moving through that area. Construction of new streets will most likely occur either by development activity or by the City from a desire to relieve a significant congestion or safety problem or to promote development. The City can facilitate the construction of new infrastructure through Local Improvement Districts, Connection Charges, Zone of Benefit, or other City incentive funding. The new street alignments shown on TSP maps are conceptual. Property owners have the right to develop the street within that alignment, provided it has not been officially modified or refined by another method, including but not limited to an area plan, refinement plan, corridor study, annexation agreement, Comprehensive Plan amendment, or previous development approval.

The recommended solutions in all the categories were evaluated on how well they satisfied the TSP goals and objectives, resulting in either a High, Medium, or Low priority ranking. The criteria filter and the resulting priority assignments were reviewed by the Steering Committee and assessed by the community at in-person and online Open Houses. Amendments were incorporated and a final priority list developed. The High Priority transportation

Figure 3. High Priority Transportation Project Solutions



projects recommended by the project Steering Committee (Chapter 8) address existing safety and mobility needs within the community, and extend services to provide balanced access and connections for growth areas. Figure 3 highlights the categories of High Priority projects, which include both new and upgraded facility projects, on-going system improvement programs and future studies that were identified by the community.

Constructing all 71 High Priority transportation projects in this TSP would cost over $199 million, an amount far in excess of the $63 million in known funding forecasted to be available through 2040. The State TPR requires the community to develop a Financially Constrained project list—one that ascertains the projects reasonably expected to be constructed over the next 20 years using the known funding sources available. For this TSP, those sources are federal and State discretionary programs and System Development Charges. These sources have limitations on how they can be used, and are available only for projects that make improvements on or near the State facilities or that add capacity to the transportation system (SDCs). The TSP Financially Constrained list (Chapter 8) is not the highest priority projects, but only those likely to be constructed given the funding source limitations and up to the amount assumed to be available.

It's important to note that the Financially Constrained list does not limit the City from advancing other projects in the TSP in response to changes in development patterns and/or funding opportunities that were not known at the time of this plan. The remaining projects would contribute to the community's desired transportation system and should be pursued as funding opportunities become available. One new source since the TSP analysis work was done is the comprehensive transportation funding package (HB 2017) recently passed by the State legislature. If revenues are received as predicted from this legislation, the City will explore whether a dedicated amount could be allocated for bicycle and pedestrian facility improvements in support of community values for active transportation. The City Council directed that the Multimodal Advisory Board address this topic as one of their first actions.

Even if all the projects in the plan were constructed, the VMT per capita is estimated to increase slightly by 2040 (Chapter 9). A contributing factor to this is the projected increase in employment in the community compared to households. Reducing or eliminating those commuting trips will reduce the per capita VMTs. Comprehensive solutions will employ strategic approaches, such as land use decisions, transportation demand management, active transportation, and innovations in technology, to further the benefits from the investments in infrastructure. These approaches are discussed in Chapter 5.

The community expressed a strong desire during this process for a TSP that encourages use of active transportation modes and reduces the reliance on the single-occupant vehicle. This is reflected in the recommendations for enhancements to the walking and biking network that improve both quality and connectivity. This is a key strategy for reducing reliance on motorized travel, enhancing safe routes to schools, supporting healthy lifestyles, and achieving climate action goals. The development of a low-stress bicycle network is a major element of that strategy and includes off-street paths, on-street buffered or protected bicycle lanes, and neighborhood bikeways designed to offer an experience where people on bicycles face minimal exposure to high-volume and high-speed streets.

Investing in public transit is another strategy to reduce vehicle travel and support climate action goals. The City completed a separate planning document in 2018 called the Transit Development Plan (TDP) to fulfill the transit element of this TSP. The TDP provides specific steps to enhance the transit system by increasing the frequency, improving the reliability and extending the hours of operation, including starting service on Sundays. Creating a robust system makes this travel mode more attractive, which will result in more ridership.

Overall, this TSP provides an opportunity for Corvallis to build on its successes while focusing improvements to better achieve community values around safety, health, economic vitality, accessibility, mobility, and sustainability. 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. Some examples of ways the TSP could be amended in the future include:

- **Specific Area Plans –** Specific area plans are long-range, comprehensive planning documents that address future development in a specific geographic area, typically where new urban growth is expected. In Oregon, plan objectives include integrating land use patterns and urban design that will reduce private automobile reliance and enhance opportunities for pedestrian and bicycle travel, street connectivity, and existing and future transit service. These plans can provide detailed information about the area to be developed. This more detailed knowledge can yield specific recommendations related to location and type of development and transportation solutions that serve the needs of the future residents and users, as well as meet overarching community objectives as articulated through the adopted Comprehensive Plan and associated planning documents. Specific area plans supplement the Comprehensive Plan and are adopted through a legislative process.
- **Refinement plans -** Refinement planning refers to a more in-depth planning effort applied to an area of a Transportation System Plan where more detail is determined to be needed. This process may be used to determine what type of facility is needed, establish the location of a facility, determine what approaches need to be closed to upgrade a facility, or other issues requiring closer examination than that provided in the higher-level plan. Refinement plans can take many forms, such as corridor plans, area plans, or an ODOT facility plan. If the subject corridor is an ODOT facility, the refinement plan needs to be adopted by the Oregon Transportation Commission as an amendment to the Oregon Highway Plan. At the local level, refinement plans are adopted by City Council as amendments to Transportation System Plans.
- **Corridor Studies –** A corridor study, or corridor plan, is a transportation-focused refinement plan that considers current and future transportation needs along a segment of roadway. Corridor plans identify improvement options and recommendations related to safely and efficiently accommodating the needs of all roadway users, including pedestrians,

bicyclists, motorists, freight, and transit. Where corridors are ODOT facilities, and/or provide key connections between communities, corridor studies will involve multi-jurisdictional needs and objectives. If the subject corridor is an ODOT facility, the study needs to be adopted by the Oregon Transportation Commission as an amendment to the Oregon Highway Plan.

- **Street Alignment Studies -** A street alignment is defined as the geometric arrangement of a roadway, but it can also be considered the line between a street and a plot of land and the line where private property ends and the public domain begins. Alignments shown on maps within the TSP are conceptual. A street alignment study analyzes possible future roadway alignments and determines the optimal route based on such factors as topography, natural resources, land acquisition costs, built environment, and construction cost.
- **Comprehensive Plan Text Amendments –** Pursuant to the procedures in LDO Chapter 2.1, Comprehensive Plan amendments (text or map) can be initiated through an application submitted by property owners or their authorized agents or by majority vote of the City Council. Amendments to the Comprehensive Plan must be adopted through a legislative process.
- **TSP Text Amendments –** Cities in Oregon must adopt a local TSP as part of their comprehensive plans; jurisdictions amend the comprehensive plan by adopting the TSP by reference. Amendments to the TSP, the transportation element of the City's Comprehensive Plan, must be made through a legislative process. As governed by LDO Chapter 2.1, Comprehensive Plan amendments (text or map), can be initiated by property owners or their authorized agents or by majority vote of the City Council.
- **Annexation Agreements –** Since February 2018, when the City Council voted to stop sending annexation requests to the voters in compliance with SB 1573, petitioners for annexation and City Staff have worked together on all aspects of future urbanization related to the subject area before presenting the request to the City Council. An annexation agreement may include terms related to transportation access and safety, land uses and density, and stormwater management.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CONTEXT

A Transportation System Plan (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 and stakeholder input and is based on the transportation system's needs, opportunities, and anticipated funding.

PURPOSE

IMPORTANCE OF A TRANSPORTATION SYSTEM PLAN

The TSP strives to align future multimodal transportation investments with the Corvallis community goals and values articulated during the plan update process. The TSP goals and objectives support and advance the community vision expressed in ***Imagine Corvallis 2040***. The TSP is the City's primary tool for implementing transportation investments that address existing community needs and lays out the improvements required to reasonably serve expected local and regional growth.

A TSP is required by the State of Oregon Transportation Planning Rule (TPR). Oregon Administrative Rule 660-012-0015 defines the primary elements of a TSP. The TPR requires that a city TSP will include the following components:

This Corvallis TSP satisfies the TPR regulations. It establishes a new 2014 baseline condition and identifies transportation strategies and improvements that will be necessary to address existing system deficiencies and to support growth through the year 2040.

1

A COMPREHENSIVE UNDERSTANDING OF THE EXISTING MULTIMODAL TRANSPORTATION SYSTEM THAT SERVES THE CITY AND HOW WELL THAT SYSTEM PERFORMS ITS EXPECTED FUNCTION TODAY

2

A REASONABLE BASIS FOR ESTIMATING HOW THE CITY AND THE SURROUNDING REGION MIGHT GROW IN ITS POPULATION AND EMPLOYMENT OVER THE NEXT 20 OR MORE YEARS

3

AN EVALUATION OF HOW THE EXPECTED GROWTH COULD CHANGE SYSTEM PERFORMANCE

4

A SET OF GOALS, POLICIES AND TRANSPORTATION SYSTEM IMPROVEMENTS THAT ADDRESS COMMUNITY MULTIMODAL TRANSPORTATION NEEDS

5

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

HOW THE TSP WILL BE USED

The Corvallis TSP is the guiding document for identifying the type, location and priority of transportation investments in the community. The focus of the TSP includes City streets, multi-use paths and transit services, however, it also identifies possible needs and suggested solutions on Benton County and ODOT transportation facilities that serve Corvallis.

The TSP will be used in a variety of ways, including:

- **IDENTIFYING PRIORITY TRANSPORTATION INVESTMENTS**
- **PROVIDING BACKGROUND INFORMATION TO ASSIST GRANT APPLICATIONS TO SUPPLEMENT CITY FUNDING**
- **PROVIDING GUIDELINES FOR REVIEWING PROPOSED LAND DEVELOPMENT APPLICATIONS**
- **SERVING AS THE BASIS FOR THE FACILITY STANDARDS APPLIED FOR NEW OR UPGRADED TRANSPORTATION SYSTEM IMPROVEMENTS**
- **DEMONSTRATING THAT THE CITY UNDERSTANDS THE RESOURCES REQUIRED TO BUILD AND SUPPORT A TRANSPORTATION SYSTEM CAPABLE OF ADDRESSING EXPECTED GROWTH**
- **VISUALIZING THE LONG-TERM TRANSPORTATION SYSTEM EXPANSIONS AND IMPROVEMENTS ANTICIPATED AS GROWTH OCCURS**

The core of the TSP development process is to imagine a transportation system that can serve planned growth in a way that is consistent with community policies and values. The primary work products of the TSP are a new multimodal project list and design standards that set the priority and type of improvements that the community desires. There are two types of improvements, upgrades to existing facilities and new facilities on vacant or undeveloped land. The City will use this information to apply for State and federal grant funding and to prioritize the capital improvement list for City facilities. Once adopted, the Corvallis TSP supersedes all transportation elements of previous city area plans and refinement plans.

REGULATORY FRAMEWORK

The Corvallis TSP must be consistent with other policy and planning documents governing the geographic area.

HOW THE TSP FITS WITH LOCAL AND OTHER PLANS

The Corvallis TSP is the primary long-range planning document for the City's transportation investments. The growth forecasts made for the plan horizon year, 2040, are based on the City's adopted Comprehensive Plan, which defines the extent and type of growth that could be permitted by the City during that planning period. The pace of local growth typically varies year to year, and if the overall population and employment growth falls below the 2040 forecast then the associated transportation system improvement needs may be deferred.

The changes in transportation design standards require coordination and updates, as appropriate, to the City's Land Development Code and Engineering Design Standards to ensure future improvements are consistent with the TSP. This included revised widths of planting strips and bike lanes for typical street cross-sections, as well as new mobility standards to establish expectations for acceptable levels of congestion.

In addition to the TSP, the City adopted a Transit Development Plan (TDP) in August 2018 to set strategies and guide investments in the transit system. The TDP was developed in parallel with the TSP update to consider how the transportation system can provide transit services that best meet community needs based on available funding through 2040. The key findings and recommendations from the TDP are contained within the TSP as part of the multimodal system improvements and strategies.

The Corvallis TSP must be consistent with transportation elements of the Corvallis Area Metropolitan Planning Organization (CAMPO) Regional Transportation Plan, Benton County's Transportation System Plan, and relevant ODOT plans and policies including the Oregon Transportation Plan and its modal and topic plans.

HOW THE TSP FITS WITHIN REGIONAL AND STATE PLANS

The Corvallis TSP designations and policies must be coordinated with regional and State planning documents for this area. The local TSPs are foundation documents used to build the regional TSP required by the federal government. The State highways and regional routes are typically maintained by either ODOT or Benton County. State facilities are not explicitly subject to the design standards or policies of the City; Benton County's policy is to apply City standards within the Urban Growth Boundary (UGB). It is important that the City's plan recognize regional routes and the role they plan in serving the community. The City's TSP recommendations for improvements or enhancements to these regional routes are not binding until or unless the responsible agency amends their plan accordingly.

During the update to the Corvallis TSP, Philomath, Benton County, and the Corvallis Area Metropolitan Planning Organization (CAMPO) initiated updates of their transportation plans, providing the opportunity for active coordination between the planning efforts.

EXPECTED GROWTH

PLANNING HORIZON

The planning horizon for this TSP update is the year 2040. This represents an estimated level of community growth as much as a period of time. The TSP must address a specified level of growth expected to come at some point in the future, and it is difficult to predict whether that will occur before or after 2040. The TSP recognizes the uncertainty inherent to assumptions about land use development and community growth. The future growth scenario reflected in the TSP is one potential outcome for the planning horizon.[1]

The future growth scenario is used to assess the needs of the transportation system and for evaluating the impacts of alternative facility improvement and management strategies. The future growth scenario is based on the adopted Corvallis Comprehensive Plan[2] and population growth identified for Benton County. Growth allocations were based on extrapolations of an earlier 2030 land use scenario. The growth scenario was developed with input and review by agency staff from the City of Corvallis, CAMPO, Benton County, and ODOT.

[1] Sensitivity testing around alternative land use scenarios was performed as part of the TSP analysis. Initial land use assumptions were modified to reflect updated information from the Buildable Land Inventory (BLI) and intensified residential growth allocations along transit corridors. The sensitivity tests did not significantly affect TSP outcomes or transportation project recommendations.

[2] The adopted plan reflects 2010 land use designations.

HOUSEHOLD AND EMPLOYMENT GROWTH

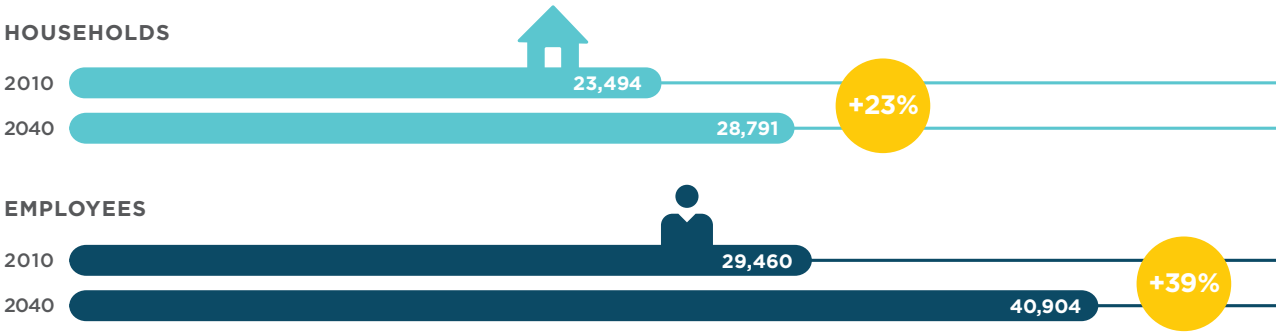
Complete land use data sets were developed for the 2010 base year and 2040 future year scenarios. Figure 4 summarizes the aggregated scenario inputs within the Corvallis TSP update study area[1] for 2010 and 2040. The 2040 scenario reflects significant employment growth (approximately 11,400 new jobs) in Corvallis, with approximately 5,300 new households.

The totals shown in Figure 4 reflect aggregated growth assumptions for smaller geographic areas called Transportation Analysis Zones (TAZs). Each TAZ contains a portion of the households and employees within the entire study area. Figure 5 and 6 illustrate the growth in employees, while Figure 7 and Figure 8 illustrate the growth in households, for each TAZ within the Corvallis UGB to show how projected growth is assumed to be distributed. The estimated 2010 population within the Corvallis UGB of 57,400 is expected to reach about 73,500 by 2040, representing about 16,000 additional people over 30 years.

In general, most of the housing growth lies outside of the downtown core, with the most intensive growth expected on the north and west edges of Corvallis, and along OR 99W in south Corvallis. Employment growth is more evenly distributed throughout the planning area, with some higher concentrations along OR 99W in south Corvallis and in northeast Corvallis. Projections show about double the employment growth compared to housing, suggesting that more workers will be commuting into Corvallis for these jobs. This imbalance of jobs to housing may increase demands for motor vehicle travel on regional routes, impacting congestion on State highways and vehicle parking demands within the city, unless there is more growth in available housing.

The City Council recognizes this is not a desirable trend and have been proactive, through their policy decisions, to increase the affordable housing stock in the city. Their intent is for this work to continue, and to reduce the number and length of community commute trips.

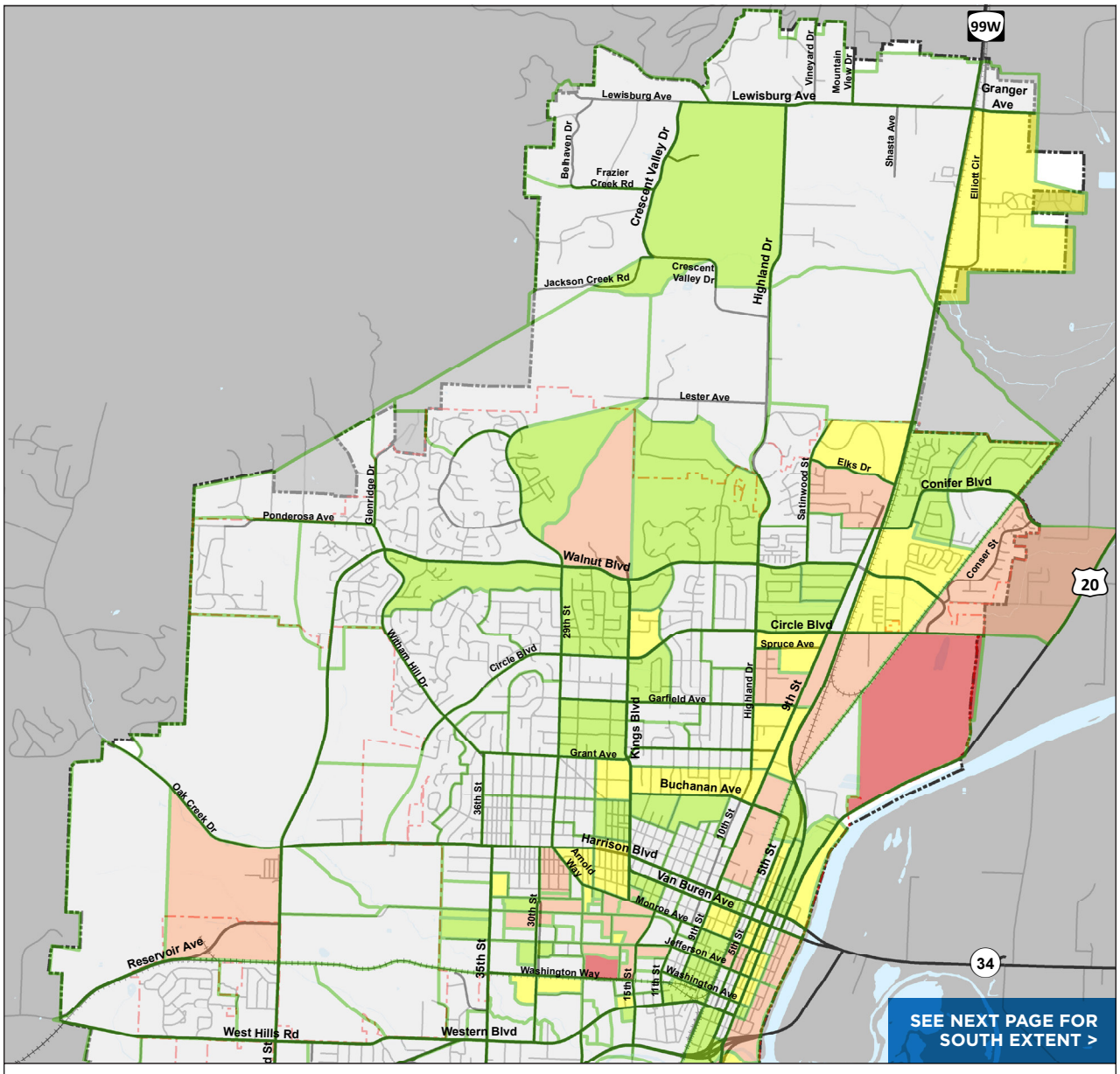
Figure 4. Corvallis TSP Study Area (Urban Growth Boundary) Growth Summary



Source: Corvallis Albany Lebanon Area Model (CALM) land use data (ODOT) and DKS Technical Memorandum #11a, Dec. 9, 2017 for Revised 2040 Land Use.

[1] The TSP study area aligns approximately with the Corvallis Urban Growth Boundary (UGB). The land use data presented is an aggregation of Corvallis Albany Lebanon Model transportation analysis zones whose boundaries do not precisely match the UGB limits. Therefore, the land use totals presented should be considered approximations.

Figure 5. Projected Areas of Employment Growth to 2040 – North Extent



Legend

Employment Growth from 2010 to 2040

- 0 - 20 Employees
- 21 - 50 Employees
- 51 - 100 Employees
- 101 - 300 Employees
- 301 - 631 Employees

Transportation Analysis Zone

Note: Growth shown is not evenly distributed across Transportation Analysis Zones.

N

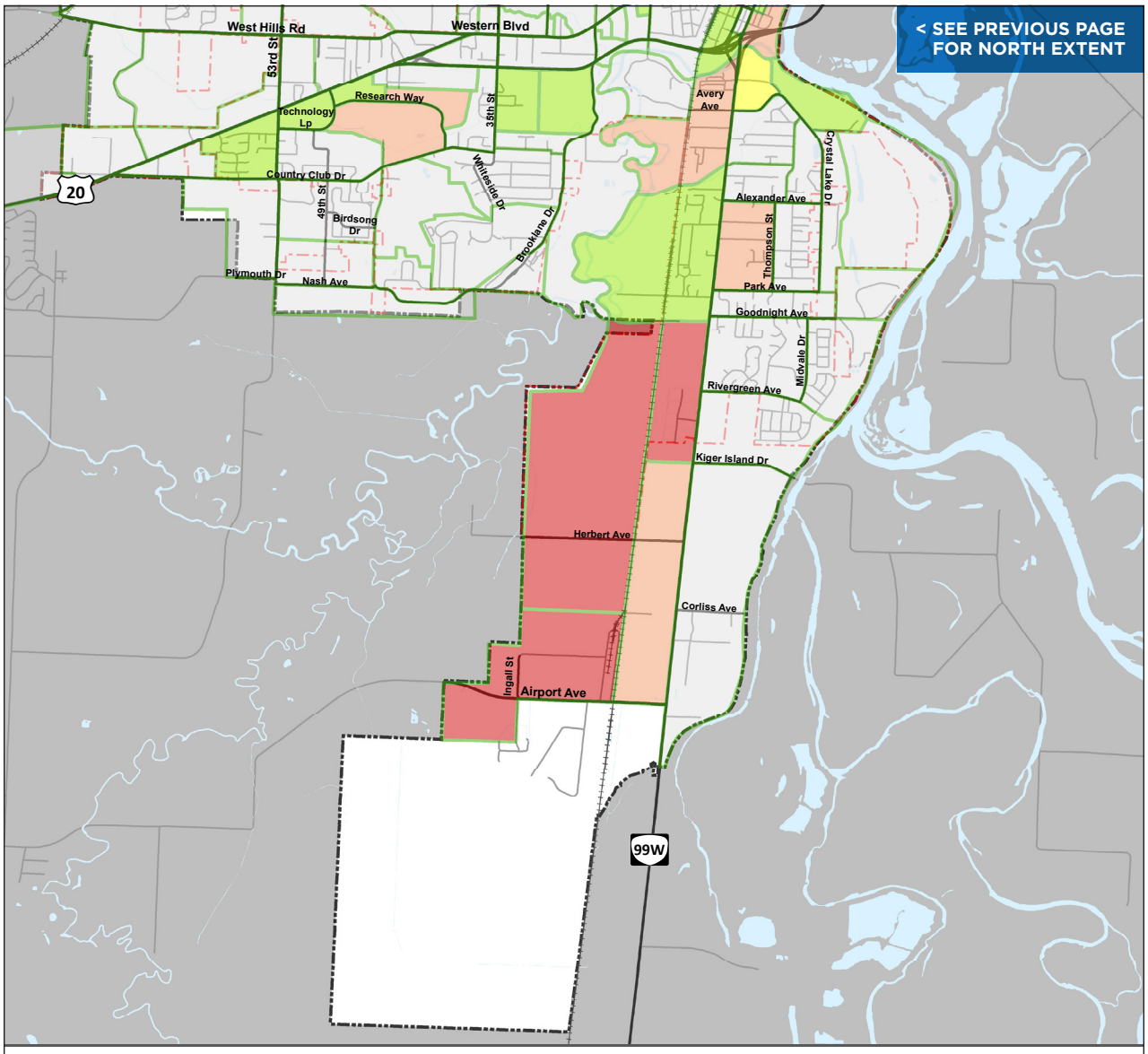
0 0.25 0.5 1 Miles

Urban Growth Boundary

Corvallis City Limit

Parks and/or Natural Areas

Figure 6. Projected Areas of Employment Growth to 2040 – South Extent



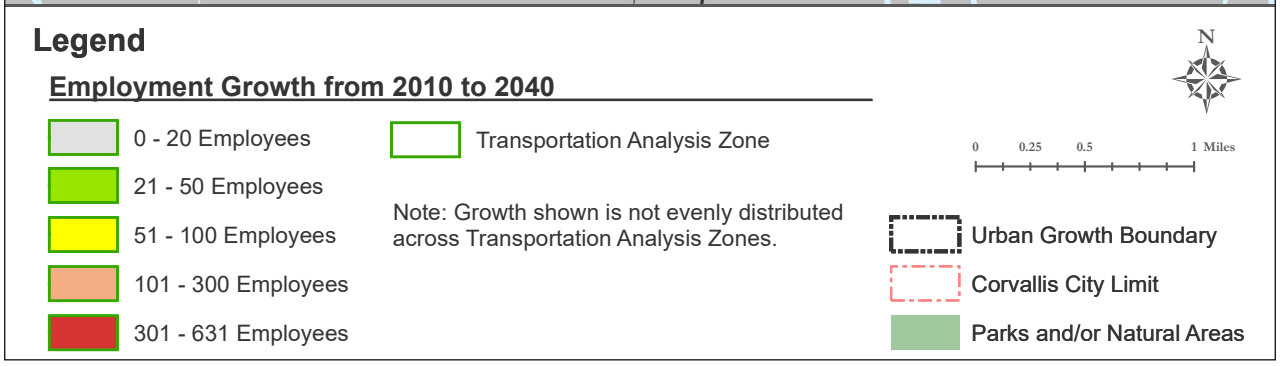


Figure 7. Projected Areas of Housing Growth to 2040 – North Extent

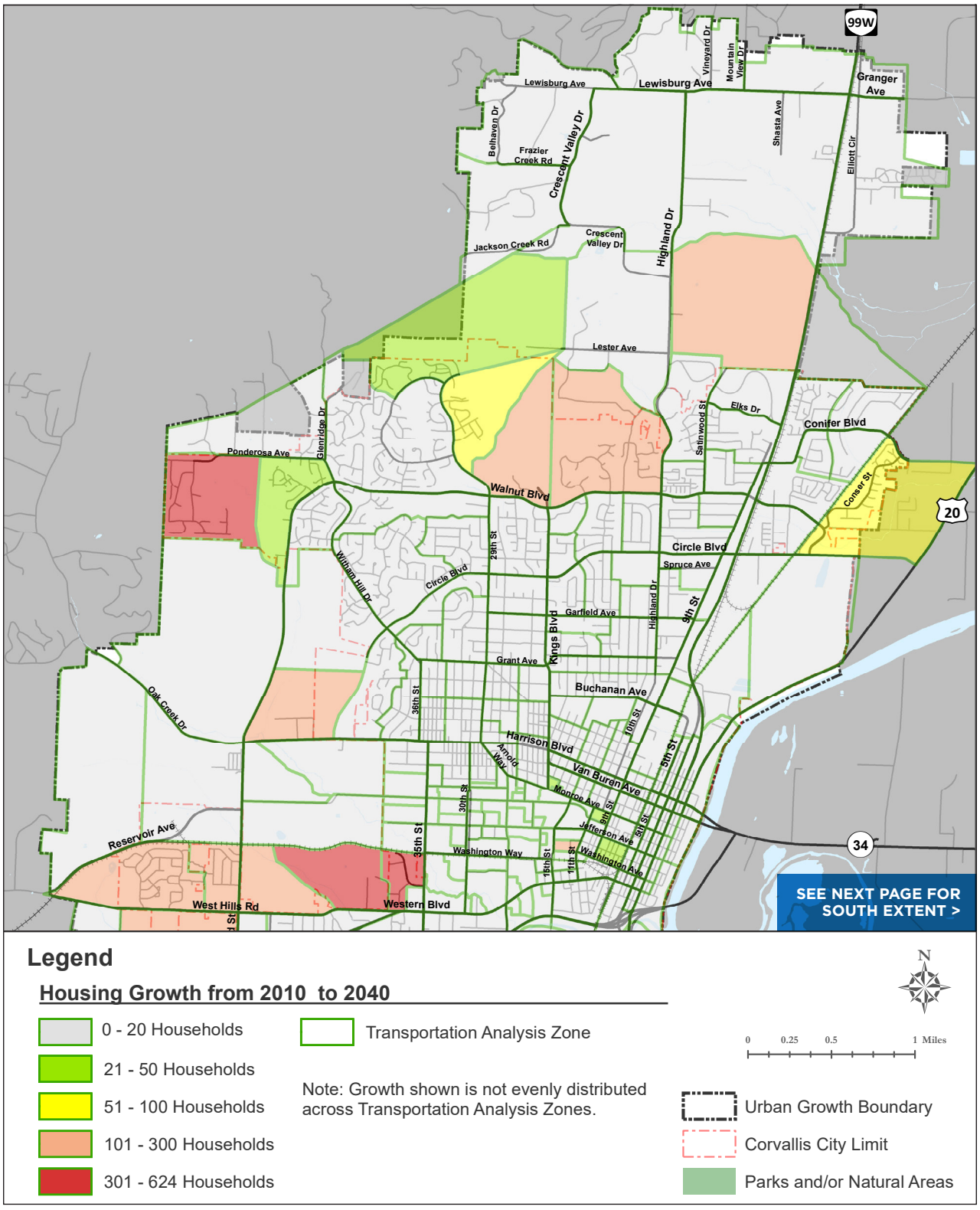
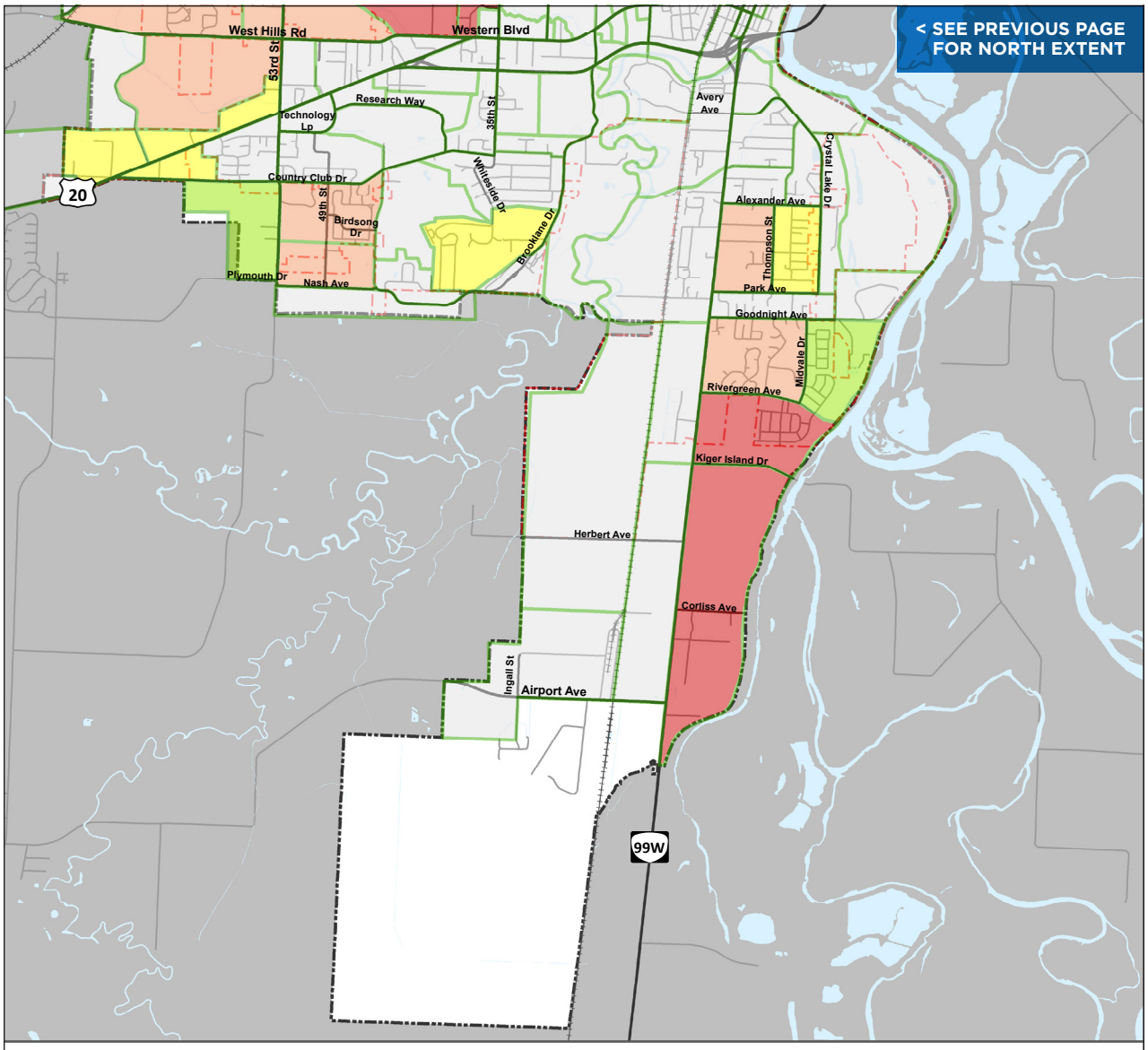


Figure 8. Projected Areas of Housing Growth to 2040 – South Extent



FUNDING CONSTRAINTS

Based on historical revenue and investment levels, the Corvallis area is likely to have about $63.5 million in transportation funding available through 2040 to implement facility improvements and strategies. This total includes an estimated $40 million of federal and State discretionary funding[1] for Corvallis. These funds are often (but not always) applied to State highways or nearby infrastructure that supports the function of the State system. The total also includes an estimated $22.8 million of transportation System Development Charge (SDC) revenue. SDCs can only be spent on projects that increase the capacity of the transportation system.[2] Lastly, $0.7 million from the State Highway Fund is anticipated over the planning period; these funds are required to be spent on bicycle and pedestrian projects.

Most of the current annual revenue from Corvallis's allocation of the State Highway Fund is used for system maintenance and not for facility improvements, such as those in this TSP. With new funding expected from the State HB 2017 bill, Corvallis has an opportunity to forward community values for active transportation by exploring a dedicated funding level for bicycle and pedestrian improvement projects.

[1] The Oregon Department of Transportation has provided funding forecasts for planning purposes only. The availability of funds are uncertain and no commitments have been made to fund future projects in Corvallis beyond the current Statewide Transportation Improvement Program (2018-2021).

[2] Other limitations exist for projects funded fully or partially by System Development Charges, and any improvements paid for with SDC funds would need to be compliant with the City of Corvallis SDC Ordinance and Oregon Revised Statute (ORS) 223.297 – 223.314. For more information, see http://www.corvallisoregon.gov/index.aspx?page=381

2 VISION

The TSP supports and advances the Corvallis community goals and values that are outlined in the vision statements of the Imagine Corvallis 2040 Vision and the Comprehensive Plan. The City's multimodal transportation infrastructure, services, and strategies are designed to promote safe and comfortable travel to meet the needs of all people in the community.

GOALS & OBJECTIVES

The TSP identifies goals and objectives to guide development of a transportation system that reflects Corvallis's vision and values. The goals are brief clear statements of the outcomes to achieve the vision. Each goal is supported by objectives that outline specific actions to be taken to accomplish the goals.

The TSP goals and objectives were established with guidance from the City Council, TSP Steering and Technical Advisory Committees, and the general public. The goals and objectives guided the formation and evaluation of TSP projects proposed for inclusion in the TSP, and are the foundation for updated transportation policies in the Comprehensive Plan.

GOAL 1

PROVIDE AN EFFICIENT TRANSPORTATION SYSTEM THAT SUPPORTS ECONOMIC VITALITY BY FACILITATING THE LOCAL AND REGIONAL MOVEMENT OF PEOPLE AND GOODS.

Objectives:

a. Reduce miles of travel and travel time through improved connectivity where barriers exist.

b. Maintain acceptable roadway and intersection operations where feasible considering environmental, land use, and topographical factors.

c. Improve north/south and east/west street connectivity.

d. Work with OSU to develop cooperative parking strategies for University area neighborhoods.

e. Identify transportation system and service improvements that support the City's long-term land use vision.

f. Improve pedestrian amenities in business and employment districts.

g. Provide access to local businesses and business districts by all modes of transportation.

h. Provide efficient freight movement on regional travel routes.

i. Increase the accessibility of major employment centers.

j. Maintain and support the Corvallis airport as a municipal facility.

GOAL 2

PROVIDE A TRANSPORTATION SYSTEM THAT ENHANCES THE HEALTH AND SAFETY OF RESIDENTS.

Objectives:

a. Support vibrant public spaces, and encourage a culture of walking, bicycling, and social interaction.

b. Expand the sidewalk, on-street bikeway, and multi-use path network in the City.

c. Improve safety at locations with known issues.

d. Minimize conflict points along high volume and/or high speed corridors.

e. Reduce traffic-related fatalities and serious injury collisions.

f. Reduce the number of collisions involving pedestrians and bicyclists.

g. Improve personal security on public facilities and services (e.g., street lighting, surveillance/patrols around transit).

h. Preserve the function and prioritize investments on routes and transportation facilities critical for emergency response and evacuation.

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

j. Work with the school district and educational institutions to identify and implement circulation and access patterns to and around schools that are safe for pedestrians and bicyclists, as well as people in cars and arriving by bus.

GOAL 3

PROVIDE A DIVERSIFIED AND ACCESSIBLE TRANSPORTATION SYSTEM THAT ENSURES MOBILITY FOR ALL MEMBERS OF THE COMMUNITY AND PROVIDES VIABLE ALTERNATIVES TO AUTOMOBILE TRAVEL.

Objectives:

a. Increase transit ridership by improving the quality of available transit service as measured by coverage, hours of service and frequency.

b. Develop bicycle and pedestrian facilities that encourage non-vehicular travel and provide safe passage for pedestrians and bicyclists.

c. Allow for alternative transportation facility designs in constrained areas to minimize impacts to natural resources.

d. Encourage comprehensive on-site Transportation Options programs - including incentives and disincentives – by major employers and educational institutions.

e. Ensure Corvallis's Land Development Code requires new development to support multimodal connectivity and accessibility.

f. Work with neighboring jurisdictions to identify and provide opportunities to commute to and from Corvallis by means other than single-occupant vehicles.

g. Make it easy for people of all ages and abilities to get where they need to go, comfortably and safely, by all modes of travel.

h. Provide inexpensive transportation options in the City.

GOAL 4

PROVIDE A SUSTAINABLE TRANSPORTATION SYSTEM THROUGH RESPONSIBLE STEWARDSHIP OF FINANCIAL AND ENVIRONMENTAL RESOURCES.

Objectives:

a. Preserve and protect the function of locally and regionally significant transportation corridors.

b. Establish priorities and define the incremental steps needed for investment of ODOT and federal revenues to address safety and major capacity problems on the State transportation system.

c. Develop transportation standards that preserve and protect the integrity of neighborhoods.

d. Preserve and maintain the existing transportation system assets to extend their useful life.

e. Pursue grants/programs or collaboration with other agencies to efficiently fund transportation improvements and supporting programs.

f. Improve travel reliability and efficiency of existing major travel routes in the city before adding capacity.

g. Increase the number of walking, bicycling, and transit trips in the city.

h. Reduce the number of vehicle-miles traveled.

i. Develop street standards to reflect the pedestrian realm of the neighborhood.

j. Evaluate and implement, where cost-effective, environmentally friendly materials and design approaches (water reduction, protect waterways, solar infrastructure, impervious materials).

k. Support technology applications that improve travel mobility and safety with less financial and environmental impact than traditional infrastructure projects.

EVALUATION CRITERIA

Evaluation criteria are either qualitative or quantitative. Qualitative criteria can be assessed as getting better or worse or through a ranking (high, medium, low), but generally do not have numbers associated with them. In contrast, quantitative criteria are associated with changes that can be described numerically. For example, a qualitative criterion would say that a project will result in an increase, whereas a quantitative criterion would say that a project will result in an increase of X units.

The transportation goals and objectives were reviewed to determine which of them were good candidates for system performance evaluation criteria. Those selected were initially used to benchmark the existing transportation system performance. They were used again to inform the selection and prioritization of alternative solutions and strategies, as a way to determine how likely the solution was to achieve the stated objectives. The City can use selected TSP performance measures drawn from the evaluation criteria to monitor TSP outcomes over time.

The TSP evaluation criteria are representative of a given goal without attempting to respond to every objective individually, which is often not practical to do. The evaluation criteria do not necessarily lead to the "right" answer – they are simply a tool to aid decision makers in their understanding of the relative value and expected consequences of various policy and investment choices and the degree to which the various choices are in alignment with community goals. The evaluation criteria applied for the development of this TSP are shown below in Tables 1 to 4.

Table 1. Evaluation Criteria for Goal 1

GOAL AREA	OBJECTIVES	EVALUATION CRITERIA
Provide an efficient transportation system	Reduce miles of travel and travel time through improved connectivity where barriers exist	• Vehicle-Miles Traveled (VMT) per capita • Intersection performance compared to applicable agency mobility standards/targets • Peak hour travel time on freight routes • Percent of population and employment (employment centers with greater than 100 employees) in close proximity to high-quality pedestrian or bicycle facilities • Percent of total jobs within 1/4-mile walking distance of transit stops served by at least 30 transit vehicles per day • Percent of total households within 1/4-mile walking distance of transit stops served by at least 30 transit vehicles per day
	Maintain acceptable roadway and intersection operations where feasible considering environmental, land use, and topographical factors	
	Improve north/south and east/west street connectivity	
	Work with OSU to develop cooperative parking strategies for University area neighborhoods	
	Identify transportation system and service improvements that support the City's long-term land use vision	
Support economic vitality by facilitating the local and regional movement of people and goods	Improve pedestrian amenities in business and employment districts	
	Provide access to local businesses and business districts by all modes of transportation	
	Provide efficient freight movement on regional travel routes	
	Increase the accessibility of major employment centers	
	Maintain and support the Corvallis airport as a municipal facility	

Table 2. Evaluation Criteria for Goal 2

GOAL AREA	OBJECTIVES	EVALUATION CRITERIA
Enhance health	Support vibrant public spaces, and encourage a culture of walking, bicycling, and social interaction	• Miles of walking facilities on collectors and arterials by type • Miles of biking facilities on collectors and arterials by type • Number of projects or programs (high, medium, or low) that address recognized safety issues • Number of projects and programs (high, medium, or low) that improve safety for vulnerable travelers (e.g., school children, elderly, disabled)
	Expand the sidewalk, on-street bikeway, and multi-use path network in the City	
Enhance safety	Improve safety at locations with known issues	
	Minimize conflict points along high volume and/or high speed corridors	
	Reduce traffic-related fatalities and serious injury collisions	
	Reduce the number of collisions involving pedestrians and bicyclists	
	Improve personal security on public facilities and services (e.g., street lighting, surveillance/patrols around transit)	
	Preserve the function and prioritize investments on routes and transportation facilities critical for emergency response and evacuation	
	Apply a comprehensive approach to improving transportation safety that involves the five E's (engineering, education, enforcement, emergency medical services, and evaluation)	
	Work with the school district and educational institutions to identify and implement circulation and access patterns to and around schools that are safe for pedestrians and bicyclists, as well as people in cars and arriving by bus	

Table 3. Evaluation Criteria for Goal 3

GOAL AREA	OBJECTIVES	EVALUATION CRITERIA
Diversified transportation system (viable alternatives to auto)	Increase transit ridership by improving the quality of available transit service as measured by coverage, hours of service and frequency	• Span and frequency of transit service by route classification • Percent of major collectors and higher roadway mileage with transit service providing 30 or more transit vehicles per day • Bicycle Level of Traffic Stress • Pedestrian Level of Service on collector and arterial segments • Pedestrian Level of Service on collector and arterial intersections • Percent of total households within 1/4-mile walking distance of transit stops served by at least 30 transit vehicles per day • Percent of total jobs within 1/4-mile walking distance of transit stops served by at least 30 transit vehicles per day
	Develop bicycle and pedestrian facilities that encourage non-vehicular travel and provide safe passage for pedestrians and bicyclists	
	Allow for alternative transportation facility designs in constrained areas to minimize impacts to natural resources	
	Encourage comprehensive on-site Transportation Options programs – including incentives and disincentives – by major employers and educational institutions	
	Ensure Corvallis's Land Development Code requires new development to support multimodal connectivity and accessibility	
	Work with neighboring jurisdictions to identify and provide opportunities to commute to and from Corvallis by means other than single-occupant vehicles	
Accessible transportation system (mobility for all)	Make it easy for people of all ages and abilities to get where they need to go, comfortably and safely, by all modes of travel	
	Provide inexpensive transportation options in the City	

Table 4. Evaluation Criteria for Goal 4

GOAL AREA	OBJECTIVES	EVALUATION CRITERIA
Stewardship of financial resources	Preserve and protect the function of locally and regionally significant transportation corridors	• Number of projects or programs (high, medium, or low) that focus on travel demand management or existing transportation system management • Miles of walking facilities on collectors and arterials by type • Miles of biking facilities on collectors and arterials by type • Number of projects and programs that improve safety for vulnerable travelers (e.g., school children, elderly, disabled) • Encourages increased travel by transit • Vehicle-Miles Traveled (VMT) per capita
	Establish priorities and define the incremental steps needed for investment of ODOT and federal revenues to address safety and major capacity problems on the State transportation system	
	Develop transportation standards that preserve and protect the integrity of neighborhoods	
	Preserve and maintain the existing transportation system assets to extend their useful life	
	Pursue grants/programs or collaboration with other agencies to efficiently fund transportation improvements and supporting programs	
	Improve travel reliability and/or efficiency of existing major travel routes in the city before adding capacity	
	Increase the number of walking, bicycling, and transit trips in the city	
	Reduce the number of vehicle-miles traveled	
Stewardship of environmental resources	Develop street standards to reflect the pedestrian realm of the neighborhood	
	Evaluate and implement, where cost-effective, environmentally friendly materials and design approaches (water reduction, protect waterways, solar infrastructure, impervious materials)	
	Support technology applications that improve travel mobility and safety with less financial and environmental impact than traditional infrastructure projects	

3 PROCESS

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

PROJECT ROLES & DECISION-MAKING

The decision-making structure (Figure 9) established a framework for broad-based community support for the project. This approach ensured an open, inclusive process.

Figure 9. TSP Decision-Making Structure

ROLE OF THE CITY COUNCIL

One of the City Council's roles is to set the community's Comprehensive Plan, of which the TSP is a part. As such, the Council had the responsibility for final review and adoption.

ROLE OF THE PROJECT MANAGEMENT TEAM

The Project Management Team's (PMT) role was to analyze the existing and projected future transportation system performance, prepare a series of Technical Memoranda based on the analysis that recommended direction to the City for standards, policies, and projects to meet system needs, and to draw that work together into a final TSP document for the City Council's consideration and adoption. The PMT was comprised of staff from the City of Corvallis, ODOT, and the consultant project team. City staff provided project oversight to ensure the TSP update met the requirements and objectives of the Corvallis community. ODOT staff ensured the update was developed effectively and is consistent with statewide plans, policies, and objectives. The project consultant team led the TSP strategy and development, and the public involvement program outreach and communications.

ROLE OF THE STEERING COMMITTEE

The Steering Committee (SC) was appointed by the Mayor to provide a more direct community perspective to the TSP update project. The SC's role was to review the Technical Memoranda, discuss the PMT recommendations at a policy level, and provide guidance to the PMT and recommendations to the City Council. The SC meetings were open to the public and included a public comment period.

ROLE OF THE TECHNICAL ADVISORY COMMITTEE

The Technical Advisory Committee (TAC) was formed to review the Technical Memoranda analysis and findings and provide technical-level guidance to the PMT. TAC members were drawn from stakeholder agencies.

PUBLIC OUTREACH

The project's public involvement plan was designed to share information and gather input on the transportation system needs and issues of the Corvallis community and the surrounding area.

PURPOSE AND GOALS

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

- Communicate complete, accurate, understandable and timely information to the public.
- Actively seek public input, engaging a broad, 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.

NOTIFICATION AND OUTREACH TOOLS

A wide range of outreach tools were employed to publicize the project and encourage public participation.

- A project website, **www.CorvallisTSP.org**, included announcements, news entries, a calendar of meetings and events and a document library. A total of **7,479 unique users** visited the site.
- A Project Fact Sheet that introduced the project background, need, schedule and public involvement opportunities was distributed in English and Spanish and was updated throughout the project.
- Two Project Newsletters were used to provide project updates, invite stakeholders to attend the open houses or participate online, and outline the steps for providing input.
- Twelve emails were sent to the stakeholder database inviting participation at public events.
- Media releases to area news outlets were sent by City staff at key milestones. The ***Corvallis Gazette-Times*** covered the project nine times and the ***Corvallis Advocate*** covered the project one time. Advertisements were placed in local newspapers; four ads in the ***Corvallis Gazette-Times***, one ad in the ***OSU Daily Barometer***, and one ad in the ***Corvallis Advocate.***
- Five videos were produced to provide an overview of the project.
- Social media accounts were set up for Twitter and Facebook. A social media campaign using a series of short videos (shorter versions of the full videos listed above) was used to promote the community-wide survey.
- Outreach to youth and schools included distribution of paper and electronic student surveys in English and Spanish to learn more about youth transportation habits and needs.

PUBLIC MEETING EVENTS AND INPUT OPPORTUNITIES

Since the start of the project in 2015, the public outreach process included over 20 public events.

- Community-wide survey in July 2015.
- Steering Committee Meetings – Twelve meetings were held between January 2015 and October 2018.
- Open House Meetings – Public open house meetings were held on November 29, 2016 and January 24, 2018. Corresponding online open houses were available for at least two weeks following each in-person open house. Approximately 300 people attended the in-person open houses, while over 1,200 people visited the online open houses.
- Topic-Specific Workgroups – Two rounds of Topic-Specific Workgroups on Auto & Freight, Bicycle & Pedestrian, and Transit modes of travel were hosted.
- Information Booth Events – Informational booths about the TSP were staffed at nine popular community events and transportation related workshops between July 15, 2015 and March 10, 2018.
- Planning Commission and City Council briefings – Four Planning Commission and 28 City Council updates were conducted.
- City Advisory Boards briefings – The Bicycle and Pedestrian, Airport, Downtown, and Parks, Natural Areas and Recreation Advisory Boards were briefed on multiple occasions.

OUTREACH TO UNDERREPRESENTED COMMUNITY MEMBERS

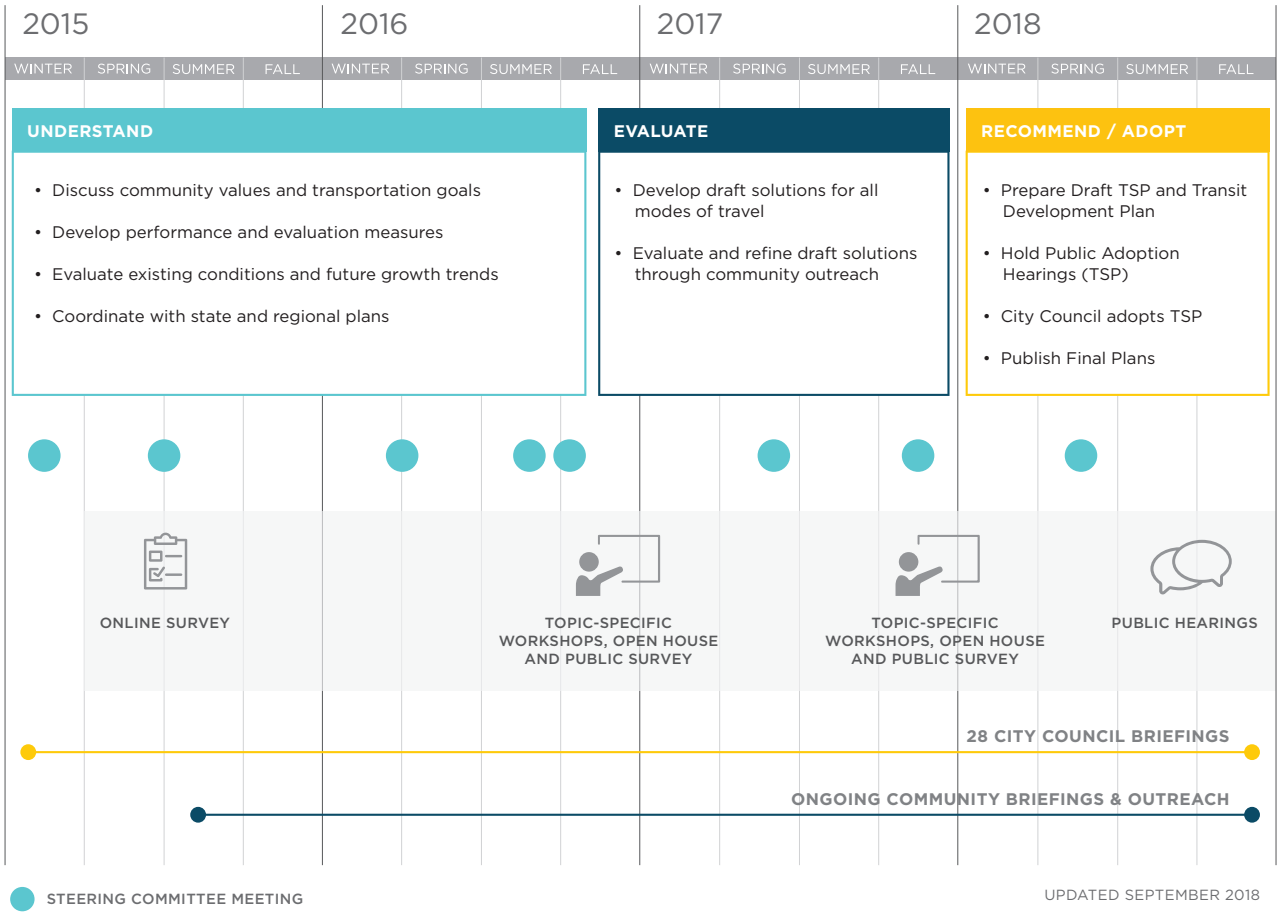
One objective of the public involvement plan was to reach underrepresented community members.

- **Project information provided in Spanish:** The project documents were translated into Spanish and distributed to key community locations and posted on the website. Spanish language interpreters staffed both project open houses.
- **Family Meal Nite:** Project input was gathered at this free meal distribution program in a location accessible to the residents of south Corvallis.
- **Benton County Public Health:** Materials were made available to the Health Department staff to share with underserved populations, such as low-income and Spanish-speaking community members.
- **Youth outreach:** Paper and electronic student surveys were distributed to schools in English and Spanish.
- **Closed-captions:** Videos were produced using closed captioning.
- **ADA-accessible locations:** All SC meetings and open houses were ADA-accessible, with additional accommodations for persons with disabilities available upon request. All project information was also available in alternative formats upon request.

TECHNICAL DEVELOPMENT

Technical analysis for the TSP Update was performed by the PMT. The analysis followed a process illustrated in Figure 10.

Figure 10. TSP Technical Development Process



The work of the TSP update was documented through a series of Technical Memoranda that were reviewed and refined by the TAC and SC. They were also available for the public to review.

The Technical Memoranda reflect the development of the technical elements of the TSP and provide additional details and analysis not included in the TSP (Volume 1) chapters. Instead, these documents, along with meeting summaries reflecting the public input received, are in the TSP Technical Appendix (Volume 2). The specific Technical Memoranda that support the TSP are listed below. Note that memoranda numbers missing from the list are primarily those written in support of the concurrent development of the Transit Development Plan.

- **Technical Memorandum #1 –** Public and Stakeholder Involvement Strategy
- **Technical Memorandum #2 –** Plan Review Summary
- **Technical Memorandum #3 –** Regulatory Review
- **Technical Memorandum #4/5 –** Initial TSP and TDP Goals, Objectives, and Performance Measures Development
- **Technical Memorandum #6 –** Transportation Data and Potential Evaluation Criteria
- **Technical Memorandum #7 –** Existing Transportation Conditions and Baseline Performance
- **Technical Memorandum #9 –** TSP Funding Assumptions
- **Technical Memorandum #11 –** Future Traffic Forecast
- **Technical Memorandum #11a –** Alternative Future Land Use Scenario Assessment
- **Technical Memorandum #12 –** Future Transportation Conditions and Performance
- **Technical Memorandum #12a –** Future Transportation Conditions and Performance – Revised Land Use
- **Technical Memorandum #14 –** Transportation Solutions Identification Process
- **Technical Memorandum #15 –** Active Transportation Toolkit
- **Technical Memorandum #16 –** Transportation Standards
- **Technical Memorandum #17 –** Transportation Solutions
- **Technical Memorandum #22 –** Implementing Regulations and Policy Amendments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4 NEEDS

This chapter identifies the needs for the Corvallis 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 based on assumed growth in households and employment.

ACTIVITY

Travel needs result from people's activity choices. This section describes how community land use and activity generators are reflected in the TSP.

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.

As land uses change in proportion to each other (e.g., a significant increase in employment relative to household growth), there may be a shift in how the transportation system is utilized. For example, if there is an area with homogeneous land use character (e.g., exclusively employment or residential), that area is likely to produce more and longer vehicle trips. In contrast, a mix of residential, commercial, and employment land uses in close proximity may reduce the need for and/or length of vehicle trips. Retail land uses typically generate more p.m. peak hour trips per acre than households and other land uses; therefore, the location and design of retail land uses, in particular, can affect future transportation system operation.

KEY ACTIVITY CENTERS FOR RESIDENTS AND DESTINATIONS FOR VISITORS

Situated between the shoreline of the Willamette River and the forested hills of the Coast Range in Oregon's Central Willamette Valley, Corvallis has been recognized as one of the best college towns and one of the top places to live in the country. As a vibrant city of approximately 58,735 residents[1], with a population of nearly 25,000 college students[2], it is Oregon's tenth largest city.

A key step in planning for an effective transportation system is gaining an understanding of the major destinations people travel to throughout a city. Demand for travel is created by places where people go to work, school, or to take care of other daily needs. These destinations are referred to as activity generators or trip attractors. Activity generators represent important starting and ending points for travel in Corvallis and provide a basis for assessing significant travel patterns.

[1] Portland State University Population Research Center. Certified Population Estimate July 2017.

[2] https://today.oregonstate.edu/news/osu-overall-enrollment-19-percent-corvallis-campus-increases-less-1-percent

WITHIN CORVALLIS

Corvallis has numerous activity generators that attract residents, college students, and recreationalists alike (see Figure 11 and Figure 12). The most common categories of activity generators include:

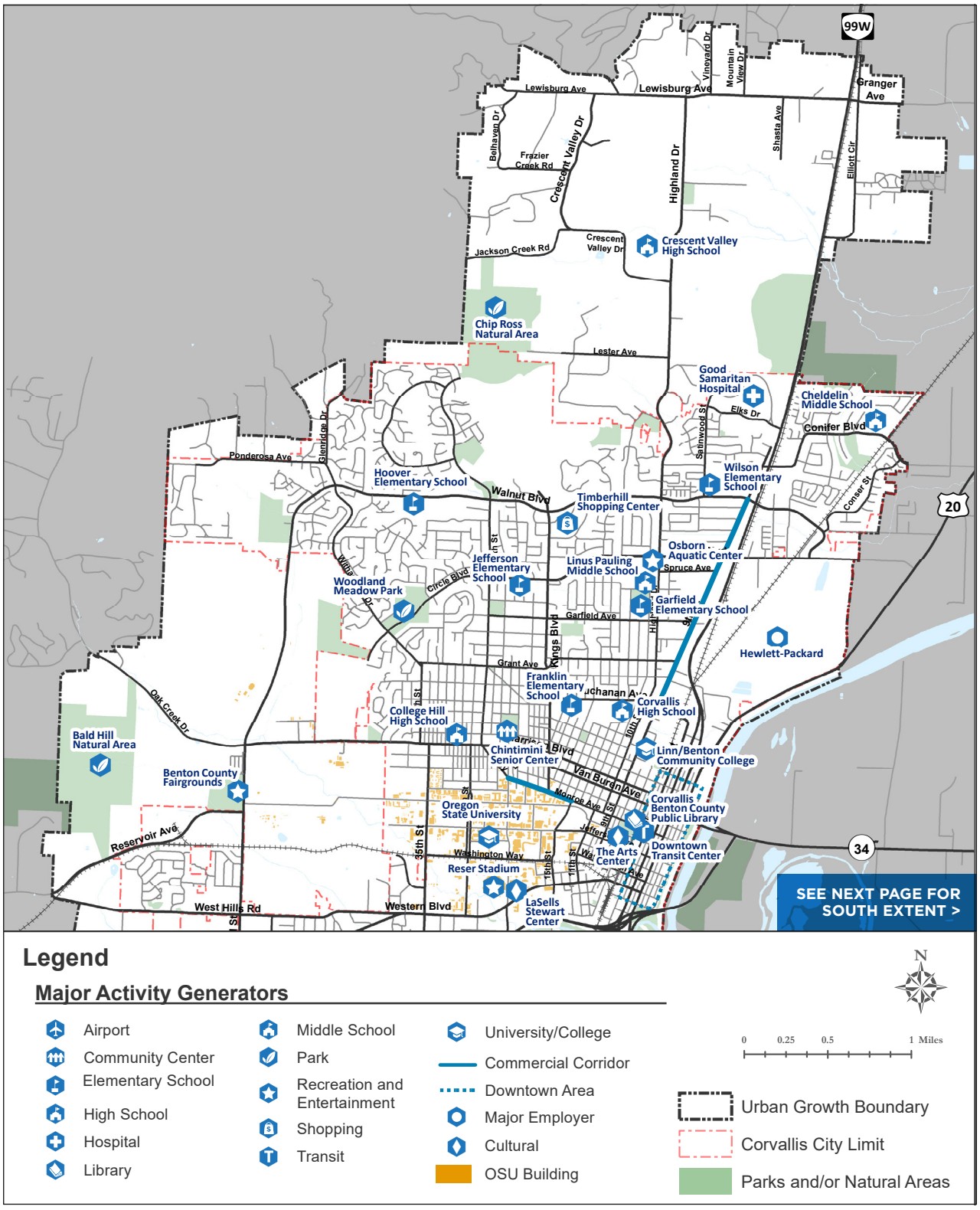
- **Recreational/Entertainment** (e.g., Downtown Corvallis for local art shows, live music, and farmers market, Reser Stadium, Osborn Aquatic Center, and Benton County Fairgrounds)
- **Schools** (e.g., Oregon State University, Linn-Benton Community College Benton Center, K-12 schools)
- **Places of employment** (e.g., Oregon State University, Hewlett-Packard campus, Good Samaritan Regional Medical Center)
- **Shopping** (e.g., Downtown Corvallis, grocery stores, shopping centers, restaurants)
- **Cultural** (e.g., The Arts Center, Majestic Theatre, Whiteside Theatre, LaSells Stewart Center)
- **Community/Government** (e.g., City Hall, Corvallis-Benton County Public Library, and Senior and Community Centers)
- **Public Transportation** (e.g., Downtown transit center, bus stops)

OUTSIDE OF CORVALLIS

Safe and efficient access to areas outside of the city is critical for many who either live or work outside of Corvallis. Much of the traffic in Corvallis, especially during the more congested weekday peak periods, is related to employment. Approximately 8,000 residents in Corvallis commute to work outside Corvallis, while almost 18,000 people commute into Corvallis from other areas.[1]

[1] Source: US Census Bureau, Center for Economic Studies. Data include information from IRS records that is based on addresses provided by employers. Work location addresses may not be for actual location of employment, but for corporate or main offices. Therefore, someone who lives in Corvallis may be shown as commuting out of the city, even though they work for a national company within Corvallis city limits.

Figure 11. Activity Generators within Corvallis – North Extent



Legend

Major Activity Generators

- Airport
- Community Center
- Elementary School
- High School
- Hospital
- Library
- Middle School
- Park
- Recreation and Entertainment
- Shopping
- Transit
- University/College
- Commercial Corridor
- Downtown Area
- Major Employer
- Cultural
- OSU Building

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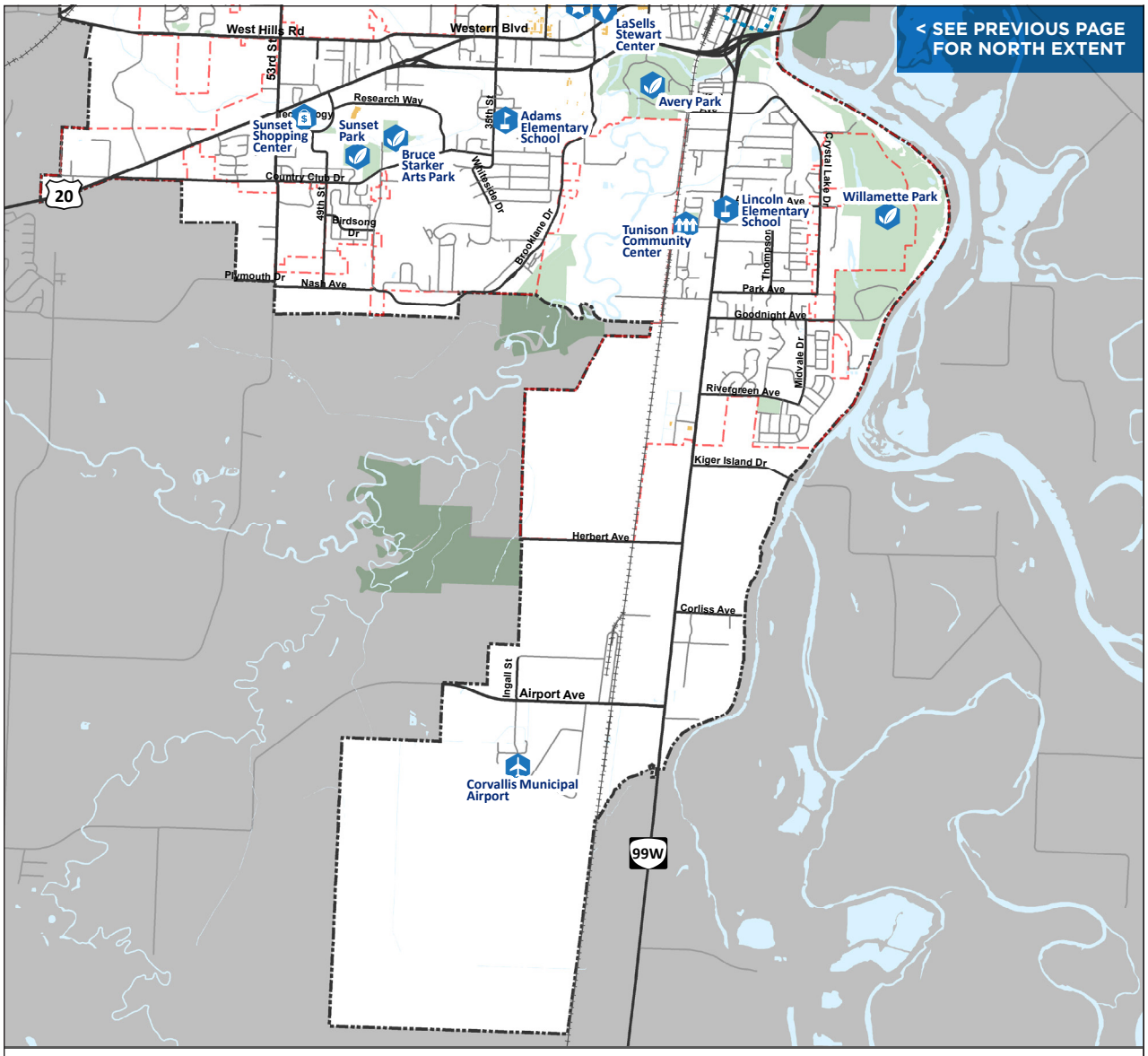
- Urban Growth Boundary
- Corvallis City Limit
- Parks and/or Natural Areas

Figure 12. Activity Generators within Corvallis – South Extent

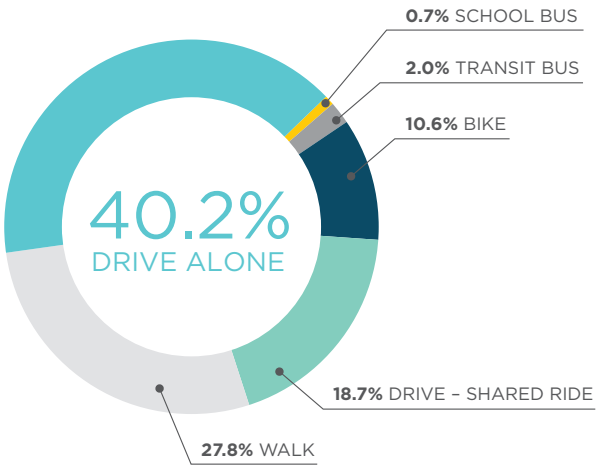


MODE CHOICE

Mode of travel is the method people choose to get around the community. Figure 13 summarizes the share of all ***daily trips*** for Corvallis for each of the modes based on the Corvallis Albany Lebanon Model (CALM), a regional travel demand model.[1]

Corvallis has very high bicycle and pedestrian mode shares for ***work trips*** compared to cities similar in size (at least 50,000 residents). The walk commute mode share of 12 percent represents the 17th highest in the country and the bike commute mode share of 12 percent, is the 2nd highest in the country for similar sized cities.[2]

Figure 13. Corvallis TSP Study Area Daily Trip Mode Share



SOURCE: Corvallis Albany Lebanon Area Model (CALM)

NOTE: The values shown above represent daily mode choice, which includes many trip types other than commuting. Travel behavior represented in the CALM model is based on household travel surveys from similar communities in the State.

CURRENT SYSTEM CHARACTERISTICS

The characteristics of the current transportation system in Corvallis are measured against the four general areas of safety, connectivity, access, and mobility. The following sections highlight current transportation system characteristics related to each of these areas. Specific needs of the system by mode are identified at the end of this chapter. More details about these topics are available in Volume 2 (Technical Memorandum #7 Existing Transportation Conditions and Baseline Performance).

SAFETY

Safety describes the ability to travel without risk of injury.

- Corvallis experiences an average of around 530 crashes a year. The severity of most crashes is generally low, with 83 percent involving only property damage or minor injuries.

[1] The Corvallis Albany Lebanon Model (CALM) is the regional travel demand model that is the primary tool used to forecast future traffic volumes in Corvallis. Developed by the Oregon Department of Transportation (ODOT), this model translates estimated land uses into person trips, selects travel modes, and assigns motor vehicle trips to the roadway network. The model is calibrated against real-world travel data and is used to help evaluate the overall transportation network in the Corvallis area.

[2] US Census Bureau. American Community Survey 2010-2014 5-Year Estimates. Table B08301 Means of Transportation to Work (Workers 16 years and over), Cities with a Population of at least 50,000.

- The five most common driver errors responsible for over 70 percent of all crashes in Corvallis:
  1. Did Not Yield Right-of-Way (30 percent)
  2. Followed Too Closely (24 percent)
  3. Disregarded Traffic Signal (8 percent)
  4. Inattention (5 percent)
  5. Made Improper Turn (5 percent)
- Most crashes involving pedestrians occur downtown, between the OSU campus and downtown, and along 9th Street near Garfield Avenue.
- The majority of pedestrian-involved crashes (74 percent) were caused by drivers failing to yield the right-of-way to a pedestrian in a crosswalk or along a sidewalk.
- Most crashes involving bicycles occur at intersections (69 percent).
- Most of the crashes involving a bicyclist were caused by drivers failing to yield the right-of-way when turning (64 percent).

CONNECTIVITY

Connectivity describes the availability of facilities and services that offer legitimate choices to travel or move goods.

- Ninety-seven percent of the arterial street miles in Corvallis owned by the City have a sidewalk on one or both sides, while 96 percent of the collector street miles owned by the City have sidewalks on both sides. Eighty-four percent of local streets have sidewalks on at least one side.
- Bike lanes exist on 98 percent of the 19 arterial street miles and 84 percent of the 27 collector street miles within Corvallis owned by the City.
- Approximately 82 percent of households and 88 percent of jobs in the Corvallis UGB have access to CTS transit service within 1/4 mile.
- Amtrak passenger service is available in Albany. The Linn-Benton Loop and Coast-to-Valley Express provide connections between Corvallis and the Albany Amtrak station. In addition, the Corvallis to Amtrak Connector is currently running as a one-year pilot project.
- Cascades West RideShare provides transportation options outreach including carpool/vanpool matching services for commuters in Benton, Lincoln, and Linn counties.
- The Corvallis Municipal Airport serves 52,300 annual operations (i.e., take-offs or landings). Limited commercial air service between Corvallis, Portland, and Newport has been provided in the past, but is not currently available. Regional and international air service for passengers and freight is provided via Portland International Airport. Eugene Airport provides regional air service.
- Freight rail service is provided to Corvallis via the Willamette and Pacific Railroad, with daily round trip freight service between Albany and Toledo, and between Albany and McMinnville.

ACCESS

Access describes the coverage of walking, biking and transit that enables people of all ages and abilities to comfortably reach their destinations.

- Traveling by foot or bicycle is far more common in the OSU campus and central city areas than in other areas.
- Streets in central parts of Corvallis and in the newest neighborhoods on the edges of the city have the greatest likelihood of having ADA accessible sidewalk ramps.
- The quality of the pedestrian system is relatively high throughout most of Corvallis. The areas with high stress levels for pedestrians are on highways, major roadways, and on roadway segments on the periphery of the city, such as Harrison Boulevard, west of NW Witham Drive.
- The areas without access to high-quality walkways include parts of southeast and southwest Corvallis, and neighborhoods in north Corvallis outside of the city limits.
- Local roads in Corvallis have a low level of bicycling stress. Streets in downtown Corvallis generate moderate to high levels of stress for bicyclists. The streets with highest stress levels are the streets important for local and regional through travel, where most businesses and services are located.
- Transit service in Corvallis is well established and operates six days per week, though not all routes meet the needs of the general public. Most routes operate with one-hour service which is more likely to meet the needs of people with limited transportation options and appeal to OSU students and peak hour commuters.

MOBILITY

Mobility describes the ability to efficiently move people and goods.

- Approximately 18,000 people commute into Corvallis on an average weekday, creating many long commute trips, encouraging travel by motor vehicle, and contributing to congestion.
- Within Corvallis, US 20-OR 34, OR 99W, and OR 34 are classified as Oregon Freight Routes and Federal Truck Routes, while US 20 is classified as a Federal Truck Route.
- Motor vehicle volumes on the roadways in Corvallis most commonly peak during weekday evenings between 4:45 p.m. and 5:45 p.m.
- There are 10 intersections along the arterial and collector street network that experience excessive congestion and do not comply with adopted mobility targets/standards during the weekday p.m. peak hour.
- Transit is very space efficient and can move much higher volumes of people than vehicles in the same space. Therefore, it is can reduce roadway congestion by providing an alternative option to single-occupancy vehicles.
- Transit drivers can delay a signal from turning red as a way to help achieve on-time service. This ‘priority for transit’ capability is currently in operation at 21 traffic signals.

FUTURE CONDITIONS

Future year conditions for 2040 were evaluated to determine how well the existing transportation system will meet future travel needs. Forecasts were developed by using expected community growth in employment and in residents (as described in Chapter 1) and the CALM model.

FUTURE SYSTEM IMPROVEMENT ASSUMPTIONS

The first scenario developed was the 2040 Baseline, also referred to as the "No Build" scenario. This scenario assumes the expected growth will occur, but that only the transportation projects already in progress have been made to the system. The purpose of this scenario is to establish a starting point for identifying needs of the future system. In the 2040 Baseline, the projects included are:

- **Realignment of NW 9th Street at NW Elks Drive** – NW 9th Street will be aligned with NW Samaritan Drive as part of the Good Samaritan Regional Medical Center campus expansion. This improvement will also include widening of OR 99W from NE Conifer Boulevard to NW Elks Drive, providing four vehicle travel lanes.[1]
- **Marys River-Crystal Lake Drive Shared-Use Path** – approximately 2,000 feet of a shared-use path will be constructed between the Marys River bicycle/pedestrian bridge and Crystal Lake Drive.
- **SW 35th Street Sidewalks and Railroad Crossing** – improvements to SW 35th Street between SW Western Boulevard and SW Jefferson Way include widening of the roadway to accommodate bike lanes and sidewalks, and reconstruction of SW 35th Street across the railroad tracks. This project was in progress during the update of the TSP and completed in 2016.

[1] These improvements are expected to be completed by Good Samaritan Regional Medical Center with planned development that is considered to be "financially committed" by City of Corvallis staff.

FUTURE DEMAND

CALM model forecasts of future demand show an increase in the overall number of trips in Corvallis. Total trips for all modes during the p.m. peak hour are forecasted to increase by 32 percent between 2010 and 2040.

The mode share is not expected to change significantly in Corvallis based on the predicted growth. The share of travel in 2040 for each mode is expected to be within 1 percent of the value identified in Figure 13.

With the forecasted increase in vehicle travel there is expected to be more p.m. peak hour congestion by 2040. As congestion increases along a given corridor, drivers may shift to alternative routes to minimize travel time and delays. This creates a ripple effect that can cause otherwise non-congested corridors to also become congested.

FUTURE CONDITIONS FOR 2040 BASELINE

This section summarizes how the transportation system is expected to perform in the 2040 Baseline scenario compared to 2010. The 2040 Baseline assumes that no significant improvements have been made to the transportation system. Table 5 highlights key indicators and shows the percentage change between 2010 and 2040.

The biggest change noted in Table 5 is the increase in intersections that fail to meet mobility standards. In the 2040 Baseline scenario, the number of intersections that fail to meet mobility standards nearly doubles due to forecasted vehicle traffic increases by 2040, and expected shifts in traffic patterns away from existing congested routes to parallel routes. Another significant change related to motor vehicle mobility is peak hour travel time on freight routes. On average the travel time will increase by 22 percent. This is notable compared to the overall increase in VMT per capita of 7 percent.

The proximity of high-quality bicycle and pedestrian facilities is predicted to decrease by 10–20 percent. This is due to the projection that much of the expected employment and residential growth will occur in areas away from the city center where fewer high-quality bikeways and pedestrian facilities exist. Without new high-quality facilities to serve these growing areas, overall access in the community will decrease. It is important to note that the 2040 Baseline does not include facilities that will be built as development occurs, which will be expected to include high-quality bicycle and pedestrian infrastructure.

Table 5. Summary of Existing and Future Year Evaluation Criteria

EVALUATION CRITERIA			EXISTING CONDITIONS	2040 BASELINE CONDITIONS	CHANGE
Vehicle-Miles Traveled (VMT) per capita – daily Vehicle-Miles Traveled (VMT) total – daily			5.41 310,500	5.80 426,300	7% 37%
Major intersections that do not meet applicable vehicle mobility performance standards or targets			10	17	70%
Peak hour travel time on freight routes, in minutes			56	68	21%
Percent of total jobs within 1/4-mile walking distance of transit stops served by at least 30 transit vehicles per day			34%	35%	1%
Percent of total households within 1/4-mile walking distance of transit stops served by at least 30 transit vehicles per day			34%	32%	-2%
Span and frequency of transit service – number of routes that provide 30 or more trips per day			2	2	0%
Percent of arterial and collector roadway miles with transit service providing 30 or more transit vehicles per day			9%	9%	0%
Percent of the arterials and collectors with biking facilities			79%	79%	0%
Bicycle Level of Traffic Stress – Percent of high-quality (or low-stress) on all roads			70%	70%	0%
Percent of population and employment within 1/8-mile of high-quality pedestrian or bicycle facilities	Ped	Population	56%	50%	-6%
		Employment	55%	53%	-2%
	Bike	Population	93%	89%	-4%
		Employment	88%	85%	-3%
Percent of all roads with walking facilities on both sides of the roadway			71%	71%	0%
Pedestrian Level of Service – Percent of high-quality collector and arterial segments			20%	18%	-2%
Pedestrian Level of Service – Number of low or medium-low quality intersections			15	15	0%

Note: Criteria for Existing Conditions including VMT per capita calculations or population/household/employment data are based on 2010 land use data. All other Existing Conditions criteria are based on 2014 data.

NEEDS UNDER EXISTING & FUTURE CONDITIONS

Below is a summary combining the needs from the existing and future transportation conditions analyses for all modes. For a complete account of transportation system conditions and needs, see Technical Memoranda #7 (Existing Transportation Conditions and Baseline Performance) and #12 (Future Transportation Conditions and Performance).

WALKING

NEEDS IDENTIFIED UNDER EXISTING CONDITIONS

- Fill gaps in the sidewalk system. Despite the high level of sidewalk coverage, parts of the city have sidewalks gaps. These gaps are predominately located on local streets, and concentrated on the edge of the city. Gaps are most common in southwest and southeast Corvallis, and on roadway segments outside the city limits. There are also segments along roads in central Corvallis that provide important connections that lack sidewalks on both or one side of the street. Key sidewalk gaps in developed areas include:
  - » Crystal Lake Drive between OR 99W and Alexander Avenue (Corvallis and Benton County),
  - » Country Club Drive between 35th Street and 45th Street (Corvallis),
  - » A group of local streets surrounded by Circle Boulevard, 29th Street, Grant Avenue and Witham Hill Drive, including Alta Vista Drive, Hayes Avenue, Hillcrest Drive, Garfield Avenue, Crest Drive, Sylvan Drive and Forest Drive (Corvallis), and
  - » South side of Rivergreen Avenue, between OR 99W and Summerfield (Corvallis).
- Increase sidewalk coverage on roads owned by ODOT. Within city limits, only 55 percent of ODOT's roads have a sidewalk on at least one side of the road. Key segments include:
  - » OR 99W north of Fillmore Avenue (ODOT)[1], and
  - » US 20-OR 34 from Downtown to the western city limits (ODOT)[2]
- Improve crossing safety for pedestrians. Most pedestrian-involved crashes in Corvallis are caused by drivers failing to yield the right-of-way to a pedestrian in a crosswalk or along a sidewalk and occur downtown, between the OSU campus and downtown, and along 9th Street near Garfield Avenue.
- Improve pedestrian comfort. The highest pedestrian stress levels[3] occur on highways, arterials, or collectors, and on roadway segments on the periphery of the city, such as west of 36th Street on Harrison Boulevard.

[1] There is a parallel multi-use path on the east side from Cornell Avenue to Circle Boulevard.

[2] There is a parallel multi-use path on the south side of the highway from 15th Street to 35th Street and from Country Club Drive to the western UGB.

[3] Pedestrian stress levels are affected by sidewalk availability, speed limits, presence of buffer space between sidewalks and motor vehicle traffic, motor vehicle volume, and presence of street lighting.

NEEDS IDENTIFIED UNDER FUTURE CONDITIONS

- Improve pedestrian comfort. The highest stress levels for pedestrian facilities continue to be expected on highways, arterials, or collectors, and on roadway segments on the periphery of the city. Pedestrian facilities at intersections on the perimeter of the city also tend to rate lower than those in central neighborhoods.
- Provide high-quality pedestrian facilities in growing areas. In the 2040 Baseline scenario, compared to existing conditions, households and jobs are expected to have less access to high-quality walkways (Note: this analysis is based on existing infrastructure and does not account for sidewalk construction required of new development).

  Street segments in undeveloped areas where future development will require sidewalks include:

  » Highland Drive north of Conifer Boulevard (Corvallis and Benton County),

  » West Hills Road west of Western Boulevard (Corvallis and Benton County), and

  » Harrison Boulevard between NW Witham Drive and 53rd Street/ Walnut Boulevard (Corvallis and Benton County).

- Street segments where growth is anticipated and current roadways have low or medium-low pedestrian network qualitative assessment scores will need enhancements to improve their conditions. These segments include:

  » 53rd Street between Country Club Drive and Plymouth Drive (Benton County),

  » US 20-OR 34 between 35th Street and 69th Street (ODOT), and

  » OR 99W between Rivergreen Avenue and the southern UGB boundary (ODOT).

- Provide safe routes to school. The Corvallis program has recommended safe routes for seven elementary schools. The pedestrian assessment score on these routes varies from high-quality to medium-quality. The segments that score high-medium or medium need additional amenities and/ or modified roadway characteristics to ensure a high-quality pedestrian experience for students traveling to and from school. Additionally, safe routes should be developed to identify needed amenities to ensure a high-quality pedestrian environment for the middle and high schools within the UGB.
- Address other problematic areas for pedestrians. The areas identified include Monroe Avenue along the OSU campus, and the intersections of NW Jackson Avenue and 3rd Street and 4th Street (OR 99W), SW Adams Avenue and 4th Street (OR 99W), 11th Street and NW Buchanan Avenue, 29th Street and NW Grant Avenue, and 35th Street and Campus Way.

BIKING

NEEDS IDENTIFIED UNDER EXISTING CONDITIONS

- Fill gaps in the bicycle network system. Despite the high level of bicycle routes, coverage gaps remain, predominately on short segments of roads that otherwise have bike lanes, or on segments of roads that have no on-street bike facilities. Filling these gaps would better connect the bicycle network. Examples of missing segments include:
  - » Harrison Boulevard between 30th Street and 35th Street (Corvallis),
  - » 30th Street between Jackson Avenue and Harrison Boulevard (Corvallis),
  - » 3rd and 4th Streets between Harrison Boulevard and the Marys River (ODOT),
  - » 9th Street between Polk Avenue and Monroe Avenue (Corvallis), and
  - » Crossing the Willamette River near the Harrison and Van Buren bridges (ODOT).
- Increase bike lane coverage on ODOT facilities. ODOT-owned roadways within city limits are less likely to have bike lanes – approximately 52 percent of ODOT's 18 miles of roads in Corvallis have no bicycle facilities.
- Develop neighborhood bikeways as part of a low-stress bike network along neighborhood and local streets, and across higher volume roadways. Not all roadways will be able to accommodate on-street bike facilities because of right-of-way constraints, limited funding, and/or parallel corridors with fewer constraints. A network of neighborhood bikeways would provide an alternative to streets where bikeways are high stress and space constraints do not permit construction of bike facilities.
- Improve crossing safety for bicyclists at intersections. Most of the crashes involving a bicyclist were caused by drivers failing to yield the right-of-way when turning.
- Improve comfort for bicyclists. The majority of roads in Corvallis have a low level of bicycling stress. However, the streets with highest stress levels are the streets important for local and regional through travel, where most businesses and services are located. Streets in downtown Corvallis generate moderate to high levels of stress for people on bicycles, particularly 3rd and 4th Streets (OR 99W). Examples of roadway segments with high or extreme bicycle stress levels include:
  - » Circle Boulevard between US 20 and Woodland Meadow Park (Corvallis),
  - » Harrison Boulevard/Oak Creek Drive from Merrie Drive to the western UGB (Corvallis/Benton County)
  - » Highland Drive north of Conifer Boulevard (Corvallis and Benton County), and Highland Drive/10th Street between Circle Boulevard and Harrison Boulevard (Corvallis),
  - » 9th Street between Monroe Avenue and Elks Drive (Corvallis), and
  - » OR 99W between the northern UGB to Harrison Boulevard, and between the Marys River and the southern UGB (ODOT).

NEEDS IDENTIFIED UNDER FUTURE CONDITIONS

- Provide high-quality bicycle facilities in growing areas. Employment growth is anticipated further from existing high-quality bikeways. In 2040, commuters are expected to have lower bicycle facility access, with only 85 percent of jobs within a 1/8-mile of a high-quality bikeway compared to 96 percent in 2010. The areas with reduced access are at the far southern areas of the city and in the northeast near the Hewlett-Packard campus. To service high growth areas projected in the 2040 Baseline scenario, future bicycle infrastructure is likely needed in the following areas: (Note: this analysis is based on existing infrastructure and does not account for bike facility construction required of new development).
  - » Connecting southeast Corvallis to Downtown in the area bordered by OR 99W, Goodnight Avenue, Thompson Street and Alexander Street,
  - » In southeast Corvallis in the area bordered by OR 99W, Herbert, the railroad corridor and US 20-OR 34,
  - » In southwest Corvallis adjacent to 53rd Street between SW Country Club Drive and Plymouth Drive,
  - » In southwest Corvallis north of US 20-OR 34 and west of 66th Street, and
  - » In northwest Corvallis north of Walnut Boulevard between 29th Street and Kings Boulevard.
- As part of a low-stress bicycle network, develop neighborhood bikeways along local streets, and across higher volume roadways. Not all roadways listed above will be able to accommodate bike lanes because of right-of-way constraints, limited funding, and/or fewer constraints on parallel corridors. A low-stress network would focus on providing safe and comfortable bikeways on streets with low traffic speeds and volumes.
- Develop multi-use paths. Paths are needed further north and south along the Willamette River, north of Circle Boulevard along OR 99W, and connecting Corvallis and North Albany via an off-street path along US 20.

DRIVING

NEEDS IDENTIFIED UNDER EXISTING CONDITIONS

- Resolve the freight pinch point on OR 34/Harrison Boulevard. Trucks with wide and long loads traveling westbound on OR 34 (Harrison Boulevard) have trouble making the turn to northbound OR 99W (3rd Street).
- Resolve freight pinch points on OR 99W at the OR 34 overpass. The vertical clearance for northbound and southbound OR 99W at the OR 34 overpass is one to two feet below the design standard.
- Resolve freight pinch points on the Van Buren Avenue Bridge (OR 34 eastbound). The vertical clearance for the bridge is about one foot below the design standard and the bridge is also weight-restricted.
- Improve safety at high crash intersections. Fourteen intersections in Corvallis were noted as having a high rate of crashes relative to traffic volume and type of intersection.
  - » Harrison Boulevard/3rd Street (ODOT)
  - » US 20-OR 34/53rd Street (ODOT)
  - » 9th Street/Circle Boulevard (Corvallis)
  - » 14th Street/Monroe Avenue (Corvallis)
  - » OR99W/Circle Boulevard (ODOT)
  - » 9th Street/Van Buren Avenue (Corvallis)
  - » US 20-OR 34/35th Street (ODOT)
  - » US 20-OR 34/15th Street (ODOT)
  - » Harrison Boulevard/2nd Street (ODOT)
  - » 9th Street/Harrison Boulevard (Corvallis)
  - » Technology Loop/Hwy 34 (ODOT)
  - » Van Buren Avenue/4th Street (ODOT)
  - » 9th Street/Conifer Boulevard (Corvallis)
  - » US 20-OR 34/Western Boulevard (ODOT)
- Improve safety at high concern locations. Six locations are identified through ODOT's Safety Priority Index System (SPIS) as having a high combination of crash frequency and severity (Top 5 Percent SPIS).
  - » OR 99W/Circle Boulevard (ODOT)
  - » 9th Street between Circle Boulevard and Spruce Avenue (Corvallis)
  - » Kings Boulevard from Harrison Boulevard through Van Buren Avenue (Corvallis)
  - » 3rd Street between Van Buren Avenue and Polk Avenue (ODOT)
  - » US 20-OR 34 near the intersection with 15th Street (ODOT)
  - » Western Boulevard around the intersection with 26th Street (Corvallis)
- Improve traffic operations at congested intersections. There are 10 study intersections that currently do not achieve adopted mobility targets/ standards during the weekday p.m. peak hour (see Table 6).

Table 6. Study Intersections That Do Not Meet Mobility Targets/Standards During Existing (2014) Weekday PM Peak Hour Conditions

INTERSECTION	JURISDICTION	MOBILITY TARGET[1]	2014 INTERSECTION PERFORMANCE[2]	
			LOS	V/C
SIGNALIZED				
SW 35th St & US 20-OR 34	ODOT	0.85	E	0.88
SW 26th St & US 20-OR 34	ODOT	0.85	F	0.91
SW 15th St & US 20-OR 34	ODOT	0.85	E	0.95
NW Van Buren Ave & NW 2nd St	ODOT	V/C 0.90	F	1.00
NW Van Buren Ave & NW 3rd St	ODOT	V/C 0.95	D	1.00
NW Van Buren Ave & NW 4th St	ODOT	V/C 0.95	E	1.00
SW Technology Loop & US 20-OR 34	ODOT	V/C 0.85	D	1.00
TWO-WAY STOP CONTROLLED				
NW 30th St & NW Harrison Blvd	City of Corvallis	LOS D	A/F	0.44
SW 30th St & SW Western Blvd[3]	City of Corvallis	LOS D	F	0.78
SW 15th St & SW Washington Ave[3]	City of Corvallis	LOS D	F	0.45

Signalized intersections:
LOS = Level of Service of Intersection
V/C = Volume-to-Capacity Ratio of Intersection

Two-Way Stop Controlled intersections:
LOS = Level of Service of Major Street/Minor Street
V/C = Volume-to-Capacity Ratio of Worst Movement

[1] The City's mobility standard at the time the Needs assessment was completed allowed for operation at LOS D or lower. Through the TSP update process, the City's mobility standard was changed and is now based on a volume-to-capacity ratio as described in Chapter 6.

[2] See Appendix in Volume 2 for definitions of LOS and V/C.

[3] Analysis for existing conditions was provided by the Base Transportation Model Update: 2015-2016, Summary of Existing Intersection Operating Conditions for Vehicles, Kittelson & Associates, Inc, December 29, 2015.

NEEDS IDENTIFIED UNDER FUTURE CONDITIONS

- Improve traffic operations at congested intersections. Seventeen study intersections will not meet the mobility target/standard during the 2040 design hour conditions (see Table 7). This represents an increase of seven intersections compared to the 10 that do not meet mobility targets/standards under existing conditions.
- Improve travel time for freight traffic on eastbound US 20-OR 34. The travel times for most freight route segments are expected to increase from 10 to 35 percent. However, travel times are expected to increase approximately 65 percent by 2040 on eastbound US 20-OR 34, both from downtown (via Van Buren Avenue) and via the OR 34 Bypass.

TRANSIT

Transit conditions and needs were comprehensively evaluated in the Transit Development Plan (TDP). The needs below provide a high-level summary. The primary transit needs identified in the TDP include:

- More frequent service
- New service on Sundays
- Improved on-time performance and reliability
- Service earlier and later in the day
- Improved downtown coverage
- East-west transit connectivity between Monroe Avenue and Circle Boulevard

OTHER MODES OF TRAVEL

NEEDS IDENTIFIED UNDER EXISTING CONDITIONS

- Improve connections to passenger rail. Public comments suggested a desire to improve the connection between Corvallis to the existing Amtrak passenger rail line in Albany, as well as to other nearby cities where people live and work. The Linn-Benton Loop and Coast-to-Valley Express connections have since been supplemented with the one-year Corvallis to Amtrak Connector pilot project.
- Explore expansion of commercial air service. The Corvallis Municipal Airport experiences 52,300 annual operations (i.e., take-offs or landings). Limited commercial air service between Corvallis, Portland, and Newport has been provided in the past, but is not currently available. There has been interest in expanded commercial service in the past, but it was not found to be financially viable at the time. Eugene Airport (40 miles south) provides regional air service while more extensive regional and international air service for passengers and freight is provided via Portland International Airport (90 miles north).

Table 7. Study Intersections That Do Not Meet Mobility Targets/Standards During Existing (2014) and 2040 Baseline Weekday PM Peak Design Hour Conditions

INTERSECTION[1]	JURISDICTION	MOBILITY TARGET/ STANDARD[2]	2040 BASELINE INTERSECTION PERFORMANCE[3]	
			LOS	V/C
SIGNALIZED				
15th St & US 20-OR 34[4]	ODOT	V/C 0.85	E	1.11
OR99W & Conifer Blvd	ODOT	V/C 0.90	F	1.01
OR99W & Crystal Lake Dr/Avery Ave[4]	ODOT	V/C 0.90	F	1.16
Harrison Blvd & 4th St	ODOT	V/C 0.95	D	0.98
Harrison Blvd & 2nd St[4]	ODOT	V/C 0.90	D	1.09
Van Buren Ave & 2nd St[4]	ODOT	V/C 0.90	F	1.46
Van Buren Ave & 3rd St[4]	ODOT	V/C 0.95	F	1.42
Van Buren Ave & 4th St[4]	ODOT	V/C 0.95	F	1.31
US 20-OR 34 & 35th St[4]	ODOT	V/C 0.85	E	1.05
US 20-OR 34 & 53rd St[4]	ODOT	V/C 0.85	F	1.02
OR99W & Circle Blvd	ODOT	V/C 0.90	E	1.01
Technology Loop & US 20-OR 34[4]	ODOT	V/C 0.85	D	1.08
26th St & US 20-OR 34[4]	ODOT	V/C 0.85	E	1.09
TWO-WAY STOP CONTROLLED				
30th St & Harrison Blvd[4]	City of Corvallis	LOS D	A/F	>2.0
US 20-OR 34 & Western Blvd[4]	ODOT	V/C 0.95	A/F	1.26
30th St & SW Western Blvd[5]	City of Corvallis	LOS D	(2040 performance not available)	
15th St & SW Washington Ave[5]	City of Corvallis	LOS D	(2040 performance not available)	

Signalized intersections:
LOS = Level of Service of Intersection
V/C = Volume-to-Capacity Ratio of Intersection

Two-Way Stop Controlled intersections:
LOS = Level of Service of Major Street/Minor Street
V/C = Volume-to-Capacity Ratio of Worst Movement

[1] Bold intersection names indicate mobility targets/standards are not met under existing conditions.

[2] The City's mobility standard at the time the Needs assessment was completed allowed for operation at LOS D or lower. Through the TSP update process, the City's mobility standard was changed and is now based on a volume-to-capacity ratio as described in Chapter 6.

[3] See Appendix in Volume 2 for definitions of LOS and V/C.

[4] Study intersection also fails to meet mobility targets/standards under Average Weekday P.M. Peak Hour conditions.

[5] Analysis for existing conditions was provided by the Base Transportation Model Update: 2015-2016, Summary of Existing Intersection Operating Conditions for Vehicles, Kittelson & Associates, Inc, December 29, 2015.


CAUTION CUIDADO
PISE CON CUIDADO
PISE CON CUIDADO
WATCH YOUR STEP
WATCH YOUR STEP
PISE CON CUIDADO
WATCH YOUR STEP
PISE CON CUIDADO

5 STRATEGIES

Finding solutions to identified needs requires strategic approaches to make the most of investments in infrastructure. This chapter presents the strategies around system management, demand management, land use planning, preparing for smart mobility, encouraging a shift to active transportation modes of travel, and neighborhood traffic management tools. Chapters 6 and 7 provide the recommended transportation standards and list of improvement projects that will be implemented along with the strategies described in this section.

TRANSPORTATION SYSTEM MANAGEMENT

Transportation System Management (TSM) strategies extend the functional life of existing and future facilities by optimizing their ability to move people and goods in a safe and efficient manner. They are often easier to implement due to generally lower capital investment costs than traditional projects that build new facilities or add roadway capacity. Four TSM projects were identified and are included on the project list in Chapter 7.

1. **PROJECT A3: OPTIMIZATION OF US 20-OR 34, WHICH INCLUDES ADAPTIVE SIGNAL TIMING, FREIGHT SIGNAL PRIORITY AND COLLECTING REAL-TIME TRAVEL INFORMATION SUCH AS TRAFFIC VOLUMES, TRAVEL TIMES, AND VEHICLE CLASSIFICATION.**
2. **PROJECT A47: SIGNAL COORDINATION ALONG 9TH STREET BETWEEN POLK AVENUE AND WALNUT BOULEVARD.**
3. **PROJECT A71: SIGNAL COORDINATION ON CIRCLE BOULEVARD FROM 27TH STREET EAST TO WALNUT BOULEVARD.**
4. **PROJECT A72: SIGNAL COORDINATION ON WALNUT BOULEVARD FROM OR 99W TO GLENRIDGE DRIVE.**

TRAFFIC SIGNAL COORDINATION AND OPTIMIZATION

The coordination and optimization of traffic signals along key corridors can substantially reduce congestion and travel time. Signals along US 20-OR 34 (between 15th Street and 35th Street), OR 99W, and US 20 are currently coordinated and any new signals along these corridors within Corvallis will be added to the coordinated system.

For proposed signals on ODOT facilities, approval is needed from ODOT prior to installation. ODOT signal spacing policy identifies a desirable distance of at least 1/2 mile between signals unless an engineering investigation demonstrates that another distance would be appropriate. For proposed signals on Benton County facilities, approval is required from Benton County prior to installation.

INTELLIGENT TRANSPORTATION SYSTEMS

The Central Willamette Valley Intelligent Transportation System (ITS) Plan defines advanced technologies that support regional transportation initiatives such as promoting travel options, optimizing transportation system performance, and reducing the frequency and effects of incidents. The plan was developed collaboratively with a steering committee of stakeholders from across the region. The ITS Action Plan includes advanced technologies and management strategies to improve the safety and efficiency of the transportation system and improve the traveler experience for all modes in the Central Willamette Valley. The ITS Action Plan includes specific ITS projects and deployment priorities.

The City will pursue opportunities to work with regional partners on larger scale ITS efforts that would benefit Corvallis residents. Such cooperation could include sharing information and data, allowing use of City right-of-way for regional ITS infrastructure, or advocating for enhancement of the traffic signals in the US 20-OR 34 corridor to include freight priority and detection for bicycles.

TRANSPORTATION DEMAND MANAGEMENT

Transportation Demand Management (TDM) or "transportation options" are terms for strategies that support transportation system efficiency by encouraging a shift from drive-alone trips to other means of travel such as transit, bicycling, walking, and ridesharing. Strategies may aim to reduce drive-alone trips overall or focus on peak-hour commuting times to reduce roadway congestion. Strategies the City can focus on are described below.

The existing Corvallis Transportation Options program supports TDM through the following program areas:

- **Education and Outreach:** The City of Corvallis fosters education programs such as the two-week event Get There Corvallis, runs safety ad campaigns on Corvallis Transit System buses and in local movie theaters, promotes the Bike Commute challenge each year, and tables at numerous Oregon State University and community events.
- **Commuters:** The Corvallis Transportation Program Specialist works directly with employers to manage programs that provide incentives for employees to bike, walk, use transit or carpool to work. There are currently 20 businesses, representing about 8,000 employees, participating in the Employee Transportation Coordinator program.
- **Community Involvement:** Corvallis has a Bicycle and Pedestrian Advisory Board that meets monthly. The Board advises the City Council and provides a forum for community input.
- **Regional Partnerships:** The Oregon Cascades West Council of Governments (OCWCOG) and InterCommunity Health Network Coordinated Care Organization (IHN-CCO) provide the Pedal Corvallis bikeshare program. The program aims to provide Medicaid members access to bicycles for medical appointments and personal trips. It is also open to community members age 18 and older. There are eight bikeshare stations located near Corvallis transit stops.

Cascades West Rideshare covers Benton, Linn, and Lincoln Counties with services that include vanpool matching through the Valley Vanpool program, connecting Corvallis to Eugene, Salem, Sheridan, and Springfield. Cascades West Rideshare also offers regional park-and-ride planning and promotes the statewide Drive Less Connect ridesharing tool.

Research has shown that a comprehensive set of complementary policies implemented over a large geographic area can influence the number of vehicle-miles traveled to/from that area.[1] As part of the Corvallis Area Metropolitan Planning Organization (CAMPO), Corvallis works with regional partners to implement and benefit from larger scale efforts.

[1] The Potential for Land Use Demand Management Policies to Reduce Automobile Trips, ODOT, by ECO Northwest, June 1992.

ACTIONS

- **Work with regional partners on TDM programs facilitating public transportation use.** Additional staff resources at the City level could enhance TDM and add new programming that supports transit ridership. These programs might include:
  - » **Work shuttles:** Some employment sites can be a good market for public transportation, especially if the company has limited parking, or has workplace incentives for not driving alone. Shuttle programs are typically sponsored by the employer and provide transportation between the employment site and major transit stops.
  - » **Individualized marketing:** Individualized marketing campaigns typically target a neighborhood, corridor, or employment site. Corvallis has done such a campaign in the past, and recurring campaigns have been shown to effectively promote transportation options.
  - » **Information kiosk:** An on-site kiosk at the Downtown Transit Center would provide information on transit routes, schedules, and fares; carshare and vanpool ridematching services; bicycle maps and resources; and other ways to help people travel using alternative modes.
  - » **Integrated trip planning:** Corvallis Transit System's online trip planner could be enhanced by adding other modes and regional transit service providers, such as the Linn Benton-Loop, 99 Express, Coast to Valley Express, Corvallis-Amtrak Connector, and Albany Transit System.
- **Continue travel training and mobility management services in coordination with Benton County and Oregon Cascades West Council of Governments.** Travel training includes a suite of services to introduce new or potential riders to a transit system. General travel training can also include events and training to let people of all ages and needs get familiar with public transportation. Training for seniors and people with disabilities can facilitate accessibility for these demographics, or facilitate access to the public fixed-route system.
- **Continue strong rider information and marketing materials.** Marketing can include reinforcing the CTS "brand" to ensure information is recognizable and familiar, and leads to clear, understandable and broadly accessible materials. Marketing for transit lets transit customers know how to use—and remember how to use—the Corvallis Transit System and related travel programs. The marketing programs should continue to be easy and inexpensive to implement to preserve operating resources, be integrated into other parts of the City's activities such as transportation options, and be designed to reach existing and potential rider markets.

cts going your way.

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 further reducing greenhouse gas emissions.

A recent report by CAMPO titled "Strategic Assessment of Transportation and Land Use Plans" (July 2014) examined how the region was trending toward the state mandates for greenhouse gas reduction. Specifically, the CAMPO goal is to reduce greenhouse gas emissions by 21 percent by 2035. This same CAMPO study revealed that the adopted long-range plans (as of 2014) for local cities will lead to a three percent increase in VMT per capita (often used as a proxy for tracking vehicle emissions) by 2035, so it evaluated a range of policy options and then identified several strategies that local cities can do to collectively work toward the region's greenhouse gas reduction goal.

Strategies available to Corvallis that are addressed by this TSP and the recently adopted TDP include encouraging a greater mode shift away from automobiles to transit and bicycling. Land use planning strategies for future consideration include:

- parking management and pricing strategies;
- creating compact, mixed-use development closer to the city core and on corridors with convenient access to high-quality, multimodal transportation facilities; and
- providing a range of housing opportunities within Corvallis to reduce dependence on commuters from outside communities.

As a demonstration of the effectiveness of such strategies, sensitivity testing of the impacts of locating high-density housing in close proximity to high-frequency transit corridors within Corvallis suggested that VMT per capita could be reduced by as much as six percent by 2040.

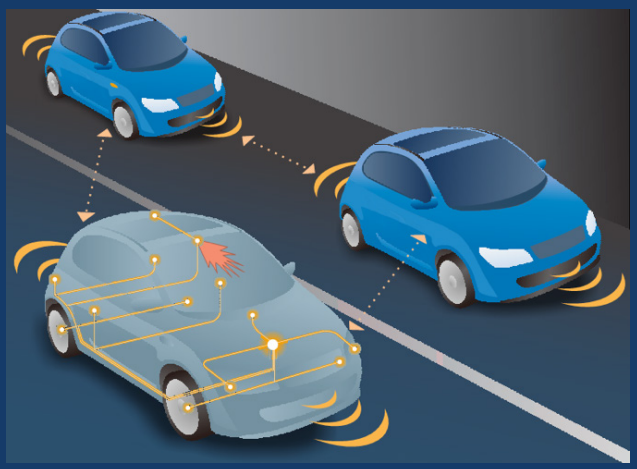
PREPARING FOR SMART MOBILITY

Emerging transportation technologies will shape roads, communities, and daily lives for generations. Vehicles are becoming more connected, automated, shared, and electric. While the timing of when these advances will occur is uncertain, they will have significant impacts on how a community plans, designs, builds, and uses the transportation system. Below are some important emerging transportation technology terms and 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 (see Figure 14). This means that vehicles will be able to assist human drivers and prevent crashes while making the 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. Vehicles with combined automated functions like lane keeping and adaptive cruise control exist today. In the future, more sophisticated sensing and programming technology will allow vehicles to operate with little to no operator oversight.
- **Shared vehicles** (SVs) are already in Corvallis, allowing ride-hailing companies to offer customers access to vehicles through cell phone applications. Ride-hailing applications give on-demand transportation with comparable convenience to car ownership without the hassle of maintenance and parking.
- **Electric Vehicles** (EVs) have been on the road for decades and are becoming more economically feasible as the production costs of batteries decline and vehicle fuel prices increase.

Many of these technologies will not be exclusive of the others and it is important to think of the host of implications that arise from the combination of them. These vehicles are referred to as connected, automated, shared, and electric (CASE) vehicles.

Figure 14. Vehicle to Vehicle Communication



IMPACTS OF CONNECTED AUTOMATED SHARED ELECTRIC (CASE) VEHICLES

CONGESTION AND ROAD CAPACITY

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.

- AVs will provide a more relaxing or productive ride experience and people may have less resistance to longer commutes.
- Shared AVs are projected to have lower fuel and operating costs, making them less expensive on a per mile basis than private vehicle ownership. This may increase demand for auto-based travel in the future.
- 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 when CVs and AVs comprise most of the public and private fleet of vehicles.

- In the near term, since AVs 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. These could include AVs making deliveries or shared AVs circulating around the city and traveling to their next rider.
- 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 to ensure the vehicles' sensors can recognize it.

These points raise questions about the degree to which CASE vehicles will impact road capacity and congestion. The development and use of the technologies should be monitored closely.

TRANSIT

AVs could become cost competitive with transit and reduce 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 sectors of a community so many 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 finds parking or its next passenger. Shared AVs will have an even greater impact on parking because parking next to the destination will no longer be a priority for the traveling public. This means that parking may be over-supplied in some areas and new opportunities to reconfigure land use will emerge. Outstanding questions related to parking 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 the destination will create more potential for conflicts in the right-of-way between vehicles that are dropping passengers off or picking them up, 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 and food. This may mean that delivery vehicles 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, robots, and bicyclists.

An increased demand for deliveries using aerial drones will bring new challenges for the City to address related to noise, personal privacy, aerial congestion, and siting of drone distribution centers.

ELECTRIC VEHICLE CHARGING

To accommodate a future where electric vehicles are the majority of the vehicle fleet, additional charging infrastructure will be required. Cities, electric utilities, regions, and states will need to work together to create enough reliable electricity supply to fulfill the increased electrical 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-hailing stations, see Figure 15. This can serve as a tool to encourage travelers to take seamless multimodal trips that are well timed and convenient. Mobility hubs work best in transit centers that are located near urbanized areas with multimodal supportive infrastructure (e.g., buffered bike lanes) to maximize connectivity for first- and last-mile solutions. The location of Corvallis's Downtown Transit Center and presence of transit and bike share is an opportunity to create a mobility hub at a low cost.

Figure 15. Mobility Hubs Provide Multimodal Options

ROAD PLANNING AND CAPACITY

It is difficult to plan for the impacts of CASE vehicles on road capacity at this point in their development. There is a high potential that ultimately road capacity will increase after CASE vehicles are widely adopted, but with a corresponding increase in vehicle-miles traveled, resulting in continued congestion in the future.

CASE vehicles do, however, provide an opportunity for effective TDM solutions because the expected congestion can be used to encourage use of transit, shared vehicles, and bike share. These modes could be further supported through pricing mechanisms on vehicles, which are vastly less expensive to implement to reduce congestion than building more road capacity.

PARKING

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

- Consider building new parking garages that can be converted (with flat instead of ramped floors) to other uses in case AVs make them underutilized in their lifetime. If that isn't financially feasible, consider alternative TDM strategies.
- Consider lowering minimum parking requirements for new developments, especially in areas that are within one mile of transit.
- Consider strategies and public/private partnerships to fund the installation of 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 will need to adapt to new competition in the transportation marketplace as well as consider adopting CASE technologies to support transit operations. The City should 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.
- Creating fixed route autonomous shuttles to provide first- and last-mile solutions.

ACTIVE TRANSPORTATION

Active transportation is the inclusive term that refers to getting around by foot, bicycle, or other personal mobility device like a wheelchair, stroller or walker, and other travel conveyances that involve human power, such as skateboards and rollerblades. Active transportation reduces the reliance on single-occupant vehicles, promotes the efficient use of existing transportation system investments, and expands transportation options by providing additional opportunities for personal mobility. Benefits of active transportation extend beyond the traditional transportation goals of managing transportation system demand or reducing congestion:

- Active transportation engages people in healthy physical activity.
- Active transportation is affordable (both in terms of the cost to construct or provide active transportation infrastructure relative to other modes, and in terms of the financial cost borne by the people walking and bicycling).
- Active transportation is one of the most space and resource efficient modes of transportation (i.e., sidewalks and bicycle infrastructure require limited right-of-way relative to other modes, and no external energy sources are necessary for people to walk, bike, or roll). Active transportation is therefore critical for reducing greenhouse gas emissions and achieving the goals laid out in Corvallis's Climate Action Plan.
- Active transportation supports mobility for vulnerable populations and people who do not have the financial means to purchase a vehicle, are too old or young to drive, and who may not have the physical ability to operate a vehicle.

Investments in active transportation include a range of programs and strategies beyond the construction of sidewalks, bike lanes, and paths. These include bicycle parking, wayfinding, pedestrian scale lighting, streetscape improvements, marketing campaigns, safety projects, enforcement of traffic laws, and community events that promote active transportation.

The ***Active Transportation Toolkit***, included in Volume 2 of this TSP, is a reference guide that can be applied by the City to identify solutions to enhance the active transportation system. In general, the intent of these solutions is to augment the existing streets and multimodal paths to improve the quality and safety for walking, biking, and transit travelers.

LOW-STRESS BICYCLE NETWORK

The establishment of a low-stress bicycle network across the city is a key strategy for encouraging people to travel by bicycle. Projects to create Corvallis's low-stress bicycle network are identified in Chapter 7, and a variety of design treatments are described in the ***Active Transportation Toolkit***. The objective is to create a clear network of bicycle routes connecting many origins and destinations without requiring people to ride in places that exceed their comfort level or detour them far out of their way.

Neighborhood bikeways are the central component of the low-stress network and consist of streets with lower traffic volumes and speeds where bicycle through-travel is given priority. They often include traffic calming treatments (e.g., diverters, curb extensions, and mini traffic circles) to help keep motor vehicle volumes and speed low. Wayfinding signage and pavement markings can also help guide bicyclists through the network. Where travel along or across higher volume and speed streets is necessary, buffered or protected bike lanes that provide physical separation between motor vehicle traffic and people biking or enhanced crossing treatments (e.g., median refuge island, flashing beacons, and traffic signal timing and phasing modifications) can be applied to maintain low-stress connectivity in the network.

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 people walking and biking. 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 (Table 8). 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 transit and emergency responders. The Active Transportation Toolkit developed through this TSP update process provides examples of commonly used NTM strategies that Corvallis could consider for future applications. Any NTM project should include coordination with transit and emergency response staff.

Table 8. Application of Neighborhood Traffic Management Strategies

APPLICATION	USE BY FUNCTIONAL CLASSIFICATION			IMPACT	
	ARTERIALS/ COLLECTORS	NEIGHBORHOOD 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		●	●	●	●

The City of Corvallis has a formal neighborhood traffic management program.[1] The traffic calming program provides two goals: reduce speeds in neighborhoods and reduce excessive cut-through traffic on adjacent local streets. The program provides guidelines and a procedure to apply these traffic calming techniques.

[1] City of Corvallis Council Policy Manual Policy Area 9 – Right of Way Matters, CP 9.07 Traffic Calming Program 2008.


SAMFIT STATION
Pedal
Corvallis
Zagster
READY TO RIDE?
HOW IT WORKS
1 JOIN
2 UNLOCK
3 RIDE
4 RETURN & LOCK
SPONSORED BY
SamFit
zagster.com/pedalcorvallis
Carl's Jr
DRIVE THRU
Zagster

6 STANDARDS

Corvallis applies transportation standards and regulations to the construction of new transportation facilities and to the operation of all facilities to ensure the system functions as intended and 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. Individual streets do not act independently of one another but instead form a network that works together to serve travel needs on local and regional levels. By designating the management and the design requirements for each street classification, a hierarchal system is established to support a network of streets that perform as desired.

The functional classification system for roadways in Corvallis is described below. The functional classification maps, Figure 16 and Figure 17, show the classification for all roadways in the city, including new street extensions proposed as part of the motor vehicle system improvements (see Chapter 7). Environmental constraints were considered in locating new streets and extensions of existing streets, as represented in Figure 18 and Figure 19.

The function assigned to a new street might be officially modified through future work on an area plan, annexation agreement, or in response to traffic analysis associated with development.

It is important to note that changing the functional classification of an existing roadway does not trigger physical changes to the roadway in the near term. Roadway widening to construct bike lanes or additional travel lanes may happen over time as the right-of-way becomes available. The timing of roadway changes will vary by location. For example, if redevelopment occurs along an arterial or collector street, right-of-way may be set aside in the present to provide the width to meet street cross-section standards at some future point.

Classifications shown for Benton County roads inside the Corvallis Urban Growth Boundary (UGB) reflect the City's desired function for those facilities. Although these classifications may not match those shown in Benton County's TSP, the Urban Fringe Management Agreement between Corvallis and Benton County requires County roads to be upgraded to City standards. Therefore, it is expected that Corvallis standards will be applied to County roads located within the Corvallis UGB. For arterial highways, the design standards from ODOT's Highway Design Manual will apply unless an alternative design has been agreed to.

Figure 16. Street Network by Functional Classification – North Extent

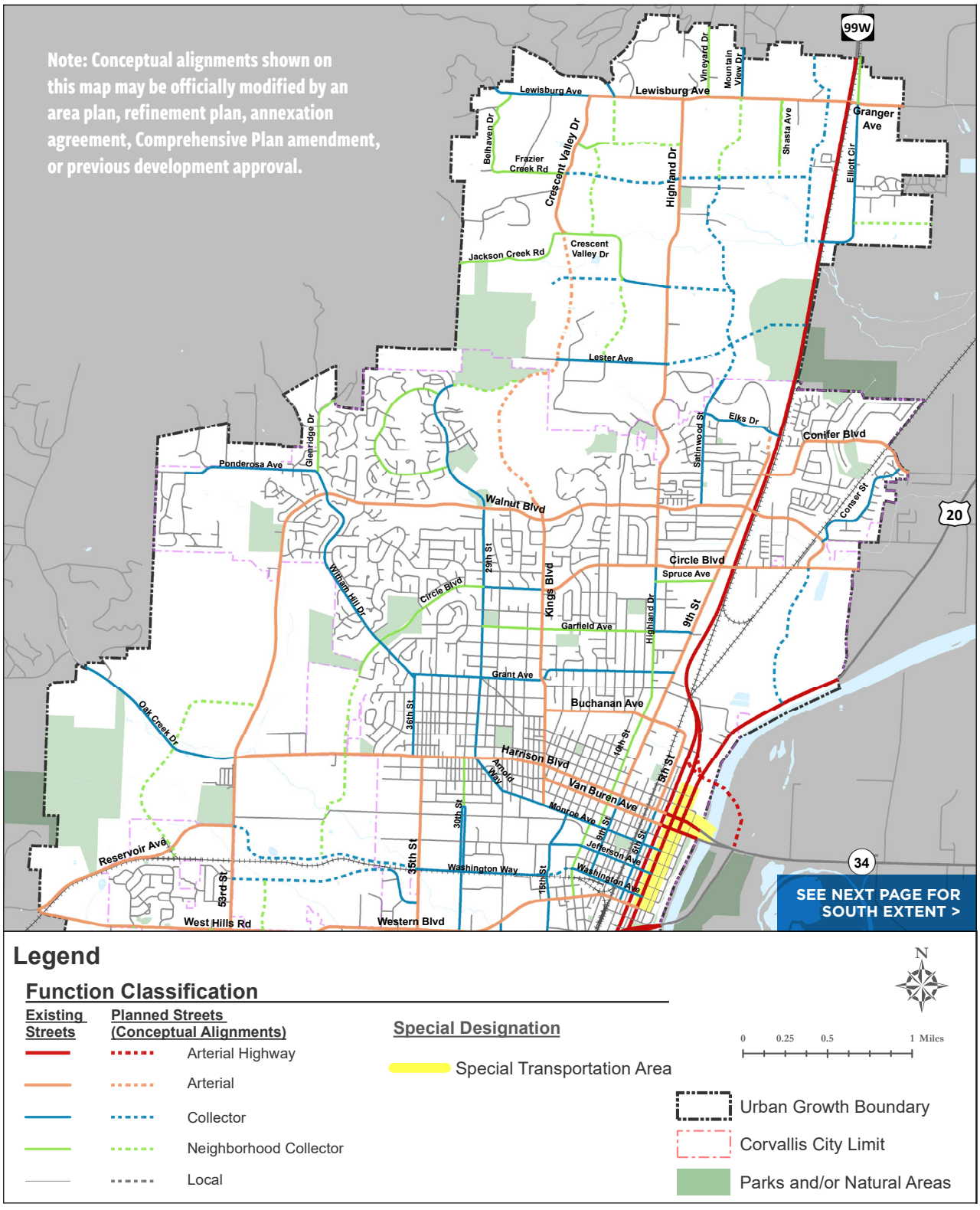


Figure 17. Street Network by Functional Classification – South Extent

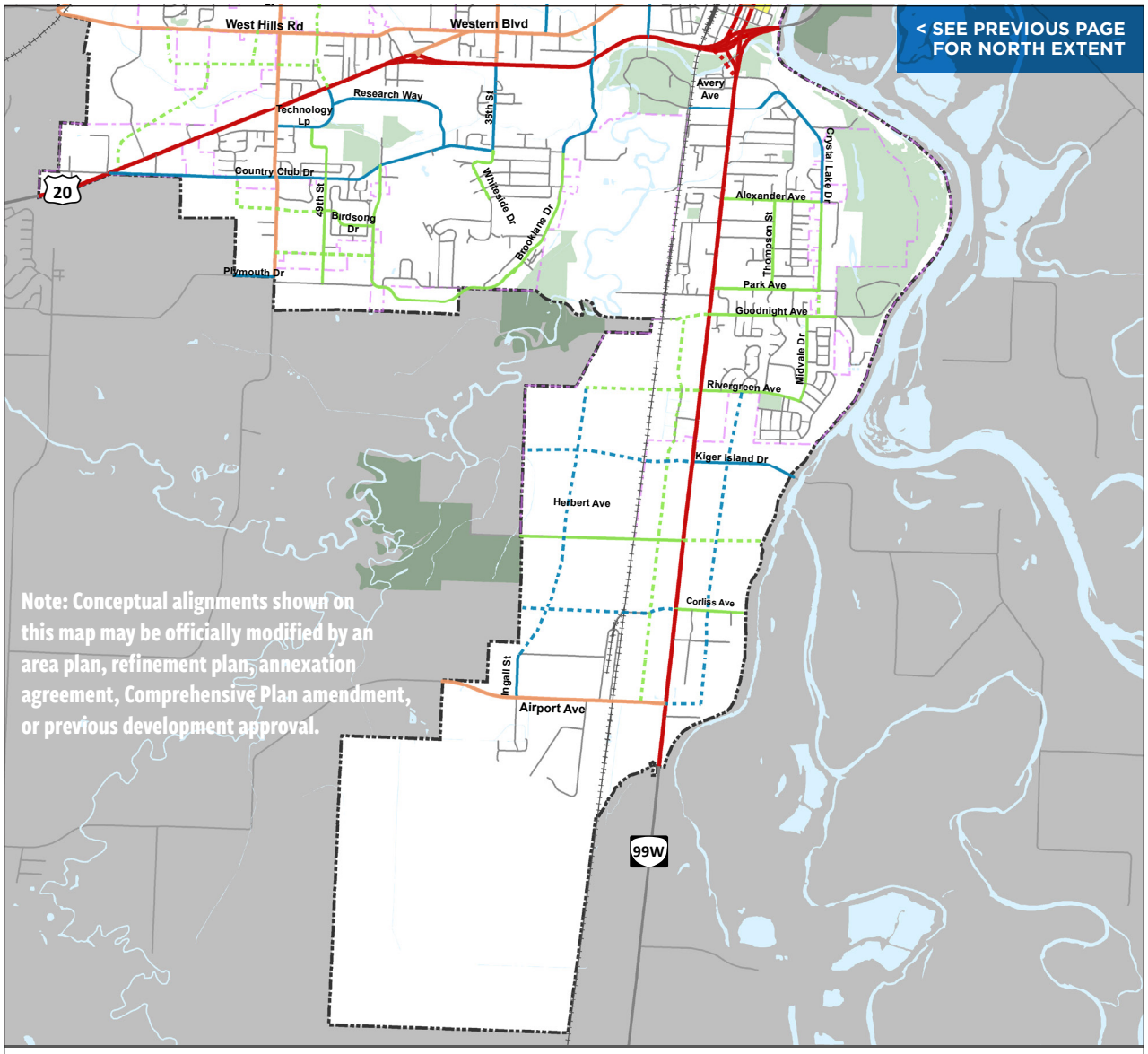


Figure 18. Street Network by Functional Classification with Natural Resources – North Extent

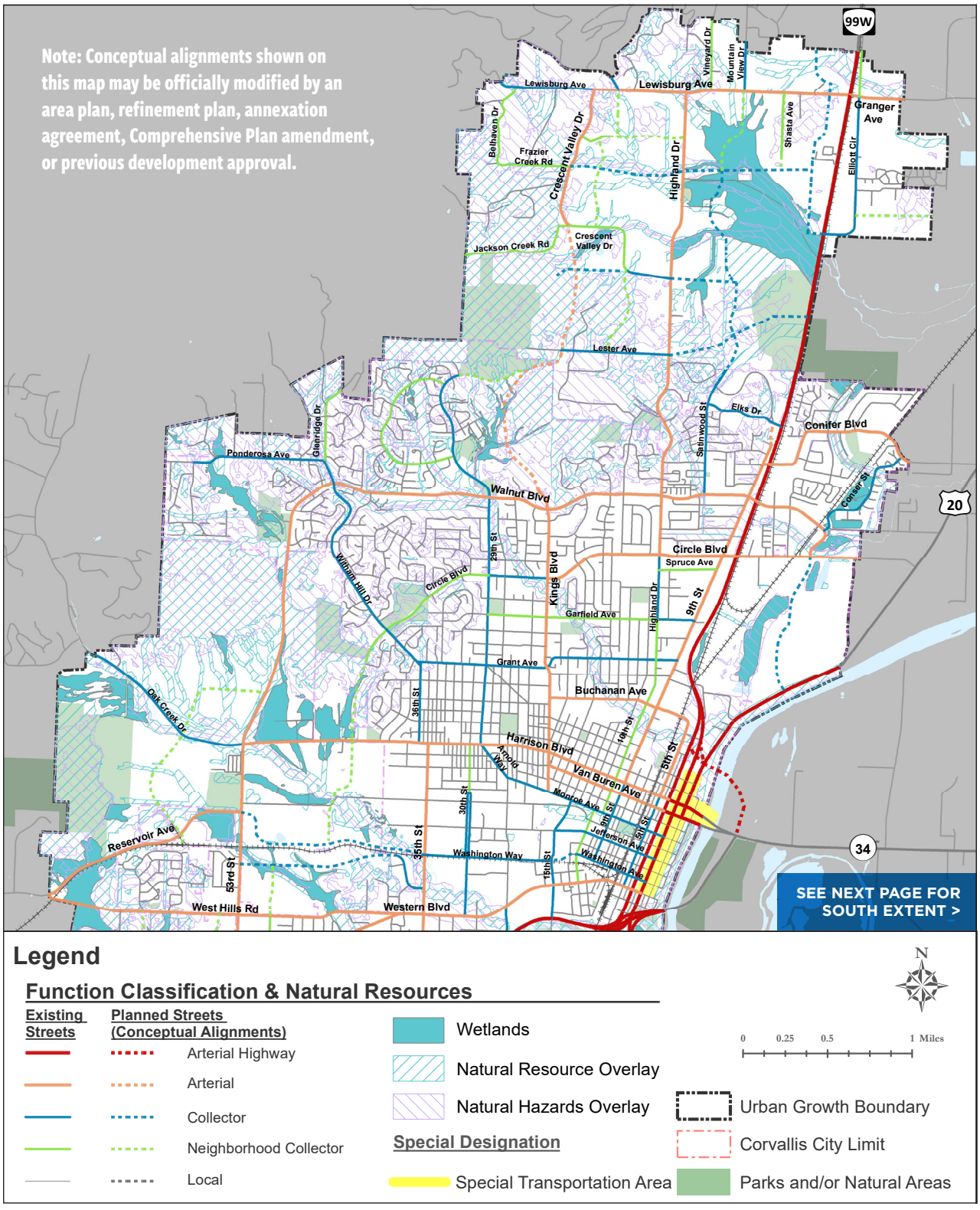
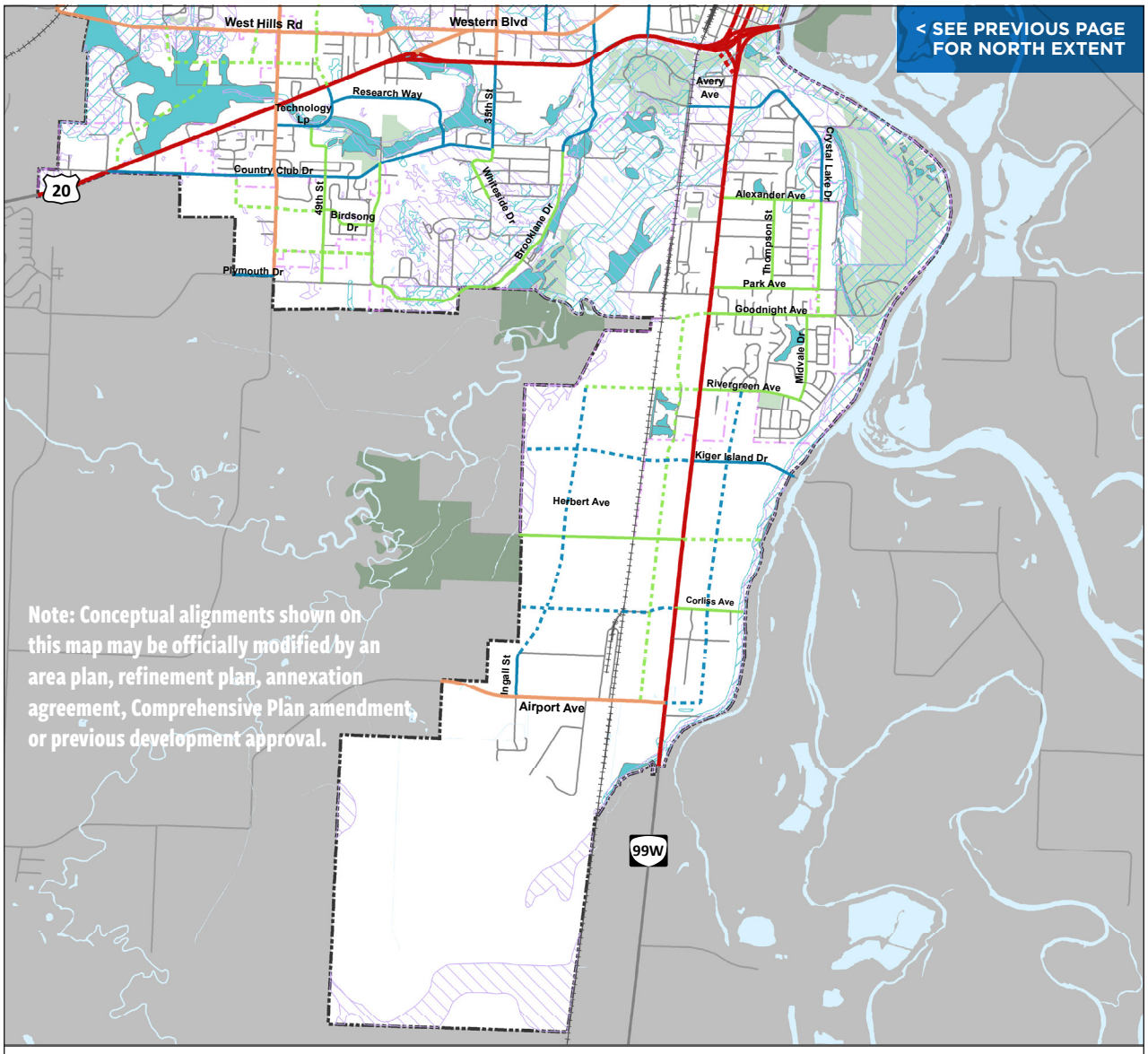


Figure 19. Street Network by Functional Classification with Natural Resources – South Extent

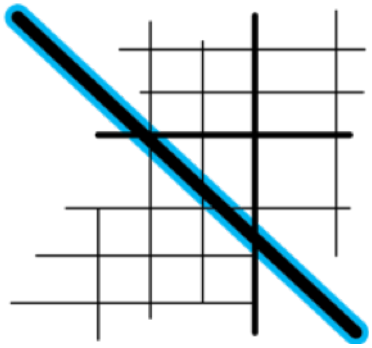


ARTERIAL CLASSIFICATIONS

Arterial highway is applied for all state highways in the city, including OR 99W, US 20, OR 34, and US 20-OR 34. These highways serve as the primary gateways and main travel routes through the city and generally serve the highest volume of motor vehicle traffic, carrying nearly all the vehicle trips entering, leaving, and passing through Corvallis. Arterial highways are generally for longer motor vehicle trips with limited local access, although the portion of OR 99W through downtown Corvallis also serves as one of the city's main streets and is designated as a Special Transportation Area[1] on the state highway system.

The traffic volume for an arterial highway is generally above 10,000 daily vehicles. Managed speeds of 45 mph to 55 mph are applied where high speeds can be accommodated safely. Lower speeds are appropriate in urbanized areas to reflect the roadside environment and surrounding land uses. This is the practice in the Central Business District, which has been designated by ODOT as a Special Transportation Area, to manage vehicle speeds at 20 mph to 25 mph and prioritize pedestrian, bicycle, transit, and local automobile movement.

Providing physical separation between the motorway and the adjoining walking and biking facilities may be preferred on roadways with higher vehicle volumes and speeds. Alternative bicycle design options such as cycle tracks, buffered bike lanes, raised bike lanes and separated multi-use paths can help to improve comfort for people biking, and setting sidewalks back from the curb with a planting strip helps improve comfort for people walking.[2]



Arterial streets provide a high degree of mobility linking state highways and major commercial, residential, industrial, and instructional areas. Arterial streets are typically spaced approximately one mile apart. They serve high volumes of traffic over long distances, typically maintain higher posted speeds, and limit direct access to adjacent land to support the safe and efficient movement of people and goods. In denser urban areas, speeds may be reduced to reflect the roadside environment and surrounding land uses. Some of the arterial streets in the Corvallis UGB (such as Airport Avenue and Lewisburg Avenue) connect to the surrounding areas in Benton County. Others (such as Walnut Boulevard and Harrison Boulevard) provide routing for cross-town travel. The typical traffic volume is greater than 5,000 daily vehicles and speeds are often managed between 25 mph and 45 mph.

As with arterial highways, providing greater separation between pedestrian and bicycle facilities and motor vehicle traffic is preferred due to higher vehicle volumes and speeds.

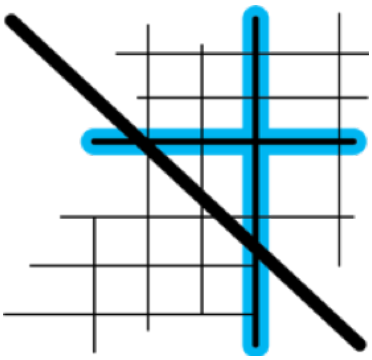
City standards include buffered bike lanes on arterial roadways. In special cases, protected bike lanes may be required based on recommendations of the City Engineer during the design process.

[1]OR 99W (3rd and 4th Streets) between NW Polk Avenue and SW Western Boulevard, and OR 34 between OR 99W and the Willamette River in downtown Corvallis are classified as a Special Transportation Areas by ODOT.

[2]Oregon Highway Design Manual, Chapter 6: Urban Highway Design (Non-Freeway)

COLLECTOR CLASSIFICATIONS

Collector and neighborhood collector streets serve a critical role in the roadway network by connecting traffic from local streets with the arterial network within the Corvallis UGB. Collector routes provide access and circulation within residential neighborhoods and commercial/industrial areas. Standard collectors are characterized by a range of uses resulting in a greater intensity of development along their routes or at major intersections with other collectors or arterials. Typical land uses include: low to medium-high density residential, commercial, or industrial and their associated traffic volumes. The general traffic volume on a collector ranges from 1,200 to 5,000 daily vehicles and speeds are often managed between 25 mph and 35 mph. Buffered bike lanes address the desire for greater separation and can improve the comfort of bicyclists on these facilities; and sidewalk connectivity is paramount to connect residential neighborhoods with commercial/industrial areas.



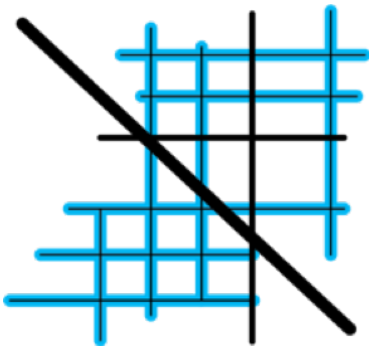
Neighborhood collectors differ from collectors primarily by the adjacent land use served, which is generally low to medium density and residential in nature. The purpose of the neighborhood collector is to provide a narrower and slower facility directly serving neighborhoods with correspondingly lower traffic volumes. Traffic calming techniques may be applied to these roadways as needed at the time of development, with reconstruction, or as policy allows. Neighborhood collectors provide more direct access to residences in Corvallis and generally serve trips to/from the immediate area. The typical traffic volume on a neighborhood collector ranges from 1,200 to 2,500 daily vehicles and speeds are managed to no more than 25 mph.

Collectors and neighborhood collectors are generally more comfortable to walk and bike along than arterials and are often easier to cross. Separate bike lanes are still required, although it is common to place bike lanes directly adjacent to vehicle travel lanes.

LOCAL STREET CLASSIFICATIONS

Local streets prioritize immediate access to adjacent land over long-distance and through travel. A grid system of relatively short blocks connected by local streets can minimize excessive volumes of motor vehicles and encourage more use by people walking and biking. These roadways generally are lined with residences and businesses and are designed to serve lower volumes of low-speed traffic. Desired traffic volumes are less than 2,000 vehicles per day, although in residential areas, traffic volumes no greater than 1,200 vehicles per day are preferred. A statutory 25 mph speed limit applies in most areas.

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 bicyclists can share the lane with vehicles. Dedicated pedestrian facilities are required. Neighborhood traffic management strategies (described in Chapter 5) can be applied to local streets to help maintain a low-stress environment for people walking and biking and to protect neighborhood livability.



Local connector street standards may apply to some local streets based on Corvallis staff guidance during development review and other transportation planning activities. Using a local connector standard allows for flexibility to expand the width of local streets where appropriate. The managed speed of local connectors is 25 mph but the desired traffic volume remains less than 2,000 daily vehicles.

Local connectors generally provide some through-traffic functions within developments and access to arterials, collectors, and other local streets. Example applications of the local connector standard may include:

- Direct access to a collector or arterial street
- Potential transit route
- Higher traffic volumes than surrounding local streets
- Fewer driveways than surrounding local streets
- Residential density of medium or higher

NAMING CONVENTIONS

The naming convention used by the City of Corvallis for the functional classification system is similar (e.g., collector, neighborhood collector), but not the same as the federal functional classification system naming convention, which is focused on highway mobility and access and not abutting land uses. The relationship between the City and federal functional classification system naming conventions is summarized in Table 9. Being able to clearly align these systems is important in order for the City to qualify for federal funding that is reserved for arterial and collector street projects.

Table 9. Comparison of City and Federal Street Functional Classifications

CITY OF CORVALLIS	FEDERAL HIGHWAY
Arterial Highway	Principal Arterial
Arterial	Minor Arterial
Collector	Major Collector
Neighborhood Collector	Minor Collector
Local Street/ Local Connector	Local Road

The functional classifications of proposed future roadways can be found in Table 10. Proposed roadways from the recommended project list (see Chapter 7) have been assigned a project number for identification purposes (e.g., M101), which is used in the table.

Table 10. Functional Classification for Proposed Roadways

FUTURE ROUTE	FUNCTIONAL CLASSIFICATION
A4: OR 99W/US 20-OR 34 Ramps	Arterial Highway
M6: Circle Boulevard Extension (Witham Hill Drive to Harrison Boulevard)	Neighborhood Collector
M7: North/South Connection (Airport Road to Goodnight Avenue)	Neighborhood Collector
M11: Reservoir Avenue Extension (35th Street to 53rd Street)	Collector
M12: Kings Boulevard Extension (Kings Boulevard North Terminus to Crescent Valley Drive)	Arterial
M15: Crystal Lake Drive Extension (Park Avenue to Goodnight Avenue)	Neighborhood Collector
M20: North Corvallis Bypass (OR 34 – OR 99W)	Arterial Highway
M58: East/West Connection (Highland Drive to Lester Avenue Extension [M77])	Collector
M59: Circle Boulevard Extension (Harrison Boulevard to Washington Way Extension [M11])	Neighborhood Collector
M64: 29th Street Extension (Bunting Drive to Kings Boulevard)	Neighborhood Collector
M71: Satinwood Street Extension (Satinwood Street to Lester Avenue)	Collector
M74: Rivergreen Avenue Extension (Rivergreen to North/South Connection M101)	Neighborhood Collector
M77: Lester Avenue Extension (OR 99W to Highland Drive)	Collector
M78: Frazier Creek Drive Extension (Elliot Circle Extension to Frazier Creek Drive)	Collector
M79: North/South Connection (Frazier Creek Drive Extension [M78] to Crescent Valley Drive Extension [M58])	Collector
M90: Elliot Circle Extension (OR 99W/Elliot Circle to North UGB)	Collector
M91: North/South Connection (Frazier Creek Drive Extension [M78] to Lewisburg Avenue)	Neighborhood Collector
M92: North/South Connection (Crescent Valley Drive to Spring Meadows Drive)	Neighborhood Collector
M93: Spring Meadows Drive Extension (Existing West Terminus to Highland Drive)	Neighborhood Collector
M94: North/South Connection (Spring Meadows Drive to Lewisburg Avenue)	Neighborhood Collector
M95: North/South Connection (Lester Avenue to Crescent Valley Drive)	Neighborhood Collector

Table 10. Functional Classification for Proposed Roadways, *Continued*

FUTURE ROUTE	FUNCTIONAL CLASSIFICATION
M98: North/South Connection (Rivergreen Avenue to Airport Avenue Extension [M111])	Collector
M99: Herbert Avenue Extension (Herbert Avenue to East UGB)	Neighborhood Collector
M101: North/South Connection (Airport Place to Rivergreen Avenue Extension [M74])	Collector
M105: Washington Way Realignment (15th Street to 11th Street)	Collector
M108: Technology Loop Extension (Gerold Street to US 20-OR 34)	Neighborhood Collector
M109: Sagebrush Drive Extension (Sagebrush Drive to 53rd Street)	Collector
M110: Kiger Island Extension (OR 99W to West UGB)	Collector
M111: Airport Avenue Extension (OR 99W to North/South Connection [M98])	Collector
M112: Gerold Street Extension (West Hill Road to Sagebrush Drive Extension [M109])	Neighborhood Collector
M113: North/South Connection (North/South Connection [M79] to Satinwood Street Extension [M71])	Collector
M114: Birdsong Drive Extension (49th Street to Country Club Drive)	Neighborhood Collector
M116: Shasta Drive Extension (Shasta Drive to Frazier Creek Drive Extension [M78])	Neighborhood Collector
M117: Raider Way Extension (Crescent Valley Drive to Kings Boulevard Extension [M12])	Collector
M118: East/West Connection (66th Street Extension to 53rd Street)	Neighborhood Collector
M119: North/West Connection (69th Street to West Hills Road)	Neighborhood Collector
M121: North/South Connection (US 20-OR 34 to West Hills Road)	Neighborhood Collector
M123: Weltzin Avenue Extension to West UGB	Collector
M124: East/West Connection (53rd Street to Gerold Street)	Neighborhood Collector
M125: North/South Connection (Reservoir Avenue to Walnut Boulevard)	Neighborhood Collector
M127: East/West Connection (Elliot Circle to East UGB)	Neighborhood Collector
M131: East/West Connection (53rd Street to 45th Street)	Neighborhood Collector

FREIGHT ROUTES

The City of Corvallis does not currently designate freight routes on streets within its jurisdiction. US 20-OR 34 (Corvallis-Newport Highway), OR 99W (Pacific Highway West), US 20 (Albany-Corvallis Highway), and OR 34 (Corvallis-Lebanon Highway) are part of the National Highway System (NHS), Federal Truck Routes, and Reduction Review Routes.[1]

All arterial highways are also designated by ODOT as Freight Routes. US 20 and nearby I-5 are two of four Strategic Freight Corridors whose connectivity is vital to the state economy. For example, US 20 is important to companies producing wood/forest products and I-5 contains some of the major intermodal facilities in the state and moves both heavy and valuable goods to markets around the world.[2] Safe and efficient truck freight movement to and through Corvallis is important for both the local and statewide economies.

Streets designated by ODOT as Freight Routes in Corvallis 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 may be present. The design and management of the state highways in Corvallis 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.

LOCAL EVACUATION ROUTES

Oregon Highway Plan Goal 1, Policy 1E designates routes for emergency response in the event of an earthquake, categorized as Tier 1, 2, and 3, which indicate highest to lowest priority facilities for attention following a disaster. In Corvallis, OR 99W is classified as a Tier 2 lifeline route, while US 20-OR 34 and OR 34 are classified as Tier 3 lifeline routes.[3]

The City will create policy to acknowledge Local Evacuation Routes and the importance of protecting their function for regional emergency response. Such a policy could help inform future decisions regarding proposed changes to these corridors. However, since ODOT maintains jurisdiction over all Local Evacuation Routes and has decision-making authority for any proposed changes, the impact of local policy would primarily be to show support for ODOT protecting the function of these routes.

[1] A Reduction Review Route is a statewide designation for freight routes that require state review and approval whenever any reduction to the existing space on a travel way either vertically or horizontally is proposed.

[2] Oregon Freight Plan 2017

[3] Oregon Seismic Lifelines Identification Project: Seismic Lifelines Evaluation, Vulnerability Synthesis, and Identification. 2012.

FACILITY CROSS-SECTION STANDARDS

Cross-section standards identify the design characteristics needed to meet the functional demand for each facility type for city streets. Since the actual design of a facility can vary from segment to segment due to adjacent land uses and demands, this system allows standardization of key characteristics to provide consistency, while recognizing the need for some flexibility in the design standards. Under some conditions a variance to the street standards may be approved by the City Engineer (see section describing Cross-Sections in Special Situations).

The TSP includes projects to construct multi-use paths as part of the walking and biking network. Design standards for multi-use paths are included in the City's ***Design Criteria Manual***.

Arterial highways (i.e., State facilities) in the city are subject to design standards in ODOT's Highway Design Manual chapter on urban highway design (non-freeway), except where the City maintains jurisdiction behind the curb (i.e., planting strips and sidewalks). Design elements described in Table 11 are current only at the time of the TSP update.[1]

SPECIAL DESIGNATION STANDARDS

Roadway cross-section standards are generally aligned with the functional classification hierarchy described previously. However, there are situations where special designations, like those described below are appropriate and these have different design standards.

- Shopping Streets are generally short, low-speed streets intended to support access and circulation within Minor and Major Neighborhood Centers.
- Downtown/Monroe Avenue street design standards apply to streets that abut property zoned Central Business (CB) and Riverfront (RF), including NW Monroe Avenue between NW 14th Street and NW 26th Street.
- OSU Street standards apply to improved public travel routes for vehicular, bicycle, and pedestrian use that are identified as private, OSU-owned streets in LDC Chapter 3.

Design standards for each of the special street designations are provided in LDC Chapters 3 and 4.

In addition, future corridor plans may include refined street cross-sections for specified street segments that would supersede the typical roadway cross-section standards if adopted as an amendment to this TSP. All special street designs included as part of plans completed prior to the adoption of this TSP have been superseded by the street design standards in this plan.

[1] Oregon Revised Statutes, 373.020

ROADWAY CROSS-SECTION STANDARDS

Planning level right-of-way needs can be determined using the standards information provided in this section. Table 11 shows the roadway cross-section elements.

Features listed as "typical" indicate that sufficient space for the amenities is included in the standard dimensions. "Not typical" or "Permissible" indicates treatments that are allowed for special cases only at the discretion of the City Engineer or City Council Policy (or the discretion of ODOT on arterial highways).

[1] Oregon Revised Statutes, 373.020

Table 11. Cross-Section Standards for Corvallis Roadways

	ARTERIAL HIGHWAY	ARTERIAL	COLLECTOR	NEIGHBORHOOD COLLECTOR	LOCAL CONNECTOR	LOCAL
Standard Right-of-Way Width	No Standard	79 ft. (3-lanes)	68 ft. (2-lanes)	66 ft. (2-lanes, no parking)	56 ft. (parking both sides)	50 ft. (parking both sides)
Curb-to-Curb Width	No Standard	49 ft.	38 ft.	36 ft.	34 ft.	28 ft.
Parking	Typical only in densely urbanized areas	Not Typical	Not Typical	8 ft. lanes (optional)	Shared Surface Both Sides	Shared Surface Both Sides
Auto Amenities	No standard number of lanes (11-12 ft.)	3-5 Lanes (11 ft.)	2-3 Lanes (11 ft.)	2 Lanes (10 ft.)	Shared Surface	Shared Surface
Bike Amenities	2 Lanes (6 ft.)	2 Lanes (8 ft.)[1]	2 Lanes (8 ft.)	2 Lanes (8 ft.)	Shared Surface	Shared Surface
Pedestrian Amenities	2 Sidewalks (6 ft., 10 ft. in densely urbanized areas) Ped. Islands	2 Sidewalks (6 ft.) Ped. Islands	2 Sidewalks (6 ft.)	2 Sidewalks (6 ft.)	2 Sidewalks (5 ft.)	2 Sidewalks (5 ft.)
Planting Strips	2 (9 ft.) Strips where sidewalk separate from curb	2 (9 ft.) Strips	2 (9 ft.) Strips	2 (9 ft.) Strips or 6 ft. Strips with Parking	2 (6 ft.) Strips	2 (6 ft.) Strips
Transit	Permissable/ Typical	Typical	Typical	Typical	Permissible/ Not Typical	Permissible/ Not Typical
Traffic Calming[2]	Permissable/Not Typical	No	No	Permissible	Permissible	Permissible
Preferred adjacent land use	Low to High Intensity	High Intensity	Medium to High Intensity	Medium Intensity	Low to Medium Intensity	Low Intensity
Access Control	Yes	Yes	Yes	Yes	No	No
Turn lanes	11 - 12 ft. plus variable shy/ shoulder/ separator width	11 ft. Continuous and/or medians with ped. islands	11 ft. Typical at intersections with Arterials or Collectors	Not typical; 10 ft. if needed	Not typical; 9 ft. if needed	Not typical; 9 ft. if needed
Through-traffic connectivity	Primary Function	Primary Function	Typical Function	Typical Function	Permissible Function	Permissible Function

Note: These standards do not preclude the flexibility currently allowed by the City Engineer or through variation processes defined in LDC (or the discretion of ODOT on Arterial Highways).

[1] Buffered bike lanes are the default standard, though protected bike lanes are allowed where deemed appropriate by the City Engineer.

[2] Traffic calming includes such measures as bulbed intersections, speed humps, raised planted medians, mid-block curb extensions, traffic circles, and signage.

Figure 20 through Figure 25 illustrate the cross-sections standards for arterials, collectors, neighborhood collectors, local streets, and local connectors.

Figure 20. Arterial Cross-Section

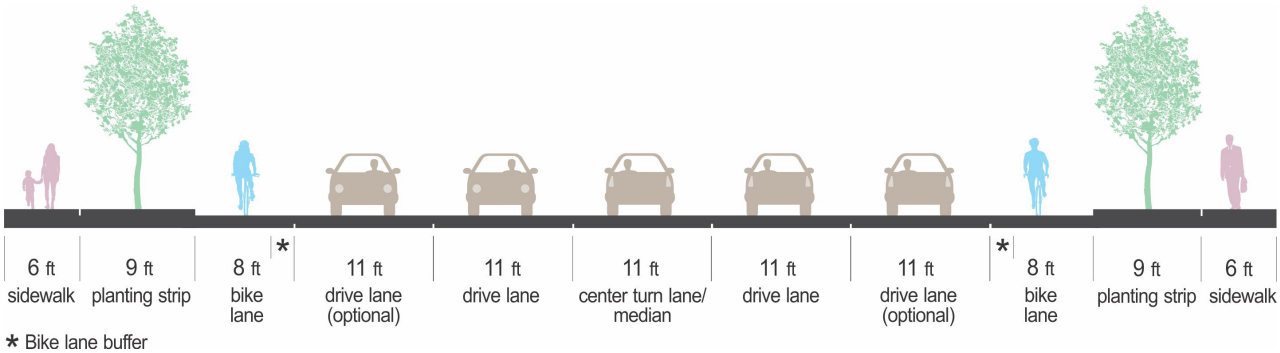


Figure 21. Collector Cross-Section

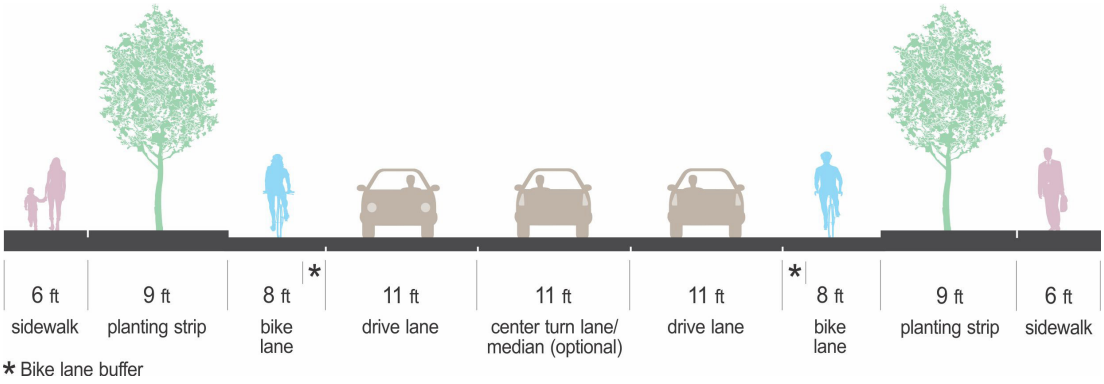
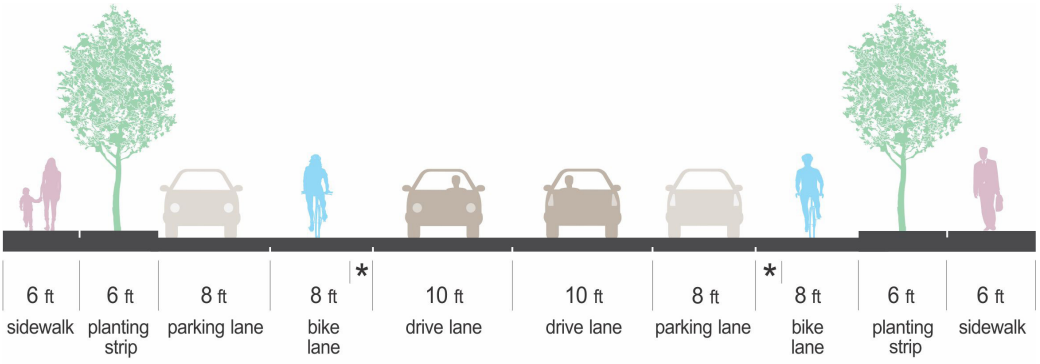


Figure 22. Neighborhood Collector Cross-Section with On-Street Parking



Note: Cross-section illustrates options for bike lane placement related to on-street parking.

Figure 23. Neighborhood Collector Cross-Section without On-Street Parking

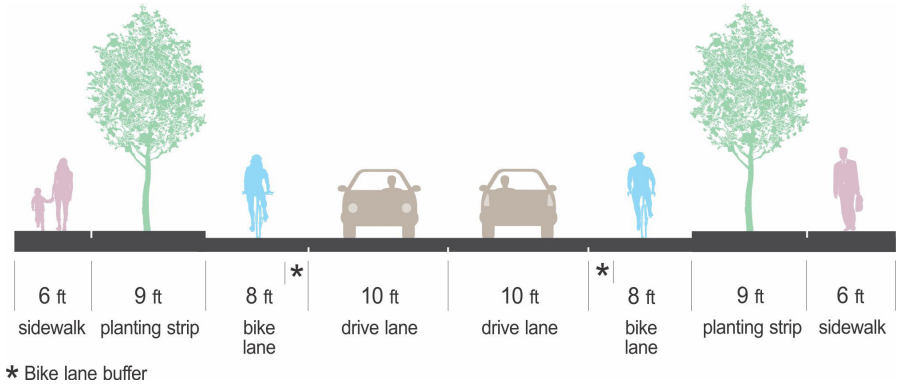


Figure 24. Local Connector Cross-Section

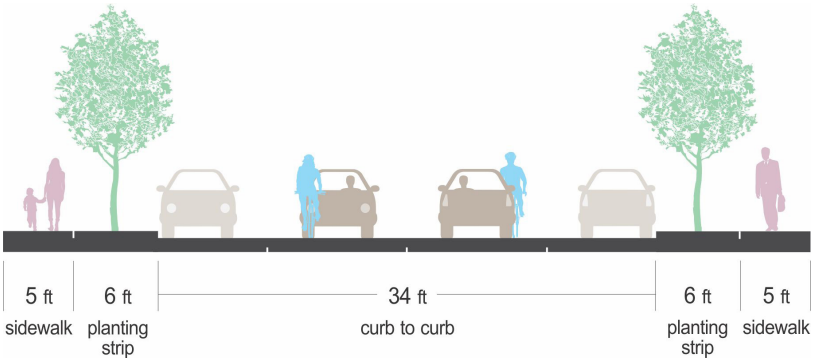
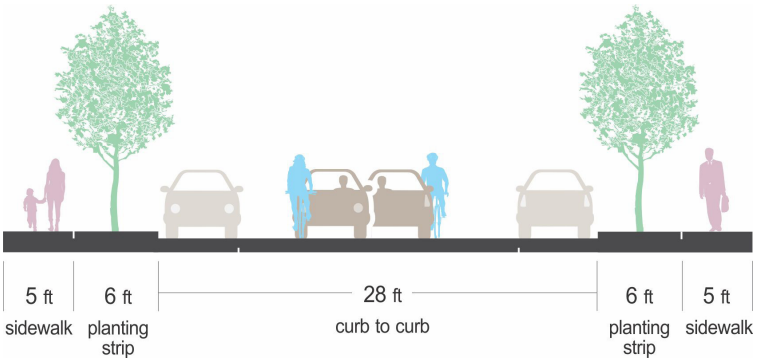


Figure 25. Local Street Cross-Section



CROSS-SECTIONS IN SPECIAL SITUATIONS

Cross-section standards are intended for new development in unconstrained areas. Redevelopment, areas with Natural Features, Natural Hazards, or other site constraints are special situations that may require non-standard roadway cross-sections. This section describes cross-section standards that may be varied by the City Engineer when a development is being reviewed for approval. Further variation may be allowed through a Lot Development Option, Planned Development, or Capital Improvement Project. Nothing in this section is intended to supersede State requirements for clear and objective standards for residential development.

STREET WIDTH

- On local streets, pavement widths of less than 28 feet shall be applied as a condition of development. The condition may require choices between improving the street to the 28-ft. standard or constructing the narrower street with parking bays placed intermittently along the street length. To be applied in medium and higher density residential zones.
- On local streets, curb-to-curb width may be reduced to 25 ft. with parking on one side, or 20 ft. with no parking.
- On local streets in industrial areas, curb-to-curb width may be modified to accommodate large vehicles.
- On local connector streets, curb-to-curb width may be reduced to 28 ft. with parking on one side or 20 ft. with no parking.
- Where streets cross Natural Features or Natural Hazards, curb-to-curb widths may be minimized by reducing widths for bike lanes, vehicle lanes, and/or eliminating on-street parking.
- Where streets cross Natural Features or Natural Hazards, right-of-way widths may be minimized by reducing widths for planting strips, bike and/or vehicle lanes, and/or eliminating on-street parking.
- To minimize right-of-way impacts, planting strips on neighborhood collectors may be reduced to a 6-ft. minimum when on-street parking is provided.
- To minimize right-of-way impacts, planting strips may be removed at intersections to provide needed turn lanes.

PARKING

- On-street parking along some collector and arterial roadways may be permitted. The City Engineer may require, with new development or redevelopment that abuts areas with existing on-street parking, the continuation or extension of on-street parking along collector and arterial roadways.
- On local streets in industrial areas, on-street parking may be prohibited.
- On local streets, on-street parking shall be reduced or eliminated to minimize street widths where streets cross Natural Features or Natural Hazards.
- On local streets and local connectors, parking may be reduced to facilitate Fire Department aerial access staging areas.

AUTO AMENITIES

- Lane widths shown in Table 11 are the preferred construction standard. In rare cases, on arterial and collector roadways, standard lane widths may need to be reduced, but in no case will that be beyond 10 ft. due to safety concerns.

- Center turn-lanes may be expanded up to 14 ft. in width on arterials based on expected uses or constraints.
- Turn lanes may be constructed at any intersection, regardless of functional classification, if approved by the City Engineer. The City cannot approve turn lanes on ODOT facilities. Arterial highway turn lanes are subject to the design standards in ODOT's Highway Design Manual.

BIKE AMENITIES

- Bike lane width may be reduced to 5 ft. only in locations where existing development along an established sub-standard route or other severe physical constraint precludes construction of the standard facility width.
- Parallel multi-use paths in lieu of bike lanes are not appropriate due to the multiple conflicts created for bicycles at driveway and sidewalk intersections. In rare instances, separated (but not adjacent) facilities may provide a proper function.
- Bike lanes where on-street parking is present may be placed between the parking aisle and curb, if approved by the City Engineer.

PEDESTRIAN AMENITIES

- For new streets with curbside sidewalks, including local streets, the minimum sidewalk width is 6 ft.
- On existing streets, 5-ft. minimum sidewalks may be permitted to limit right-of-way impacts.

STREET IMPROVEMENTS IMPLEMENTATION PROCESS

Implementing standard street designs as part of new or redevelopment can be challenging on existing streets where improvements have already been made according to an older standard or where they would be discontinuous on an unimproved street. A summary of the approach under different conditions is described below (excludes Legacy Streets as defined in City Council Resolution 2017-13 as amended).

NEW STREET SEGMENTS

- Are Natural Features/Hazards/other site constraints present?
  - » If no, build to match City Standards.
  - » If yes, refer to the Cross-Sections in Special Situations in this chapter and adjust for constraints.

EXISTING UNIMPROVED (NO CURB OR GUTTER) STREET SEGMENTS

- Does the standard right-of-way width per Table 11 exist at the development site?
  - » If no, property owner will dedicate half of the right-of-way needed to meet the standard and is obligated for frontage improvements.
    - If the site is adjacent to an improved frontage, standard improvements will be constructed at the time of development; or
    - If the site is not adjacent to an improved frontage, the City Engineer will determine the appropriate requirement that best meets the City's needs:

a) sign an irrevocable petition to participate in future construction,

b) pre-pay for the improvements, or

c) construct the needed improvements at the time of development.

» If yes, no additional right-of-way is required.

- If the site is abutting an improved frontage, the needed improvements will occur at the time of development; or
- If the site is not abutting an improved frontage, City Engineer will determine the appropriate requirement that best meets the City's needs:

a) sign an irrevocable petition to participate in future construction,

b) pre-pay for the improvements, or

c) construct the needed improvements at the time of development.

EXISTING IMPROVED STREET SEGMENTS WITH A RESIDENTIAL COMPONENT TO THE DEVELOPMENT

- Does the standard right-of-way width per Table 11 exist at the development site?

» If yes, no additional right of way is required.

» If no, property owner will dedicate half of the right-of-way needed to meet the standard.

- Does the development include at least 100 feet of sidewalk or require a commercial driveway approach?

» If yes, the sidewalk will be built to the back of the right-of-way per Table 11.

» If no:

- And sidewalks exist, no improvements are required, but the property owner must sign an irrevocable petition to participate in future construction, or
- And sidewalks do not exist, the sidewalk will be built to align with the adjacent sidewalk.

EXISTING IMPROVED STREET SEGMENTS WITHOUT A RESIDENTIAL COMPONENT TO THE DEVELOPMENT

- Does the standard right-of-way width per Table 11 exist at the development site?

» If yes, no additional right of way is required and the property owner is obligated to improve their frontage as determined during plan review and approval.

» If no, the property owner will dedicate half of the right-of-way needed to meet the standard and is obligated to improve their frontage as determined during plan review and approval.

ACCESS MANAGEMENT STANDARDS

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 achieve the desired balance between through mobility and local accessibility consistent with the functional classification of the street.

Access management is especially important on arterial and collector facilities to reduce motor vehicle congestion and crash rates and to provide for safe and efficient travel. Since each access point represents an additional location for potential conflicts, reducing or consolidating driveways on these facilities can decrease collisions and preserve capacity on high-volume roads, maintaining traffic flow and mobility within the city, and reducing cut-through traffic.

CORVALLIS ACCESS SPACING STANDARDS FOR PRIVATE DRIVEWAYS

Development and roadway projects located on City arterials, collectors, and neighborhood collectors that construct or significantly modify private driveways shall meet the access spacing standard requiring a minimum of 150 feet between adjacent driveways and/or street intersections.[1] Private driveways include private streets, as well as site driveways to developed and undeveloped property. A variation to the access spacing standards may be granted by the City Engineer where deemed appropriate (e.g., in areas with limited property frontage and/or environmental constraints or in established commercial areas such as downtown Corvallis).

These spacing standards do not apply to local streets.

Like street design and mobility targets, access spacing standards for State highways are determined by ODOT. ODOT spacing standards are defined in the Oregon Highway Plan, OAR 734-051, and ODOT's Highway Design Manual.

[1] Spacing measured from centerline to centerline of adjacent driveways and/or street intersections.

MOBILITY STANDARDS

Mobility standards, or targets, are the thresholds set by an agency for the maximum amount of motor vehicle congestion that is acceptable for a given roadway. Adopted mobility standards can be used to prioritize investment decisions and help the City ensure that transportation facilities are improved in a timely manner to support new growth. If these standards are set too low, the City may experience more motor vehicle congestion than is acceptable for the quality of service desired and cut-through traffic may occur. However, if they are set too high, the cost of meeting them would include construction of more paved surfaces and may result in excessive impacts to property and the environment or may discourage future development.

CORVALLIS MOBILITY STANDARDS

Corvallis's mobility standard uses a volume-to-capacity (v/c) ratio as the basis to measure congestion[1] and allows for facilities under City jurisdiction to operate at a maximum v/c ratio of 0.85 during the weekday a.m. and p.m. peak hours. For signalized intersections, the combined intersection v/c ratio (not individual legs) must comply with the standard. For unsignalized intersections, all movements serving 20 vehicles per hour or more must comply with the standard. When calculating the v/c ratio, the methodology from the latest Highway Capacity Manual published by the Transportation Research Board is applied. Corvallis's mobility standards will be applied to Benton County facilities inside the UGB where County policy permits.

OSU has expressed an interest in exploring a multimodal mobility standard or creating a special designation for the OSU campus area that would allow for a unique mobility standard that better reflects the campus multimodal environment. If OSU elects to pursue these types of issues further, the City will work together with OSU to consider new options that are mutually acceptable.

[1] Volume to capacity (v/c) ratio: A decimal representation (between 0.00 and 1.00) of the proportion of capacity that is being used (i.e., the saturation) at a turn movement, approach leg, or intersection. It is determined by dividing the peak hour traffic volume by the hourly capacity of a given intersection or movement. A lower ratio indicates smooth operations and minimal delays. As the ratio approaches 1.00, motor vehicle congestion increases and performance is reduced.

MOBILITY TARGETS FOR STATE HIGHWAYS

It is important for a TSP to identify the deficiencies that would exist at the end of a 20-year planning horizon if the community grows in accordance with its existing adopted land use plan and no additional improvements are made during that period of time. A TSP should also identify a full range of conceptual transportation system projects and services that would address those deficiencies.

However, it is equally important for a TSP to realistically identify which transportation projects and services are reasonably likely to be implemented over the 20-year planning horizon, based on financial or other constraints. This exercise enables the community and, as appropriate, the state to establish realistic expectations for how that transportation system will likely operate at the end of the 20-year planning horizon.

Because the financial and other constraints that have been faced by state and local governments over the last 20 years are expected to continue into the foreseeable future, it is often the case that the local and/or state roadways will not be improved to the extent that they will be able to meet roadway volume-to-capacity (v/c) ratio based mobility target standards at the end of the 20-year planning horizon if the community grows in accordance with its existing, adopted land use plan. This inability to meet roadway operational performance standards has become common in larger communities or in smaller communities with roadways that experience higher travel demands. In these cases, it is appropriate to adjust roadway operational performance expectations to match the conditions that are forecasted to exist at the end of the 20-year planning horizon. This is typically accomplished through the adoption of alternative local standards or state mobility targets.

Adopting alternative State mobility targets or local operational performance standards does not mean that ODOT or a local jurisdiction only has aspirations to meet a lowered operational performance standard. Projects that are needed and supported by ODOT and the local jurisdiction, but which are not reasonably likely to be funded within the 20-year planning horizon, can be included on the project list. Establishing alternative mobility targets for State roadways is simply an exercise in adjusting roadway operational performance expectations to match realistic expectations for how the roadways are actually forecasted to operate, taking into account financial and other constraints and assuming implementation of the existing, adopted local land use plan.

Mobility targets for state highways are established by the Oregon Transportation Commission (OTC) through their adoption into the Oregon Highway Plan (OHP). In addition to establishing realistic expectations for future transportation system operational performance, this process helps reduce the potential for state and local conflicts over potential land use or zoning changes by not continuing to require compliance with unrealistic standards or targets that both parties acknowledge cannot likely be achieved over the 20-year planning horizon due to financial or other constraints. Through this TSP update process, it was found that seven intersections on state highways in Corvallis currently experience congestion in excess of the adopted OHP mobility targets. By 2040, that number is forecasted to grow to 14 intersections.

Because of expected financial or other constraints, it has been determined that it is not reasonably likely to assume that ODOT or the City will be able to mitigate the forecasted operational deficiencies at these 14 intersections by making project or program improvements that increase capacity. Because improving these 14 intersections to comply with existing State mobility targets is considered not reasonably likely to happen within the 20-year planning horizon, ODOT has agreed to request that the OTC adopt alternative state mobility targets for each of these locations. After City adoption of the updated Corvallis TSP, ODOT will prepare a staff report for the OTC requesting that alternative mobility targets be adopted for each of these 14 locations. If funds do become available during the 20-year planning horizon to improve any of the 14 intersections for which the alternative mobility targets are requested, ODOT and the OTC will adjust those alternative mobility targets accordingly to account for the improvement(s).

LOCAL STREET CONNECTIVITY

Local street connectivity for pedestrians, bicyclists, and transit riders is required by the state Transportation Planning Rule (OAR 660-012) and is important for Corvallis's continued development. In addition, connectivity within the bicycle and pedestrian systems is important to create truly viable alternative transportation systems, and encourage community members to seek out other travel modes.

Providing adequate connectivity can reduce the need for wider roads, traffic signals, and turn lanes. Increased connectivity can reduce a city's overall VMT per capita, balance the traffic load on major facilities, and reduce emergency vehicle response times. While improvements to local street connectivity are easier to implement in developing areas, retrofitting existing areas to provide greater connectivity should also be attempted.

Corvallis's existing street connectivity is limited primarily by natural features such as hills, wetlands, railroads, large industrial developments, and by areas yet to be developed. The LDC regulates proposed development to ensure good transportation system connectivity is provided, and refers to the TSP for the location of new arterial, collector, and neighborhood collector streets. Local connector and local streets are to be located based on an approved street network plan, pursuant to the LDC dimensional standards which establish maximum lengths of complete blocks and block faces.

To establish appropriate expectations for the abutting neighborhood, when development constructs stub streets, the City will install signs that indicate that future connectivity will occur.


CORVALLIS

7 IMPROVEMENTS

Multimodal system solutions were identified to address the existing and future transportation needs reported in Chapter 4. Initial candidate projects were reviewed and refined by City staff and community members through the public process to produce Illustrative Projects lists (i.e., the comprehensive lists of all desired projects regardless of funding limitations) for Corvallis. In general, the projects are organized by travel mode; some address multiple modes.

After the solutions were identified, they were evaluated to assess how well they satisfied the four primary community transportation goals and associated objectives. For more information about the evaluation, refer to Chapter 2, Vision, Evaluation Criteria. The resulting multimodal system solutions were prioritized into three groups – High, Medium and Low priority based on their evaluation scores. Chapter 8 presents the projects that ranked highest in terms of community value and needs.

The remainder of this chapter presents the transportation plan solutions in tabular and map formats. Each project includes a description, the travel mode affected, the responsible lead agency, the likely funding source, a preliminary cost estimate, the project priority and the source of the project. The descriptions are not design level portrayals; the general nature provides flexibility to respond to changing circumstances.

These Illustrative lists include all projects regardless of cost, priority, or the likelihood of being constructed within the planning horizon. Some projects included in this list may be broken into smaller pieces and built in phases so that the City can leverage available funding.

PLANNED TRANSPORTATION SYSTEM

Tables 12 through 16 and Figure 26 through Figure 35 describe the recommended solutions for Corvallis's transportation system through the year 2040. The 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 and/or ODOT approval. Solutions are presented in five categories (order does not imply priority):

1. Pedestrian and Bicycle (has benefits for people walking or bicycling)
2. Pedestrian (has benefits for people walking only)
3. Bicycle (has benefits for people bicycling only)
4. Multimodal (has benefits for auto, pedestrian, and bicycle modes)
5. Auto/Freight (has benefits for vehicles only)

Each solution is assigned a primary funding source and responsible lead agency for planning purposes, however, these designations do not create any obligation for funding. A few important comments about each funding source:

- **City projects** – the City has no discretionary fund to advance project design and construction. The City's transportation SDC fee program provides funding for projects that expand the system to serve growth, and cannot be used as a general funding source.
- **"Private development" projects** will likely be built in coordination with land use actions and future development.
- **State projects** – the City could use the project information to apply for grants or other funding mechanisms to fund these projects. The State has made no commitment to date, however, they could opt to allocate their discretionary funds in the future.
- **Benton County projects** – the City would like these projects to be prioritized in the next 20 years, but these decisions are ultimately up to the County, or will be driven by development. Multimodal projects in the urban fringe area that support annexation applications will be considered collaboratively between the City, County, and development applicant.

The City can, however, choose to use its funds to help support State or County projects thus expediting the timeline on those projects the City would like prioritized. In fact, the City currently collects SDCs for select improvements to the State and County system that benefit the community.

Concurrent with the City's Transportation System Plan efforts, a separate plan was developed for the transit system. The City's ***Transit Development Plan***, adopted August 2018, identified projects to expand transit routes to serve a larger part of the community and to provide more frequent service on existing routes. Refer to the Transit Development Plan for a complete description of the transit system strategies and investments.

PEDESTRIAN AND BICYCLE

Pedestrian and Bicycle projects provide connections and improve mobility for people on foot and for people riding bicycles. Pedestrian and Bicycle projects are typically elements of a multi-use path system that enhances non-motorized travel options. Projects could include items like pathways, street crossings, and wayfinding signs. Alignments shown on maps within this document are conceptual. Property owners have the right to develop within that alignment, provided it has not been officially modified or refined by another method, including but not limited to an area plan, refinement plan, corridor study, annexation agreement, comprehensive plan amendment, or previous development approval. Some of the projects are from the City's Parks Master Plan and are included in this TSP because they provide connectivity for people using bicycles for transportation between sites, in contrast to use for recreation. Figure 26 and Figure 27 are maps of those projects.

An ***Active Transportation Toolkit*** has been developed to help identify street design elements that could be used to improve active transportation travel such as walking, transit, and bicycling. The Toolkit includes treatments, design recommendations, technical resources, cost estimates, and the best street environments for applying specific treatments. Refer to Volume 2 for more information.

Table 12. Bicycle and Pedestrian Solutions

PROJECT ID	PROJECT TYPE	PROJECT NAME	COST ESTIMATE	PRIMARY FUNDING SOURCE	PRIORITY	SOURCE
PB2	New Multi-Use Path	Harrison Boulevard/ 35th Street/ Campus Way Multi-Use Path	$495,000	City/OSU	High	Corvallis 1996 TSP, CAMPO RTP
	Develop multi-use path between Harrison Boulevard and Campus Way, connecting the intersection of Harrison and Circle to Campus Way. Specific alignment to be determined during project design and in coordination with OSU.					
PB4	Pedestrian/ Bicycle Crossings	Bicycle/ Pedestrian RR Crossing	$550,000	City/Railroad	High	Corvallis 1996 TSP, Project Team
	Improve 11 deficient railroad crossings within the city. The railroad crossings are difficult to cross and present a safety hazard. Improvements would reconstruct the crossing surfaces to be safe, effective and to enhance the city's intermodal transportation system. Locations include: SE Avery at SE Allen, SW Western at SW 7th Street, SW Jefferson at SW 6th Street, NW Van Buren at NW 6th Street, NE Conifer Boulevard at OR 99W, NE Conifer Boulevard at Cheldelin Middle School, NW Buchanan Ave between 5th and 9th Streets, SW Western at SW 6th Street, NW Monroe at NW 6th Street, NW Harrison at NW 6th Street, and 11th Street.					
PB9	New Multi-Use Path	Northeast Corvallis Multi-Use Path	$440,000	ODOT/City	High	Corvallis 1996 TSP
	Construct a multi-use path between Circle Boulevard and Conifer Boulevard, following the railroad tracks parallel to OR 99W. The preferred location for this path is on the east side of the railroad tracks. If this is not feasible, the path may be constructed in the highway right-of-way on the west side of the tracks.					
PB11	Wayfinding	Multi-Use Path Wayfinding	$270,000	City	Low	CAMPO RTP
	Install wayfinding signage (including signage, maps, and pavement markings) along multi-use paths throughout Corvallis to provide navigational information, provide guidance to destinations of interest, and reassure users that they are on the correct route.					

Table 12. Bicycle and Pedestrian Solutions, *Continued*

PROJECT ID	PROJECT TYPE	PROJECT NAME	COST ESTIMATE	PRIMARY FUNDING SOURCE	PRIORITY	SOURCE
PB12	Wayfinding	Downtown Corvallis Wayfinding	$375,000	City	Low	CAMPO RTP
	Install wayfinding signage for bicycle and pedestrian travel in the downtown area to provide navigational information, provide guidance to destinations of interest, and reassure users that they are on the correct route.					
PB13	New Multi-Use Path	OR 99W Multi-Use Path	$175,000	ODOT/City	High	CAMPO RTP
	Extend the OR 99W multi-use path from Conifer Boulevard north to Elks Drive					
PB14	Pedestrian/ Bicycle Crossings	US 20-OR 34 Grade-Separated Crossing	$1,000,000	ODOT	High	Stakeholder Request
	Construct a grade-separated crossing of US 20-OR 34 between OR 99W and 15th Street (alignment to be determined). The purpose of this project is to provide people walking and bicycling a low-stress alternative to crossing the highway at 15th Street. This project should include trail connections to Pioneer Park trails and street network north of US 20/OR 34 to complete the route. This project is one segment of a citywide low-stress network. Refer to Low-Stress Network map for routing.					
PB15	New Multi-Use Path	South Corvallis Multi-Use Path	$2,614,000	ODOT	High	Stakeholder Request
	Construct a 3.5-mile multi-use path parallel to the railroad in Southeast Corvallis, between Marys River south to Airport Avenue. The preferred alignment should be on top of the planned sewer line easement that's being acquired east of the track with development. Coordinate with Project PB25 and PB26. Extend the path east along the south side of Marys River to the existing pedestrian and bicycle bridge. The existing bridge and PB17 bridge would provide connections to the Corvallis-Philomath Multi-Use Path.					
PB16	Refinement Study	Monroe Avenue Shared Pedestrian, Bicycle, Transit Street Study	$200,000	City/OSU	Medium	Stakeholder Request
	Conduct a study to evaluate the safety of walkers, bicyclists, transit users and motor vehicles along Monroe Avenue from 14th Street to 26th Street. Develop street design alternatives which enhance the environment for pedestrians and bicyclists, while also supporting multimodal access to local businesses along the corridor.					
PB17	Pedestrian/ Bicycle Crossings	Marys River Path Crossing	$410,000	ODOT	Medium	Stakeholder Request
	Construct a bicycle/pedestrian bridge over Marys River and construct multi-use paths to connect the Pioneer Park trail network on the north side to the South Corvallis Multi-Use Path (project PB15) on the south side. This project is one segment of a citywide low-stress network. Refer to Low-Stress Network map for routing.					
PB19	Bridge Project	17th Street Bridge	$355,000	City	High	Project Team
	To allow for a neighborhood bikeway on 16th/17th Streets as part of a Low-stress Network, construct a new pedestrian/bicycle bridge over Dixon Creek. Coordinate with Project B42 and P35.					
PB20	New Multi-Use Path	Bald Hill Farm Trail	$30,000	County	Low	STIP 2015-2018
	Build 1/2-mile section of trail on Bald Hill Farm to replace an existing public trail that resides on a private road on the farm.					
PB25	Pedestrian/ Bicycle Crossings	SW Cummings Avenue Railroad Crossing	$500,000	City/ODOT/ Railroad	High	Stakeholder Request
	Develop connection over railroad to SW Allen Street for pedestrians/bicycles. Coordinate with Project PB26 depending on final alignment of the South Corvallis Multi-Use Path (PB15).					

Table 12. Bicycle and Pedestrian Solutions, *Continued*

PROJECT ID	PROJECT TYPE	PROJECT NAME	COST ESTIMATE	PRIMARY FUNDING SOURCE	PRIORITY	SOURCE
PB26	Pedestrian/ Bicycle Crossings	SW Tunison Avenue Railroad Crossing	$500,000	City/ODOT/ Railroad	Low	Stakeholder Request
	Develop connection over railroad to SW Allen Street for pedestrians/bicycles. This connection may be needed if the South Corvallis Multi-Use Path (PB15) is constructed on the west side of the railroad tracks, however, the connection may not be necessary if PB25 is implemented.					
PB27	Bridge Project Study	Brooklane Bridge	$75,000	City	High	Parks Master Plan
	Study feasibility of new bicycle/pedestrian bridge over Marys River along the Goodnight Avenue – Brooklane Place alignment.					
PB29	Pedestrian and Bicycle Safety Improvements	OR 99W Multi-Use Path and Circle Boulevard	$275,000	City/ODOT	High	Stakeholder Request
	Improve intersection and safety - Options may include 1) curb radius reductions that shorten crossing distance from southwest corner while supporting freight vehicles ability to turn without crossing double yellow line and 2) constructing a channelized right-turn with "pork chop" island for pedestrians and 3) installing a traffic signal for right-turning vehicles or an unsignalized marked crossing. Cost includes new island and a new traffic signal. Coordinate with Projects M5, B27, and A56.					
PB31	Refinement Study	OR 99W South Corvallis Refinement Study	$500,000	ODOT	High	Stakeholder Request
	Conduct a study to evaluate safety improvements to the OR 99W corridor that would make this route in south Corvallis a more safe, comfortable and attractive place to walk and bike.					
PB34	New Multi-Use Path	OR 99W Multi-Use Path Downtown Extension	$330,000	City/ODOT	High	Stakeholder Request
	Use railroad right-of-way or obtain easements between property lines to extend OR 99W path from Buchanan Avenue to 6th or 7th St. in downtown. Depending on the final alignment, if a bridge over Dixon Creek is required, it may increase costs by about $400,000.					
PB49	New Multi-Use Path	Goodnight Avenue – Caldwell Multi-Use Path	$858,000	City	High	2015 Parks Master Plan
	Develop new multi-use path connecting Goodnight Avenue and Brooklane Drive, via Caldwell Natural Area. Connect to Willamette Park via the low-stress network along Goodnight Avenue to Park Avenue (B22). Project PB27 is required as Phase 1 of this project. This is a parks projects, but is included in this TSP because it is an element of the low-stress network, and provides connectivity for people using bicycles for transportation.					
PB63	Bridge Project	Confluence of Willamette and Marys River Bridge	$355,000	City	High	Stakeholder Request
	Develop multi-use path connection (bridge) between existing Willamette River Trail and Parks Master Plan Willamette Park Trail Extension.					
PB65	New Multi-Use Path	OR 99W Multi-Use Path Extension	$1,535,000	City/ODOT/ Developers	High	Stakeholder Request
	Extend multi-use path starting at Elks Drive along OR 99W to Lewisburg Road.					

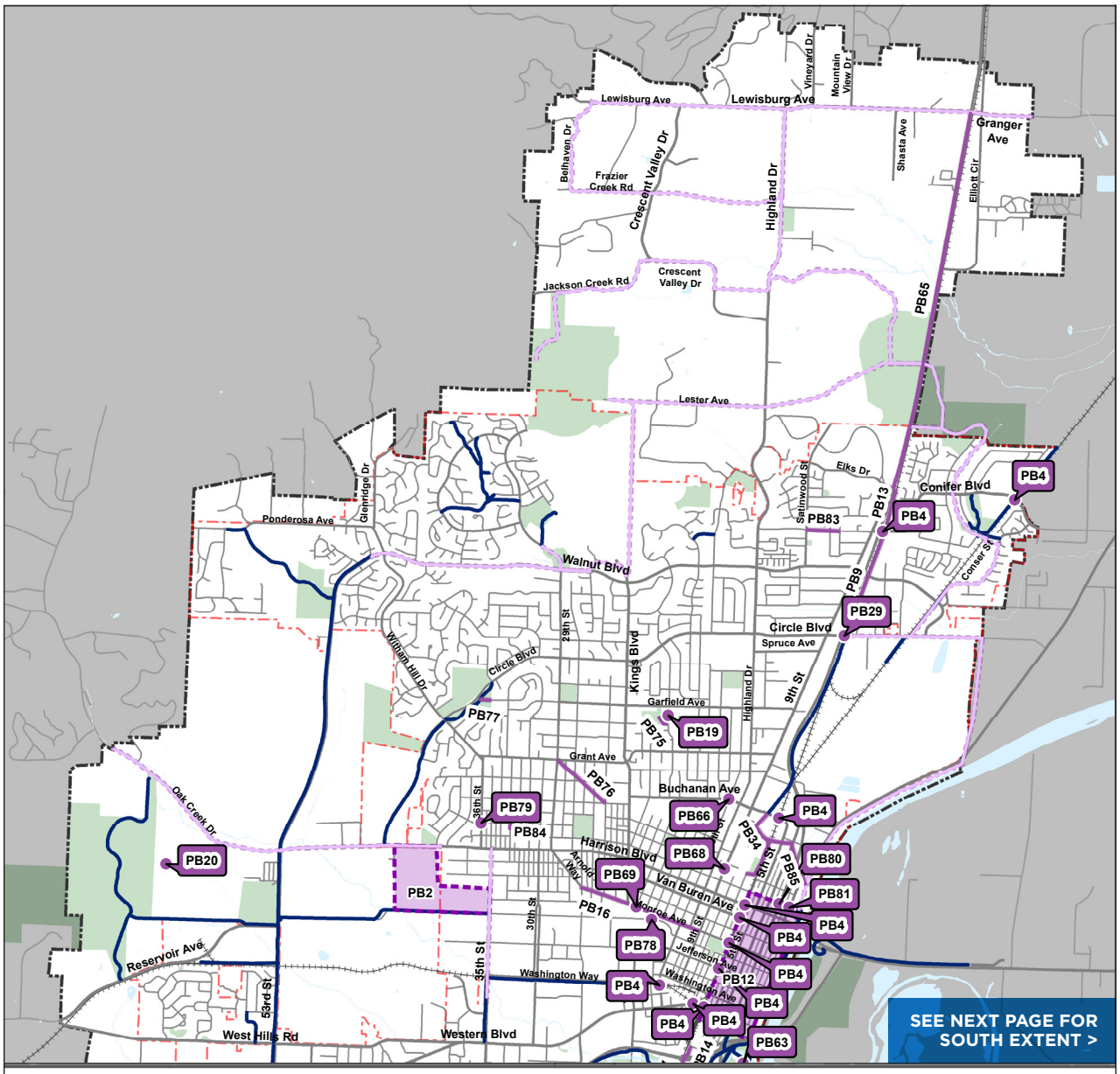
Table 12. Bicycle and Pedestrian Solutions, *Continued*

PROJECT ID	PROJECT TYPE	PROJECT NAME	COST ESTIMATE	PRIMARY FUNDING SOURCE	PRIORITY	SOURCE
PB66	Bicycle/ Pedestrian Safety Improvements	11th Street/ Buchanan Avenue Safety Improvements	$150,000	City	High	CAMPO RTP
	Intersection improvements (pedestrian/bicycle safety): Install curb extensions to reduce crossing distances.					
PB68	Intersection improvements	9th Street/ Polk Avenue Intersection Improvements	$295,000	City	Medium	Stakeholder Request
	Intersection improvements (safety) - Options may include relocating the traffic signal and pedestrian crossing to intersect with north leg of Polk Avenue and constructing a pedestrian refuge island across the south side of new signalized intersection.					
PB69	Pedestrian Safety Improvements	Monroe Avenue/16th Street	$35,000	City	Medium	Stakeholder Request
	Intersection safety improvements may include adding curb extensions.					
PB74	New Multi-Use Path	Crystal Lake Drive - Chester Avenue Multi-Use Path	$55,000	Developer	Medium	Project Team
	Require future development to include multi-use path connecting Crystal Lake Drive to Chester Avenue along existing well-used unpaved desire-line path through grass. A path may not be necessary if Chester Avenue is extended west.					
PB75	New Multi-Use Path	Porter Park Multi-Use Path	$50,000	City	High	Project Team
	To allow a connection between Garfield Avenue and 17th Street, add a new paved path through Porter Park connecting 17th Street to the existing paved path south of the bridge. Coordinate with Project P35, PB19, and B42.					
PB76	Corridor Improvements	Coolidge Way Corridor Improvements	$130,000	City	High	Project Team
	Implement pedestrian and bicycle safety improvements along Coolidge Way between 29th Street and Fillmore Avenue. Options may include extending curbs and tightening corners to reduce speeds and reduce pedestrian crossing distance.					
PB77	New Multi-Use Path	Crest Dr - Woodland Meadow Park Trail	$45,000	City	Medium	Project Team
	Pave existing well-used desire-line path through grass in Woodland Meadow Park connecting Circle Boulevard path to Crest Drive.					
PB78	Intersection Improvements	Campus Way and 14th Street Intersection Improvements	$75,000	OSU	High	Project Team
	Modify intersection to improve safety and facilitate pedestrians and bicycles crossing 14th Street on Campus Way (under OSU jurisdiction). Options may include constructing a traffic circle or traffic diverter to prevent left turns and through movement except for bicycles. Coordinate with Project B35 and Project B46.					

Table 12. Bicycle and Pedestrian Solutions, *Continued*

PROJECT ID	PROJECT TYPE	PROJECT NAME	COST ESTIMATE	PRIMARY FUNDING SOURCE	PRIORITY	SOURCE
PB79	Pedestrian/ Bicycle Crossing	Low-stress Network Crossing	$25,000	City	High	Project Team
	Demonstration project to implement safe pedestrian and bicycle crossings on the low-stress network. Possible candidates include Polk Avenue at 36th Street. Specific location to be determined.					
PB80	Pedestrian/ Bicycle Crossing	Tyler Avenue and 3rd Street Crossing	$65,000	City/ODOT	High	Project Team
	Intersection crossing improvement may include constructing curb extensions to facilitate pedestrian and bicycle crossing, which may require removal of parking spaces near Tyler Avenue.					
PB81	Pedestrian/ Bicycle Crossing	Tyler Avenue and 2nd Street Crossing	$25,000	City/ODOT	High	Project Team
	Intersection improvements - Options may include removing the center turn lane on northbound approach and installing a refuge island to facilitate crossing 2nd Street for pedestrians and people on bikes.					
PB83	New Multi-Use Path	Conifer Multi-Use Path	$135,000	City	Medium	Project Team
	Use existing right-of-way and utility easement along Conifer Boulevard between Satinwood Street and Bryant Street to develop pedestrian and bicycle connection. Path would reduce out-of-direction travel for residents visiting Wildcat Park and students of Wilson Elementary School. This project would require impacts to private property. This project is one segment of a citywide low-stress network. Coordinate with the Corvallis School District 509J.					
PB84	New Multi-Use Path	33rd Street Multi-Use Path	$25,000	City	High	Project Team
	Construct paved path between Tyler Avenue and Polk Avenue. Evidence of well-used desire-line path through grass.					
PB85	New Multi-Use Path	OR 99W – Riverfront Connector	$2,260,000	ODOT	Low	9th Street Improvement Plan
	Construct paved path between Riverfront Path extension and OR 99W Multi-Use Path extension (PB 34). Dixon Creek and vacant land between NE 2nd Street/NE 1st Street and Buchanan Avenue/4th Street provide a potential alignment for the path.					
PB86	Bicycle/ Pedestrian Safety Improvements	3rd Street/OR 99W/Crystal Lake Drive/Avery Avenue	$861,600	ODOT	High	Stakeholder Request
	Intersection Improvements (safety): Safety improvements to address known right hook conflicts for bicyclists in the bike lanes. Options may include bike boxes, improved curb cuts to provide better bicycle access between multi-use path and Crystal Lake Drive or, the installation of flexible bollards or other cost efficient methods of increasing turning radius and slowing vehicles to improve pedestrian and bicycle safety. Project is subject to ODOT approval.					

Figure 26. Pedestrian/Bicycle Projects – North Extent



Legend

Pedestrian/ Bicycle Projects

- Pedestrian/ Bicycle Segment Project
- Parks Master Plan Project
- Pedestrian/ Bicycle Intersection Project
- Pedestrian/ Bicycle Area Project
- Existing Multi-Use Path

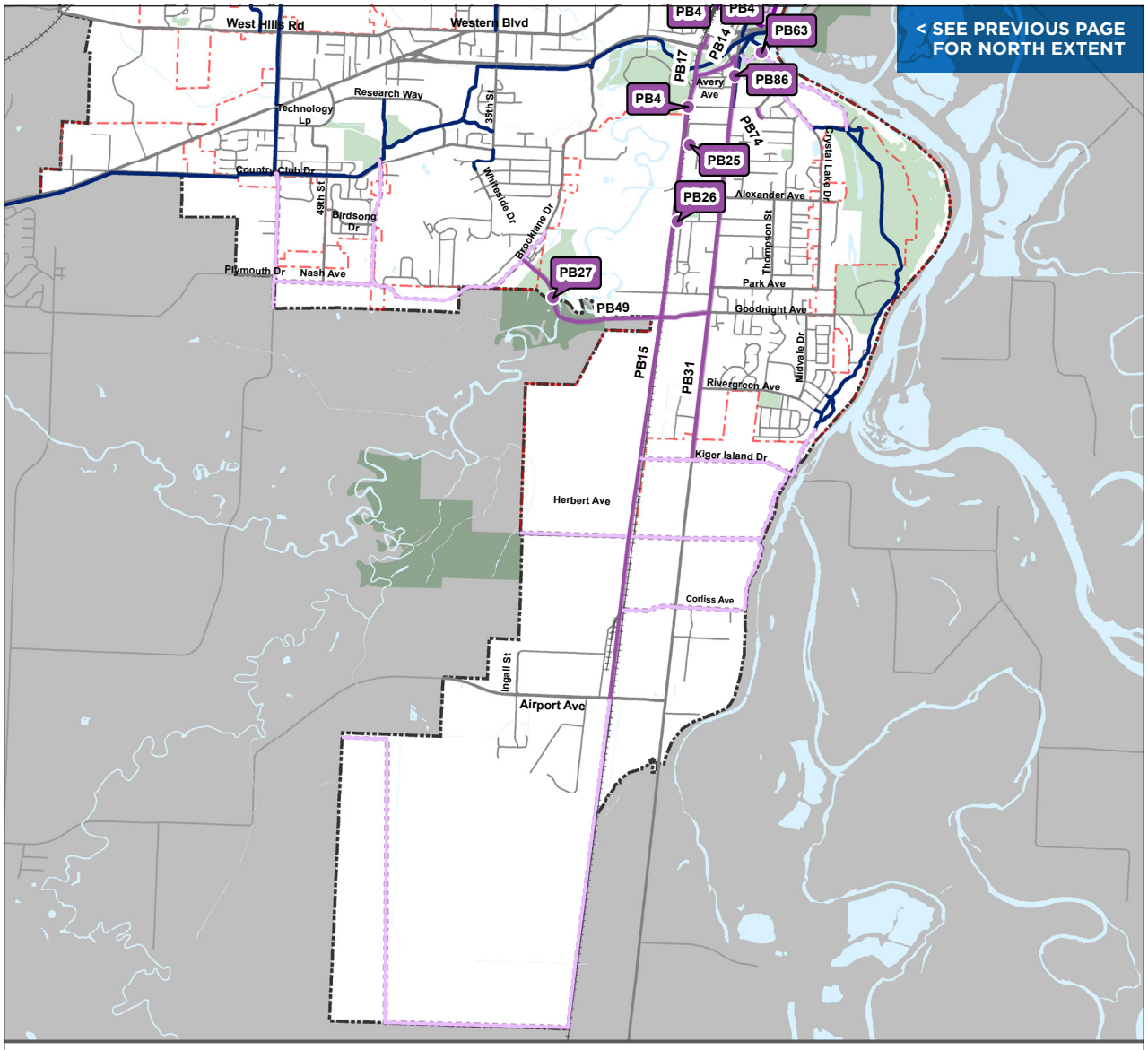
Note: Projects not associated with a specific location or area are not shown on map.

N

0 0.25 0.5 1 Miles

- Urban Growth Boundary
- Corvallis City Limit
- Parks and/or Natural Areas

Figure 27. Pedestrian/Bicycle Projects – South Extent



PEDESTRIAN

Pedestrian projects improve safety and comfort for people walking and using mobility assistance devices. Pedestrian projects support access along roadways and reduce the difficulty of crossing streets mid-block or at busy intersections. Locations shown on maps within this document are conceptual. Figure 28 and Figure 29 are maps of those projects.

Table 13. Pedestrian Solutions

PROJECT ID	PROJECT TYPE	PROJECT NAME	COST ESTIMATE	PRIMARY FUNDING SOURCE	PRIORITY	SOURCE
P1	New Sidewalks	35th Street Sidewalks	$125,000	City/OSU	High	TM 7
	Sidewalk infill along west side of 35th Street between Washington and Campus Way. 35th Street is close to high demand area (OSU) and is expected to see increased development in the future.					
P2	Widen Sidewalks	Madison Avenue Sidewalks	$255,000	Developer	Medium	Corvallis 1996 TSP
	Widen sidewalk for sidewalk multi-use path. Widen sidewalk on north side to 12 feet between 6th-8th and 9th-14th. Coordinate with OSU and Project B46.					
P3	Pedestrian Crossings	9th Street Pedestrian Crossings	$180,000	City	High	CAMPO RTP; 9th Street Improvement Plan
	Complete recommendations of the 9th Street Improvement Plan for pedestrian crosswalks, which may include providing a pedestrian crossing along 9th Street between Buchanan Avenue and Grant Avenue, and between Grant Avenue and Garfield Avenue.					
P4	Pedestrian Safety Improvements	Highland Drive/ Meadow Ridge Place	$25,000	City	Medium	CAMPO RTP
	Improve pedestrian safety - options may include adding a marked crosswalk at Highland Drive and Meadow Ridge Place, which would improve visibility for pedestrians accessing bus stops on Highland Drive, for both residents of Meadow Ridge Place and Highland Dell Drive, and improving street lighting.					
P5	Improve Sidewalks	City-wide sidewalk retrofit	$150,000 per year	City/ODOT	High	CAMPO RTP
	Develop program to install ADA ramps, install new sidewalks, and retrofit existing sidewalks to be ADA compliant throughout the city. In general, ramp replacements are assumed at $5,000 per ramp and sidewalk infill is assumed at $100 per foot.					
P17	Pedestrian Safety Improvements	Harrison Boulevard and 29th Street Safety Improvements	$35,000	City	High	TM 7
	Improve crossing safety - Options may include curb radius reduction and curb extensions.					
P22	New Sidewalks	Country Club Drive Sidewalks	$295,000	City/Developer	High	TM 12
	Add sidewalks on Country Club Drive between 35th Street and 45th Street. Sidewalks provide connectivity in area with limited street network and improve access to transit stops.					

Table 13. Pedestrian Solutions, *Continued*

PROJECT ID	PROJECT TYPE	PROJECT NAME	COST ESTIMATE	PRIMARY FUNDING SOURCE	PRIORITY	SOURCE
P27	New Sidewalks	Harrison Boulevard Sidewalks	$440,000	City/County/ Developer	High	TM 12
	Add sidewalks on the south side of Harrison Boulevard between Witham Drive and 53rd Street/Walnut Boulevard. New sidewalks provide access along arterial where there is limited street connectivity. Sidewalks also provide pedestrian access in area expected to see growth in the future.					
P33	Pedestrian Crossings	NW Garfield Avenue and NW Kings Boulevard Pedestrian Crossings	$100,000	City	High	Stakeholder Request
	Intersection crossing improvements - Options may include adding curb extensions, traffic control or enhanced crossing to improve yielding compliance at crosswalk and increase visibility at night.					
P34	Pedestrian Safety Improvements	Monroe Avenue and Kings Boulevard Pedestrian Safety	$35,000	City	High	Stakeholder Request
	Intersection safety improvements may include adding curb extensions to reduce pedestrian crossing distance.					
P35	Pedestrian Safety Improvements	Garfield Avenue/ Porter Park Crosswalk	$15,000	City	High	Stakeholder Request
	Add raised crosswalk where Porter Park path crosses Garfield Avenue west of 17th Street; move/replace existing speed bumps to accommodate new raised crosswalk. Coordinate with Project B42, PB19 and PB75.					
P36	Pedestrian Safety Improvements	Circle Boulevard/ Woodland Meadow Park Crosswalk	$10,000	City	High	Stakeholder Request
	Add crosswalk where park path crosses Circle Boulevard between Lantana Drive and Witham Hill Drive.					
P41	Safety	Pedestrian Safety Improvements	$150,000 per year	City	High	Project Team
	Establish program with funding to construct 4-6 pedestrian projects annually such as curb extensions, pedestrian-activated crossings and other improvements throughout the city to improve pedestrian safety and enhance pedestrian connectivity.					
P44	Pedestrian Safety	35th Street and Campus Way Crossing Improvements	$47,000	City	High	2018-2023 Capital Improvement Program Plan
	Pedestrian safety and crossing improvements at 35th Street and Campus Way.					
P45	New Sidewalks	Brooklane Drive Sidewalks	$485,000	City/ Assessments to property owners	Medium	Stakeholder Request
	Add sidewalks to Brooklane Drive between US 20/OR 34 and Hawkeye Avenue.					

Table 13. Pedestrian Solutions, *Continued*

PROJECT ID	PROJECT TYPE	PROJECT NAME	COST ESTIMATE	PRIMARY FUNDING SOURCE	PRIORITY	SOURCE
P47	New Sidewalks	West Hills Road Sidewalks (Western to 53rd)	$495,000	City/ Developer/ Assessments to property owners	High	Corvallis 1996 TSP, CAMPO RTP
	Add sidewalks to both sides of West Hills Road between Western Boulevard and 53rd Street. Area is expected to see future growth. Sidewalks also provide access to transit and increase connectivity where there is a limited street network. This project is part of M3, which is an upgrade to urban standards.					
P50	New Sidewalks	Country Club Drive	$125,000	City/ Developer/ Assessments to property owners	Medium	Project Team
	Add sidewalks on SW Country Club Drive between 49th Street and 53rd Street on south side to improve pedestrian safety and access to transit stops.					
P51	New Sidewalks	Philomath Boulevard (US 20-OR 34)	$260,000	ODOT/ Developer	High	Project Team
	Add sidewalk on Philomath Boulevard (US 20-OR 34) between 53rd Street and Technology Loop on north side to provide access to transit stops.					
P53	New Sidewalks	West Hills Road Sidewalks (53rd to Winding)	$340,000	Developers/ Assessments to property owners	Medium	Project Team
	Add sidewalks on West Hills Road between Winding Way and 53rd Street on south side to improve pedestrian safety and provide access to transit stops.					
P55	Pedestrian Crossing	NW Harrison Pedestrian Crossings	$10,000	City	High	Project Team
	Install a marked pedestrian crossing on Harrison Boulevard near Harding Center between 31st and 33rd Streets.					
P56	Pedestrian Crossings	30th Street Pedestrian Crossings	$200,000	City/OSU	Low	Project Team
	Implement pedestrian crossing improvements along 30th Street between Harrison Boulevard and Western Boulevard. The City will work with OSU to identify appropriate improvements to be implemented.					
P57	Pedestrian Safety	35th Street and Jefferson Way Crossing Improvements	$47,000	City	Medium	Stakeholder Request
	Pedestrian safety and crossing improvements at 35th Street and Jefferson Way.					
P58	Pedestrian Safety	35th Street and Washington Way Crossing Improvements	$47,000	City	Medium	Stakeholder Request
	Pedestrian safety and crossing improvements at 35th Street and Washington Way.					

Figure 28. Pedestrian Projects – North Extent

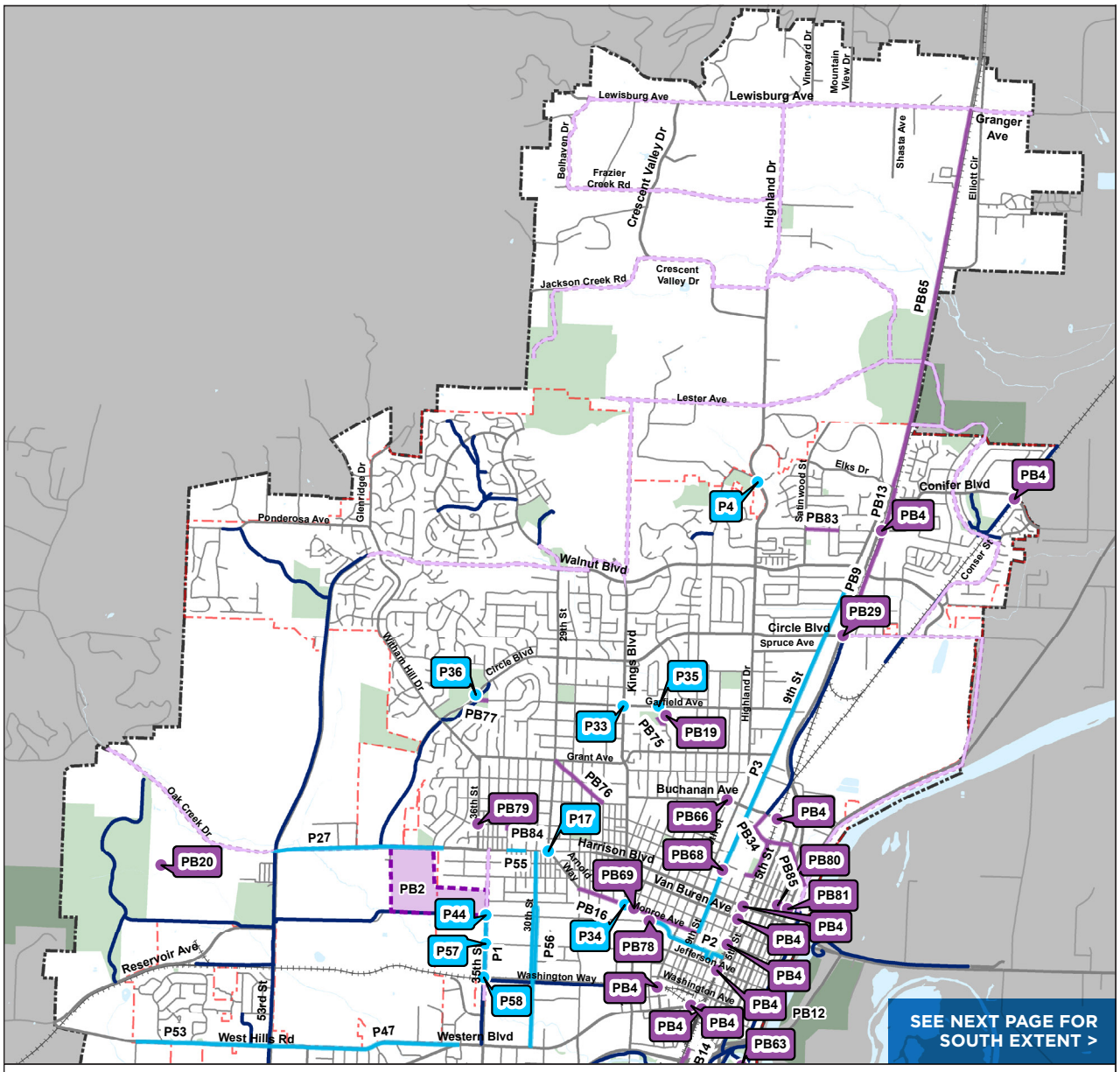
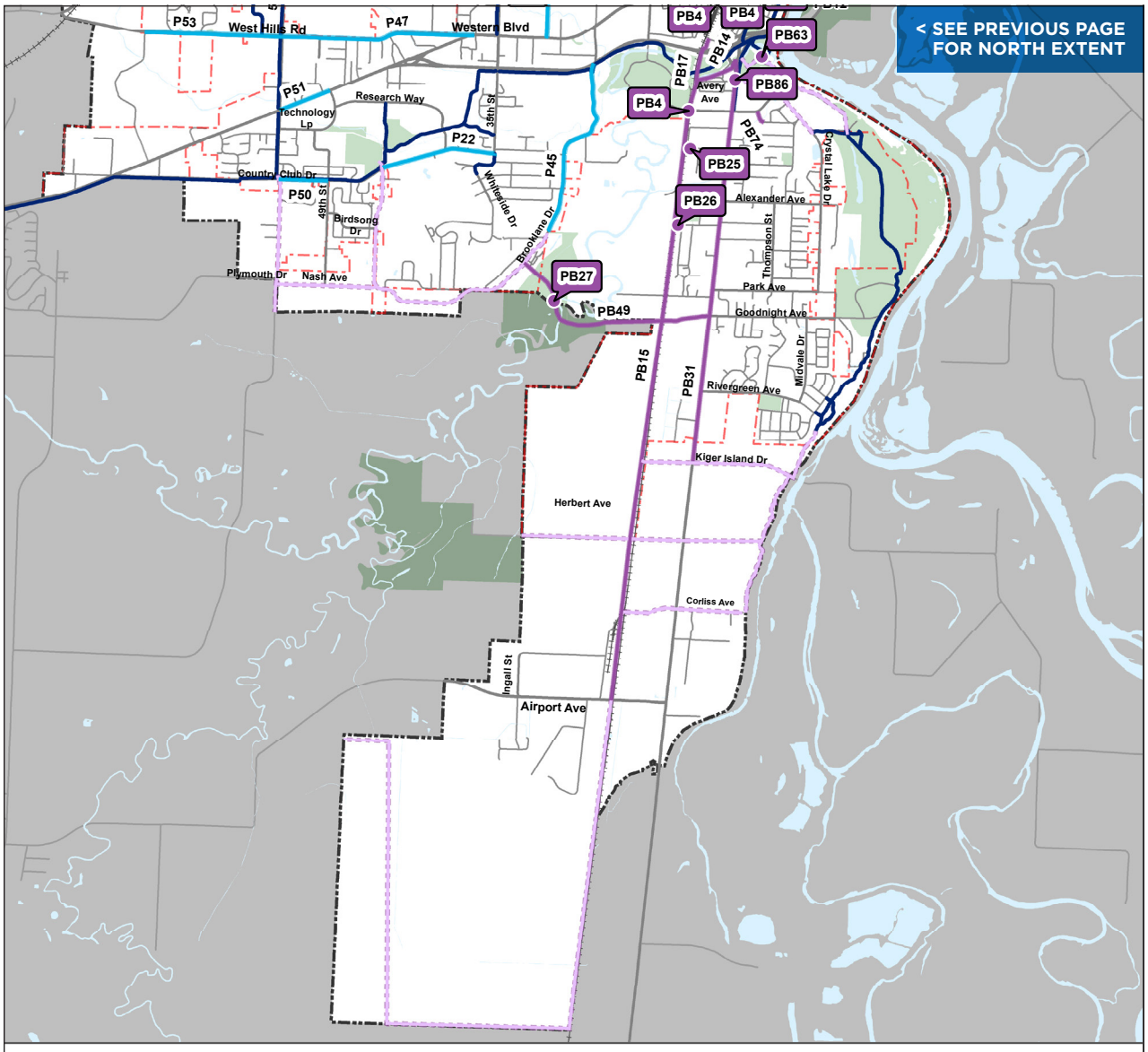


Figure 29. Pedestrian Projects – South Extent



BICYCLE

Bicycle projects are intended to provide people traveling by bicycle with direct and lower stress routes. Alignments and locations of bicycle projects within this document are conceptual and subject to further public review and refinement through field studies. Final bike route alignments and facility types will be dependent on approved plans at the time of construction.

As noted in Chapter 6, Standards, the options for bike facilities range from shared lanes to high-quality bikeways. The roadway standards indicate the type of bikeway and width allocated for new facilities, however, retrofitting bike facilities within limited right-of-way on existing streets may require reduction in standard widths for selected street elements to avoid requiring more right-of-way. Furthermore, buffered bike lanes are the default standard on neighborhood collectors, collectors, and arterials, though City policy allows protected bike lanes on arterials, where deemed appropriate. City staff may investigate the feasibility of installing protected bike lanes on existing arterials as a separate effort.

Several of the projects listed below are part of a low-stress network. These are routes that provide a clear bicycle network connecting many destinations along routes that tend to be safer and more comfortable for people of all ages and abilities to use bicycles as a mode of transportation. They are designed to give priority to through bicycle traffic and minimize through vehicle traffic, and can form the backbone of a citywide bicycle network. Low-stress networks include neighborhood bikeways, multi-use paths, and segments of buffered and protected bike lanes. Low-stress networks can be implemented in phases, by corridor or even by segment.

Neighborhood bikeways follow local streets with lower vehicle speeds and traffic volumes. They incorporate crossing improvements (such as median refuge islands and rapid flashing beacons) as well as traffic calming measures (such as speed humps, chicanes, curb extensions and diverters). Additional information on elements of neighborhood bikeways are included in the ***Active Transportation Toolkit*** in Volume 2. Figure 30 and Figure 31 are maps of the Bicycle solution projects and the maps of the projects in the low-stress network are in Figure 32 and Figure 33.

Table 14. Bicycle Solutions

PROJECT ID	PROJECT TYPE	PROJECT NAME	COST ESTIMATE	PRIMARY FUNDING SOURCE	PRIORITY	SOURCE
B1	New Bike Lanes	Harrison Boulevard Bike Lanes	$525,000	City	Medium	Corvallis 1996 TSP
	Add bike lanes along Harrison Boulevard between 30th Street and 36th Street. Adding bike lanes may require expansion of roadway and removal of trees. Project needs to consider impact on Historically Significant Trees subject to a historic preservation permit review by the Historic Resources Commission in accordance with Land Development Code Chapter 2.9. Project B39 (Tyler Avenue Neighborhood Bikeway) may provide east-west connectivity parallel to Harrison Boulevard in the interim.					
B2	New Bicycle Parking	Bicycle Parking	$10,000	City/Developer	Low	Corvallis 1996 TSP
	Improve bicycle parking.					
B5	New Bike Lanes	Alexander Avenue Bike Lanes	$15,000	Developers/ Assessments to property owners	Medium	Corvallis 1996 TSP
	Add bike lanes to Alexander Avenue between Crystal Lake Drive and 3rd Street/OR 99W. Reconfiguring the existing curb-to-curb lane configuration and/or widening the street may be required. This may result in narrower lanes and reductions in on-street parking.					
B6	New Bike Lanes	Park Avenue Bike Lanes	$15,000	Developers/ Assessments to property owners	Medium	Corvallis 1996 TSP
	Add bike lanes on Park Avenue between Crystal Lake Drive and 3rd Street/OR 99W. Reconfiguring the existing curb-to-curb lane configuration and/or widening the street may be required. This may result in narrower lanes and reductions in on-street parking.					
B11	Widen Bike Lanes Study	29th Street Bike Lanes	$50,000	City	Medium	TM 12
	Study the feasibility of widening bicycle lanes along 29th Street between Harrison Boulevard and Walnut Boulevard.					
B15	New Bike Lanes	9th Street Bike Lanes	$60,000	City	Medium	TM 12
	Add bike lanes on 9th Street between Polk Avenue and Monroe Avenue. Project would require reallocation of roadway from two lanes in each direction, to one lane in each direction, with center turn lane and bike lanes. Project would require analysis of traffic volumes, turning movements and level of service to determine potential impacts of reconfiguration. Project cost includes $50,000 for study and analysis, and $10,000 to implement bike lanes.					
B16	Reduce Bicycle Stress	Walnut Boulevard Bicycle Lanes	$90,000	City	Medium	TM 12
	Improve bicycle conditions on Walnut Boulevard between Jack London Street and Witham Hill Drive, which may include buffered bike lanes. Buffered bike lanes may require lane removals, lane width reductions or a combination of both.					
B18	Reduce Bicycle Stress	Garfield Avenue Bike Lanes	$32,000	City	High	TM 12
	Improve bicycle conditions on Garfield Avenue between 9th Street and 29th Street, which may include buffered bike lanes. This project is one element of a citywide low-stress network.					
B21	Reduce Bicycle Stress	Van Buren Avenue Bike Lanes	$30,000	City/ODOT	Medium	TM 12
	Improve bicycle conditions on Van Buren Avenue between Kings Boulevard and the Willamette River, which may include buffered bike lanes. Buffered bike lanes may require narrower lanes, or removal of parking.					

Table 14. Bicycle Solutions, *Continued*

PROJECT ID	PROJECT TYPE	PROJECT NAME	COST ESTIMATE	PRIMARY FUNDING SOURCE	PRIORITY	SOURCE
B22	Reduce Bicycle Stress	Goodnight Avenue Bike Lanes	$20,000	City	Medium	TM 12
	Improve bicycle conditions on Goodnight Avenue between OR 99W and Park Avenue, which may include buffered bike lanes. Buffered bike lanes may require removing parking or expanding roadway width, or converting roadway to local classification with neighborhood bikeway.					
B25	Reduce Bicycle Stress	Kings Boulevard Bike Lanes	$30,000	City	Medium	TM 12
	Improve bicycle conditions on Kings Boulevard between Walnut Boulevard and Grant Avenue, which may include buffered bike lanes. Buffered bike lanes may require removal of center turn lane, lane narrowing, roadway widening, or combination of all three.					
B26	Reduce Bicycle Stress	HighlandDrive/ 10th Street Bike Lanes	$45,000	City	Medium	TM 12
	Improve bicycle conditions on Highland Drive between Circle Boulevard and Harrison Boulevard, which may include buffered bike lanes.					
B27	Reduce Bicycle Stress	9th Street Bike Lanes	$80,000	City	Medium	TM 12
	Improve bicycle conditions on 9th Street between Monroe Avenue and Elks Drive, which may include buffered bike lanes. Buffered bike lanes may require removal of center turn lane, lane narrowing, removal of travel lanes, roadway expansion, or a combination of all four. Cost estimate based on lane restriping. Coordinate with B15 and PB68.					
B31	US 20 Bicycle Study	US 20 Bike Lanes	$200,000	ODOT/ Developers	Medium	Stakeholder Request
	Conduct study of adding buffered bike lanes to NE 2nd Avenue (US 20) between Downtown and the northeast UGB boundary. Study would analyze whether expanding the roadway width would be necessary, and the cost to do so.					
B35	Reduce Bicycle Stress	Monroe Avenue and 14th Street Bicycle Amenities	$5,000	City/OSU	High	Stakeholder Request
	Improve bicycle facilities at the Monroe Avenue/14th Street intersection, which may include adding bicycle amenities such as bike boxes and/or wayfinding to improve bicycle safety and access. Bicycle boxes can increase driver awareness of bicycles, providing dedicated space for bicyclist to make left turns without turning from the center turn lane.					
B38	New Neighborhood Bikeway and Low-Stress Network	Elmwood Drive Neighborhood Bikeway/Circle Boulevard Low-Stress Roadway	$155,000	City	High	Project Team
	Develop low-stress route from Firwood Drive via Elmwood Drive, 27th Street, and Circle Boulevard, to eastern UGB boundary. Segments on local roadways would be designated as a neighborhood bikeway. Segments along arterials and collectors would require buffered bike lanes. Buffered bike lanes may require lane removal, roadway expansion, narrower lanes, or a combination of all three. This project is one segment of a citywide low-stress network. Refer to Low-Stress Network map for routing.					
B39	New Neighborhood Bikeway	Tyler Avenue Neighborhood Bikeway	$125,000	City	High	Project Team
	Develop neighborhood bikeway along Tyler Avenue and Polk Avenue between Elizabeth Drive on the west, and the Willamette River on the east. This project is one segment of a citywide low-stress network. Refer to Low-Stress Network map for routing. Coordinate with Project B51.					

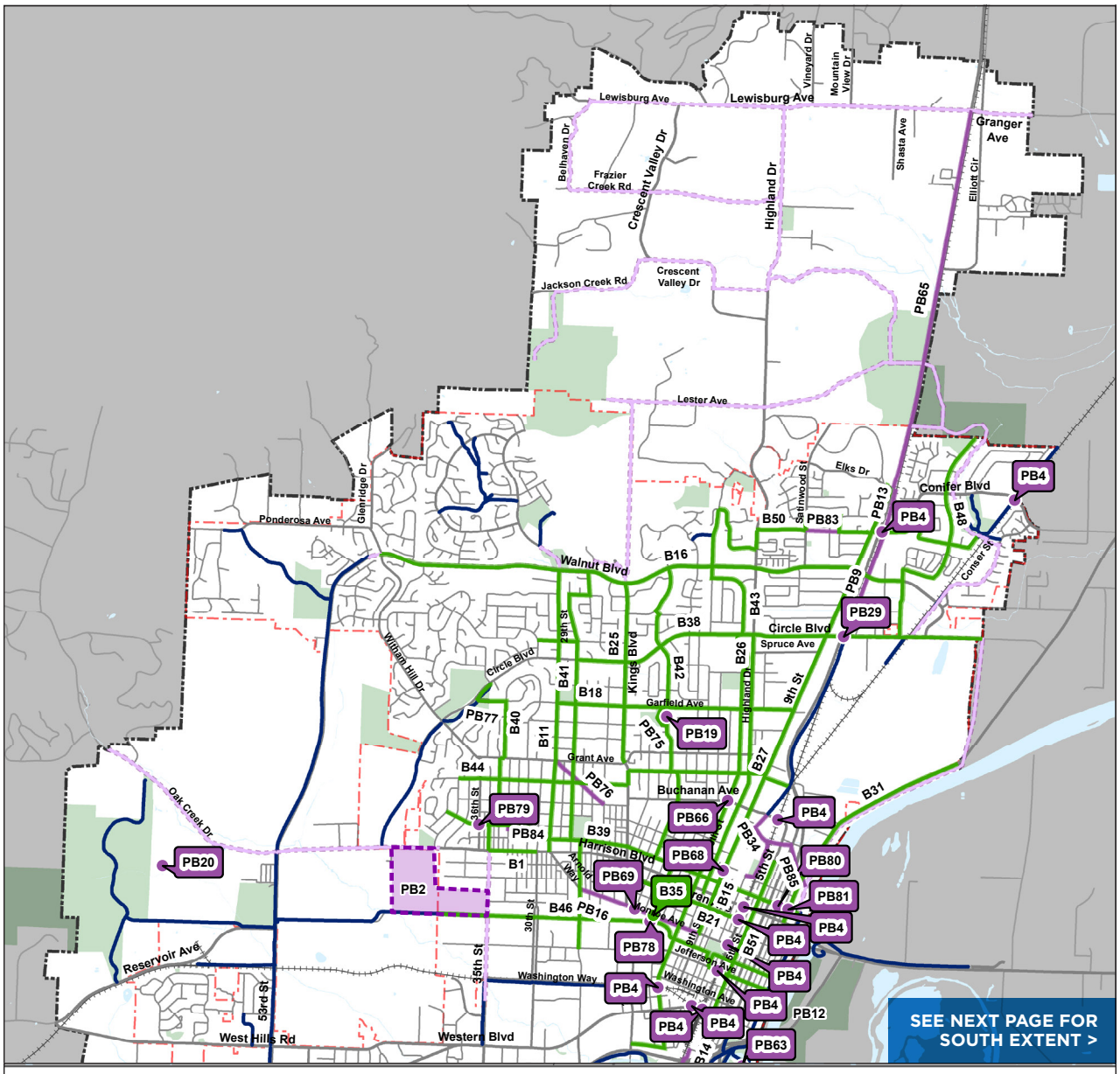
Table 14. Bicycle Solutions, *Continued*

PROJECT ID	PROJECT TYPE	PROJECT NAME	COST ESTIMATE	PRIMARY FUNDING SOURCE	PRIORITY	SOURCE
B40	New Neighborhood Bikeway	Alta Vista Drive/34th Street Neighborhood Bikeway	$70,000	City	High	Project Team
	Develop neighborhood bikeway along Alta Vista Drive and 34th Street between Circle Boulevard and Crest Drive on the north, and 35th Street and Harrison Blvd on the south. This project is one segment of a citywide low-stress network. Refer to Low-Stress Network map for routing.					
B41	New Neighborhood Bikeway	26th/27th Street Neighborhood Bikeway	$135,000	City/OSU	High	Project Team
	Develop neighborhood bikeway along 27th Street between Walnut Boulevard and 25th Street on the north, and 26th Street and OSU on the south. This project is one segment of a citywide low-stress network. Refer to Low-Stress Network map for routing. The City will work with OSU to identify appropriate improvements to be implemented.					
B42	New Neighborhood Bikeway	16th/17th Street Neighborhood Bikeway	$135,000	City	High	Project Team
	Develop neighborhood bikeway along 16th and 17th Streets between Walnut Boulevard and Rolling Green Drive on the north, and 14th Street and Monroe Avenue on the south. This project is one segment of a citywide low-stress network. Refer to Low-Stress Network map for routing.					
B43	New Neighborhood Bikeway	11th Street Neighborhood Bikeway	$210,000	City	High	Project Team
	Develop neighborhood bikeway along 11th Street between 13th Street and Angelica Drive on the north, and 15th Street and E Avenue on the south, which may include adding curb extensions at the Monroe Street/11th Street intersection to improve pedestrian and bicycle safety. This project is one segment of a citywide low-stress network. Refer to Low-Stress Network map for routing. Coordinate with Project M47.					
B44	New Neighborhood Bikeway	Beca Avenue/ Lincoln Avenue Neighborhood Bikeway	$175,000	City	High	Project Team
	Develop neighborhood bikeway along Lincoln Avenue and Beca Avenue between Merrie Drive and OR 99W Multi-Use Path. This project is one segment of a citywide low-stress network. Refer to Low-Stress Network map for routing. This cost includes a $60,000 segment of multi-use path along Kings Boulevard between Lincoln Avenue and Beca Avenue.					
B46	New Neighborhood Bikeway	Campus Way/ Madison Avenue Neighborhood Bikeway	$135,000	City/OSU	High	Project Team
	Develop neighborhood bikeway along Campus Way (under OSU jurisdiction) between western OSU boundary and 11th Street, Madison Avenue between 11th Street and the Riverfront Park Multi-Use Path for westbound travel, and on Jefferson Avenue between 7th Street and the Riverfront Park Multi-Use Path for eastbound travel. Segments along Jefferson Avenue may require roadway widening to install a buffered bike lane. This project is one segment of a citywide low-stress network. Refer to Low-Stress Network map for routing. Coordinate with OSU and Project P2.					

Table 14. Bicycle Solutions, *Continued*

PROJECT ID	PROJECT TYPE	PROJECT NAME	COST ESTIMATE	PRIMARY FUNDING SOURCE	PRIORITY	SOURCE
B47	New Neighborhood Bikeway	SE Corvallis Neighborhood Bikeway	$135,000	City/ Assessments to property owners	High	Project Team
	Develop neighborhood bikeway in Southeast Corvallis from Vera Avenue and Crystal Lake Drive, along Vica Way, Bethel Street, Thompson Street, Goodpark Street, Summerfield Drive and Dockside Drive to Shoreline Drive. This project is one segment of a citywide low-stress network. Refer to Low-Stress Network map for routing.					
B48	New Neighborhood Bikeway	Lancaster Street Neighborhood Bikeway	$85,000	City	High	Project Team
	Develop neighborhood bikeway along Lancaster Street from Lancaster and Oxford Circle, to Jack London Street and Circle Boulevard. This project is one segment of a citywide low-stress network. Refer to Low-Stress Network map for routing.					
B50	New Neighborhood Bikeway	NE Corvallis Neighborhood Bikeway	$120,000	City	High	Project Team
	Develop neighborhood bikeway between 13th Street and Angelica Drive, via Anjini Circle, Sundance Circle, Satinwood Street, Maxine Avenue, Bryant Street, Conifer Boulevard, Cambridge Circle, and Plymouth Circle and Sherwood Way to Village Green Park. Segment along Satinwood Street may require buffered bike lanes. Segment along Conifer Boulevard between 9th Street and Cambridge may require lane narrowing, roadway widening, removal of parking, or a combination of all three. This project is one segment of a citywide low-stress network. Refer to Low-Stress Network map for routing. Project PB83 provides a multi-use path that could provide alternate alignment for this neighborhood bikeway.					
B51	Buffered Bike Lanes	5th Street Buffered Bike Lanes	$55,000	City/ODOT	High	Project Team
	Improve bicycle conditions along 5th Street between Western Avenue and Buchanan Avenue, which may include constructing buffered bike lanes. An alternative alignment on 2nd Street may be suitable. Buffered bike lanes may require removal of parking, lane narrowing, and/or conversion of angled parking to parallel parking. This project is one segment of a citywide low-stress network. Refer to Low-Stress Network map for routing. Coordinate with Project B39.					
B54	New Bike Lanes	Brooklane Drive bike lanes	$15,000	City/ Developer/ Assessments to property owners	Medium	Project Team
	Install bike lanes to fill existing bicycle network gap between Agate Avenue (west) and Agate Avenue (east).					

Figure 30. Bicycle Projects – North Extent



Legend

Bicycle Projects

- Bicycle Segment Project
- Pedestrian/ Bicycle Segment Project
- Parks Master Plan Project
- Bicycle Intersection Project
- Pedestrian/ Bicycle Intersection Project
- Pedestrian/ Bicycle Area Project
- Existing Multi-Use Path

Note: Projects not associated with a specific location or area are not shown on map.

N

0 0.25 0.5 1 Miles

- Urban Growth Boundary
- Corvallis City Limit
- Parks and/or Natural Areas

Figure 31. Bicycle Projects – South Extent

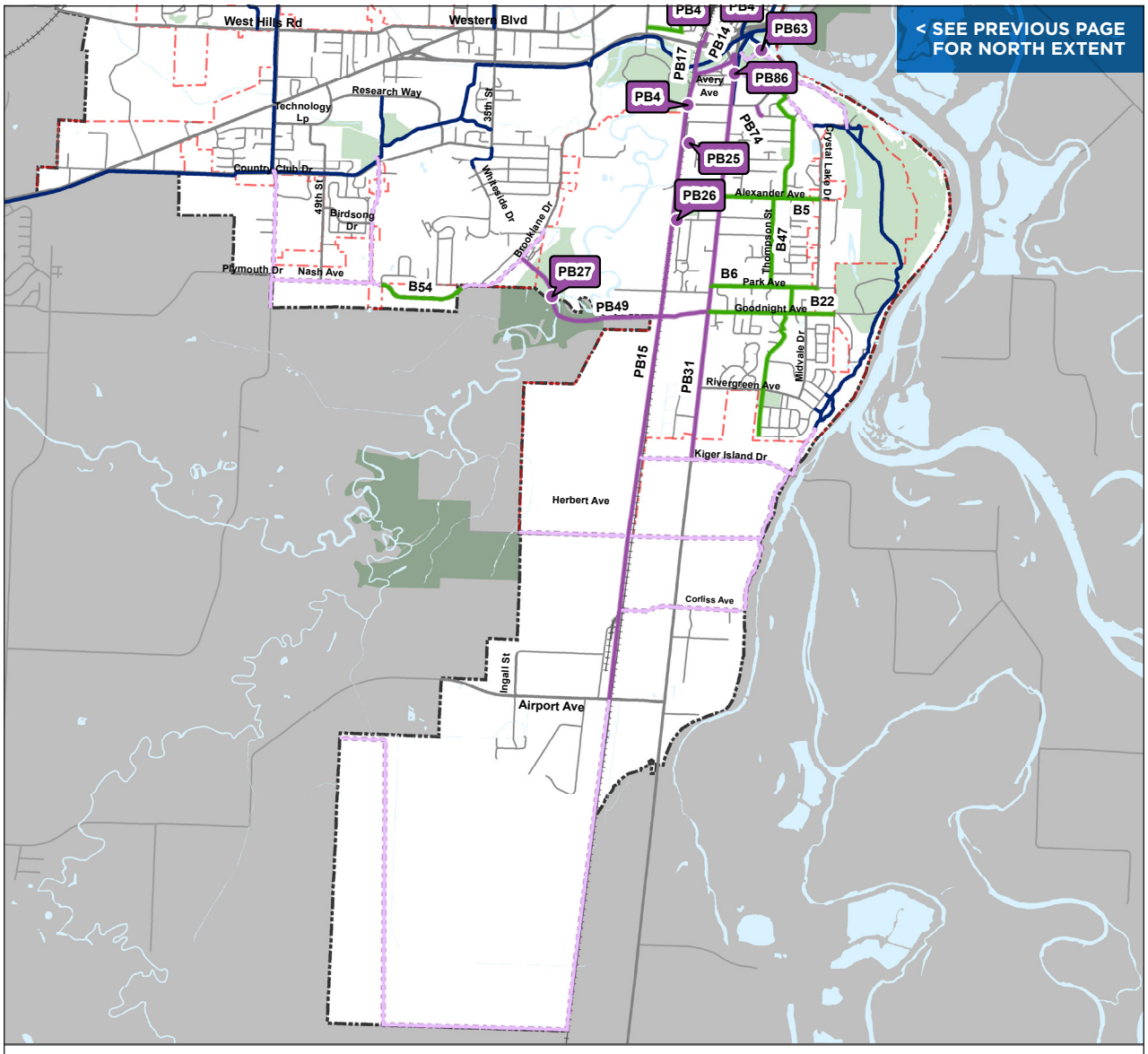


Figure 32. Low-stress Network – North Extent

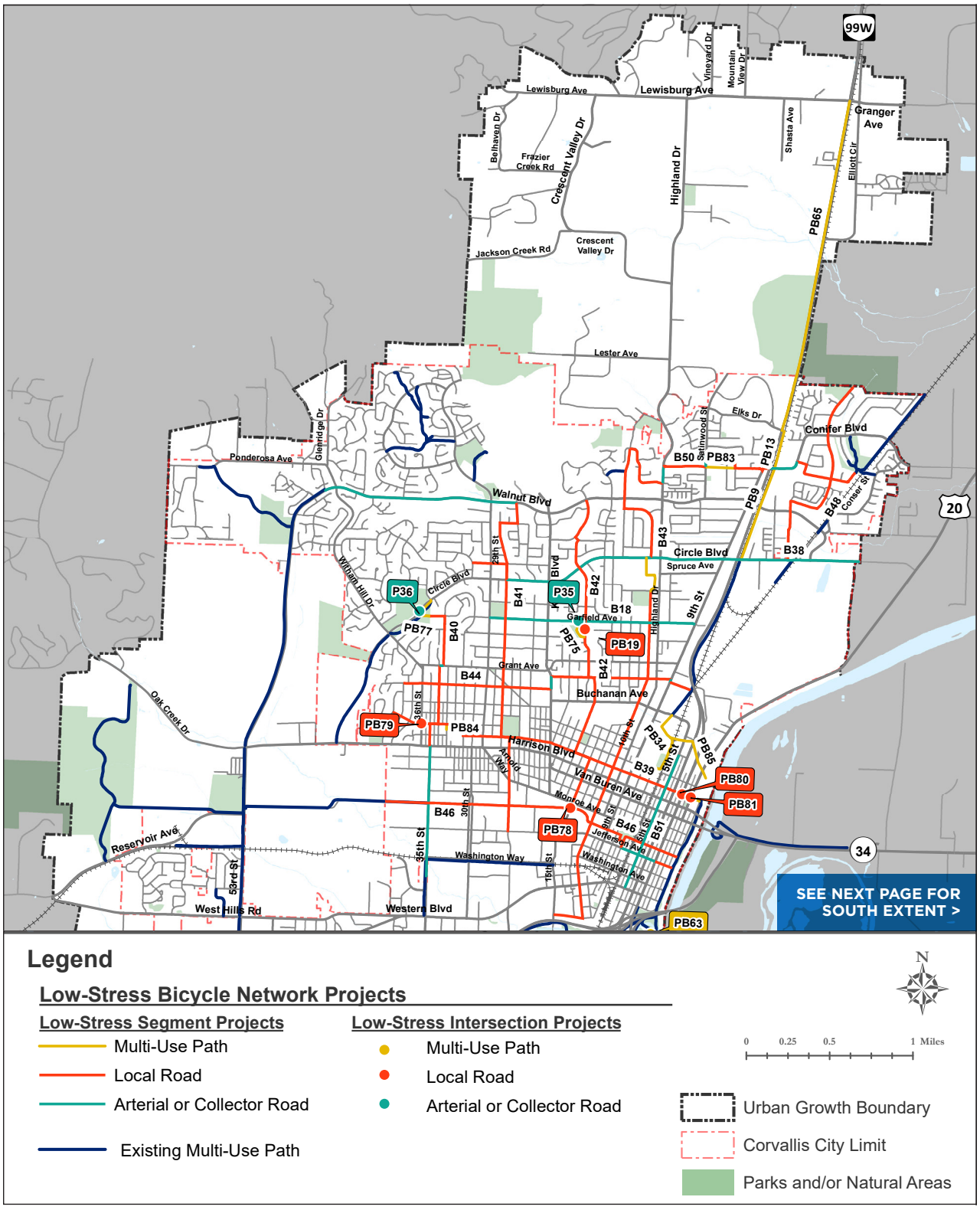
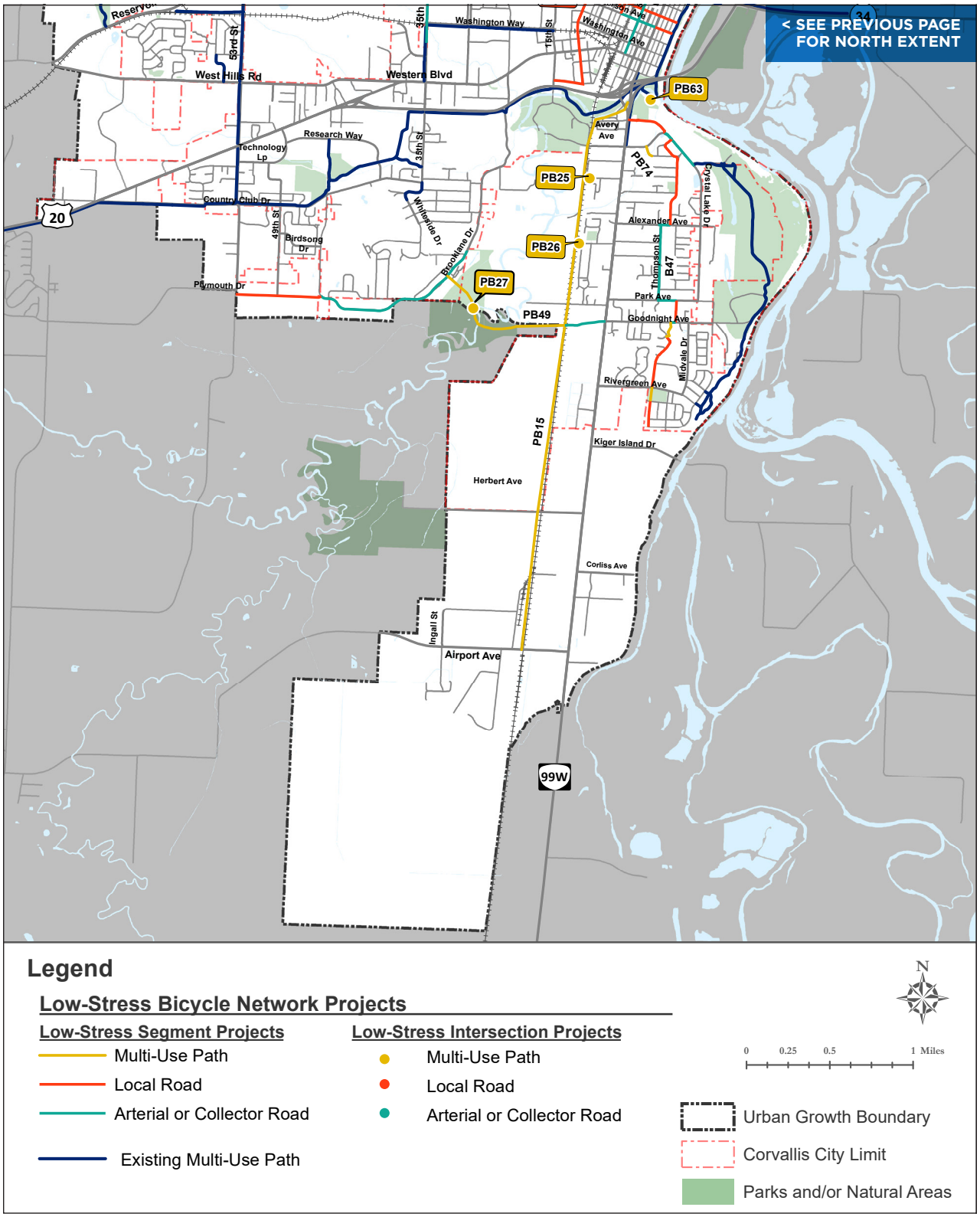


Figure 33. Low-stress Network – South Extent



MULTIMODAL SOLUTIONS

Multimodal investments seek to create a connected local and regional transportation network for all modes in Corvallis. Most Multimodal projects are new streets or improvements to existing streets to bring them up to current design standards, with the resulting corridor including facilities for people driving, walking, and bicycling.

New roadways should be constructed to align with existing street intersections, whenever possible. Alignments shown on maps within this document are conceptual. Property owners have the right to develop the street within that alignment, provided it has not been officially modified or refined by another method, including but not limited to an area plan, refinement plan, corridor study, annexation agreement, comprehensive plan amendment, or previous development approval. There are a few new roadways for which the City has identified specific alignments: M12, M108, M124, and M118. Figure 34 and Figure 35 are maps of the Multimodal solution projects.

Construction of new streets in the city will most likely occur in one of two ways: 1) A property owner's development activity triggers the minimum thresholds for street improvement or 2) The City initiates the construction of the street to relieve a significant congestion or safety problem on the system, or to promote development. If any street improvements are required to be partially or fully funded by the property owner, the City is only legally able to compel the property owner to fund an improvement that passes the statutory "rough proportionality" test. The City can facilitate development and construction of new infrastructure through local improvement districts, connection charges, zone of benefit, or other City incentive funding.

Roadway projects located in the urban fringe area could be funded by the City, County, and/or a private developer.

Table 15. Multimodal Solutions

PROJECT ID	PROJECT TYPE	PROJECT NAME	COST ESTIMATE	PRIMARY FUNDING SOURCE	PRIORITY	SOURCE
M2	Intersection - Mobility	26th Street/ US 20-OR 34 Improvements	$1,295,000	ODOT	Medium	Project Team
	Intersection improvements (capacity): Options may include 1) constructing a southbound right-turn lane or southbound left-turn lane, 2) constructing bike lanes on 26th Street, and 3) adding bicycle detection at the multi-use path approaches to the intersection. Note: Retaining wall along Oak Creek would be required. Project is subject to ODOT approval. Project has potential impacts to or may be constrained by environmental resources.					
M3	Modernization	West Hills Road Modernization (Western to 53rd)	$10,036,000	City/ Developer/ County	High	Corvallis 1996 TSP
	Modernization improvements along West Hills Road between Western Boulevard and 53rd Street. Project has potential impacts to or may be constrained by environmental resources. Project P47 is an element of this project.					
M4	Modernization	Ponderosa Avenue Modernization	$6,339,000	City/Developer	Medium	Corvallis 1996 TSP
	Modernization improvement along Ponderosa Avenue between Cassia Place and West UGB. Project has potential impacts to or may be constrained by environmental resources.					

Table 15. Multimodal Solutions, *Continued*

PROJECT ID	PROJECT TYPE	PROJECT NAME	COST ESTIMATE	PRIMARY FUNDING SOURCE	PRIORITY	SOURCE
M5	Intersection - Safety & Mobility	Circle Boulevard/ 9th Street Improvements	$1,156,000	City	Medium	Corvallis 1996 TSP, 9th Street Improvement Plan
	Intersection improvements (capacity and safety): Options may include constructing a northbound right-turn lane, a southbound right-turn lane, a westbound right-turn lane, traffic signal modifications (northbound right-turn and southbound right-turn overlap), 5) lengthening the northbound left-turn lane, and 6) pedestrian/bicycle improvements. Requires ROW acquisition. Coordinate with Project B27.					
M6	New Roadway	Circle Boulevard Extension to Harrison Boulevard	$8,416,000	City/Developer	Medium	Corvallis 1996 TSP
	New roadway extension: Construct Circle Boulevard Extension to neighborhood collector standard between existing stub and Harrison Boulevard.					
M7	New Roadway	New N-S 1 Neighborhood Collector from Airport Avenue to Goodnight Avenue	$25,361,000	City/Developer	Medium	Corvallis 1996 TSP, South Corvallis Area Plan
	New roadway extension: Construct new neighborhood collector connecting Airport Avenue to Goodnight Avenue west of OR 99W. Project has potential impacts to or may be constrained by environmental resources.					
M8	New Roadway	Van Buren Bridge (New Construction)	$69,000,000	ODOT	High	Corvallis 1996 TSP
	Reconstruct a new two-lane bridge across the Willamette River. Address weight restriction and vertical clearance on Van Buren Bridge to avoid out-of-direction travel for trucks. Project is subject to ODOT approval. Project has potential impacts to or may be constrained by environmental resources.					
M9	Modernization	Harrison Boulevard Widening	$10,330,000	City/ Developer/ County	Medium	Corvallis 1996 TSP
	Modernization improvements along Harrison Boulevard between 36th Street and 53rd Street including bike lanes. Coordinate with Project P27. Project has potential impacts to or may be constrained by environmental resources.					
M10	Modernization	53rd Street Widening	$27,348,000	City/ Developer/ County	Medium	Corvallis 1996 TSP
	Modernization improvements along 53rd Street between Harrison Boulevard and US 20-OR 34, consistent with the 5-lane cross-section identified in the West Corvallis - North Philomath Plan. Project has potential impacts to or may be constrained by environmental resources.					
M11	New Roadway	Reservoir Avenue Extension	$21,062,000	City/OSU	Medium	West Corvallis-North Philomath Plan
	New roadway extension: Extend Reservoir Avenue to connect with Washington Way and construct to collector standard. During the planning horizon covered by this TSP, the construction of this project will not be required by the property owner unless the underlying Comprehensive Plan designation changes and development is proposed on the parcel. In general it is anticipated that M59 will not be needed prior to construction of M11. Project has potential impacts to or may be constrained by environmental resources.					
M12	New Roadway	King Boulevard Extension	$39,938,000	City/Developer	Medium	Corvallis 1996 TSP
	New roadway extension: Extend Kings Boulevard from current stub north to Crescent Valley Drive and construct to arterial standard. Project has potential impacts to or may be constrained by environmental resources.					

Table 15. Multimodal Solutions, *Continued*

PROJECT ID	PROJECT TYPE	PROJECT NAME	COST ESTIMATE	PRIMARY FUNDING SOURCE	PRIORITY	SOURCE
M13	Modernization	Highland Drive Widening	$16,948,000	City/ Developer/ County	Medium	Corvallis 1996 TSP
	Modernization improvements along Highland Drive between Angelica Drive and Lewisburg Road. Project has potential impacts to or may be constrained by environmental resources.					
M14	Modernization	Lewisburg Avenue Widening	$15,389,000	City/ Developer/ County	Medium	Corvallis 1996 TSP
	Modernization improvements along Lewisburg Avenue between OR 99W and west UGB. Project has potential impacts to or may be constrained by environmental resources.					
M15	New Roadway	Crystal Lake Drive Extension	$3,004,000	City/Developer	Medium	Corvallis 1996 TSP
	New roadway extension: Extend Crystal Lake from Park Avenue to Goodnight Avenue and construct to neighborhood collector standard.					
M16	Intersection - Safety & Mobility	53rd Street Railroad Overpass	$7,000,000	County	Medium	Benton County CIP 2017-2019, CAMPO RTP
	Improves safety and mitigates flooding. Options may include reconstructing the crossing including right-of-way acquisition and roadway realignment. Coordinate with Project M10. Project has potential impacts to or may be constrained by environmental resources.					
M20	New Roadway	North Corvallis Bypass	$145,789,000	ODOT	Medium	Corvallis 1996 TSP, Corvallis Willamette River Crossing/ Van Buren Bridge Proposed Solutions 2009
	New roadway extension: Construct the 2-lane northern leg of the OR 34 bypass from the existing OR 34 Bypass intersection across the Willamette River connecting to US 20 and OR 99W north of Polk Avenue. Coordinate with Project M8. Note: Some Right of Way acquisition is needed west of the Willamette River. Project is subject to ODOT approval. Project has potential impacts to or may be constrained by environmental resources.					
M23	Intersection - Safety	Walnut Boulevard/ Witham Hill Drive/Glenridge Drive	$280,000	City	Medium	Stakeholder Request
	Intersection improvements (safety): Options may include extending the westbound merge on Walnut Boulevard. Project has potential impacts to or may be constrained by environmental resources.					
M27	Intersection - Safety	Country Club Drive/69th Street/US 20-OR 34	$5,679,000	ODOT	Low	Stakeholder Request
	Intersection Improvements (safety): Improvements needed to mitigate complex intersection and poor street alignments. Improvements may include realigning Country Club Drive and 69th Street and constructing a roundabout. Project is subject to ODOT approval.					
M29	Intersection - Safety	Harrison Boulevard/Kings Boulevard	$10,000	City	High	Stakeholder Request
	Intersection improvements to mitigate potential driver confusion at a complex intersection. Options may include improving wayfinding signage.					

Table 15. Multimodal Solutions, *Continued*

PROJECT ID	PROJECT TYPE	PROJECT NAME	COST ESTIMATE	PRIMARY FUNDING SOURCE	PRIORITY	SOURCE
M30	Intersection - Safety & Mobility	Grant Avenue/29th Street	$599,000	City	Medium	Stakeholder Request
	Intersection improvements (capacity and safety): Options may include: 1) Close Coolidge Way at the intersection of Grant Avenue/29th Street and connection to Grant Avenue just east of the intersection, 2) Create a public plaza, or increase the size of the existing adjacent park, and construct curb extensions to shorten the crossing distance, or 3) Install a traffic signal or roundabout. Note: Initial costs assumes a traffic signal. Project has potential impacts to or may be constrained by environmental resources.					
M47	Intersection - Safety & Mobility	15th Street/US 20-OR 34	$1,600,000	ODOT	High	Project Team
	Intersection improvements (capacity and safety): Options may include 1) Constructing a southbound left-turn lane, which would require reconstruction of the southwest corner to align the southbound through lane and its receiving lane, 2) Traffic signal modifications to include protected northbound and southbound left-turns, 3) Reduce turning radii to reduce speed, 4) Installing freight sensors to allow freight to pass through without braking to reduce noise pollution, 5) Adding bike box to improve safety, 6) Bicycle detection for signal at multi-use path approaches to the intersection, and/or 7) Modifying grading to improve visibility. Project is subject to ODOT approval. Coordinate with Project B43.					
M49	Intersection - Safety & Mobility	Van Buren Avenue/4th Street	$121,000	ODOT	Medium	Project Team
	Intersection improvements (capacity and safety): Options may include 1) Extending the eastbound right-turn lane, 2) Removing parking to construct a southbound left-turn lane, or 3) Removing parking to construct curb extensions. Initial costs include the eastbound right-turn and southbound left-turn lane improvements. Project is subject to ODOT approval.					
M58	New Roadway	New E-W 1 Collector from Highland Drive to Lester Ave Extension	$7,145,000	City/Developer	Medium	North Corvallis Plan
	New roadway extension: Construct new collector between Highland Drive and Lester Avenue Extension. Project has potential impacts to or may be constrained by environmental resources.					
M59	New Roadway	Circle Boulevard Extension	$9,028,000	City/OSU	Medium	Project Team
	New roadway extension: Extend Circle Boulevard between Harrison Boulevard and New E-W Collector (M11) and construct to neighborhood collector standard. During the planning horizon covered by this TSP, the construction of this project will not be required by the property owner unless the underlying Comprehensive Plan designation changes and development is proposed on the parcel. In general, it is anticipated that M59 will not be needed prior to construction of M11, unless the underlying Comprehensive Plan designation changes, and the resulting development requires access to Harrison Boulevard. Project has potential impacts to or may be constrained by environmental resources.					
M60	Corridor - Safety & Mobility	Western Boulevard Improvements	$5,392,000	City	Medium	Project Team
	Corridor (capacity and safety): Construct a center turn lane on Western Boulevard between 4th Street and 26th Street and construct high visibility crosswalks along this segment. Note: Initial cost assumes up to 5 high visibility crosswalks along this segment and the specific locations have not been identified. Coordinate with Project A28. Project has potential impacts to or may be constrained by environmental resources.					
M61	Corridor - Safety	Arnold Way Improvements	$1,305,000	City	Low	Harrison Corridor Study
	Intersection improvements (safety): Safety improvements to reduce auto/bicycle/pedestrian conflicts and reduce speeding may include: 1) Realign Van Buren Avenue, west of Arnold Way and to intersect Arnold Way to form a T-intersection and close 28th Street at the intersection of 28th Street/Arnold Way and 2) Realign Jackson Avenue to intersect Arnold Way to form a T-intersection and close 27th Street at the intersection of 27th Street/Arnold Way.					

Table 15. Multimodal Solutions, *Continued*

PROJECT ID	PROJECT TYPE	PROJECT NAME	COST ESTIMATE	PRIMARY FUNDING SOURCE	PRIORITY	SOURCE
M64	New Roadway	29th Street Extension	$7,533,000	City/Developer	Medium	North Corvallis Area Plan
	New roadway extension: Construct 29th Street Extension to neighborhood collector standard between Bunting Drive and Kings Boulevard Extension. Project has potential impacts to or may be constrained by environmental resources.					
M70	New Roadway	NE Walnut Boulevard Extension	$7,828,000	City/Developer	Medium	Project Team
	New roadway extension: Construct NE Walnut Boulevard Extension to collector standard between US 20 and Circle Boulevard. Project has potential impacts to or may be constrained by environmental resources.					
M71	New Roadway	Satinwood Street Extension	$6,294,000	City/Developer	Medium	Good Samaritan Regional Medical Center Campus Master Plan 2014
	New roadway extension: Construct Satinwood Street Extension to collector standard between existing stub and Lester Avenue Extension. Project has potential impacts to or may be constrained by environmental resources.					
M74	New Roadway	Rivergreen Avenue Extension	$10,975,000	City/Developer	Medium	Project Team
	New roadway extension: Construct Rivergreen Avenue Extension to neighborhood collector standard between OR 99W and new Collector between Airport Place and Rivergreen Avenue Extension (M101). Project has potential impacts to or may be constrained by environmental resources.					
M77	New Roadway	Lester Avenue Extension	$15,650,000	City/Developer	Medium	North Corvallis Area Plan
	New roadway extension: Construct Lester Avenue Extension to collector standard between Highland Drive and OR 99W. Project has potential impacts to or may be constrained by environmental resources.					
M78	New Roadway	Frazier Creek Drive Extension	$26,027,000	City/Developer	Medium	North Corvallis Area Plan
	New roadway extension: Construct Frazier Creek Drive Extension to collector standard between Crescent Valley Drive and West Elliot Circle Extension. Project has potential impacts to or may be constrained by environmental resources.					
M79	New Roadway	New N-S 2 Collector parallel to, and east of, Highland Drive	$16,622,000	City/Developer	Medium	North Corvallis Area Plan
	New roadway extension: Construct a new N-S roadway parallel to, and east of, Highland Drive to collector standard between Frazier Creek Extension and new E-W Collector from Highland Drive to Lester Avenue Extension (M58). Project has potential impacts to or may be constrained by environmental resources.					
M90	New Roadway	West Elliot Circle Construction	$22,965,000	City/Developer	Medium	North Corvallis Area Plan
	New roadway extension: Construct West Elliot Circle Extension, west of OR 99W, to collector standard between OR 99W and the north UGB. Project has potential impacts to or may be constrained by environmental resources.					
M91	New Roadway	New N-S 3 Neighborhood Collector between Lewisburg Avenue and Frazier Creek Drive Extension	$8,911,000	City/Developer	Medium	North Corvallis Area Plan
	New roadway extension: Construct new neighborhood collector between Lewisburg Avenue and Frazier Creek Drive Extension. Project has potential impacts to or may be constrained by environmental resources.					

Table 15. Multimodal Solutions, *Continued*

PROJECT ID	PROJECT TYPE	PROJECT NAME	COST ESTIMATE	PRIMARY FUNDING SOURCE	PRIORITY	SOURCE
M92	New Roadway	New N-S 4 Neighborhood Collector between Crescent Valley Drive and Spring Meadow Drive	$9,406,000	City/Developer	Medium	North Corvallis Area Plan
	New roadway extension: Construct new neighborhood collector between Crescent Valley Drive and Spring Meadow Drive. Project has potential impacts to or may be constrained by environmental resources.					
M93	New Roadway	Spring Meadow Drive Extension	$7,921,000	City/Developer	Medium	North Corvallis Area Plan
	New roadway extension: Construct Spring Meadow Drive Extension to neighborhood collector standard between Highland Drive and existing stub. Project has potential impacts to or may be constrained by environmental resources.					
M94	New Roadway	New N-S 5 Neighborhood Collector between Lewisburg Drive and Spring Meadow Drive Extension	$4,951,000	City/Developer	Medium	North Corvallis Area Plan
	New roadway extension: Construct new neighborhood collector between Lewisburg Avenue and Spring Meadow Drive Extension. Project has potential impacts to or may be constrained by environmental resources.					
M95	New Roadway	New N-S 6 Neighborhood Collector between Lester Avenue and Crescent Valley Drive	$9,571,000	City/ Developer/ County	Medium	North Corvallis Area Plan
	New roadway extension: Construct new neighborhood collector between Lester Avenue and Crescent Valley Drive. Project has potential impacts to or may be constrained by environmental resources.					
M98	New Roadway	New N-S 7 Collector between Rivergreen Avenue and Airport Avenue Extension	$31,979,000	City/Developer	Medium	South Corvallis Area Refinement Plan
	New roadway extension: Construct new collector between Rivergreen Avenue and Airport Avenue Extension.					
M99	New Roadway	Herbert Avenue Extension	$7,145,000	City/ Developer/ County	Medium	Project Team
	New roadway extension: Construct Herbert Avenue Extension to collector standard between OR 99W and East UGB. Project has potential impacts to or may be constrained by environmental resources.					
M100	Modernization	Corliss Avenue Widening	$5,445,000	City/Developer	Medium	South Corvallis Area Refinement Plan
	Modernization improvements along Corliss Avenue between OR 99W and East UGB. Project has potential impacts to or may be constrained by environmental resources.					

Table 15. Multimodal Solutions, *Continued*

PROJECT ID	PROJECT TYPE	PROJECT NAME	COST ESTIMATE	PRIMARY FUNDING SOURCE	PRIORITY	SOURCE
M101	New Roadway	New N-S 8 Neighborhood Collector between Airport Place and Rivergreen Avenue Extension	$25,686,000	City/Developer	Medium	South Corvallis Area Refinement Plan
	New roadway expansion: Construct a new collector between Airport Place and Rivergreen Avenue Extension (M74).					
M102	Intersection - Safety & Mobility	25th Street/Park Terrace Place/ Monroe Avenue Improvements	$35,000	City	Medium	OSU Campus Master Plan (2004)
	Intersection improvements (capacity and safety): Options may include restricting northbound and southbound approaches to right-in, right-out only to improve traffic operations and pedestrian/bicycle safety. Coordinate with Project PB16.					
M104	Study	Downtown Circulation Study	$350,000	ODOT/City	High	Project Team
	Downtown Circulation Study to address a range of concerns and identify potential solutions expressed in the downtown area including: parking, motor vehicle circulation, bicycle connectivity, freight operations (loading), transit and pedestrian design. Also evaluate improvements at 3rd Street/OR 99W/OR 34 Ramp to address traffic operations/merge and identify pedestrian and bicycle improvements along 2nd Street. Project is subject to ODOT approval. Project has potential impacts to or may be constrained by environmental resources.					
M105	New Roadway	Washington Avenue Realignment	$1,676,000	City/OSU	Medium	Stakeholder Request
	New roadway extension: Realign Washington Avenue as the east leg of the existing Washington Avenue/15th Street intersection to form a 4-legged, 90-degree intersection.					
M106	Modernization	Lester Avenue Modernization	$5,848,000	City/ Developer/ County	Medium	Stakeholder Request
	Modernization improvements along Lester Avenue between Kings Boulevard Extension and Highland Drive. Project has potential impacts to or may be constrained by environmental resources.					
M107	Modernization	Crescent Valley Drive Modernization	$17,821,000	City/ Developer/ County	Medium	Stakeholder Request
	Modernization improvements along Crescent Valley Drive between Lewisburg Avenue and Highland Drive. Project has potential impacts to or may be constrained by environmental resources.					
M108	New Roadway	Technology Loop Extension	$3,970,000	City/Developer	Medium	Stakeholder Request
	New roadway extension: Construct Technology Loop Extension to neighborhood collector standard between US 20-OR 34 and Gerold Street. Coordinate with A18 and M138. Project is subject to ODOT approval. Project has potential impacts to or may be constrained by environmental resources.					
M109	New Roadway	Sagebrush Drive Extension	$17,011,000	City/Developer	Medium	Stakeholder Request
	New roadway extension: Construct a new collector between 53rd Street and 35th Street to provide connection between Sagebrush Drive and Cherry Avenue. Project has potential impacts to or may be constrained by environmental resources.					

Table 15. Multimodal Solutions, *Continued*

PROJECT ID	PROJECT TYPE	PROJECT NAME	COST ESTIMATE	PRIMARY FUNDING SOURCE	PRIORITY	SOURCE
M110	New Roadway	Kiger Island Extension to West UGB	$15,820,000	City/ Developer/ County	Medium	South Corvallis Area Refinement Plan
	New roadway extension: Construct Kiger Island Extension to West UGB to collector standard between OR 99W and west UGB.					
M111	New Roadway	Airport Avenue Extension	$3,232,000	City/Developer	Medium	South Corvallis Area Refinement Plan
	New roadway extension: Construct Airport Avenue Extension to collector standard between OR 99W and New N-S Collector between Rivergreen Avenue and Airport Avenue Extension (M98). Coordinate with Project A13.					
M112	New Roadway	Gerold Street Extension	$5,170,000	City/Developer	Medium	Project Team
	New roadway extension: Construct Gerold Street Extension to neighborhood collector standard between West Hills Road and New E-W Collector between 35th Street and 53rd Street (M109). Project has potential impacts to or may be constrained by environmental resources.					
M113	New Roadway	New N-S 9 Collector north of Lester Avenue Extension	$5,784,000	City/Developer	Medium	Project Team
	New roadway extension: Construct new collector between Lester Avenue Extension and New E-W Collector from Highland Drive to Lester Avenue Extension (M58). Project has potential impacts to or may be constrained by environmental resources.					
M114	New Roadway	Birdsong Drive Extension	$11,329,000	City/ Developer/ Assessments to property owners	Medium	Project Team
	New roadway extension: Construct Birdsong Drive Extension to neighborhood collector standard between 49th Street and Country Club Drive.					
M116	New Roadway	Shasta Drive Extension	$4,018,000	City/ Developer/ County	Medium	Project Team
	New roadway extension: Construct Shasta Drive Extension to neighborhood collector standard from Frazier Creek Drive Extension to existing stub and construct frontage improvements on the existing portion of Shasta Drive.					
M117	New Roadway	Raider Way Extension	$8,688,000	City/ Developer/ County	Medium	Project Team
	New roadway extension: Construct Raider Way Extension to collector standard between Crescent Valley Drive and Kings Boulevard Extension and construct frontage improvements on the existing portion of Raider Way. Project has potential impacts to or may be constrained by environmental resources.					
M118	New Roadway	New E-W 3 Neighborhood Collector between 53rd Street and 66th Street Extension	$13,417,000	City/Developer	Medium	Project Team
	New roadway extension: Construct E-W Neighborhood Collector between 53rd Street and 66th Street Extension. Project has potential impacts to or may be constrained by environmental resources.					

Table 15. Multimodal Solutions, *Continued*

PROJECT ID	PROJECT TYPE	PROJECT NAME	COST ESTIMATE	PRIMARY FUNDING SOURCE	PRIORITY	SOURCE
M119	New Roadway	New W-N Neighborhood Collector between 69th Street and West Hills Road	$3,354,000	City/Developer	Medium	Project Team
	New roadway extension: Construct W-N Neighborhood Collector between 69th Street and West Hills Road. Project has potential impacts to or may be constrained by environmental resources.					
M121	New Roadway	New N-S 10 Neighborhood Collector between US 20-OR 34 and West Hills Road	$14,123,000	City/Developer	Medium	Project Team
	New roadway extension: Construct N-S Neighborhood Collector between US 20-OR 34 and West Hills Road. Project is subject to ODOT approval. Project has potential impacts to or may be constrained by environmental resources.					
M123	New Roadway	Weltzin Avenue Extension	$14,249,000	City/Developer	Medium	Project Team
	New roadway extension: Construct Weltzin Avenue Extension to collector standard between OR 99W and west UGB including upgrading the existing gravel portion. Weltzin Avenue Extension should align with Corliss Avenue Extension (M100) at OR 99W to form a 4-legged, 90-degree intersection.					
M124	New Roadway	New E-W 4 Neighborhood Collector between Technology Loop Extension and 53rd Avenue	$3,884,000	City/Developer	Medium	Project Team
	New roadway extension: Construct new neighborhood collector between Technology Loop Extension and 53rd Avenue.					
M125	New Roadway	New N-S 12 Collector between Reservoir Avenue and Walnut Boulevard	$26,834,000	City/Developer	Medium	Project Team
	New roadway extension: Construct new neighborhood collector between Reservoir Avenue and Walnut Boulevard. Project has potential impacts to or may be constrained by environmental resources.					
M126	Corridor - Safety & Mobility	Goodnight Avenue Realignment	$4,421,000	City/Developer	Medium	Corvallis CIP 2015-19
	Corridor (capacity and safety): Realign Goodnight Avenue west of OR 99W to form a 4-legged, 90-degree intersection at OR 99W/Goodnight Avenue (east of OR 99W). This realignment will impact properties west of OR 99W. Coordinate with Project A10 and Project PB49.					
M127	New Roadway	New E-W 5 Neighborhood Collector between Elliot Circle and East UGB	$8,827,000	City/ Developer/ County	Medium	North Corvallis Area Plan
	New roadway extension: Construct new neighborhood collector between Elliot Circle and east UGB (south of Pinot Gris Drive).					

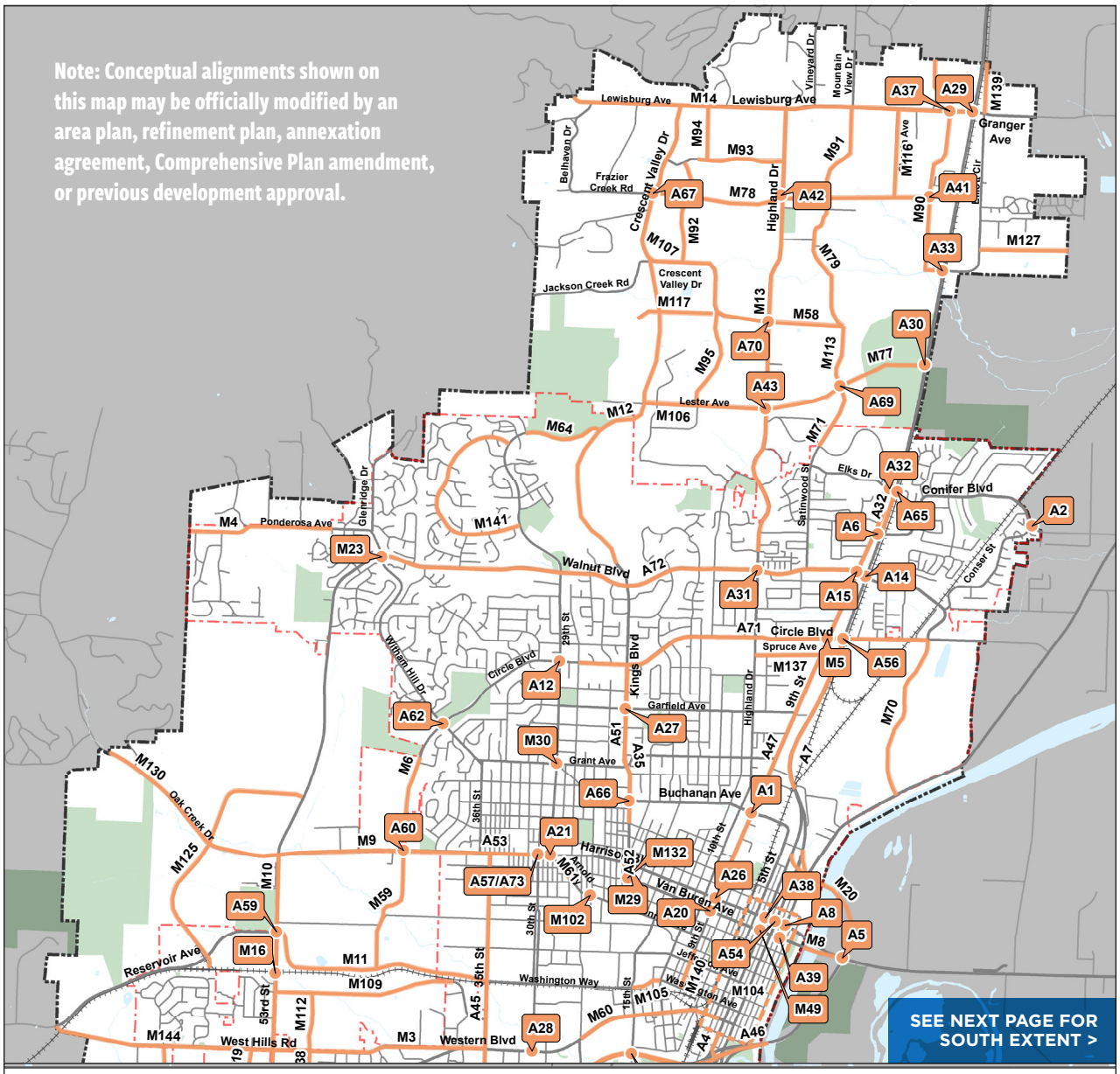
Table 15. Multimodal Solutions, *Continued*

PROJECT ID	PROJECT TYPE	PROJECT NAME	COST ESTIMATE	PRIMARY FUNDING SOURCE	PRIORITY	SOURCE
M128	Modernization	53rd Street Modernization	$6,580,000	City/ Developer/ County	Medium	Corvallis 1996 TSP
	Modernization improvements along 53rd Street between Country Club Drive and Nash Avenue.					
M129	Modernization	Crystal Lake Drive Modernization	$6,053,000	City/ Developer/ Assessments to property owners	Medium	Corvallis 1996 TSP, CAMPO RTP
	Modernization improvements along Crystal Lake Drive between Alexander Avenue and Park Avenue.					
M130	Modernization	Oak Creek Drive Modernization	$2,100,000	City/Developer	Medium	Corvallis 1996 TSP
	Modernization improvements along Oak Creek Drive between Walnut Boulevard and west UGB. Project has potential impacts to or may be constrained by environmental resources.					
M131	New Roadway	New E-W Neighborhood Collector between 53rd Street and 45th Street	$14,123,000	City/Developer	Medium	Project Team
	New roadway extension: Construct E-W Neighborhood Collector between 53rd Street and 45th Street Extension. Project has potential impacts to or may be constrained by environmental resources.					
M132	Intersection - Safety	Van Buren Avenue/Kings Boulevard Realignment	$670,000	City	Medium	Project Team
	Intersection improvements (safety): Options may include closing the west approach of Van Buren Avenue to realign Kings Boulevard south approach and create a "T" intersection with Van Buren Avenue including bicycle and pedestrian improvements with traffic signal modifications. Project has potential impacts to or may be constrained by environmental resources.					
M133	Modernization	Whiteside Drive Modernization	$4,155,000	City/ Developer/ Assessments to property owners	Low	Project Team
	Modernization improvements along Whiteside Drive between 35th Street and Cascade Avenue.					
M135	Modernization	Herbert Avenue Modernization	$8,743,000	City/ Developer/ Assessments to property owners	Low	Project Team
	Modernization improvements along Herbert Avenue between OR 99W and west UGB.					
M136	Modernization	Airport Place Modernization	$3,429,000	City/ Developer/ Assessments to property owners	Low	Project Team
	Modernization improvements along Airport Place between Airport Avenue and New N/S Roadway (M101).					

Table 15. Multimodal Solutions, *Continued*

PROJECT ID	PROJECT TYPE	PROJECT NAME	COST ESTIMATE	PRIMARY FUNDING SOURCE	PRIORITY	SOURCE
M137	Modernization	Spruce Avenue Modernization	$18,000	City/ Developer/ Assessments to property owners	Low	Project Team
	Restripe Spruce Avenue between 9th Street and Highland Drive to provide bike lanes. May require the removal of on-street parking.					
M138	Modernization	Gerold Street Modernization	$977,000	City/ Developer/ Assessments to property owners	Low	Project Team
	Modernization improvements along Gerold Street between West Hills Road and Technology Loop Ext (M108).					
M139	Modernization	Elliot Circle Modernization	$2,782,000	City/ Developer/ Assessments to property owners/County	Low	Project Team
	Modernization improvements along Elliot Circle between Granger Avenue and north UGB.					
M140	Modernization	9th Street Modernization	$11,000	City/ Developer/ Assessments to property owners	Low	Project Team
	Restripe 9th Street between Washington Avenue and Jefferson Avenue to provide bike lanes. May require the removal of parking.					
M141	Modernization	Arrowwood Circle Modernization	$56,000	City/ Developer/ Assessments to property owners	Low	Project Team
	Restripe Arrowwood Circle between 29th Street (north intersection) and 29th Street (south intersection) to provide bike lanes.					
M143	Study	US 20-OR 34 Refinement Plan	$600,000	ODOT	High	Project Team
	Complete a US 20-OR 34 Refinement Study to identify multimodal improvements to enhance mobility and connectivity.					
M144	Modernization	West Hills Road Modernization (53rd to Reservoir)	$12,043,000	City/ Developer/ County	High	Corvallis 1996 TSP
	Modernization improvements along West Hills Road between 53rd Street and Reservoir Avenue. Improvements may also include supplemental safety improvements to address potential sight distance limitations related to horizontal and vertical alignment (west of Grand Oaks).					

Figure 34. Multimodal & Auto/Freight Projects – North Extent



Legend

Multimodal and Auto/ Freight Projects

- Roadway Segment Project
- Intersection Project
- Downtown Study

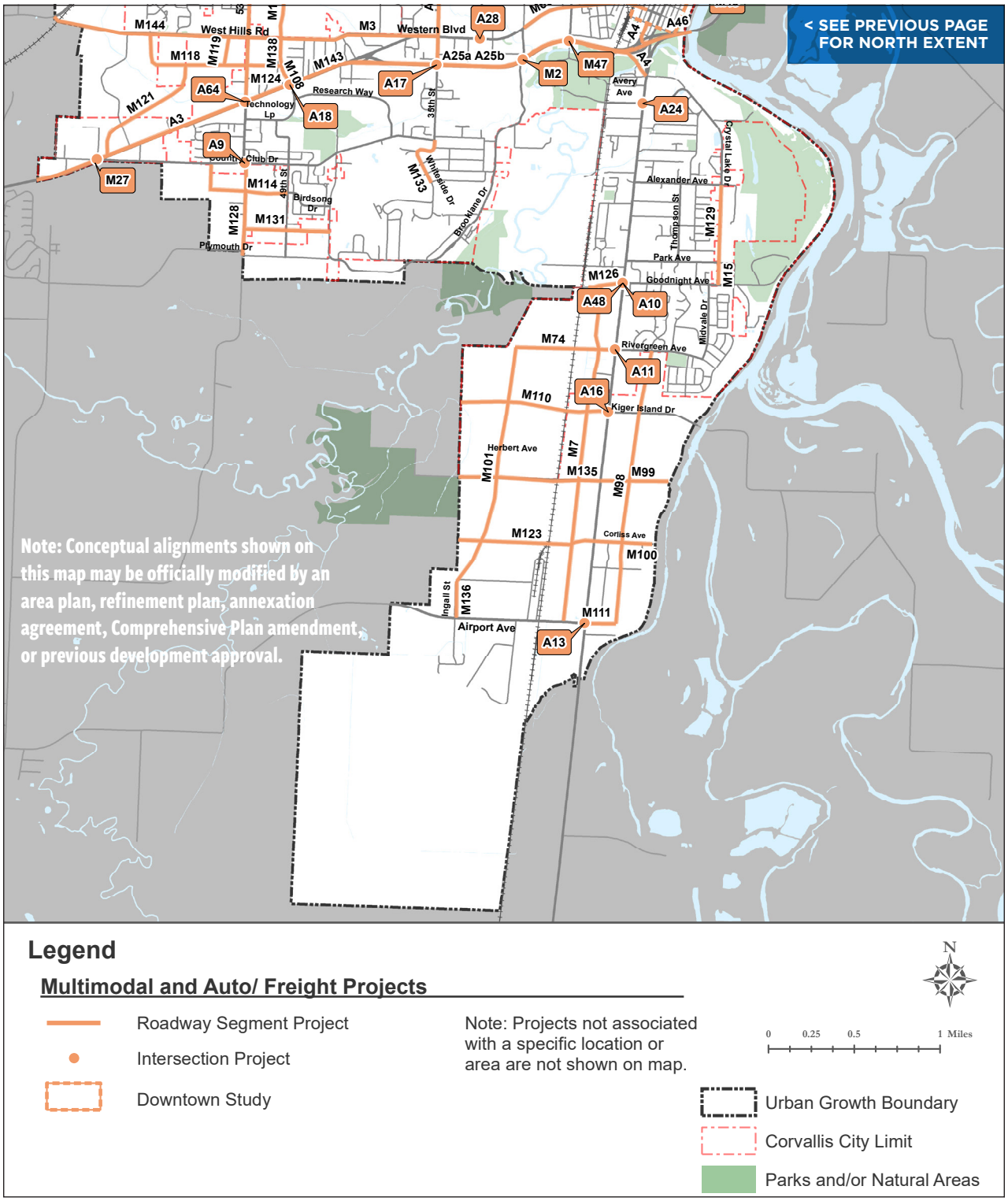
Note: Projects not associated with a specific location or area are not shown on map.

N

0 0.25 0.5 1 Miles

- Urban Growth Boundary
- Corvallis City Limit
- Parks and/or Natural Areas

Figure 35. Multimodal & Auto/Freight Projects – South Extent



AUTO/FREIGHT

These projects are focused on increasing safety, reducing congestion and improving the efficiency of motor vehicle travel and the movement of freight through and around the community. Solutions address several key existing bottlenecks and recommend corridor-level improvements. Figure 34 and Figure 35 include the Auto/Freight solution projects.

Table 16. Auto & Freight Solutions

PROJECT ID	PROJECT TYPE	PROJECT NAME	COST ESTIMATE	PRIMARY FUNDING SOURCE	PRIORITY	SOURCE
A1	Intersection - Mobility	Buchanan Avenue/ 9th Street Turn Lane	$1,579,000	City	Low	Corvallis 1996 TSP, CAMPO RTP
	Intersection improvements (capacity): Options may include constructing eastbound left-turn lane, traffic signal modifications and improved sight distance for the eastbound approach.					
A2	Intersection - Safety	Conifer Boulevard / Conser Street Turn Lane	$3,679,000	City	Low	Corvallis 1996 TSP
	Intersection improvements (safety): Options may include constructing westbound left-turn lane on Conifer Boulevard.					
A3	System Management	US 20-OR 34 Optimization	$910,000	ODOT	High	Corvallis 1996 TSP, US 20-OR 34 Optimization Study (2015)
	Implement strategies identified in the US 20-OR 34 Optimization Study (2015): Options along US 20-OR 34 between the OR 99W Interchange and 69th Street may include 1) Adaptive Signal Timing, 2) Freight Signal Priority, and/or 3) Arterial Performance Measurement and Real-Time Equipment Monitoring at 5 signalized intersections and 1 mid-block location to collect arterial performance measures, including traffic volumes, travel speeds, travel times, vehicle classifications, vehicle occupancy, pedestrian and bicycle volumes, and delay for vehicles, pedestrians and bicyclists. Coordinate with Project A25. Project has potential impacts to or may be constrained by environmental resources.					
A4	New Roadway	OR 99W/US 20-OR 34 Ramps	$24,219,000	ODOT	High	Corvallis 1996 TSP, Stakeholder Request
	New off-ramp: Options may include providing an off ramp from eastbound US 20-OR 34 to southbound OR 99W and an on ramp from southbound OR 99W to eastbound US 20-OR 34. Project has potential impacts to or may be constrained by environmental resources. Coordinate with Project PB14.					
A5	Intersection - Mobility	OR 34/Bypass Interchange	$76,632,000	ODOT	Low	Corvallis 1996 TSP
	Intersection improvement (capacity): OR 34/Bypass Interchange Improvements may include constructing a westbound left-turn flyover ramp.					
A6	Intersection - Safety & Mobility	Conifer Avenue/OR 99W/9th Street Intersections	$791,000	ODOT	Medium	CAMPO RTP
	Intersection improvements (capacity and safety): Options may include 1) construction of a northbound right-turn lane and southbound right-turn lane on OR 99W, and 2) closing the westbound approach at 9th Street/ Conifer Boulevard to construct a second eastbound left-turn lane. Closure of the westbound approach at 9th Street/Conifer may create a potential shift of traffic on OR 99W, Walnut Boulevard, Elks Drive, and Kings Boulevard Extension, if constructed.					

Table 16. Auto & Freight Solutions, *Continued*

PROJECT ID	PROJECT TYPE	PROJECT NAME	COST ESTIMATE	PRIMARY FUNDING SOURCE	PRIORITY	SOURCE
A7	Roadway Widening	OR 99W: Circle to RR Widening	$5,250,000	ODOT	Medium	Corvallis 1996 TSP, Corvallis CIP 2015-19 (Design Phase Only)
	Roadway capacity improvements: Options may include constructing two additional travel lanes on OR 99W between the railroad overcrossing and Circle Boulevard. Project is subject to ODOT approval. Project has potential impacts to or may be constrained by environmental resources.					
A8	Intersection - Safety & Mobility	Harrison Boulevard/2nd Street	$540,000	ODOT	Medium	Project Team
	Intersections improvements (capacity and safety): Options may include extending the southbound right-turn lane and constructing a westbound right-turn lane. Coordinate with Project B31. Project has potential impacts to or may be constrained by environmental resources.					
A9	Intersection - Mobility	53rd Street/ Country Club Roundabout	$2,746,000	County/ Developer	Low	CAMPO RTP
	Intersection improvement (capacity): Options may include constructing a roundabout in conjunction with development.					
A10	Intersection - Mobility	OR 99W/ Goodnight Avenue Traffic Control	$8,379,000	ODOT/ Developer	High	CAMPO RTP
	Intersection improvements (capacity): Options may include installing roundabout or traffic signal, when warranted which may be dependent on the construction of Project A11. Improvement cannot occur until Project A48 is complete and should be coordinated with Project M126. 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.					
A11	Intersection - Mobility	OR 99W/ Rivergreen Avenue Traffic Control	$8,379,000	ODOT/ Developer	Medium	CAMPO RTP
	Intersection improvements (capacity): Options may include constructing roundabout or traffic signal, when warranted which may be dependent on the construction of Project A10. 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.					
A12	Intersection - Mobility	Circle Boulevard/29th Street Signal	$465,000	City/Developer	Low	CAMPO RTP
	Intersection improvements (capacity): Options may include installing traffic signal, or roundabout, when warranted.					
A13	Intersection - Mobility	OR 99W/Airport Avenue Traffic Control	$5,327,000	ODOT/ Developer	Medium	CAMPO RTP
	Intersection improvements (capacity): Options may include constructing a roundabout or traffic signal, when warranted. 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.					
A14	Intersection - Mobility	OR 99W/Walnut Boulevard	$8,380,000	ODOT	Medium	CAMPO RTP, 9th Street Study, North Corvallis Area Plan
	Intersection improvements (capacity): Options may include construction of a northbound right-turn lane, an eastbound right-turn lane, a westbound right-turn lane, a southbound right-turn lane, and lengthening of the northbound left-turn lane. Project is subject to ODOT approval.					

Table 16. Auto & Freight Solutions, *Continued*

PROJECT ID	PROJECT TYPE	PROJECT NAME	COST ESTIMATE	PRIMARY FUNDING SOURCE	PRIORITY	SOURCE
A15	Intersection - Mobility	9th Street/ Walnut Boulevard Turn Lanes	$862,000	City	Low	CAMPO RTP
	Intersection improvements (capacity): Options may include constructing a southbound right-turn lane and a second westbound left-turn lane.					
A16	Intersection - Mobility	OR 99W/Kiger Island Drive Traffic Control	$5,327,000	ODOT/ Developer	Medium	CAMPO RTP
	Intersection improvements (capacity): Options may include constructing roundabout or traffic signal, when warranted. 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. Improvement required with Kiger Island Street Extension, M110.					
A17	Intersection - Safety & Mobility	35th Street/US 20-OR 34	$558,000	ODOT	Medium	Project Team
	Intersection improvements (capacity and safety): Option may include constructing a northbound right-turn lane. Coordinate with Project A25.					
A18	Intersection - Safety & Mobility	Technology Loop/US 20-OR 34	$560,000	ODOT	Medium	Project Team
	Intersection improvement (capacity): Options may include constructing a second westbound left-turn lane or traffic signal modifications for protected/permitted westbound left-turn phase. Coordinate with Project A25.					
A20	Intersection - Safety	Van Buren Avenue/9th Street Restripe	$25,000	City	Medium	Project Team
	Intersection improvements (safety): Options may include restriping the southbound approach to include on 9th Street a southbound left-turn lane and southbound through lane and signal timing modifications. Coordinate with Project B15.					
A21	Intersection - Mobility	29th Street/ Harrison Boulevard Turn Lane	$221,000	City	Low	Stakeholder Request
	Intersection improvements (capacity): Options may include constructing a southbound right-turn lane and safety enhancements for pedestrians and bicyclists. Given the nature of surrounding land uses, the impacts on people walking and bicycling should be considered during the design process.					
A24	Intersection - Mobility	3rd Street/OR 99W/Crystal Lake Drive/Avery Avenue	$2,459,000	ODOT	Low	Project Team
	Intersection improvements (capacity): Construct capacity improvements at the intersection. Options may include construction of a westbound right-turn lane and a second southbound left-turn lane, which would require a second receiving lane on Crystal Lake Drive and traffic signal modifications.					
A25a	Roadway Widening	US 20-OR 34 Capacity Enhancements [Preliminary Engineering & Design]	$9,488,500	ODOT	High	Project Team
	Capacity enhancements for the US 20-OR 34 corridor from OR 99W to the west UGB. Options may include: 1) Widening US 20-OR 34 to 4-5 lanes, 2) add turn lanes and traffic signal modifications at the intersections, 3) consolidate and realign the US 20-OR 34/Western Boulevard intersections to form a single T-intersection including an eastbound left-turn lane and may include constructing a traffic signal or roundabout with bypass lanes, and 4) access management improvements. Coordinate with Project A3. Project has potential impacts to or may be constrained by environmental resources.					

Table 16. Auto & Freight Solutions, *Continued*

PROJECT ID	PROJECT TYPE	PROJECT NAME	COST ESTIMATE	PRIMARY FUNDING SOURCE	PRIORITY	SOURCE
A25b	Roadway Widening	US 20-OR 34 Capacity Enhancements [Construction]	$28,465,500	ODOT	High	Project Team
	Capacity enhancements for the US 20-OR 34 corridor from OR 99W to the west UGB. Options may include: 1) Widening US 20-OR 34 to 4-5 lanes, 2) add turn lanes and traffic signal modifications at the intersections, 3) consolidate and realign the US 20-OR 34/Western Boulevard intersections to form a single T-intersection including an eastbound left-turn lane and may include constructing a traffic signal or roundabout with bypass lanes, and 4) access management improvements. Coordinate with Project A3. Project has potential impacts to or may be constrained by environmental resources.					
A26	Intersection - Safety	9th Street/ Harrison Boulevard Restripe	$25,000	City	Medium	Project Team
	Intersection improvements (safety): Options may include restriping northbound approach to include a northbound left-turn lane and northbound through lane and signal timing modifications. Coordinate with Project B15.					
A27	Intersection - Safety & Mobility	Kings Boulevard/ Garfield Avenue Turn Lanes and Signal	$740,000	City/Developer	Medium	Project Team
	Intersection improvement (capacity and safety): Options may include 1) Improve intersection sight distance, 2) construct a northbound and southbound left-turn lane, and 3) install a roundabout or traffic signal, when warranted. Coordinate with Project A51. Project has potential impacts to or may be constrained by environmental resources.					
A28	Intersection - Mobility	30th Street/ Western Boulevard Traffic Control	$5,327,000	City/OSU	Medium	Project Team
	Intersection improvements (capacity): Options may include constructing roundabout or traffic signal, when warranted or enhance alternative routes to encourage drivers to use signalized intersections at 35th Street or 26th Street.					
A29	Intersection - Mobility	OR 99W/ Lewisburg	$2,206,000	ODOT/ Developer	Low	North Corvallis Area Plan
	Intersection improvements (capacity): Construct capacity improvements at the intersection. Options may include constructing an eastbound right-turn lane, eastbound left-turn lane, westbound right-turn lane, southbound right-turn lane, traffic signal modifications and rail crossing enhancements. Project is subject to ODOT approval.					
A30	Intersection - Mobility	OR 99W/Lester Avenue Extension Signal	$838,000	ODOT/ Developer	Medium	North Corvallis Area Plan
	Intersection improvements (capacity): Options may include constructing roundabout or traffic signal, when warranted. 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.					
A31	Intersection - Mobility	Walnut Avenue/ Highland Drive Turn Lanes	$1,022,000	City	Low	North Corvallis Area Plan
	Intersection improvements (capacity): Options may include constructing a southbound right-turn lane, northbound right-turn lane, a westbound right-turn lane, and signal timing updates to improve northbound and southbound left-turn movements.					

Table 16. Auto & Freight Solutions, *Continued*

PROJECT ID	PROJECT TYPE	PROJECT NAME	COST ESTIMATE	PRIMARY FUNDING SOURCE	PRIORITY	SOURCE
A32	Corridor - Safety & Mobility	OR 99W/9th Street/ Samaritan Drive/ Elks Drive Realignment	$10,069,000	ODOT/ Developer	High	Good Samaritan Regional Medical Center Campus Master Plan 2014
	Corridor (capacity and safety): Realignment of NW 9th Street at NW Elks Drive – NW 9th Street alignment will be shifted westward to align with NW Samaritan Drive as part of the Good Samaritan Regional Medical Center campus expansion. This improvement may also include widening of OR 99W from NE Conifer Boulevard to NW Elks Drive to provide four travel lanes. The Elks Drive/9th Street intersection may include a left-turn lane and shared through/right-turn lane on each approach. The Elks Drive/OR 99W intersection may include two northbound through lanes, northbound left-turn lane, two southbound through lanes, a southbound right-turn lane, and an eastbound left-turn lane.					
A33	Intersection - Mobility	OR 99W/Elliot Circle	$2,250,000	ODOT/ Developer	Low	North Corvallis Area Plan
	Intersection Improvements (capacity): Options may include constructing a roundabout or a traffic signal (when warranted), a westbound left-turn lane, a westbound right-turn lane, an eastbound right-turn lane, and a northbound left-turn lane. The need for this project is dependent on Project M90. 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. Project has potential impacts to or may be constrained by environmental resources.					
A35	Study	Kings Boulevard Refinement Plan	$150,000	City	Medium	Stakeholder Request
	Corridor study to improve traffic (motor vehicle and freight) operations on Kings Boulevard with potential traffic control modifications. Project has potential impacts to or may be constrained by environmental resources.					
A37	Intersection - Mobility	Lewisburg/West Elliot Circle Signal	$359,000	County/ Developer	Medium	North Corvallis Area Plan
	Intersection improvements (capacity): Options may include installing traffic signal, when warranted. Project has potential impacts to or may be constrained by environmental resources.					
A38	Intersection - Mobility	Harrison Boulevard/4th Street	$490,000	ODOT	Low	Project Team
	Intersection improvements (capacity): Options may include construction of a southbound right-turn lane on 4th Street and a westbound left-turn lane on Harrison Boulevard (Options for the westbound approach may include: a left-turn lane, shared through/left-turn lane, and through lane; or if needed: a left-turn lane, shared through/left-turn lane, and two through lanes). If a second westbound left-turn lane is provided, pedestrian crossing safety on the south approach must be addressed. Project has potential impacts to or may be constrained by environmental resources.					
A39	Intersection - Mobility	Van Buren Avenue/2nd Street Turn Lane	$242,000	ODOT	Low	Project Team
	Intersection improvements (capacity): Options may include converting the parking lane to an eastbound right-turn lane on Van Buren Avenue. Decision to remove parking lane for a right-turn lane must be coordinated with Project B21. Project has potential impacts to or may be constrained by environmental resources.					
A41	Intersection - Mobility	Elliot Circle/Frazier Creek Roundabout	$2,394,000	County/ Developer	Low	North Corvallis Area Plan
	Intersection improvements (capacity): Options may include constructing a roundabout, when needed.					
A42	Intersection - Mobility	Highland Drive/ Frazier Creek Roundabout	$5,327,000	County/ Developer	Medium	North Corvallis Area Plan
	Intersection improvements (capacity): Options may include constructing a roundabout, when needed. Project has potential impacts to or may be constrained by environmental resources.					

Table 16. Auto & Freight Solutions, *Continued*

PROJECT ID	PROJECT TYPE	PROJECT NAME	COST ESTIMATE	PRIMARY FUNDING SOURCE	PRIORITY	SOURCE
A43	Intersection - Mobility	Highland Drive/ Lester Avenue Roundabout	$5,327,000	County/ Developer	Medium	North Corvallis Area Plan
	Intersection improvements (capacity): Options may include constructing a roundabout, when needed. Project has potential impacts to or may be constrained by environmental resources.					
A45	Corridor - Mobility	35th Street Turn Lanes	$2,108,000	City/Developer	Low	Project Team
	Corridor (capacity): Options may include constructing left-turn lanes along 35th Street between US 20-OR 34 and Harrison Boulevard at Western Boulevard, Washington Way, Jefferson Way, Campus Way, Orchard Avenue, Jackson Avenue, and Van Buren Avenue. May require the removal of parking. Project has potential impacts to or may be constrained by environmental resources.					
A46	Corridor - Mobility	OR 34 Overpass (OR 99W) Clearance	$63,057,000	ODOT	Low	Project Team
	Corridor (capacity): Improve to meet vertical clearance requirements. The vertical clearance for northbound and southbound OR 99W at the OR 34 overpass is one to two feet below the design standard. Project has potential impacts to or may be constrained by environmental resources.					
A47	System Management	9th Street Signal Coordination	$76,000	City	High	9th Street Improvement Plan
	Synchronize traffic signals along 9th Street between Polk Avenue and Elks Drive. Cost estimate includes signal controller upgrades and signal timing updates at six existing traffic signals: Polk Avenue, Buchanan Avenue, Grant Avenue, Garfield Avenue, Circle Boulevard, and Walnut Boulevard.					
A48	Intersection - Mobility	Goodnight Avenue/3rd Street/ OR 99W ROW	$370,000	ODOT	High	Corvallis CIP 2015-19
	Right-of-Way (ROW) acquisition to allow realignment of Goodnight Avenue to make a 4-way intersection at Goodnight Avenue/OR 99W. Would precede Project A10.					
A49	Safety	Seismic Retrofit of Bridges	$250K - $1.25M	City	High	Project Team
	Program to support seismic retrofit of up to 12 bridges on collectors and arterials under City jurisdiction. Project has potential impacts to or may be constrained by environmental resources.					
A51	Modernization & Safety	Kings Boulevard Widening	$4,040,000	City	Medium	Corvallis 1996 TSP, Project Team
	Widen to add a two-way left-turn lane between Circle Boulevard and Grant Avenue. May require the removal of parking. Coordinate with Project A27. Project has potential impacts to or may be constrained by environmental resources.					
A52	Modernization & Safety	Kings Boulevard Widening	$11,368,000	City	Medium	Corvallis 1996 TSP
	Widen to add a two-way left-turn lane between Taylor Avenue and Harrison Boulevard.					
A53	Corridor - Mobility	Harrison Boulevard Improvements	$3,658,000	City	Medium	Stakeholder Request
	Corridor (capacity): Upgrade to accommodate traffic levels between 30th Street and 36th Street. Coordinate with Project B1. Project needs to consider impact on Historically Significant Trees.					

Table 16. Auto & Freight Solutions, *Continued*

PROJECT ID	PROJECT TYPE	PROJECT NAME	COST ESTIMATE	PRIMARY FUNDING SOURCE	PRIORITY	SOURCE
A54	Intersection - Safety & Mobility	Harrison Boulevard/3rd Street/OR 99W Improvements	$108,000	ODOT	Medium	Project Team
	Intersection improvements (capacity and safety): Options may include increasing northeast corner turning radius for trucks. Project has potential impacts to or may be constrained by environmental resources.					
A56	Intersection - Safety & Mobility	Circle Boulevard/ OR 99W Improvements	$1,846,000	ODOT	High	9th Street Improvement Plan
	Intersection Improvements (capacity and safety): Options may include constructing a southbound right-turn lane on OR 99W, northbound right-turn lane on OR 99W, westbound right-turn lane on Circle Boulevard, a second westbound left-turn lane on Circle Boulevard, lengthening the westbound left-turn lane, and traffic signal modifications to include right-turn overlap on each approach and pedestrian improvements. Coordinate with Project PB29.					
A57	Intersection - Safety & Mobility	30th Street/ Harrison Boulevard Improvements	$35,000	City	High	Harrison Corridor Study
	Intersection Improvements (capacity and safety): Options may include restricting the northbound left and northbound through movements and restricting westbound to southbound off Harrison Boulevard. Coordinate with Projects A53 and A73.					
A59	Intersection - Safety & Mobility	Reservoir Avenue/53rd Street Roundabout	$5,653,000	County/ Developer	Medium	Stakeholder Request
	Intersections improvements (capacity and safety): Options may include constructing a roundabout. Project has potential impacts to or may be constrained by environmental resources.					
A60	Intersection - Safety & Mobility	Circle Boulevard Ext./Harrison Boulevard Improvements	$5,628,000	City/Developer	Medium	Project Team
	Intersections improvements (capacity and safety): Options mat include: 1) Construct a roundabout, or 2) Construct left-turn lanes on all approaches. Project has potential impacts to or may be constrained by environmental resources.					
A62	Intersection - Safety & Mobility	Witham Hill Drive/Circle Boulevard Traffic Control	$2,592,000	City/Developer	Medium	Project Team
	Intersections improvements (capacity and safety): Options may include constructing a roundabout or traffic signal. Project has potential impacts to or may be constrained by environmental resources.					
A64	Intersection - Safety & Mobility	53rd Street/US 20-OR 34	$3,161,000	ODOT	Medium	CAMPO RTP, Project Team
	Intersection improvements (capacity and safety): Options may include constructing a southbound right-turn lane, extending the westbound right-turn lane, constructing a second westbound through lane, and constructing a second eastbound through lane. This project should be coordinated with the 53rd Street and US 20-OR 34 corridor widening projects (M10 and A25). Project has potential impacts to or may be constrained by environmental resources.					

Table 16. Auto & Freight Solutions, *Continued*

PROJECT ID	PROJECT TYPE	PROJECT NAME	COST ESTIMATE	PRIMARY FUNDING SOURCE	PRIORITY	SOURCE
A65	Intersection - Mobility	Elks Drive/OR 99W Traffic Control	$838,000	ODOT	Medium	Project Team
	Intersection improvements (capacity): Options may include constructing a roundabout or traffic signal, when warranted. 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. Coordinate with Project A32.					
A66	Intersection - Safety	Kings Boulevard/ Buchanan Avenue Realignment	$272,000	City	Low	Kings Boulevard Corridor Study
	Access management improvements to reduce conflicting traffic movements may include realigning the driveway on the west side of Kings Boulevard with Buchanan Avenue to create a 4-legged, 90-degree intersection and closing the other two driveways located north of Filmore Avenue.					
A67	Intersection - Mobility	Frazier Creek Drive/Crescent Valley Drive Roundabout	$2,394,000	County/ Developer	Medium	North Corvallis Area Plan
	Intersection improvements (capacity): Options may include constructing a roundabout, when needed. Project has potential impacts to or may be constrained by environmental resources.					
A69	Intersection - Mobility	Satinwood Street Ext./Lester Avenue Ext. Roundabout	$2,394,000	County/ Developer	Medium	North Corvallis Area Plan
	Intersection improvements (capacity): Options may include constructing a roundabout, when needed. Project has potential impacts to or may be constrained by environmental resources.					
A70	Intersection - Mobility	Crescent Valley Drive/Highland Drive Signal	$2,394,000	County/ Developer	Medium	North Corvallis Area Plan
	Intersection improvements (capacity): Options may include installing a roundabout or traffic signal, when warranted. Project has potential impacts to or may be constrained by environmental resources.					
A71	System Management	Circle Boulevard Signal Coordination	$101,000	City	Medium	Project Team
	Synchronize traffic signals along Circle Boulevard from 27th Street east to Walnut Boulevard. Cost estimate includes signal controller upgrades and signal timing updates at 8 existing traffic signals: 27th Street, Kings Boulevard, Corvallis Aquatic Center, Highland Drive, 9th Street, OR 99W, Four Acre Place, and Walnut Boulevard.					
A72	System Management	Walnut Boulevard Signal Coordination	$113,000	City	Medium	Project Team
	Synchronize traffic signals along Walnut Boulevard between OR 99W and Glenridge Drive. Cost estimate includes signal controller upgrades and signal timing updates at 9 existing traffic signals: Glenridge Drive, Aspen Street, 29th Street, Kings Boulevard, Rolling Green Drive, Highland Drive, Satinwood Street, 9th Street, and OR 99W.					
A73	Intersection - Safety & Mobility	30th Street/ Harrison Boulevard Improvements	$1,077,000	City	Low	Harrison Corridor Study
	Intersection Improvements (capacity and safety): Options may include constructing a traffic signal and coordinate with the traffic signal at 29th Street/Harrison Boulevard. Coordinate with Projects A53 and A57.					

REFINEMENT STUDIES

The solutions project lists include five areas within Corvallis that were designated as requiring additional refinement plan work. The purpose of this further study is to better understand the design alternatives that could be applied in the selected areas and how those perform within the existing built environment. Issues to be reviewed would include the evaluation of walking, bicycling, and transit user safety and how property access and motor vehicle operations might be impacted, including on-street parking. This deeper look at possible corridor design solutions offers another opportunity for stakeholders and the public to voice their preferences for the ultimate solutions that are applied.

The identified Refinement Studies include the following locations:

- **US 20-OR 34 Refinement Plan (Project M143) –** This study would be led by ODOT to identify multimodal improvements to enhance mobility and connectivity on this arterial highway between OR 99W and the west UGB. This work involves a transportation route of regional significance and will involve many stakeholders from within and outside Corvallis.
- **OR 99W South Corvallis Refinement Study (Project PB31) –** This study would be led by ODOT to consider alternatives to improve safety and enhance conditions for multimodal travel. It is anticipated that it will discuss benefit trade-offs among stakeholders related to congestion, safety, business access, and active transportation facility quality.
- **Monroe Avenue Shared Pedestrian, Bicycle and Transit Street Study (Project PB16) –** This study will evaluate street design alternatives which enhance the environment for pedestrians and bicyclists, while also supporting multimodal access to local businesses along the corridor from 14th Street to 26th Street.
- **Downtown Circulation Study (Project M104) –** This study would be led by ODOT to provide the opportunity to comprehensively consider a range of alternatives related to parking, pedestrian safety, higher quality bicycling facilities, and congestion.
- **Kings Boulevard Refinement Plan (Project A35) –** This study would take a more in-depth look at alternatives to improve motor vehicle and freight traffic operations on Kings Boulevard in this constrained corridor.

OTHER MODES

RAIL

Freight rail service is provided to Corvallis via the Willamette and Pacific Railroad. Railroad tracks parallel OR 99W to the east at the north end of the city, before passing under the highway near Cornell Avenue, and connecting with the freight rail line from Albany. The line connecting to Albany generally parallels US 20 to the north and east of Corvallis. South of Cornell Avenue, the rail line eventually follows the median between the northbound and southbound directions of 6th Street through downtown. South of downtown, the line is privately owned and generally parallels OR 99W to the west, past the Corvallis Municipal Airport. A freight rail line to the west connects to the north-south line near the 6th Street intersection with Western Boulevard. This line parallels Washington Way to the south through the Oregon State University campus and connects to Toledo, Oregon.

Daily round trip freight service is operated between Albany and Toledo, and between Albany and McMinnville, Oregon, through Corvallis. A resident switching locomotive also provides local service to the west and south of Corvallis. Within Corvallis there are a total of 36 at-grade rail crossings.

The potential for passenger rail service between Albany and Corvallis is included in the State Rail Plan, but is not currently available. Amtrak passenger service is available in Albany, less than 10 miles away. Connections to the Amtrak depot in Albany can be made via the Linn-Benton Loop, Coast to Valley Express, and Corvallis to Amtrak Connector operating at the time of this TSP adoption.

The existing freight and passenger rail system is expected to remain the same as it is today in Corvallis through the planning horizon. Within the solution project lists, there are several street crossings to the rail lines that have been identified for upgrading, to improve the quality of the paved surfaces and comply with current facility standards. The aspirational project to provide passenger rail service between Albany and Corvallis in the State Rail Plan is not assumed to be realized in this plan.

AVIATION

The Corvallis Municipal Airport, owned and operated by the City, is located just to the west of OR 99W about four miles south of downtown. The airport is a general aviation facility that is intended to serve the aviation needs of the community, visitors and air freight. The airport provides support to 156 commercial and private aircraft[1], based at the site. Services and facilities include: hangar storage, tie-downs, fixed base operator services, flight instruction, aircraft rental, aircraft maintenance, and fueling. The airport encompasses approximately 1,520 acres of land, of which 220 acres are designated as the Airport Industrial Park. The airport has two runways, and serves 52,300 annual operations (i.e., take-offs or landings). Limited commercial air service between Corvallis, Portland, and Newport has been provided in the past, but is not currently available.

Regional and international air service for passengers and freight is provided via Portland International Airport. The airport is located approximately 97 miles to the north of Corvallis and is connected via I-5 and I-205. Eugene Airport, located approximately 35 miles to the south of Corvallis provides regional air service.

The Corvallis Airport Master Plan was adopted in 2013 as a refinement to the aviation element of the TSP. Refer to the Airport Master Plan for recommendations for future growth and expansion.

WATERWAY

The existing waterways are not used for transportation, but are an amenity for city resident and visitor recreation. Any improvements or upgrades to the roadway or trail systems that run adjacent to or cross waterways must comply with City and State regulations.

PIPELINE

Northwest Natural Gas operates a natural gas pipeline serving Corvallis that crosses the south part of the city near Washington Way. Several feeder lines from the main pipeline also serve Corvallis. There are no other major regional water or oil pipelines within the city limits. No changes are expected for major pipeline facilities in Corvallis within the planning horizon.

[1] Corvallis Municipal Airport Master Plan, September 2013


EXIT

8 PRIORITIES

The Illustrative lists of solutions presented in Chapter 7 were prioritized to assess which ones would best meet community goals and objectives. The prioritization process used the transportation evaluation criteria that were explained in Chapter 2. The initial scored assessments were reviewed by the Steering Committee and the City Council. Some additional criteria were suggested to better align investments and expected benefits. The revised priority assessments were presented to the general public at an Open House. The following High Priority Solutions section represent the outcomes of this evaluation process.

This section 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 SOLUTIONS & STRATEGIES

The highest value transportation solutions for Corvallis are summarized in the Tables 17 through 19 (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 TSP Steering Committee.

The tables are broken out by the lead agency. Although many transportation projects will require inter-agency coordination, the identified lead agency is expected to be responsible for project development, design, and construction. Figure 36 and Figure 37 illustrates the location of the High Priority solutions.

Table 17. High Priority City Led Solutions

PROJECT ID	NAME	COST ESTIMATE	PRIMARY FUNDING
A47	9th Street Signal Coordination	$76,000	City
A49	Seismic Retrofit of Bridges	$250K - $1.25M	City
A57	30th Street/Harrison Boulevard Improvements	$35,000	City
B18	Garfield Avenue Bike Lanes	$32,000	City
B35	Monroe Avenue and 14th Street Bicycle Amenities	$5,000	City/OSU
B38	Elmwood Drive Neighborhood Bikeway/Circle Boulevard Low-Stress Roadway	$155,000	City
B39	Tyler Avenue Neighborhood Bikeway	$125,000	City
B40	Alta Vista Drive/34th Street Neighborhood Bikeway	$70,000	City
B41	26th/27th Street Neighborhood Bikeway	$135,000	City/OSU
B42	16th/17th Street Neighborhood Bikeway	$135,000	City
B43	11th Street Neighborhood Bikeway	$210,000	City
B44	Beca Avenue/Lincoln Avenue Neighborhood Bikeway	$175,000	City
B46	Campus Way/Madison Avenue Neighborhood Bikeway	$135,000	City/OSU
B47	SE Corvallis Neighborhood Bikeway	$135,000	City/Assessments to property owners
B48	Lancaster Street Neighborhood Bikeway	$85,000	City
B50	NE Corvallis Neighborhood Bikeway	$120,000	City
B51	5th Street Buffered Bike Lanes	$55,000	City/ODOT
M29	Harrison Boulevard/Kings Boulevard	$10,000	City
P1	35th Street Sidewalks	$125,000	City/OSU
P3	9th Street Pedestrian Crossings	$180,000	City
P5	City-wide sidewalk retrofit	$150,000 per year	City/ODOT
P17	Harrison Boulevard and 29th Street Safety Improvements	$35,000	City
P22	Country Club Drive Sidewalks	$295,000	City/Developer

Table 17. High Priority City Led Solutions, *Continued*

PROJECT ID	NAME	COST ESTIMATE	PRIMARY FUNDING
P27	Harrison Boulevard Sidewalks	$440,000	City/Developer
P33	NW Garfield Avenue and NW Kings Boulevard Pedestrian Crossings	$100,000	City
P34	Monroe Avenue and Kings Boulevard Pedestrian Safety	$35,000	City
P35	Garfield Avenue/Porter Park Crosswalk	$15,000	City
P36	Circle Boulevard/Woodland Meadow Park Crosswalk	$10,000	City
P41	Pedestrian Safety Improvements	$150,000 per year	City
P44	35th Street and Campus Way Crossing Improvements	$47,000	City
P47	West Hills Road Sidewalks (Western to 53rd)	$495,000	City/Developer/ Assessments to property owners
P55	NW Harrison Pedestrian Crossings	$10,000	City
PB2	Harrison Boulevard/35th Street/Campus Way Multi-Use Path	$495,000	City/OSU
PB4	Bicycle/Pedestrian RR Crossing	$550,000	City/Railroad
PB19	17th Street Bridge	$355,000	City
PB25	SW Cummings Avenue Railroad Crossing	$500,000	City/ODOT/Railroad
PB27	Brooklane Bridge	$75,000	City
PB29	OR 99W Multi-Use Path and Circle Boulevard	$275,000	City/ODOT
PB34	OR 99W Multi-Use Path Downtown Extension	$330,000	City/ODOT
PB49	Goodnight Avenue – Caldwell Multi-Use Path	$858,000	City
PB63	Confluence of Willamette and Marys River Bridge	$355,000	City
PB65	OR 99W Multi-Use Path Extension	$1,535,000	City/ODOT/ Developers
PB66	11th Street/Buchanan Avenue Safety Improvements	$150,000	City
PB75	Porter Park Multi-Use Path	$50,000	City

Table 17. High Priority City Led Solutions, *Continued*

PROJECT ID	NAME	COST ESTIMATE	PRIMARY FUNDING
PB76	Coolidge Way Corridor Improvements	$130,000	City
PB78	Campus Way and 14th Street Intersection Improvements	$75,000	OSU
PB79	Low-stress Network Crossing	$25,000	City
PB80	Tyler Avenue and 3rd Street Crossing	$65,000	City/ODOT
PB81	Tyler Avenue and 2nd Street Crossing	$25,000	City/ODOT
PB84	33rd Street Multi-Use Path	$25,000	City
Total		**$15,853,000**	

Table 18. High Priority County Led Solutions

PROJECT ID	NAME	COST ESTIMATE	PRIMARY FUNDING
M3	West Hills Road Modernization (Western to 53rd)	$10,036,000	City/ Developer/ County
M144	West Hills Road Modernization (53rd to Reservoir)	$12,043,000	City/ Developer/ County
Total		**$22,079,000**	

Table 19. High Priority ODOT Led Solutions

PROJECT ID	NAME	COST ESTIMATE	PRIMARY FUNDING
A3	US 20-OR 34 Optimization	$910,000	ODOT
A4	OR 99W/US 20-OR 34 Ramps	$24,219,000	ODOT
A10	OR 99W/Goodnight Avenue Traffic Control	$8,379,000	ODOT/Developer
A25a	US 20-OR 34 Capacity Enhancements (Preliminary Engineering & Design)	$9,488,500	ODOT
A25b	US 20-OR 34 Capacity Enhancements (Construction)	$28,465,500	ODOT
A32	OR 99W/9th Street/Samaritan Drive/ Elks Drive Realignment	$10,069,000	ODOT/Developer
A48	Goodnight Avenue/3rd Street/OR 99W ROW	$370,000	ODOT
A56	Circle Boulevard/OR 99W Improvements	$1,846,000	ODOT
M8	Van Buren Bridge (New Construction)	$69,000,000	ODOT
M47	15th Street/US 20-OR 34	$1,600,000	ODOT
M104	Downtown Circulation Study	$350,000	ODOT/City
M143	US 20-OR 34 Refinement Plan	$600,000	ODOT
P51	Philomath Boulevard (US 20-OR 34)	$260,000	ODOT/Developer
PB9	Northeast Corvallis Multi-Use Path	$440,000	ODOT/City
PB13	OR 99W Multi-Use Path	$175,000	ODOT/City
PB14	US 20-OR 34 Grade-Separated Crossing	$1,000,000	ODOT
PB15	South Corvallis Multi-Use Path	$2,614,000	ODOT
PB31	OR 99W South Corvallis Refinement Study	$500,000	ODOT
PB86	3rd Street/OR 99W/Crystal Lake Drive/Avery Avenue	$861,600	ODOT
Total		**$161,147,600**	

Figure 36. High Priority Projects – North Extent

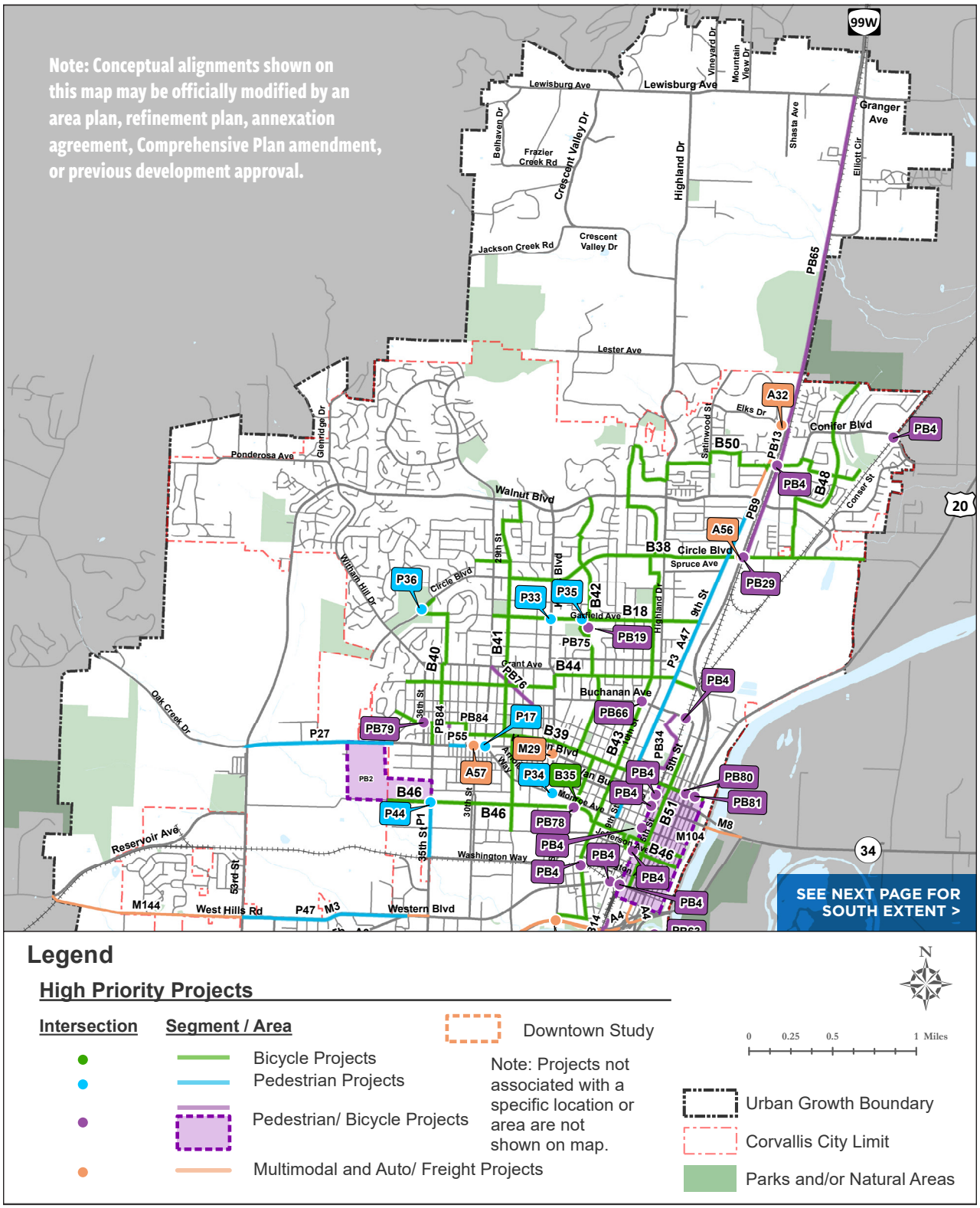
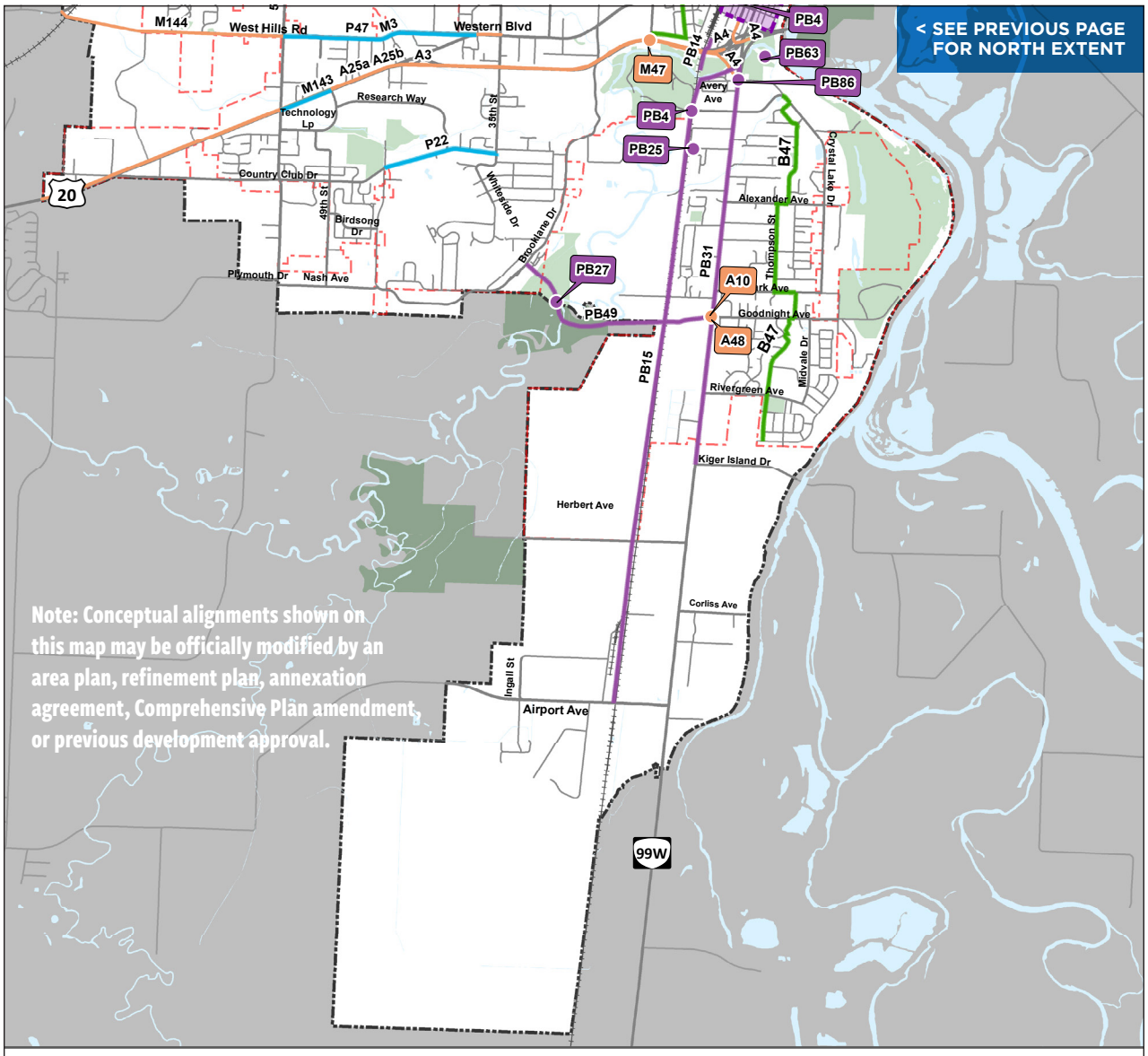


Figure 37. High Priority Projects – South Extent



FINANCIALLY CONSTRAINED TRANSPORTATION SYSTEM

The Oregon Transportation Planning Rule (OAR 660-012) requires that local agencies identify a Financially Constrained list of projects within their TSP document. 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 is proposed that would significantly intensify 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.

As noted in Chapter 1, the Corvallis area is expected to have roughly $63 million available for transportation system improvements through the planning horizon. Most of that funding is assumed to come from federal and State discretionary programs (approximately $40 million), and the rest from City transportation SDC revenues (approximately $22.8 million). By state law, SDCs can only be used on projects that add capacity to the system, such as new bike lanes. The projection over the planning horizon of current City funding levels compared to estimated expenditures indicates there will not be any available discretionary money to allocate to moving projects identified in the TSP forward.

As a result, there are very few City-led projects on the Financially Constrained list. The Financially Constrained project list 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, High Priority projects were included on the Financially Constrained project list where feasible (about 50 percent of the Financially Constrained projects are also High Priority projects).

The Financially Constrained projects are listed in Table 20 and illustrated in Figure 38 and Figure 39. The project amounts listed include the share contributed from the financially constrained funds, either the City's SDC fee program or ODOT's discretionary funding program, which may be different from the full expected project costs. The Van Buren Bridge replacement project (M8) shows no cost because it has already been funded. Similarly, the Goodnight Avenue – Caldwell Multi-use Path project (PB49) shows no cost because it is assumed to be funded with Parks and Recreation SDCs. 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.

Table 20. Financially Constrained Project List

ID	NAME	FUNDING SHARE CONTRIBUTION	PRIMARY FUNDING
A3	US 20-OR 34 Optimization	$910,000	ODOT
A6	Conifer Avenue/OR 99W/9th Street Intersections	$791,000	ODOT
A7	OR 99W: Circle to RR Widening	$5,250,000	ODOT
A8	Harrison Boulevard/2nd Street	$540,000	ODOT
A14	OR 99W/Walnut Boulevard	$8,380,000	ODOT
A17	35th Street/US 20-OR 34	$558,000	ODOT
A18	Technology Loop/US 20-OR 34	$560,000	ODOT
A27	Kings Boulevard/Garfield Avenue Turn Lanes and Signal	$740,000	City/Developer
A31	Walnut Avenue/Highland Drive Turn Lanes	$1,022,000	City
A32	OR 99W/9th Street/Samaritan Drive/ Elks Drive Realignment	$2,013,800	ODOT/Developer
A48	Goodnight Avenue/3rd Street/OR 99W ROW	$370,000	ODOT
A54	Harrison Boulevard/3rd Street/OR 99W Improvements	$108,000	ODOT
A56	Circle Boulevard/OR 99W Improvements	$1,846,000	ODOT
A62	Witham Hill Drive/Circle Boulevard Traffic Control	$2,592,000	City/Developer
A64	53rd Street/US 20-OR 34	$3,161,000	ODOT
A65	Elks Drive/OR 99W Traffic Control	$838,000	ODOT
A70	Crescent Valley Drive/Highland Drive Signal	$2,394,000	County/Developer
B21	Van Buren Avenue Bike Lanes	$30,000	City/ODOT
B51	5th Street Buffered Bike Lanes	$55,000	City/ODOT
M2	26th Street/US 20-OR 34 Improvements	$1,295,000	ODOT
M3	West Hills Road Modernization	$8,016,000	City/Developer/County

Table 20. Financially Constrained Project List, *Continued*

ID	NAME	FUNDING SHARE CONTRIBUTION	PRIMARY FUNDING
M5	Circle Boulevard/9th Street Improvements	$1,156,000	City
M6	Circle Boulevard Extension to Harrison Boulevard	$488,000	City/Developer
M8	Van Buren Bridge (New Construction)	$0 (Project already funded)	ODOT
M27	Country Club Drive/69th Street/ US 20-OR 34	$5,679,000	ODOT
M47	15th Street/US 20-OR 34	$1,600,000	ODOT
M49	Van Buren Avenue/4th Street	$121,000	ODOT
M64	29th Street Extension	$1,506,600	City/Developer
M71	Satinwood Street Extension	$1,447,620	City/Developer
M104	Downtown Circulation Study	$350,000	ODOT/City
P51	Philomath Boulevard (US 20-OR 34)	$260,000	ODOT/Developer
PB2	Harrison Boulevard/35th Street/Campus Way Multi-Use Path	$495,000	City/OSU
PB9	Northeast Corvallis Multi-Use Path	$440,000	ODOT/City
PB13	OR 99W Multi-Use Path	$175,000	ODOT/City
PB14	US 20-OR 34 Grade-Separated Crossing	$1,000,000	ODOT
PB15	South Corvallis Multi-Use Path	$2,614,000	ODOT
PB25	SW Cummings Avenue Railroad Crossing	$500,000	City/ODOT/Railroad
PB29	OR 99W Multi-Use Path and Circle Boulevard	$275,000	City/ODOT
PB31	OR 99W South Corvallis Refinement Study	$500,000	ODOT
PB34	OR 99W Multi-Use Path Downtown Extension	$330,000	City/ODOT
PB49	Goodnight Avenue – Caldwell Multi-Use Path	$0 (Parks Master Plan project)	City
PB80	Tyler Avenue and 3rd Street Crossing	$65,000	City/ODOT
PB81	Tyler Avenue and 2nd Street Crossing	$25,000	City/ODOT

Table 20. Financially Constrained Project List, *Continued*

ID	NAME	FUNDING SHARE CONTRIBUTION	PRIMARY FUNDING
PB85	OR 99W – Riverfront Connector	$2,260,000	ODOT
PB86	3rd Street/OR 99W/Crystal Lake Drive/Avery Avenue	$861,600	ODOT
Total		**$63,618,620**	

Figure 38. Financially Constrained Projects – North Extent

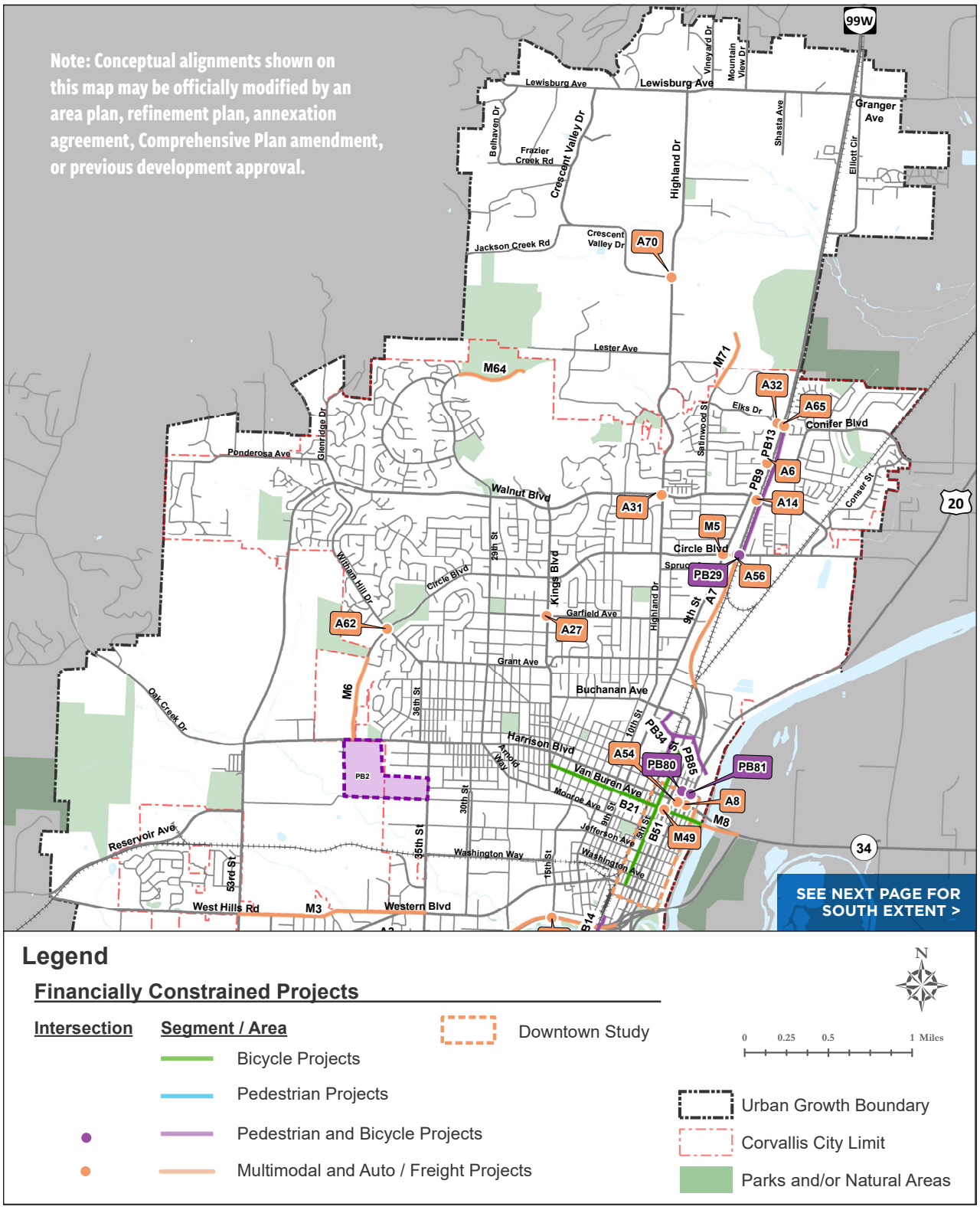
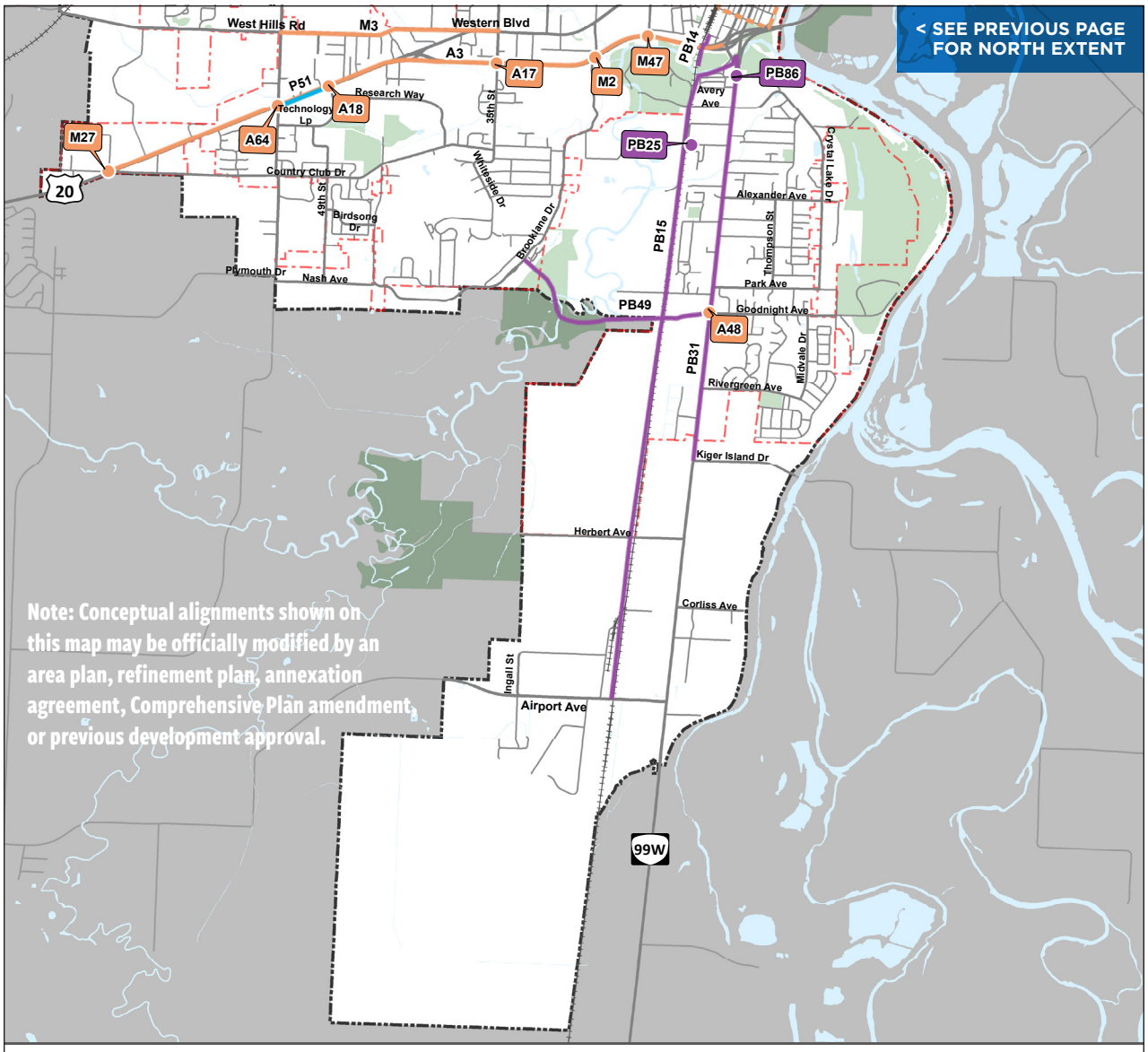


Figure 39. Financially Constrained Projects – South Extent



FUNDING OPPORTUNITIES

The City may consider increasing existing revenue sources or adding new ones to accelerate the ability to construct High Priority projects. Potential funding sources include:

- **Increase the transportation SDC rates** – The City has a transportation SDC fee program in place to fund system improvements to support growth. Any increase in SDC rate would directly increase funding available to transportation improvements. The City has a project to review its transportation SDC program and rates following the adoption of the TSP.
- **Local Fuel Tax** – The City could consider a city or regional fuel tax with its local partners to generate additional transportation revenues.
- **Local Improvement Districts** – These targeted funding districts can generate money for a specific geographic area of the city, with the consent and cooperation of a majority of the local property owners.
- **Urban Renewal Districts** – An Urban Renewal District is a district within the city that generates funds with the incremental increases in property taxes that result from construction of improvements. Use of the funding includes, but is not limited to, transportation improvements within the defined district boundary.

In the absence of new revenues, the City is expected to continue to use discretionary funds that may become available over the planning horizon to pursue competitive grants and other external funding opportunities to implement TSP projects.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9 OUTCOMES

The transportation investments in this plan will improve system performance in Corvallis over time. The transportation projects and policies that were developed in this TSP and the accompanying TDP will advance the quality of services for all travelers, and address many key safety and mobility challenges. To demonstrate the potential for improvement and ability to achieve community goals, the evaluation criteria that were used to develop and prioritize transportation solutions are used in this chapter to assess changes in system performance across a range of investment levels.

It is worth noting that while the two key elements of the TSP goals related to environmental stewardship and community equity were not measured quantitatively, they were considered qualitatively during the development and evaluation of solutions.

SYSTEM PERFORMANCE

Performance metrics used in this TSP can be organized into two groups. The first group focuses on the built facilities, and reports on the extent and coverage of transportation services and the quality of facility design compared to the latest adopted standards. The other group focuses on how sufficient the facility is to serve expected travel needs. These metrics report on how the carrying capacity serves user demand, which include level of service, travel speeds, level of walking or biking stress, and travel delays. The system user activities can be based on actual field observations under existing conditions or estimated from travel demand models for future conditions. For more information about the TSP and TDP project evaluation criteria, refer to Chapter 2.

Table 21 presents the transportation system performance for Existing Conditions, the 2040 Baseline (i.e., the "No Build" scenario), and 2040 with added projects and services, from the Illustrative Projects lists in Chapter 7.

When comparing system performance across scenarios using the evaluation criteria in Table 21, there are a few key differences to consider:

- Between the Existing and 2040 Baseline Conditions, the transportation network is nearly identical. However, the 2040 Baseline Condition includes approximately 11,400 additional employees and 5,300 more households. As a result, traffic volumes on the street network will be considerably higher under the 2040 Baseline Condition.
- The 2040 Illustrative Projects condition includes the same land use assumptions as the 2040 Baseline, but also includes a dramatically enhanced transportation system representing every project in this plan. One key feature not accounted for is the impact of future local streets because the location and quantity of those facilities are typically unknown until development occurs.

Reviewing the comparison of conditions between scenarios, several significant findings are noted.

- VMT per capita is projected to increase by approximately eight percent by 2040. The improvements in the Illustrative Projects list have little impact on this. In general, adding roadway capacity and relieving congestion results in an increase in VMT per capita. On the other hand, improving system connectivity reduces out-of-direction travel, which results in decreased VMT per capita. The VMT per capita calculations in Table 21 do not account for the comprehensive set of transit investments included in Corvallis's TDP. Sensitivity testing of the impacts of significant transit investments indicate that implementation of the long-term transit strategies from that plan could reduce VMT per capita.

  Reducing VMT per capita is a statewide goal for urban areas that addresses climate goals. It is a proxy for tracking vehicle emissions. It should be noted that while Corvallis is trending slightly up on VMT per capita, the inherent assumption is that the citywide vehicle fleet is combustion engine powered. As electric powered vehicle share increases, the findings reported here could be significantly improved in terms of actual climate benefits.

- Peak hour congestion at major intersections across the city would be significantly reduced with the Illustrative Projects in place. With no further improvements (2040 Baseline), the number of intersections experiencing congestion greater than allowed under adopted targets/ standards will nearly double by 2040. With the Illustrative Projects in place, this number would drop to more than half of current levels.
- Regional freight mobility will remain at similar levels as experienced today with key corridor improvements, focused intersection upgrades, and system management strategies.
- The addition of two new transit routes and higher frequency service as proposed in the TDP will significantly benefit accessibility to bus service. With these new services in place, the majority of the city will have convenient walking or biking access to transit stops. In general, future employment growth is projected to occur closer to the city center and existing transit routes than future housing growth. As a result, the proximity of future employment to high-frequency transit tends to improve more significantly over time, and even slightly improves with no new transit investments.
- The strategies in the TDP include significant investments in the transit system that will triple the number of routes that provide 30 or more trips per day and nearly double the number of arterial and collector roadway miles with such service.
- Corvallis already has good coverage related to the presence of walking and biking facilities, but the Illustrative Projects will improve coverage further. As all new streets are constructed to City standards, the percentage of streets with walking and biking facilities will grow even more.
- The Illustrative Projects will significantly increase the percent of low-stress bicycling routes. However, these results likely underreport the potential impact of the Low-Stress Bicycle Network, which often uses local streets to create low-stress alternatives to busy arterials and collectors rather than trying to convert those streets into low-stress facilities.
- The proximity of residents and employees to high-quality pedestrian and bicycle facilities is shown to slightly decrease over time. With the Illustrative Projects in place, this condition improves slightly for pedestrian facilities, but doesn't change for bicycle facilities. The construction of future local streets in compliance with City standards would result in significant improvements to the criteria results, but that can't be adequately accounted for at this time, since the location and quantity of future local streets is currently unknown.
- The percent of collector and arterial roadway miles with high-quality (good pedestrian level of service) pedestrian facilities will slightly decrease by 2040 under the Baseline condition as traffic volumes increase. However, with the improvements in this plan, and as new collectors and arterials are constructed to City standards that

include significant buffers between pedestrians and motor vehicle traffic, the percentage will almost double.

- Implementation of the Illustrative Projects would improve intersection crossings for pedestrians citywide. Busier and wider arterial and collector street crossings may always be challenging, but two of the lowest quality crossings evaluated would be significantly mitigated.

While informative, these evaluation criteria are still limited and alone do not describe the full range of benefits provided by the transportation system improvements included in this plan. Specifically, this plan includes substantial improvements in the quality and connectivity of pedestrian and bicycling facilities that reduce reliance on motorized travel, enhance safe routes to schools, support healthy lifestyles, and help Corvallis achieve climate action goals.

Implementation of the low-stress bicycle network is a key strategy for encouraging increased travel by bicycle. This network prioritizes bicycle and pedestrian through-traffic, and uses a mix of wayfinding signage and infrastructure elements to increase visibility and predictability for all roadway users.

Furthermore, a recent report by CAMPO titled "Strategic Assessment of Transportation and Land Use Plans" (July 2014) examined how the region was trending toward the state mandates for greenhouse gas reduction. Specifically, the CAMPO goal is to reduce greenhouse gas emissions by 21 percent by 2035. This same CAMPO study revealed that the adopted long-range plans (as of 2014) for local cities will lead to a three percent increase in VMT per capita by 2035, so it evaluated a range of policy options and then identified several strategies that local cities can do to collectively work toward the region's greenhouse gas reduction goal.

Overall, the CAMPO study indicated that no one policy approach would be able to achieve the greenhouse gas reduction goal. A collective approach of state, county and city policies will be necessary to achieve the goal. Importantly, the study demonstrated that success is possible. The key elements for local communities include a more cohesive and balanced community design, with emphasis on mixed-use higher density development nodes, better access to safe and convenient transit and bikeways, and a more aggressive approach to pricing vehicle parking. Much of the 2018 Corvallis TSP addresses these issues, however, there are further opportunities to re-examine the land use elements as part of a Comprehensive Plan update.

ON-GOING SYSTEM MONITORING

The City may consider selecting key evaluation criteria used in the TSP and TDP process to track progress toward realizing the plan goals as projects are completed. Regular monitoring and reporting (e.g., on an annual basis) would be informative, but could also be resource-intensive. Since it will likely take many years to significantly change performance at a citywide level, a more practical alternative would be to apply many of the same evaluation criteria at the time of the next TSP update, or to monitor at five-year intervals.

Table 21. Summary of System Performance Between Existing and Future Conditions

EVALUATION CRITERIA			EXISTING CONDITIONS	2040 BASELINE CONDITIONS	2040 WITH ALL ILLUSTRATIVE PROJECTS
Vehicle-Miles Traveled (VMT) per capita - daily			5.41	5.80	5.84
Major intersections that do not meet applicable vehicle mobility performance standards or targets			10	17	4
Peak hour travel time on freight routes, in minutes			56	68	59
Percent of total jobs within 1/4-mile walking distance of transit stops served by at least 30 transit vehicles per day			34%	35%	67%
Percent of total households within 1/4-mile walking distance of transit stops served by at least 30 transit vehicles per day			34%	32%	60%
Span and frequency of transit service – number of routes that provide 30 or more trips per day			2	2	6
Percent of arterial and collector roadway miles with transit service providing 30 or more transit vehicles per day			9%	9%	17%
Percent of the arterials and collectors with biking facilities			79%	79%	84%
Bicycle Level of Traffic Stress – Percent of high-quality (or low-stress) on all roads			70%	70%	77%
Percent of population and employment within 1/8-mile of high-quality pedestrian or bicycle facilities	Ped	Population	56%	50%	52%
		Employment	55%	53%	54%
	Bike	Population	93%	89%	89%
		Employment	88%	85%	85%
Percent of all roads with walking facilities on both sides of the roadway			71%	71%	74%
Pedestrian Level of Service - Percent of high-quality collector and arterial segments			20%	18%	37%
Pedestrian Level of Service – Number of low or medium-low quality intersections			15	15	13

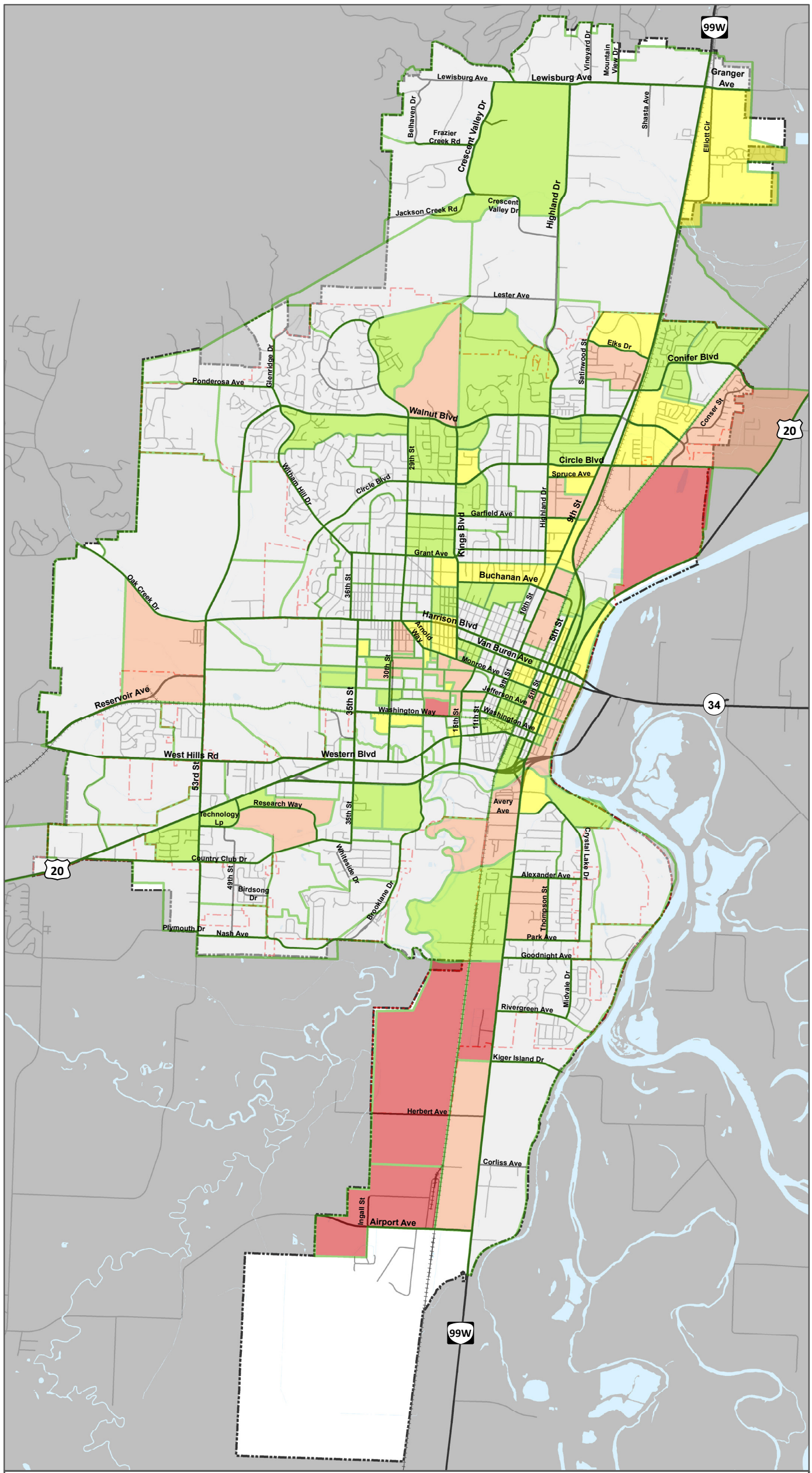
Note: Criteria for Existing Conditions including VMT per capita calculations or population/household/employment data are based on 2010 land use data. All other Existing Conditions criteria are based on 2014 data.

The VMT per capita calculations do not account for the comprehensive set of transit investments included in Corvallis's Transit Development Plan. However, sensitivity testing of the impacts of significant transit investments indicate that implementation of the long-term transit strategies from that plan could reduce VMT per capita by as much as six percent.


Madison Av.
City Hall
Municipal Court
Madison Av Bldg
ONE WAY
ONE WAY

11″ x 17″ TSP Maps

This section contains all of the full-size maps included as part of this TSP, as well as an additional map showing where changes to street functional classifications occurred through this update.



Legend

Employment Growth from 2010 to 2040

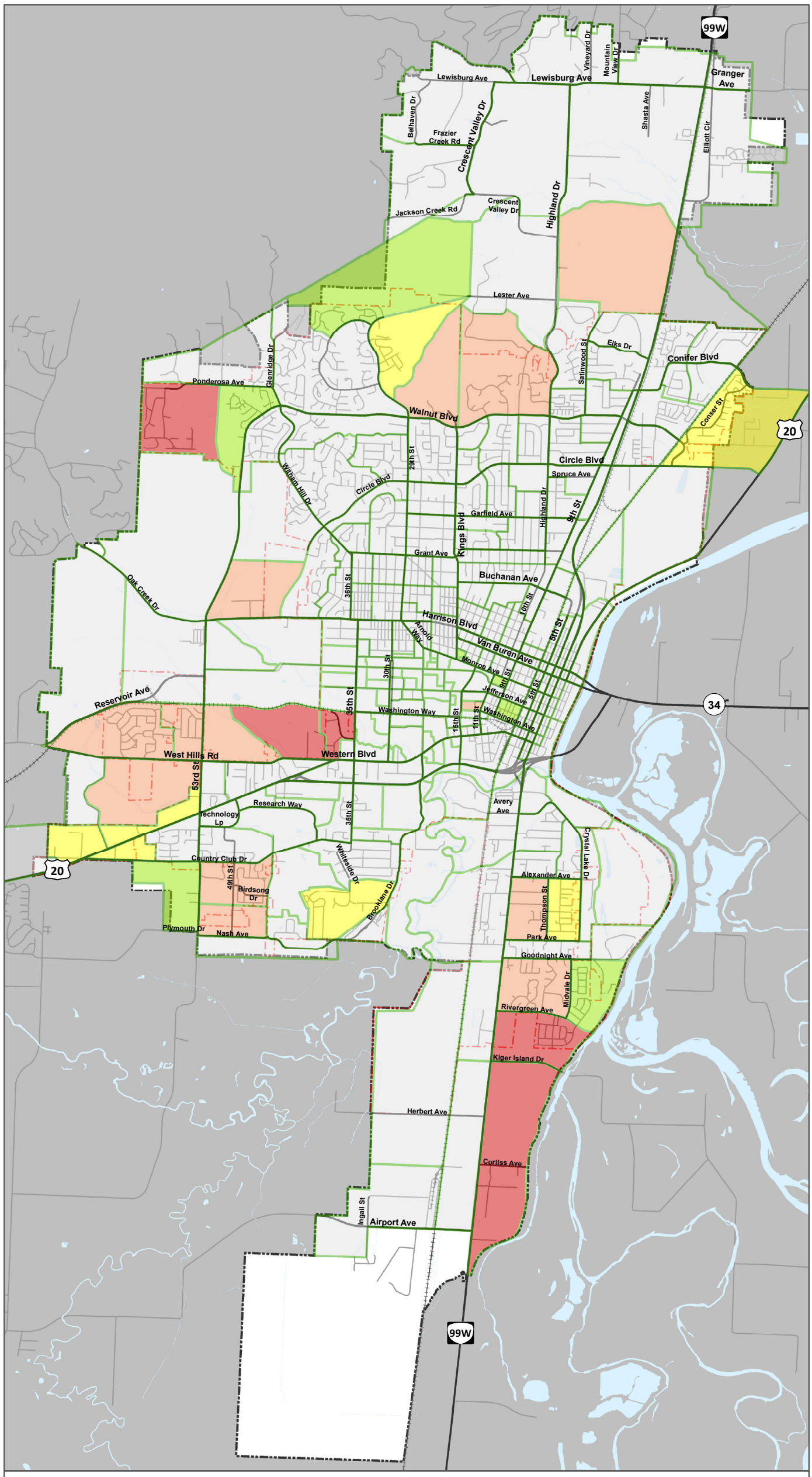
- 0 - 20 Employees
- 21 - 50 Employees
- 51 - 100 Employees
- 101 - 300 Employees
- 301 - 631 Employees
- Transportation Analysis Zone

Note: Growth shown is not evenly distributed across Transportation Analysis Zones.

N

0 0.25 0.5 1 Miles

- Urban Growth Boundary
- Corvallis City Limit
- Parks and/or Natural Areas



Legend

Housing Growth from 2010 to 2040

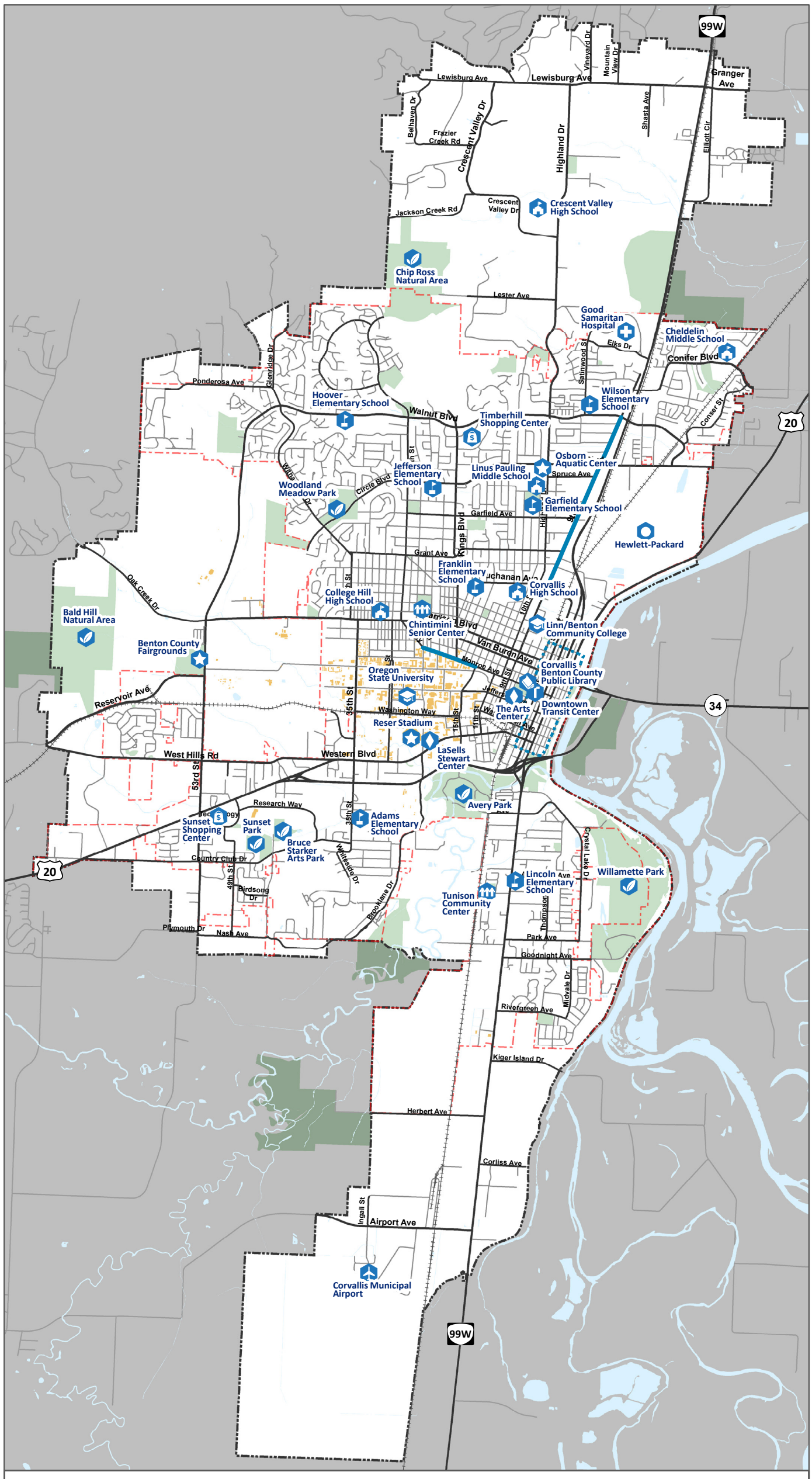
- 0 - 20 Households
- 21 - 50 Households
- 51 - 100 Households
- 101 - 300 Households
- 301 - 624 Households
- Transportation Analysis Zone

Note: Growth shown is not evenly distributed across Transportation Analysis Zones.

N

0 0.25 0.5 1 Miles

- Urban Growth Boundary
- Corvallis City Limit
- Parks and/or Natural Areas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Mountain View Dr
Belhaven Dr
Frazier Creek Rd
Crescent Valley Dr
Highland Dr
Shasta Ave
Elliott Cir
Jackson Creek Rd
Crescent Valley Dr
Crescent Valley High School
Chip Ross Natural Area
Lester Ave
Good Samaritan Hospital
Elks Dr
Cheldelin Middle School
Conifer Blvd
Satinwood St
Glenridge Dr
Ponderosa Ave
Hoover Elementary School
Walnut Blvd
Timberhill Shopping Center
Wilson Elementary School
Conser St
20
Osborn Aquatic Center
Spruce Ave
Linus Pauling Middle School
Jefferson Elementary School
Willa Dr
Circle Blvd
Woodland Meadow Park
Garfield Elementary School
Garfield Ave
Kings Blvd
Hewlett-Packard
Grant Ave
Franklin Elementary School
Buchanan Ave
Corvallis High School
College Hill High School
Oak Creek Dr
Bald Hill Natural Area
Chintimini Senior Center
Linn/Benton Community College
Benton County Fairgrounds
Van Buren Ave
Monroe Ave
Oregon State University
Corvallis Benton County Public Library
Reservoir Ave
35th St
Washington Way
Jefferson Way
The Arts Center
Downtown Transit Center
34
Reser Stadium
West Hills Rd
Western Blvd
LaSells Stewart Center
53rd St
Research Way
Avery Park
Sunset Shopping Center
Sunset Park
Adams Elementary School
Bruce Starker Arts Park
Country Club Dr
Whiteside Dr
Crystal Lake Dr
Willamette Park
Lincoln Ave Elementary School
Tunison Community Center
49th St
Birdsong Dr
Brookdale Dr
Plymouth Dr
Nash Ave
Thompson
Park Ave
Goodnight Ave
Midvale Dr
Rivergreen Ave
Kiger Island Dr
Herbert Ave
Corliss Ave
Ingall St
Airport Ave
Corvallis Municipal Airport
99W
Legend
Major Activity Generators
Airport
Community Center
Elementary School
High School
Hospital
Library
Middle School
Park
Recreation and Entertainment
Shopping
Transit
University/College
Commercial Corridor
Downtown Area
Major Employer
Cultural
OSU Building
N
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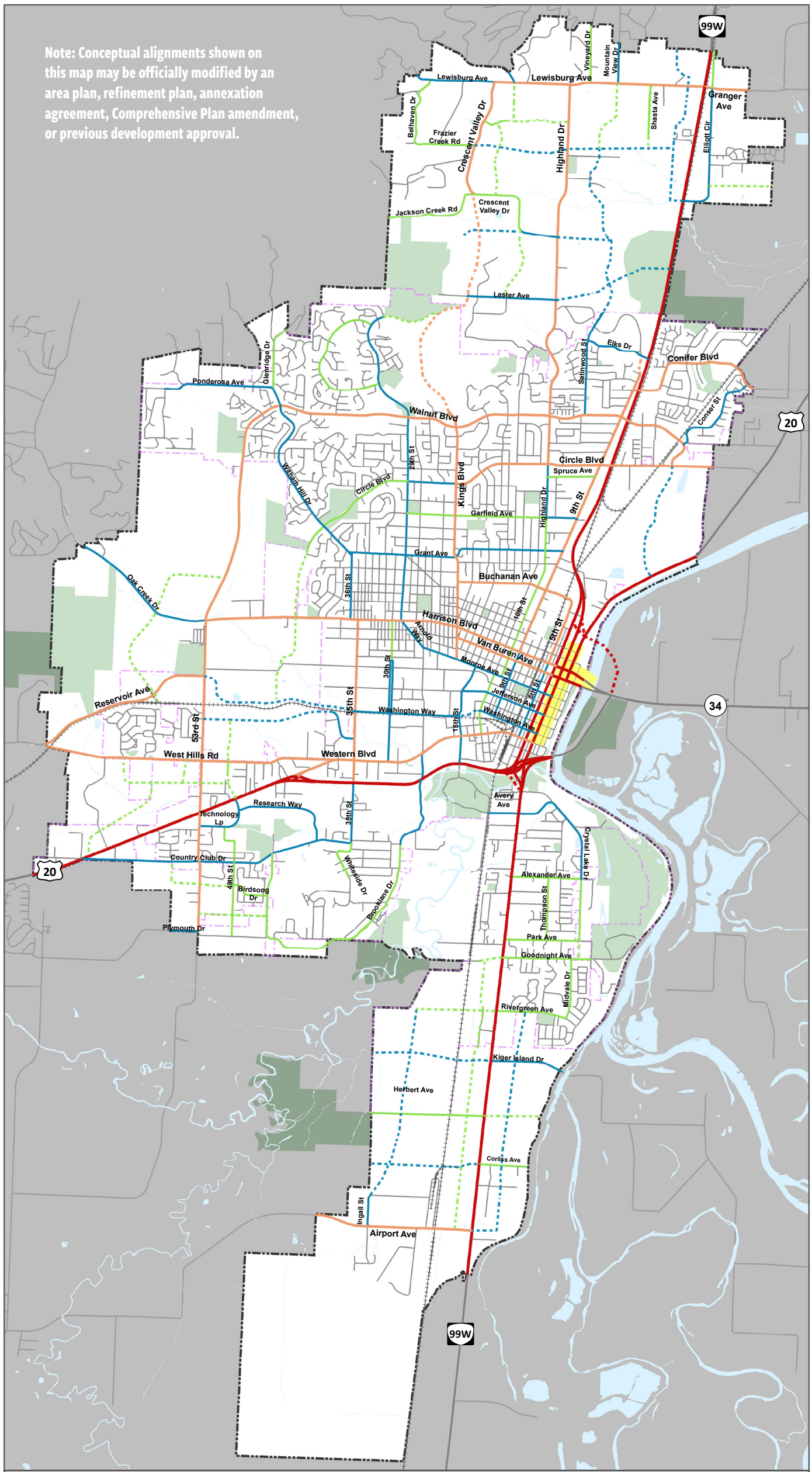
Urban Growth Boundary
Corvallis City Limit
Parks and/or Natural Areas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Crescent Valley Dr
Highland Dr
Shasta Ave
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Jackson Creek Rd
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Glenridge Dr
Ponderosa Ave
Elks Dr
Satinwood St
Conifer Blvd
Conser St
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Walnut Blvd
29th St
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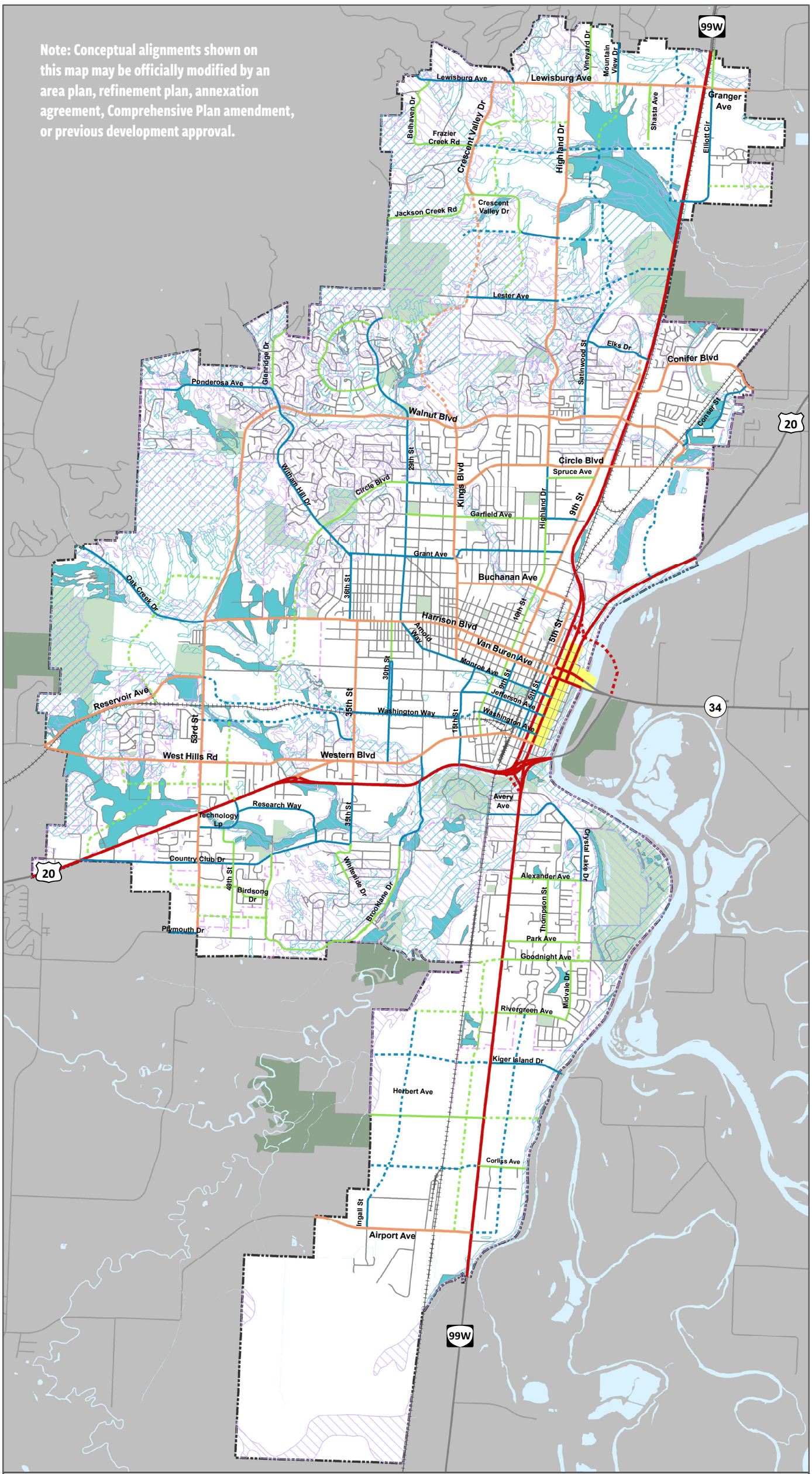
Spruce Ave
Kings Blvd
Wilhelm Hill Dr
Garfield Ave
9th St
Grant Ave
Buchanan Ave
Oak Creek Dr
36th St
Harrison Blvd
Arnold Way
10th St
5th St
Van Buren Ave
Monroe Ave
Jefferson Ave
8th St
Washington Ave
34
30th St
35th St
Washington Way
15th St
Reservoir Ave
53rd St
West Hills Rd
Western Blvd
Avery Ave
Research Way
Technology Lp
35th St
Crystal Lake Dr
Country Club Dr
49th St
Birdsong Dr
Whiteside Dr
Brooklane Dr
Alexander Ave
Thompson St
Plymouth Dr
Park Ave
Goodnight Ave
Midvale Dr
Rivergreen Ave
Kiger Island Dr
Herbert Ave
Circle Blvd
Corliss Ave
Ingall St
Airport Ave
99W
Legend
Function Classification
Existing Streets
Planned Streets (Conceptual Alignments)
Arterial Highway
Arterial
Collector
Neighborhood Collector
Local
Special Designation
Special Transportation Area
N
0 0.25 0.5 1 Miles
Urban Growth Boundary
Corvallis City Limit
Parks and/or Natural Areas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29th St
Circle Blvd
Spruce Ave
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Plymouth Dr
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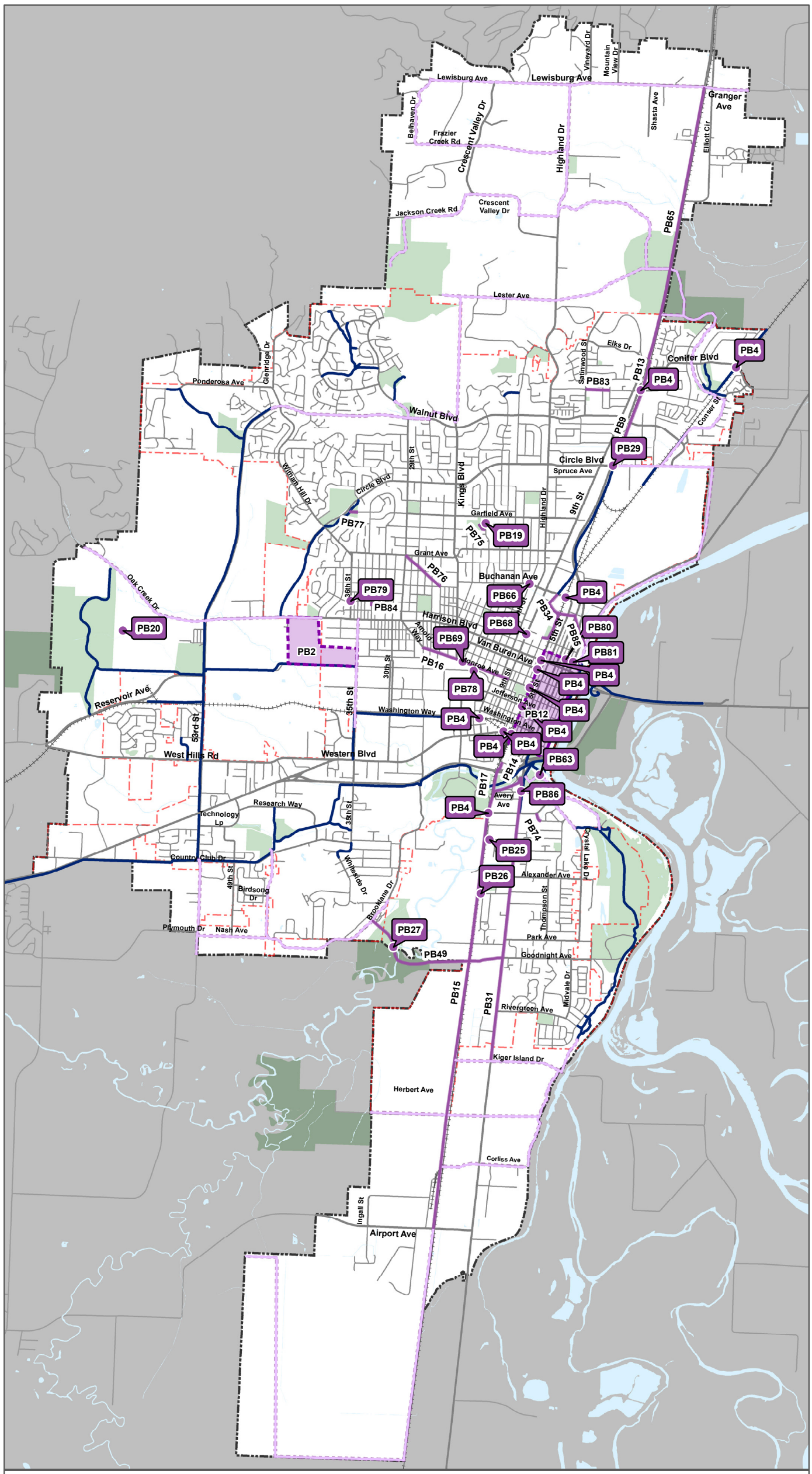
Midvale Dr
Rivergreen Ave
Kiger Island Dr
Herbert Ave
Corliss Ave
Ingall St
Airport Ave
99W
Legend
Function Classification & Natural Resources
Existing Streets
Planned Streets (Conceptual Alignments)
Arterial Highway
Arterial
Collector
Neighborhood Collector
Local
Wetlands
Natural Resource Overlay
Natural Hazards Overlay
Special Designation
Special Transportation Area
Urban Growth Boundary
Corvallis City Limit
Parks and/or Natural Areas
N
0 0.25 0.5 1 Miles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Kiger Island Dr
Herbert Ave
Corliss Ave
Ingall St
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Research Way
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Country Club Dr
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Birdsong Dr
Plymouth Dr
Nash Ave
Whiteside Dr
Brookdale Dr
PB27
PB49
Legend
Pedestrian/ Bicycle Projects
Pedestrian/ Bicycle Segment Project
Parks Master Plan Project
Pedestrian/ Bicycle Intersection Project
Pedestrian/ Bicycle Area Project
Existing Multi-Use Path
Note: Projects not associated with a specific location or area are not shown on map.
N
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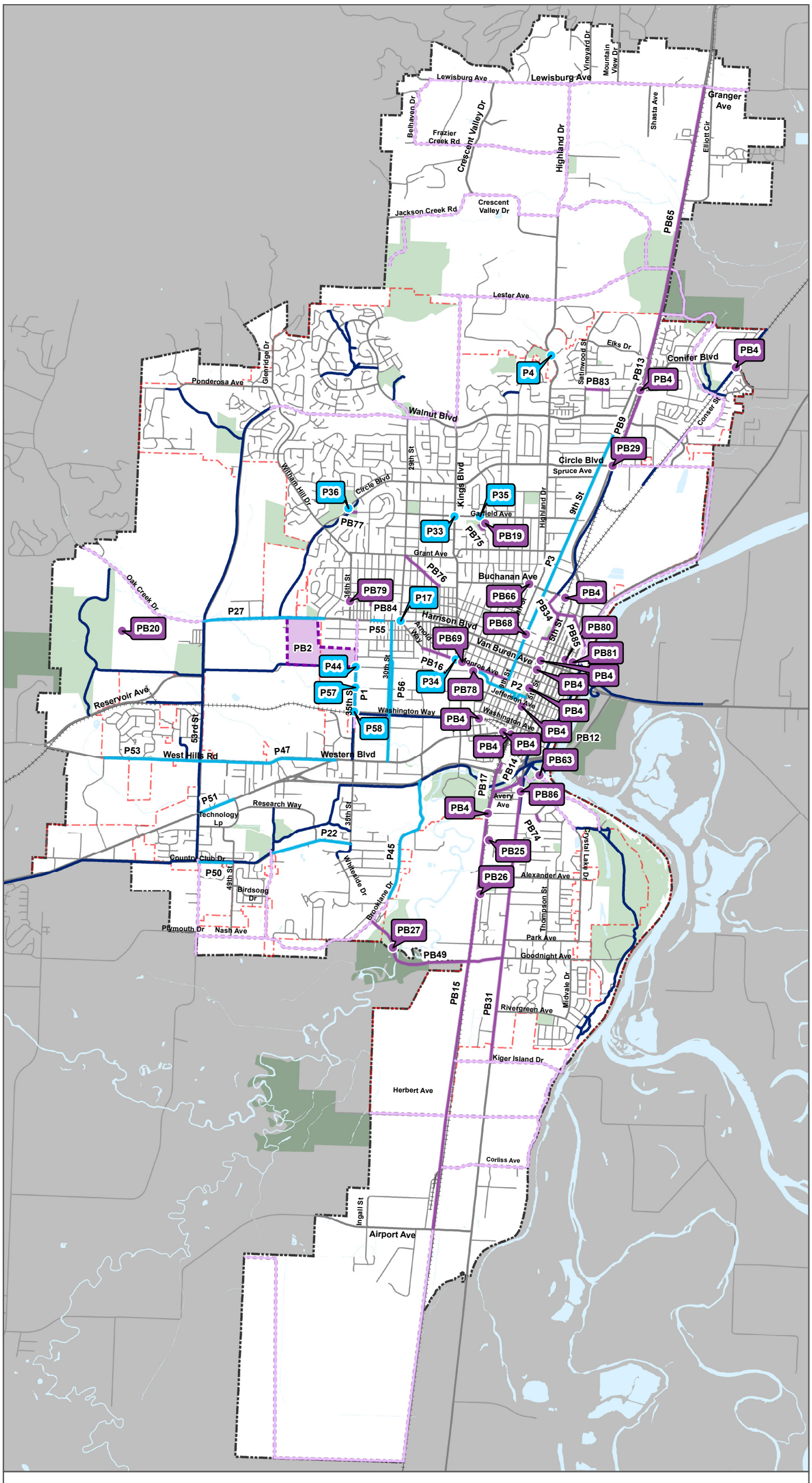
Urban Growth Boundary
Corvallis City Limit
Parks and/or Natural Areas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Rivergreen Ave
Kiger Island Dr
Herbert Ave
Corliss Ave
Ingall St
Airport Ave
Legend
Pedestrian Projects
Pedestrian Segment Project
Pedestrian/ Bicycle Segment Project
Parks Master Plan Project
Pedestrian Intersection Project
Pedestrian/ Bicycle Intersection Project
Pedestrian/ Bicycle Area Project
Existing Multi-Use Path
Note: Projects not associated with a specific location or area are not shown on map.
N
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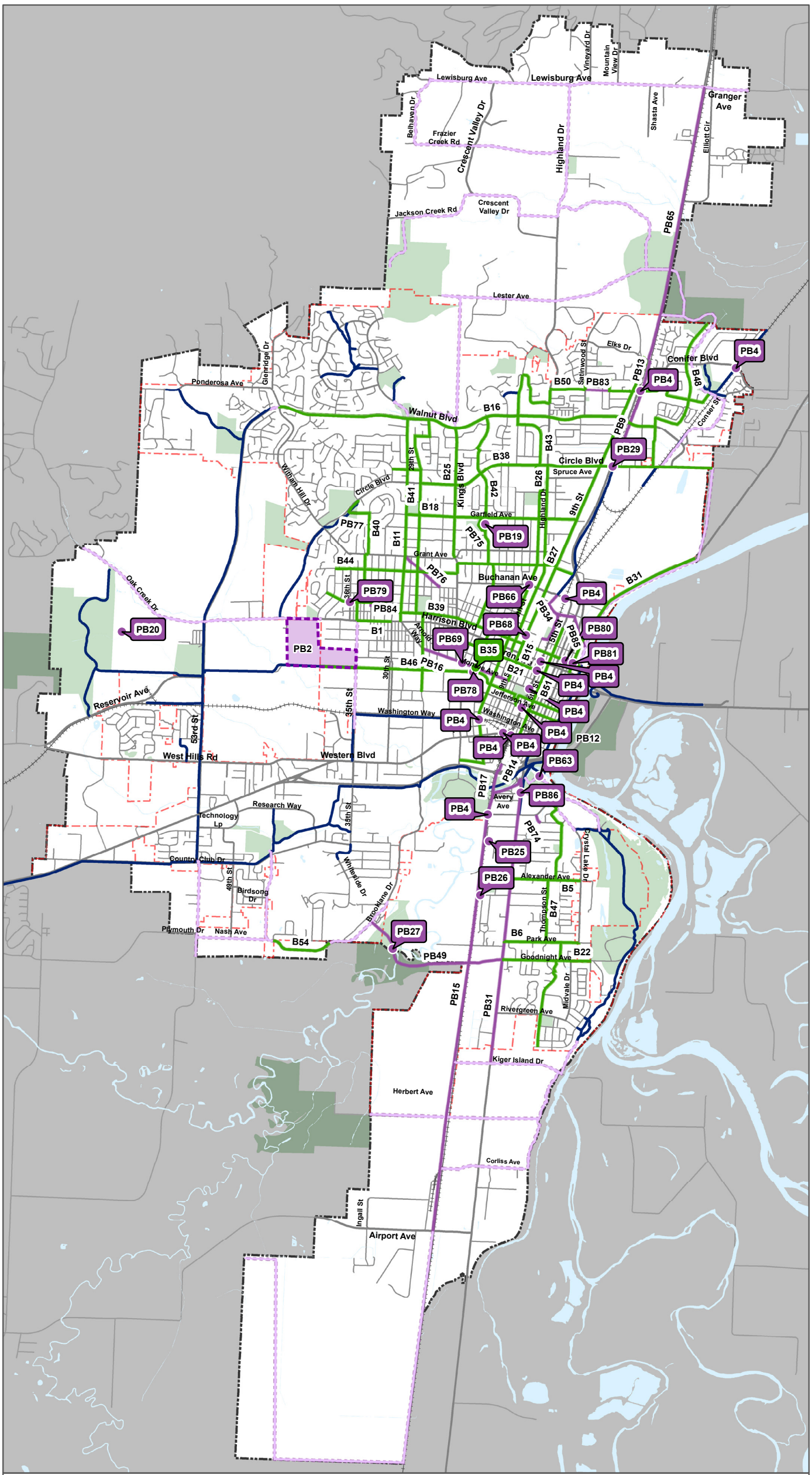
Urban Growth Boundary
Corvallis City Limit
Parks and/or Natural Areas



Legend

Bicycle Projects

- Bicycle Segment Project
- Pedestrian/ Bicycle Segment Project
- Parks Master Plan Project
- Bicycle Intersection Project
- Pedestrian/ Bicycle Intersection Project
- Pedestrian/ Bicycle Area Project
- Existing Multi-Use Path

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0 0.25 0.5 1 Miles

- Urban Growth Boundary
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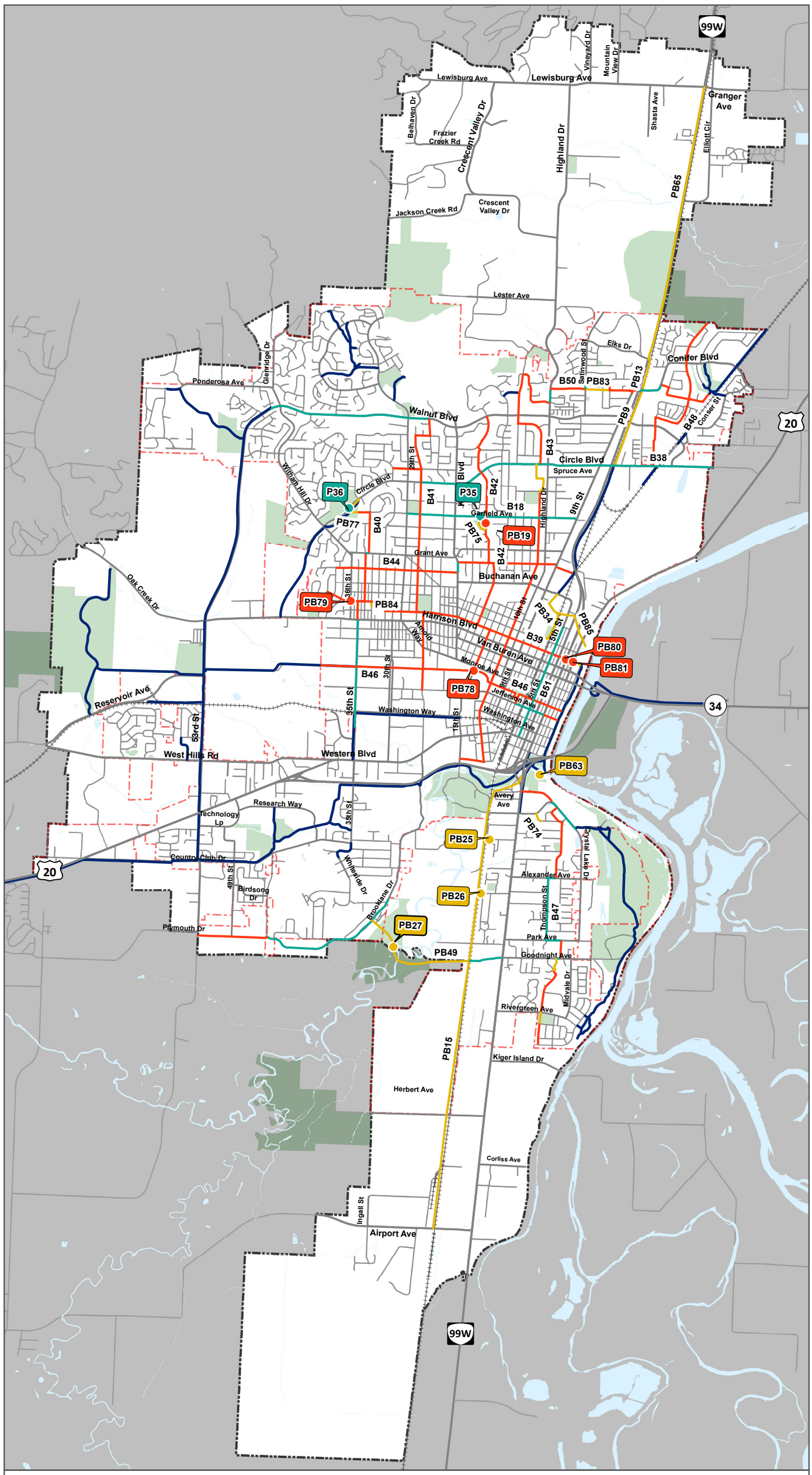


Legend

Low-Stress Bicycle Network Projects

Low-Stress Segment Projects

- Multi-Use Path
- Local Road
- Arterial or Collector Road
- Existing Multi-Use Path

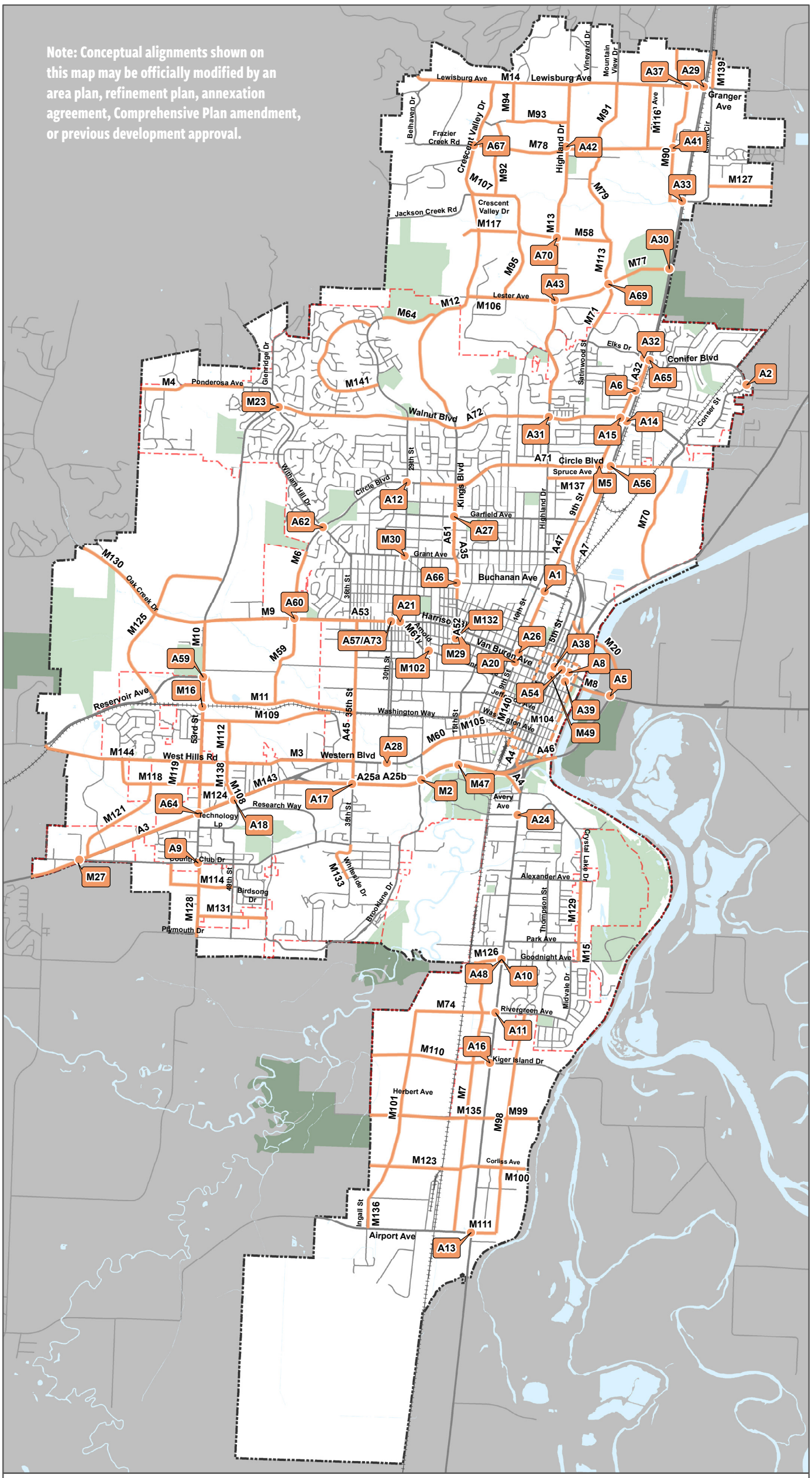
Low-Stress Intersection Projects

- Multi-Use Path
- Local Road
- Arterial or Collector Road

N

0 0.25 0.5 1 Miles

- Urban Growth Boundary
- Corvallis City Limit
- Parks and/or Natural Areas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Mountain View Dr
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Frazier Creek Rd
Crescent Valley Dr
Highland Dr
Jackson Creek Rd
Crescent Valley Dr
Lester Ave
Elks Dr
Conifer Blvd
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Glenridge Dr
Ponderosa Ave
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Alexander Ave
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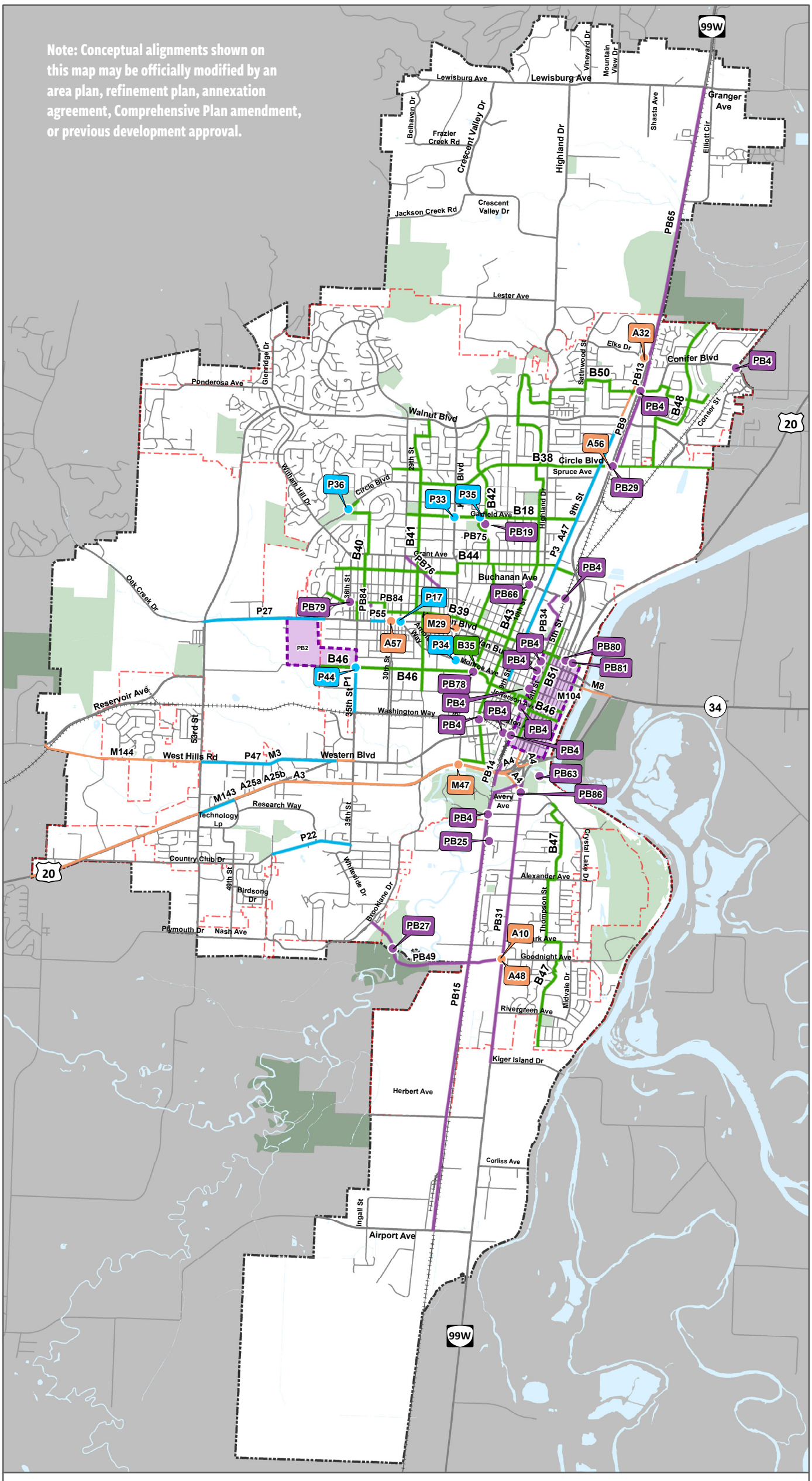
Midvale Dr
Rivergreen Ave
Kiger Island Dr
Herbert Ave
Corliss Ave
Ingall St
Airport Ave
Legend
Multimodal and Auto/ Freight Projects
Roadway Segment Project
Intersection Project
Downtown Study
Note: Projects not associated with a specific location or area are not shown on map.
N
0 0.25 0.5 1 Miles
Urban Growth Boundary
Corvallis City Limit
Parks and/or Natural Areas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Elliott Cir
Jackson Creek Rd
Crescent Valley Dr
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Lester Ave
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Elks Dr
Satinwood St
Conifer Blvd
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B50
PB13
PB4
B48
Conser St
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Glenridge Dr
Walnut Blvd
PB9
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B38
Circle Blvd
Spruce Ave
PB29
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Circle Blvd
William Hill Dr
29th St
Blvd
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Garfield Ave
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Highland Dr
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Whiteside Dr
Brookdale Dr
Alexander Ave
Thompson St
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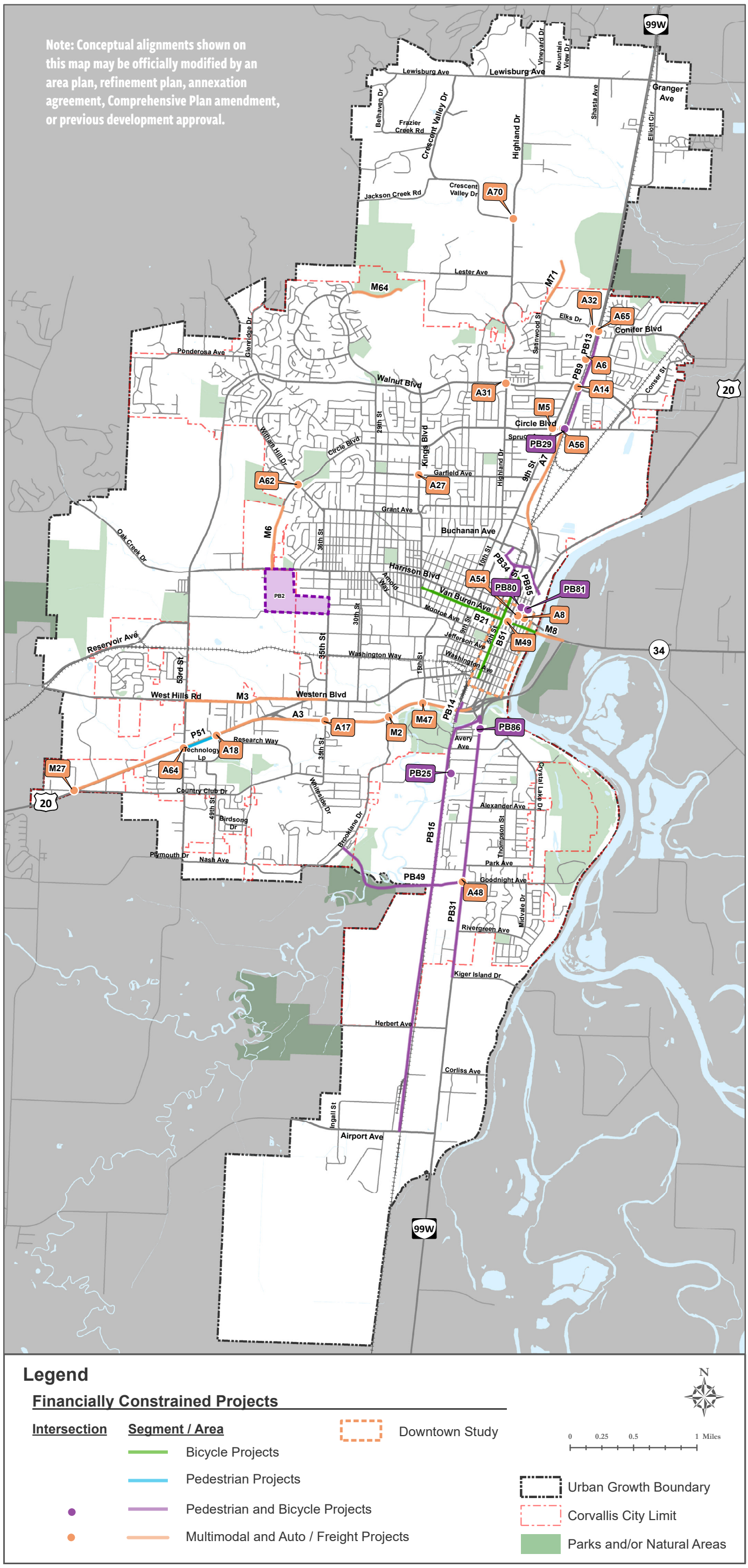
A10
Plymouth Dr
Nash Ave
PB49
Goodnight Ave
A48
B47
PB15
Midvale Dr
Rivergreen Ave
Kiger Island Dr
Herbert Ave
Corliss Ave
Ingall St
Airport Ave
99W
34
Legend
High Priority Projects
Intersection
Segment / Area
Bicycle Projects
Pedestrian Projects
Pedestrian/ Bicycle Projects
Multimodal and Auto/ Freight Projects
Downtown Study
Note: Projects not associated with a specific location or area are not shown on map.
N
0 0.25 0.5 1 Miles
Urban Growth Boundary
Corvallis City Limit
Parks and/or Natural Areas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Highland Dr
Shasta Ave
Elliott Cir
Jackson Creek Rd
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Lester Ave
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M71
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A65
Elks Dr
Conifer Blvd
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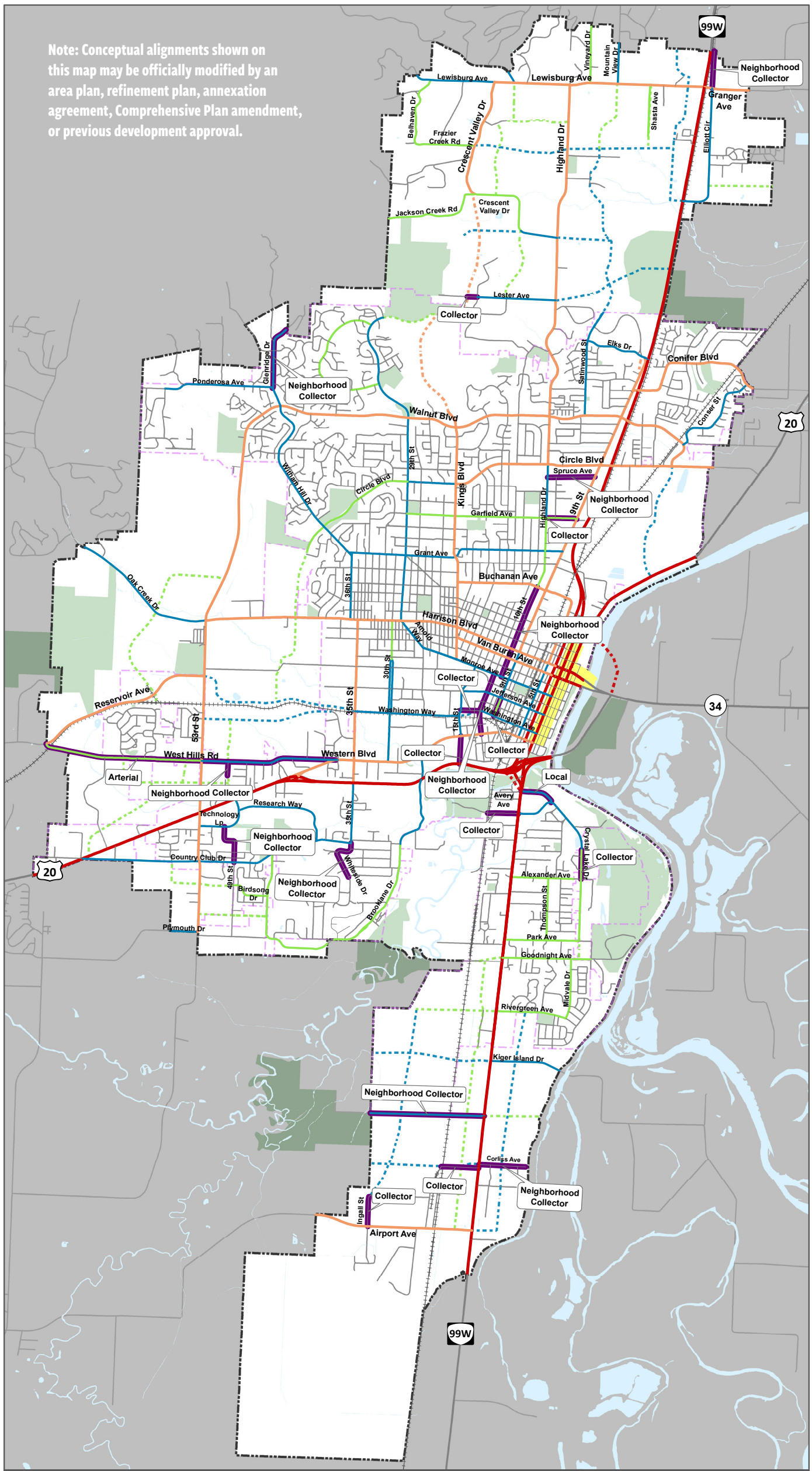
A62
A27
Garfield Ave
Grant Ave
Buchanan Ave
M6
Oak Creek Dr
36th St
10th St
PB34
PB85
Harrison Blvd
Arnold Way
A54
PB80
PB81
Van Buren Ave
Monroe Ave
B21
A8
M8
PB2
30th St
5th St
B51
M49
Jefferson Ave
Reservoir Ave
35th St
Washington Way
15th St
Washington Ave
34
53rd St
West Hills Rd
M3
Western Blvd
A3
A17
M2
M47
PB14
PB86
Avery Ave
P51
Research Way
Technology Ln
A18
A64
M27
PB25
Crystal Lake Dr
Country Club Dr
49th St
Whitesides Dr
Alexander Ave
Birdsong Dr
Brooklane Dr
PB15
Thompson St
Plymouth Dr
Nash Ave
Park Ave
PB49
Goodnight Ave
A48
PB31
Midvale Dr
Rivergreen Ave
Kiger Island Dr
Herbert Ave
Corliss Ave
Ingall St
Airport Ave
99W
Legend
Financially Constrained Projects
Intersection
Segment / Area
Bicycle Projects
Pedestrian Projects
Pedestrian and Bicycle Projects
Multimodal and Auto / Freight Projects
Downtown Study
N
0 0.25 0.5 1 Miles
Urban Growth Boundary
Corvallis City Limit
Parks and/or Natural Areas


Note: Conceptual alignments shown on this map may be officially modified by an area plan, refinement plan, annexation agreement, Comprehensive Plan amendment, or previous development approval.
99W
Neighborhood Collector
Lewisburg Ave
Vineyard Dr
Mountain View Dr
Granger Ave
Belhaven Dr
Frazier Creek Rd
Crescent Valley Dr
Highland Dr
Shasta Ave
Elliott Cir
Jackson Creek Rd
Crescent Valley Dr
Lester Ave
Collector
Elks Dr
Satinwood St
Conifer Blvd
Glenridge Dr
Ponderosa Ave
Neighborhood Collector
Walnut Blvd
Conser St
20
29th St
Kings Blvd
Circle Blvd
Spruce Ave
William Hill Dr
Garfield Ave
Highland Dr
9th St
Neighborhood Collector
Collector
Grant Ave
Buchanan Ave
Oak Creek Dr
36th St
10th St
Harrison Blvd
Arnold Way
Van Buren Ave
Neighborhood Collector
Monroe Ave
Jefferson Ave
Washington Ave
Collector
30th St
8th St
Reservoir Ave
35th St
Washington Way
18th St
34
53rd St
West Hills Rd
Western Blvd
Collector
Collector
Arterial
Neighborhood Collector
Neighborhood Collector
Local
Research Way
Avery Ave
Technology Ln
35th St
Collector
Crystal Lake Dr
Neighborhood Collector
Country Club Dr
Collector
20
49th St
Birdsong Dr
Whiteside Dr
Neighborhood Collector
Brookdale Dr
Alexander Ave
Thompson St
Plymouth Dr
Park Ave
Goodnight Ave
Midvale Dr
Rivergreen Ave
Kiger Island Dr
Neighborhood Collector
Corliss Ave
Collector
Collector
Neighborhood Collector
Ingall St
Airport Ave
99W
Legend
Existing Functional Classification and Proposed Changes
Existing Streets
Planned Streets (Conceptual Alignments)
Arterial Highway
Arterial
Collector
Neighborhood Collector
Local
Functional Classification Changed
Note: New functional classification identified in callout.
Special Designation
Special Transportation Area
N
0 0.25 0.5 1 Miles
Urban Growth Boundary
Corvallis City Limit
Parks and/or Natural Areas