

CLACKAMAS COUNTY BOARD OF COUNTY COMMISSIONERS

Policy Session Worksheet

Presentation Date: May 1, 2024 **Approx. Start Time:** 10 am **Approx. Length:** 60 min

Presentation Title: Five-Year Transportation Capital Improvement Program,
Fiscal Years: 2023/24 – 2027/28

Department: Transportation and Development (DTD) – Long Range Planning

Presenters: Dan Johnson, Director-DTD; Karen Buehrig, Long Range Planning Manager

WHAT ACTION ARE YOU REQUESTING FROM THE BOARD?

Seeking Board direction on the FY 2023/24-2027/28 5-Year Transportation Capital Improvement Plan.

EXECUTIVE SUMMARY:

The Transportation Capital Improvement Program (CIP) document is the exclusive list of capital transportation projects that:

- Are expected to cost more than \$50,000
- Are scheduled for construction for the next five years
- Have funding secured
- Reflect past Board policy decisions

The CIP is updated biannually to provide detailed information regarding the current capital project priorities. It was last updated and approved by the Board in March 2022. Policy 5.CC.2 of the Transportation System Plan (TSP) directly addresses the need for updating the plan:

Maintain a current and complete 5-Year Capital Improvement Program (CIP), which contains the programmed transportation projects in priority order, with estimated costs and assigned responsibility for funding. Update and adopt the 5-Year Capital Improvement Program periodically.

The CIP supports the county's concurrency policy (ZDO Section 1007.09, 1/18/2017 -- "approval of a development shall be granted only if transportation facilities are adequate or will be made adequate in a timely manner") by requiring that the improvements be fully funded in the five-year program and be scheduled for construction within three years of land use approval.

The document contains the following components:

- A list of all projects that have identified or anticipated funding in the following sources over the next five years for the full project or for preliminary planning and design:
 - 20-Year Capital Improvement Plan,
 - Transportation Safety Action Plan (TSAP),
 - Intelligent Transportation System (ITS) Plan
 - Bridge and culvert review system

- ADA Transition Plan
- Needed emergency repairs identified by Transportation Maintenance
- Road paving projects identified in 5 year Pavement Management Plan
- Maps of the locations of these projects
- The capital project work schedule over the next five fiscal years
- The funding source for each project, which connects transportation planning to the capital construction budget
- A breakdown of funding sources and project category spending
- Details on projects constructed with monies from the Community Road Fund
- A transportation equity index assessment that provides maps and a brief assessment of how the planned improvements are distributed across areas with higher percentages of people that historically have had less of a voice in transportation planning or that currently experience greater barriers in navigating the transportation system

We are also pleased to be able to add new components to the plan this year:

- Details on planning projects, which help identify and develop future capital transportation work
- An interactive online map of the capital projects, which will be made available to the public to allow for greater public transparency and accessibility of our published documents

This CIP includes 86 programmed capital projects over the five-year period with total project costs of more than \$219 million.

- **23%** of the project costs (\$51.5 million) will be paid for by the Road Fund.
- **77%** of the project costs (\$168 million) are planned to be covered through grants, tax-increment financing, Community Road Fund, and other state, federal or regional funding sources.
- This year's CIP projects represent an increased investment compared to the last CIP update (\$122 million), driven by four factors:
 - 1) An increase in Community Road Fund investments as the funding stream, which was initiated in 2020, matures
 - 2) An increase in federal and state grant funding
 - 3) Additional paving projects supported by state HB2017 Road Funds
 - 4) A \$44.9 million roadway widening project in Happy Valley which is funded almost exclusively by the City of Happy Valley

FINANCIAL IMPLICATIONS (current year and ongoing):

Is this item in your current budget? YES NO

What is the cost? **\$219,567,609** What is the funding source? **No General Fund; various other sources, as listed in in below Funding Source Summary Table**

FUNDING SOURCE SUMMARY TABLE

Funding Source	Amount	Pct
Road Fund	\$15,955,782.79	7%
HB2017 Road Fund	\$36,410,708.00	16%
Community Road Fund	\$31,445,702.00	14%
Community Road Fund Strategic Investment Fund	\$4,207,129.00	2%
Transportation System Development Charge	\$18,420,321.00	8%
Tax Increment Financing	\$11,600,000.00	5%
Other local	\$3,703,010.21	2%
Other Local Partnerships	\$43,911,219.00	19%
Local Bridge Program	\$12,468,836.00	6%
STIP - Enhance	\$6,622,563.00	3%
Other state	\$7,421,666.00	3%
Regional Flexible Fund Allocation Grant	\$11,875,605.00	5%
Rural STP	\$5,889,250.00	3%
American Rescue Plan Act Grant	\$9,270,759.00	4%
Other federal	\$8,012,709.00	3%

STRATEGIC PLAN ALIGNMENT:

- How does this item align with your Department’s Strategic Business Plan goals?

The Five-Year CIP supports the goal of providing “design, construction and project management services to users of the transportation system so they can experience well-managed projects and connect with goods, services and people, now and in the future.”

- How does this item align with the County’s Performance Clackamas goals?

The Five-Year CIP directly aligns with the County’s Goal of *Build a Strong Infrastructure* – “By 2026, 100% of County residents and businesses - where served - have access to safe and affordable infrastructure: multimodal transportation including roads, sewer and broadband services”.

LEGAL/POLICY REQUIREMENTS:

Comprehensive Plan Chapter 5: Transportation Systems Plan, includes the policy:

“5.CC.2 Maintain a current and complete 5-Year Capital Improvement Program (CIP), which contains the programmed transportation projects in priority order, with estimated costs and assigned responsibility for funding. Update and adopt the 5-Year Capital Improvement Program periodically.”

PUBLIC/GOVERNMENTAL PARTICIPATION:

All the projects in the CIP have been reviewed and previously approved by the Board through review of grant applications, the Development Agency work program and other project funding requests.

The public has been able to participate in prioritizing projects for the CIP in multiple ways:

- Community involvement while developing plans such as the Transportation System Plan and the Transportation Safety Action Plan, from which CIP projects are chosen
- Directly guiding the selection of Community Road Fund projects through the Community Road Fund Advisory Committee

OPTIONS:

1. Direct staff to submit the 5-Year Transportation Capital Improvement Plan for approval at an upcoming business meeting.
2. Direct staff to update the proposed Five-Year CIP per BCC discussion and bring it back to the BCC for further review.

RECOMMENDATION:

- Option 1. Direct staff to submit the 5-Year Transportation Capital Improvement Plan for approval at an upcoming business meeting

ATTACHMENTS:

- A: Five-Year Transportation Capital Improvement Program, Fiscal Years: 2023/24 – 2027/28
- B: Five-Year Transportation Capital Improvement Program, Fiscal Years: 2023/24 – 2027/28
BCC Policy Session Presentation

SUBMITTED BY:

Division Director/Head Approval _____

Department Director/Head Approval *Dan Johnson*

County Administrator Approval _____

For information on this issue or copies of attachments, please contact karenb@clackamas.us or 971-291-8127



Five-Year
Transportation Capital
Improvement Program (FY
23/24 – FY 27/28)

SE Torbank Road sidewalks project, completed

Board of County Commissioners Policy Session
10 a.m., Wednesday, May 1, 2024

What is the Five-Year CIP?

A list of capital transportation projects scheduled for construction in the next five years that:

- Are expected to cost more than \$50,000
- Have funding secured
- Reflect past Board policy decisions

Included in this list:

- Project timelines
- Funding sources



South End Rd landslide repairs and slope stabilization, completed in 2023

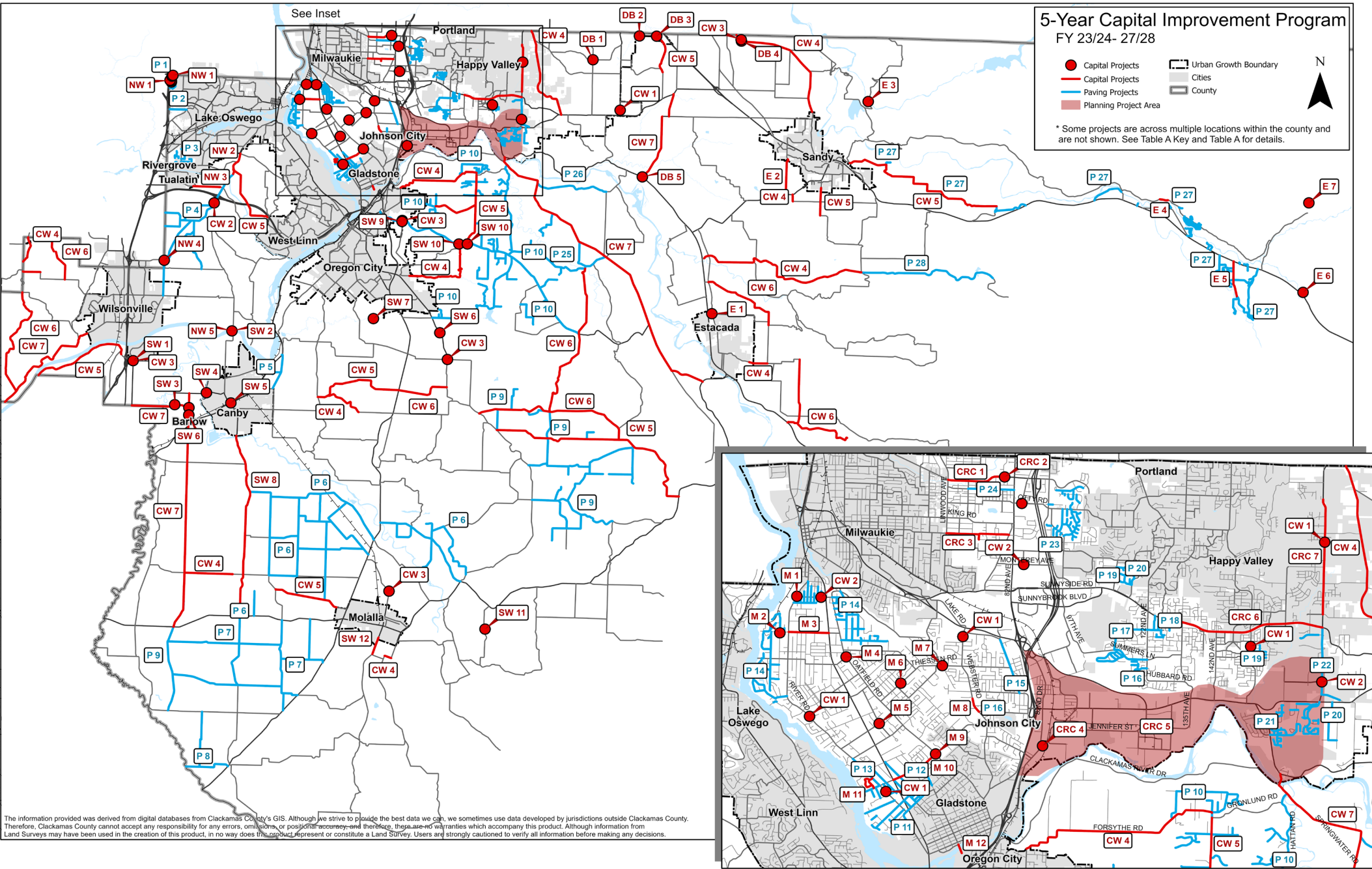
How does a project get on the Five-Year CIP?

Projects identified or anticipated as being fully funded or funded for planning and design in the following county plans:

- Intelligent Transportation System (ITS) Plan
- ADA Transition Plan
- Bridge and culvert review system
- Emergency repairs (Transportation Maintenance)
- 20-Year Capital Improvement Plan
- Transportation Safety Action Plan (TSAP)
- Road paving projects identified in 5 year Pavement Management Plan



FY 23/24 – FY 27/28 CIP Map



5-Year Capital Improvement Program
FY 23/24- 27/28

- Capital Projects
- Capital Projects
- Paving Projects
- Planning Project Area
- Urban Growth Boundary
- Cities
- County

* Some projects are across multiple locations within the county and are not shown. See Table A Key and Table A for details.

The information provided was derived from digital databases from Clackamas County's GIS. Although we strive to provide the best data we can, we sometimes use data developed by jurisdictions outside Clackamas County. Therefore, Clackamas County cannot accept any responsibility for any errors, omissions, or positional inaccuracy, and therefore, there are no warranties which accompany this product. Although information from Land Surveys may have been used in the creation of this product, in no way does this product represent or constitute a Land Survey. Users are strongly cautioned to verify all information before making any decisions.

Projects constructed over the past two years

Projects completed since the last update (2022) include:

- ✓ Regional freight intelligent transportation systems (ITS) project: upgrades to signals, vehicle detection, and CCTV from Clackamas Industrial Area to Wilsonville
- ✓ CRC mobility project: package of multimodal projects to meet transportation needs in the Clackamas Regional Center
- ✓ Lolo Pass Rd paving
- ✓ Bear Creek Bridge replacement
- ✓ SE Sunnyside Rd paving and ADA ramp retrofitting
- ✓ South End Rd slope stabilization
- ✓ Canby-Marquam Hwy/Lone Elder Rd intersection upgrade



What will we build in the next five years?

Planned projects include:

- **Upgrades:** e.g., improve Monroe St, widen SE 172nd Ave
- **Bridge/Culvert:** e.g., replace Abernethy Creek (Holly Lane) bridge
- **Intelligent Transportation Systems:** e.g., adaptive traffic signal control on SE Sunnyside Rd
- **Safety:** e.g., countywide warning signage installation on rural roads
- **Active Transportation:** e.g., Jennings Ave sidewalks, bike lanes, and crosswalks
- **Paving and Road Surface Repair:** e.g., 38 miles of asphalt sealant in Macksburg/Union Mills area
- **Congestion Relief:** Stafford/Childs and Stafford/65th roundabouts



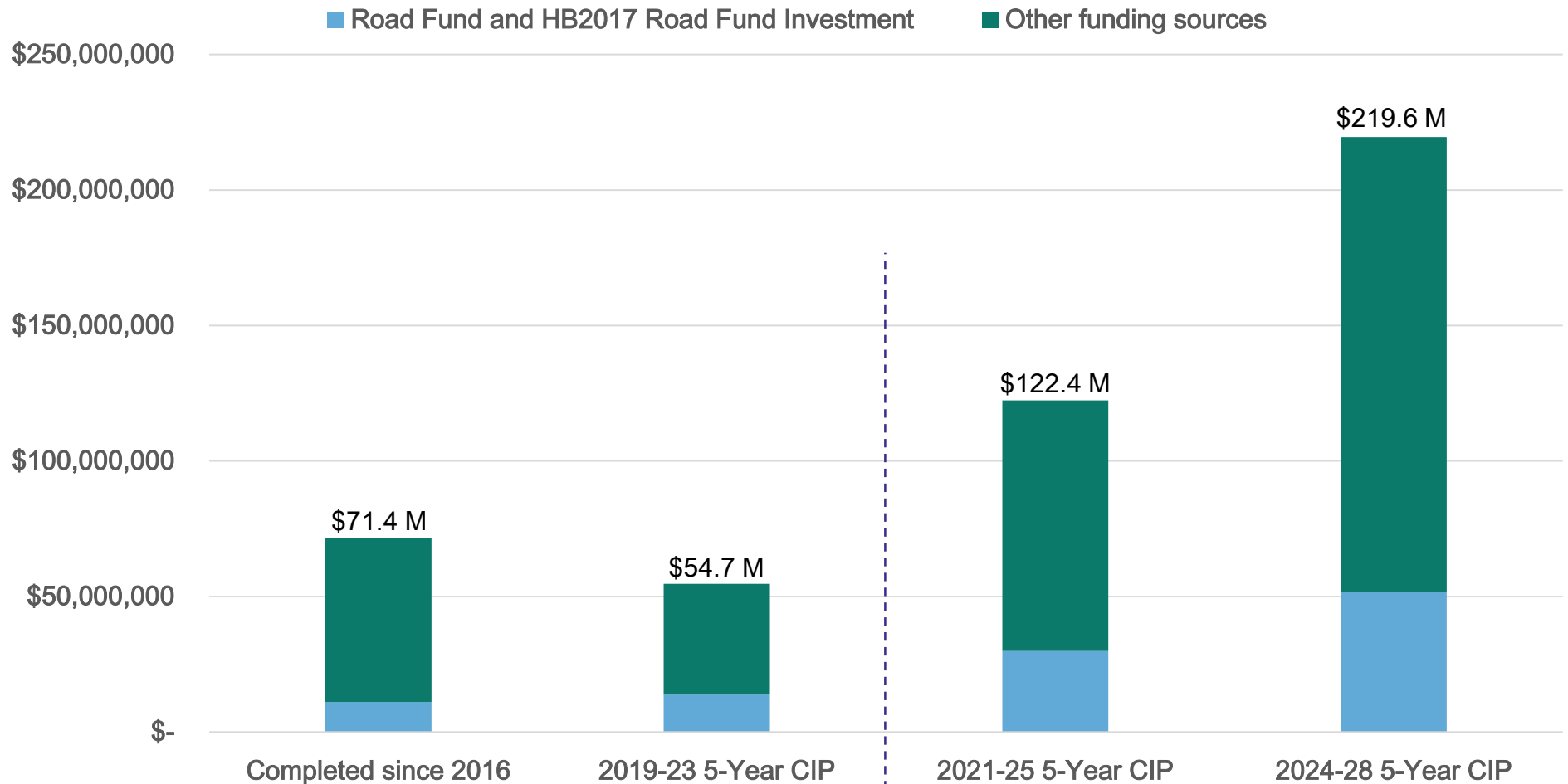
Impact of Community Road Fund (CRF)

17 projects funded through CRF:

- **Safety (6):** including Oatfield Rd/Jennings Ave signal replacement and Bluff/327th intersection improvements
- **Congestion Relief (5):** including Stafford/Childs roundabout, Stafford/65th/Ellingsen roundabout, Amsigger/OR224 intersection improvements, Welches Road improvements
- **Paving (2):** Royal View and Mt Talbert areas
- **Strategic Investment* (4):** including 362nd Ave safety improvements and Duus/Eagle Creek Rd intersection relocation



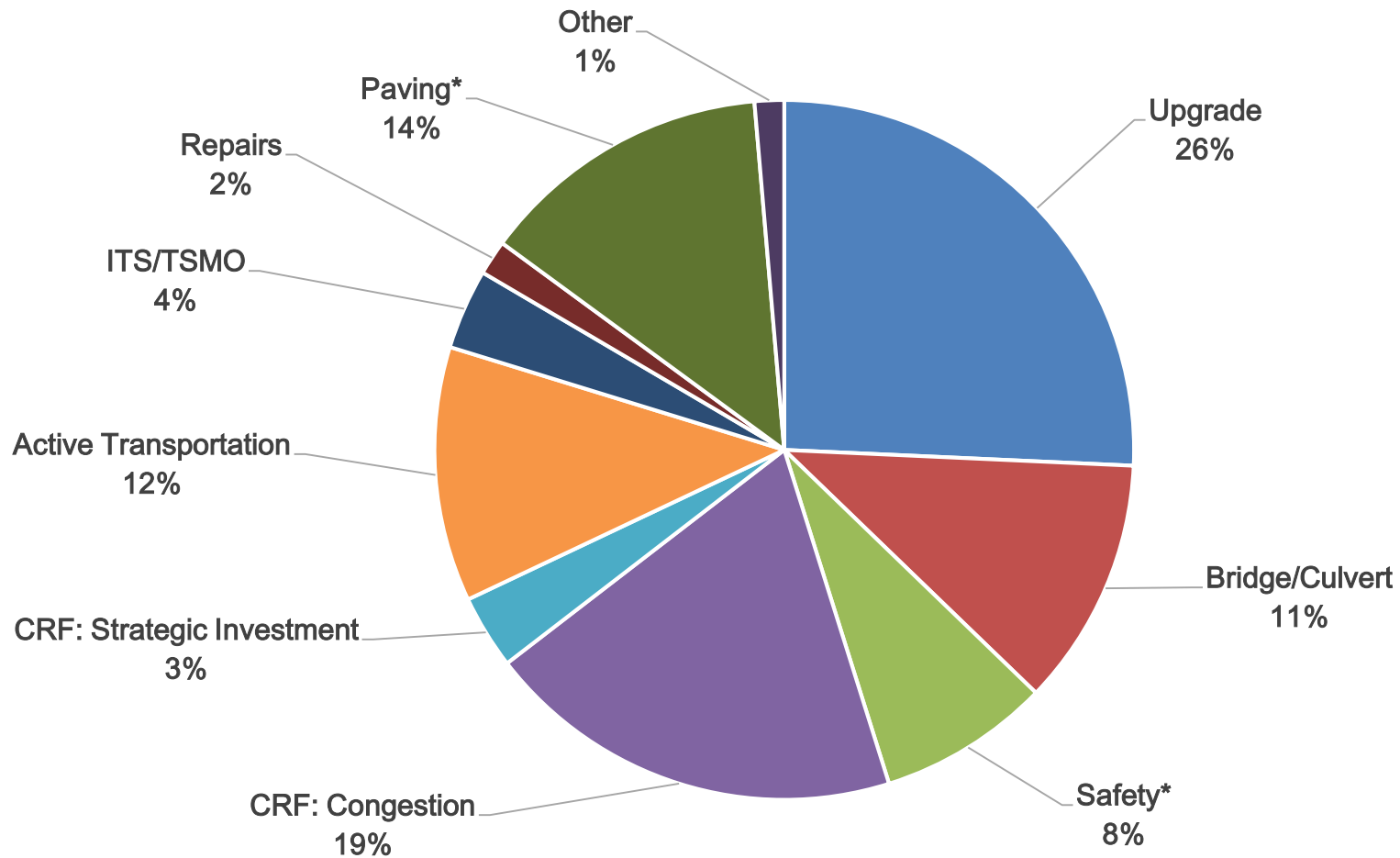
Increased investment in roadway system



Community Road Fund began revenue collection in January 2020, Road Fund investment begins increasing in following fiscal years

FY 23/24 – FY 27/28 funding summary

Capital project spending by category

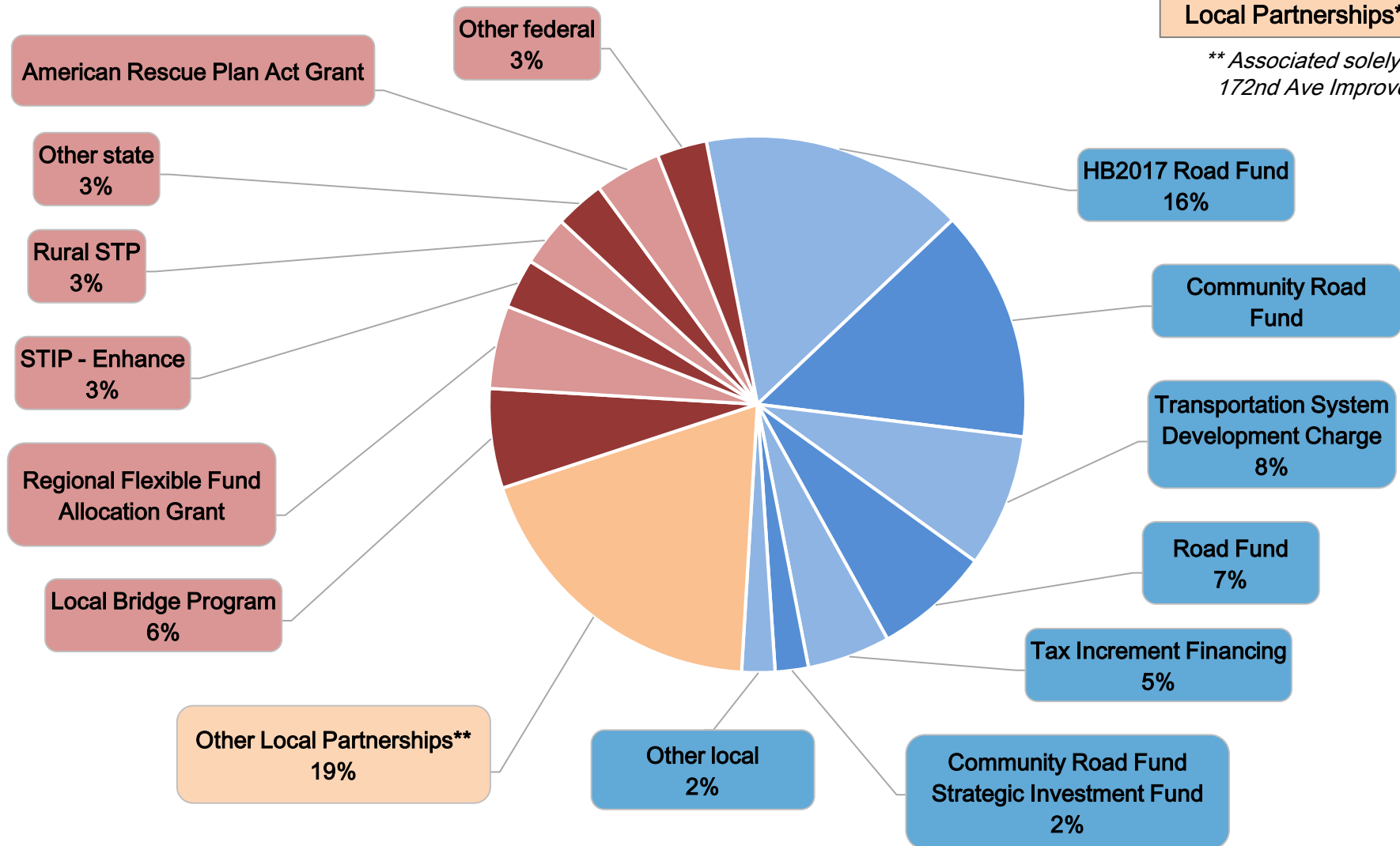


* Inclusive of Community Road Fund investment for this category

FY 23/24 – FY 27/28 funding summary

Local	60%
State & Federal	21%
Local Partnerships**	19%

** Associated solely with SE 172nd Ave Improvements



Transportation Equity Index assessment

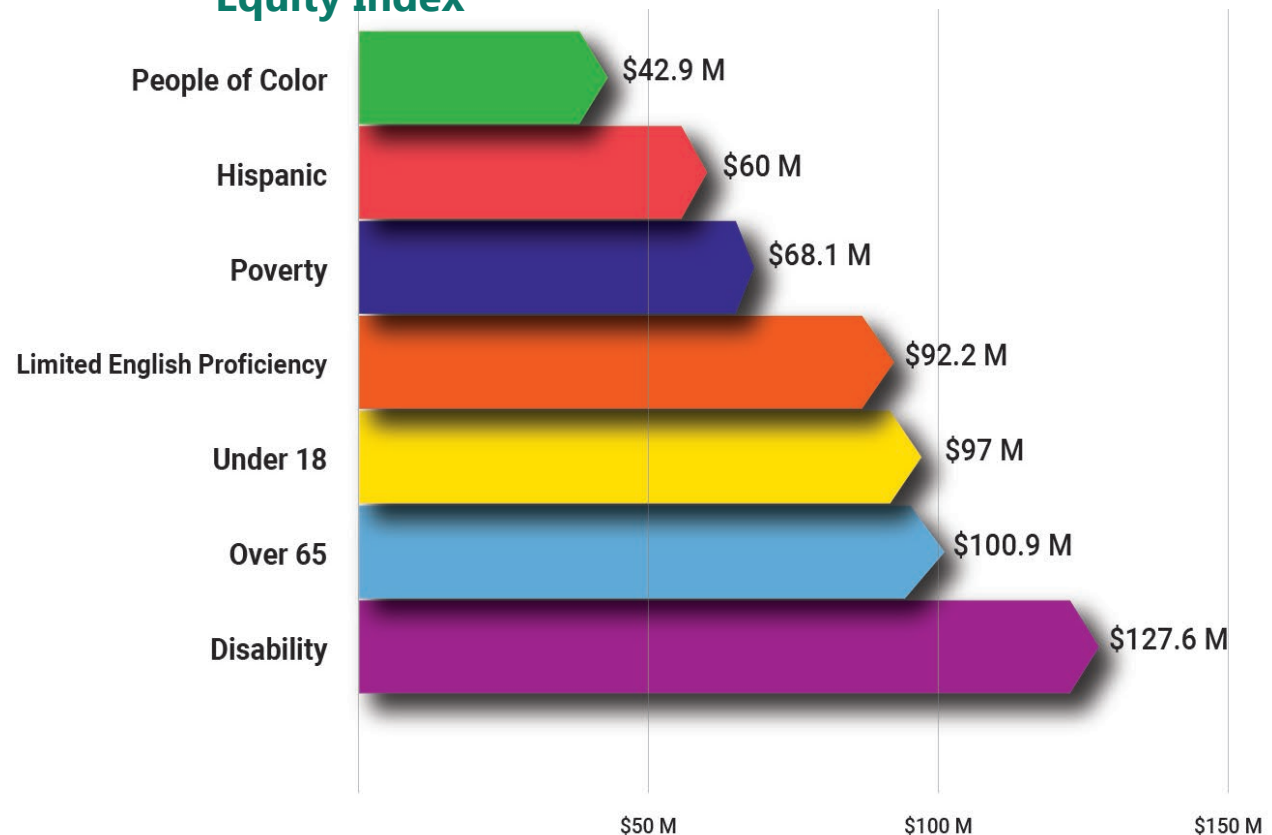
“How do we make sure that we there are transportation options for all of the residents of Clackamas County?”

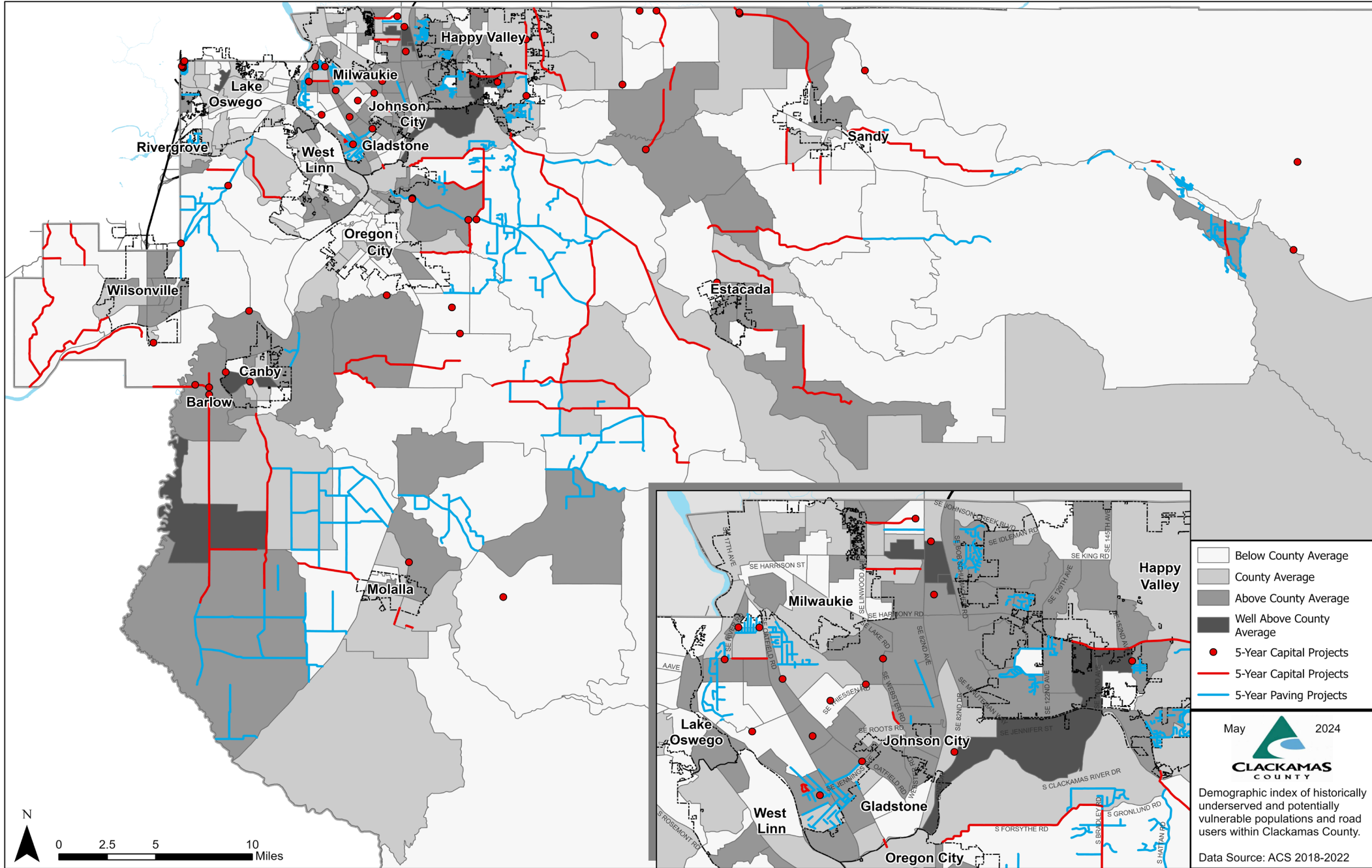
Transportation Equity Index: A number that quantitatively conceptualizes demographic characteristics and allows us to view the information in map form

Focus: Groups that have been historically and/or currently underserved, marginalized or negatively impacted by the transportation system

Results: Information on how our planned improvements impact areas with higher numbers of these groups

FY 23/24 – FY 27/28 Amounts of CIP funding spent in areas with concentrations of demographics included in the Transportation Equity Index





Notable differences from previous CIP (FY 21/22 – FY 24/25)

Main drivers of increased investment in this year's CIP update:

Increase in Community Road Fund investments

More paving projects appearing on this CIP update, with large portions supported by HB2017 Road Funds

Increase in investments supported by federal and state grants

\$44.9m allocated to SE 172nd Ave Improvements, of which \$43.7m is covered by City of Happy Valley funds

Major drivers of changes in Transportation Equity Index investment proportions:

Some projects that were in progress during the last CIP have been completed

County demographics have changed slightly since the last CIP update

Changes to census block groups in 2020 have affected the Transportation Equity Index

Next steps

OPTIONS:

1. Direct staff to submit the 5-Year Transportation Capital Improvement Plan for approval at an upcoming business meeting.
2. Direct staff to update the proposed Five-Year CIP per BCC discussion and bring it back to the BCC for further review.

RECOMMENDATION:

1. Direct staff to submit the 5-Year Transportation Capital Improvement Plan for approval at an upcoming business meeting.



Five-Year Transportation Capital Improvement Program



FISCAL YEARS: 2023/24 – 2027/28



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Cover image:

SE Torbank Rd paving, stormwater, and sidewalk project (completed 2019). New sidewalks help to serve students at Oak Grove Elementary. Project funded via Clackamas County Road Fund and FILO (see pages 21-22).

TRANSPORTATION SYSTEM PLANNING AND PROJECT PROGRAMMING

Introduction

Clackamas County is responsible for an extensive transportation network that is part of a larger regional transportation system serving the needs of residents, businesses and travelers in the county. The vast majority of the county road system (96%) is located outside of cities. Approximately 56 miles of county-maintained roads are inside cities, with the largest portion in Happy Valley.

The public ownership of all roads in Clackamas County is as follows:¹

- City – 879 miles
- County – 1,413 miles
- State – 268 miles
- Federal – 548 miles

There are also many miles of local access roads, private roads and forest service roads maintained largely by property owners and the National Forest Service.

The entire county-maintained transportation network encompasses the structures listed below, as well as a substantial system of sidewalks and bike lanes.

- 1,413 miles of road
- 802 miles of striped roads
- 2,355 miles of gravel shoulder
- 77,909 traffic signs
- 117,118 feet of guardrail
- 186 bridges
- 8,461 culverts
- 2,171 manholes
- 10,245 catch basins
- 1 ferry
- 174 traffic signals
- 88 school zone flashers
- 120 traffic cameras
- 49 miles of fiber optic cable

20-Year CIP / Transportation System Plan (TSP)

The major capital improvements needed for the transportation system are identified in the Clackamas County Transportation System Plan (TSP), which is [Chapter 5](#) of the County Comprehensive Plan (<https://www.clackamas.us/planning/comprehensive.html>). The TSP is updated about every 10 years and is due for an update in 2024-2026.

As defined by the TSP, transportation capital projects are primarily located on arterial and collector roads. Similarly, federal transportation funding is only available for capital improvement projects on roads classified as arterials and collectors, with an emphasis on maintaining the operations of the principal arterial system.

The TSP includes the 20-Year Capital Improvement Plan (20-Year CIP). This Board-adopted plan is divided into three lists, described below, based on funding possibilities. Criteria for assigning projects to the lists and other TSP background information is at <https://www.clackamas.us/transportation/tsp.html>.

- **20-Year Capital Projects:** The prioritized list of transportation projects and investments that can reasonably be undertaken given the estimates of available funding.

¹ Source: Oregon Department of Transportation Policy & Analysis Division - “2022 Oregon Mileage Report”

TABLE A: 5-YEAR CAPITAL IMPROVEMENT PROGRAM PROJECT LIST – FY 23/24 – FY 27/28

- **Preferred Capital Projects:** A second group of prioritized transportation projects that the county would undertake if additional funding becomes available during the next 20 years. (Additional funding would include grants that are more suitable for specific projects in the Preferred Capital list than in the 20-Year Capital list.)
- **Long-Term Capital Projects:** The remainder of the projects would help meet the county's transportation needs over the next 20 years if funds were available, but not expected to be funded or constructed by the county without acquiring suitable grant funding

5-Year Capital Improvement Program (5-Year CIP)

The 5-Year CIP is the list of capital projects that are scheduled for construction for the next five years. It reflects the Board of Commissioners' past policy decisions on which capital transportation projects will be constructed. As such, it is the exclusive list of such projects, with costs reasonably expected to exceed \$50,000, that will be pursued, and the mechanism for funding and building transportation capital projects. In the context of this document, capital projects in this list include:

- All projects that have identified or anticipated funding from the following sources over the next five years for the full project or only for preliminary planning and design:
 - 20-Year CIP / Transportation System Plan (TSP)
 - Transportation Safety Action Plan (TSAP)
 - Intelligent Transportation System (ITS) Plan
 - Bridge and culvert review system
 - ADA Transition Plan
- Road paving projects that have been identified through the 5-year Pavement Management Plan (PMP)
- Other projects that emerged through the Transportation Maintenance Work Program or have been identified by Transportation Maintenance as needed emergency repairs
- The capital project work schedule
- The funding source for each project to connect transportation planning to the county's capital construction budget

The Board of Commissioners adopts the 5-Year CIP with the understanding that funds are limited. The 5-Year CIP is the Board's expression of policies, directives, and goals adopted through the transportation system planning process as recommended by county staff. County staff consider, evaluate, and prioritize all known capital transportation projects within county roadways and intersections. Professional expertise and discretion is used to find outside funding (see *Funding Sources and Future Projects*, page 21) for the projects, and to use limited Road Funds to maximize public dollars and work towards a safer, more efficient transportation system. Not all known deficiencies can be mitigated due to funding shortages.

The 5-Year CIP is updated periodically to provide a more detailed implementation of the capital project priorities. Policy 5.CC.2 of the TSP directly addresses the need for the updated plan: *"Maintain a current and complete 5-Year Capital Improvement Program (CIP), which contains the programmed transportation projects in priority order, with estimated costs and assigned responsibility for funding. Update and adopt the 5-Year Capital Improvement Program periodically."*

Finally, the 5-Year CIP supports the county's concurrency policy (ZDO Section 1007.09, 1/18/2017), which states that "approval of a development shall be granted only if transportation facilities are adequate or will be made adequate in a timely manner," requiring that the improvements be fully funded in the five-year program and scheduled for construction within three years of land use approval.

Capital Project Categories

The broadly defined capital project descriptions used in the TSP, the 20-Year CIP and the 5-Year CIP allow for the development of individual projects within a larger project. These categories are as follows:

1. **Upgrade** – Projects that add vehicle capacity to an existing roadway or intersection. This may require reconstructing existing sidewalks and/or bicycle lanes, adding intersection turn lanes or installing traffic signals. In the 20-Year CIP, the upgrade projects are separated into urban and rural, depending on whether they are located inside or outside the Portland Metropolitan Urban Growth Boundary (UGB). Some projects are designated as "new roadways" if an extension or new road is needed to increase capacity or add connectivity.
2. **Bridge/Culvert** – Constructing, replacing or upgrading a bridge or culvert.
3. **Safety** – Projects or studies focused on reducing crashes and/or the risk for crashes, including at railroad crossings. The Transportation Safety Action Plan (TSAP) outlines a strategy to build and implement a county-wide safety culture with the ultimate goal of reducing transportation-related injuries and fatalities. The TSAP was updated and adopted in March 2019. TSAP policy and action items will achieve the desired goals when implemented; however, successful implementation depends upon a number of factors, including strong safety leadership at all levels, cohesive safety partnerships, funding and working together toward a common goal. Success will result in reduced injuries and fatalities on county roadways.

Appendix C is a list of projects that support the TSAP. In order to make the needed investments, these projects will have to be matched to a funding source so that they can be programmed into the 5-Year CIP.

4. **Community Road Fund: Safety** – Similar to safety projects, but with funding coming specifically from the Community Road Fund (CRF), which is identified under Local Funding Sources. For more information on the Community Road Fund, see page 22.
5. **Community Road Fund: Congestion Relief** – Projects that specifically address congestion issues along county roadways, financed through the CRF.
6. **Community Road Fund: Strategic Investment** – Projects that support shared county and city initiatives using funding through the CRF.
7. **Active Transportation** – Projects intended to improve mobility and safety for pedestrians and bicyclists. Inside the UGB, projects add needed sidewalks, bicycle lanes or multi-use paths; projects outside the UGB include adding paved shoulders or multi-use paths. There are also more general projects that add needed facilities such as way-finding signage.
8. **Intelligent Transportation Systems (ITS) / Transportation Systems Management & Operations (TSMO)** – Projects that incorporate treatments such as coordinated signal systems. The Clackamas County ITS Action Plan includes a range of projects that address the needs of the region, grouped into the following categories:
 - Traffic Management and Operations (TMO)

TABLE A: 5-YEAR CAPITAL IMPROVEMENT PROGRAM PROJECT LIST – FY 23/24 – FY 27/28

- Multimodal Operations (MMO)
 - Traveler Information (TI)
 - Data Collection and Management (DCM)
 - Incident and Emergency Management (IM)
 - Maintenance and Construction Management (MCM)
9. **Repairs** – Capital repairs of major damage caused by storms, flooding, landslides or other natural events that damage portions of the transportation system.
 10. **Paving** – Specifically identified paving projects that improve road surfaces.
 11. **Community Road Fund: Paving** – Specifically identified paving projects that improve road surfaces financed through the CRF.
 12. **Other** – Capital projects that do not fall into the above categories.
 13. **Planning** – Non-capital projects that identify, prioritize, and plan future capital projects (see below).

Planning Projects

In addition to delivering capital projects, Clackamas County is responsible for developing plans that help to identify and prioritize future capital transportation work. These plans may be targeted on specific areas of the county (such as a sub-area transportation plan) or applicable countywide (such as a pedestrian safety planning effort). This edition of the Capital Improvement Program document includes planning projects for the first time.

These plans rely on robust public engagement to help identify concerns, priorities, and potential solutions for affected communities.

Planning projects also focus on equity to understand how the current transportation infrastructure meet the needs of traditionally underserved communities (i.e. low-income communities, nonwhite communities, communities with high rates of limited English proficiency). Clackamas County's plans consider equity to inform the locations selected for new capital infrastructure.

Lastly, planning projects often have a significant public health tie-in to help identify areas where transportation infrastructure affects community health and how new projects can lead to positive health outcomes.

The plan that will have the most influence on projects included in the future Capital Improvement Program is the 2024-2025 update to the Transportation System Plan (see Transportation System Plan section above). The planning projects which will be completed during the FY 2023-2028 window are included in this document under Table B.

FY 23/24 – FY 27/28 CIP Summary

During the next five years, Clackamas County will invest a total of \$219,567,609 across 86 capital projects. Additionally, \$7,647,651 will be spent on planning projects. As described previously, there are 12 different capital project categories with funding from an assortment of sources. The Road Fund and HB2017 Road Funds support approximately 23% of the project costs. The remainder comes from the Community Road Fund, Transportation System Development Charges (TSDC), federal grants, and other sources described

in *Funding Sources and Future Projects*. Figures 1 and 2 show the spending breakdown by project type. Figure 3 shows a summary of the funding sources.

Figure 1: Capital and Planning Project Spending, FY 23/24 – FY 27/28

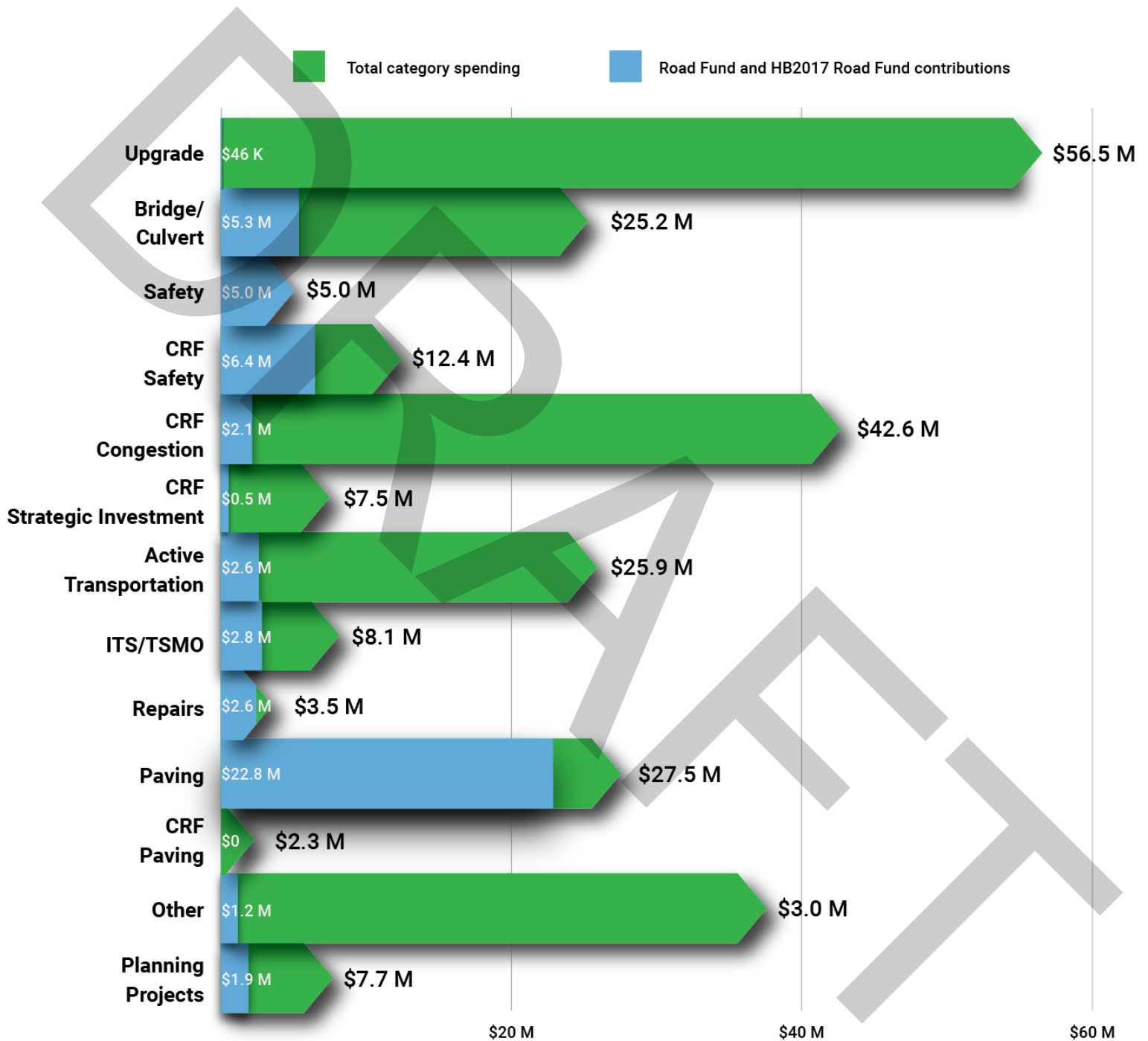
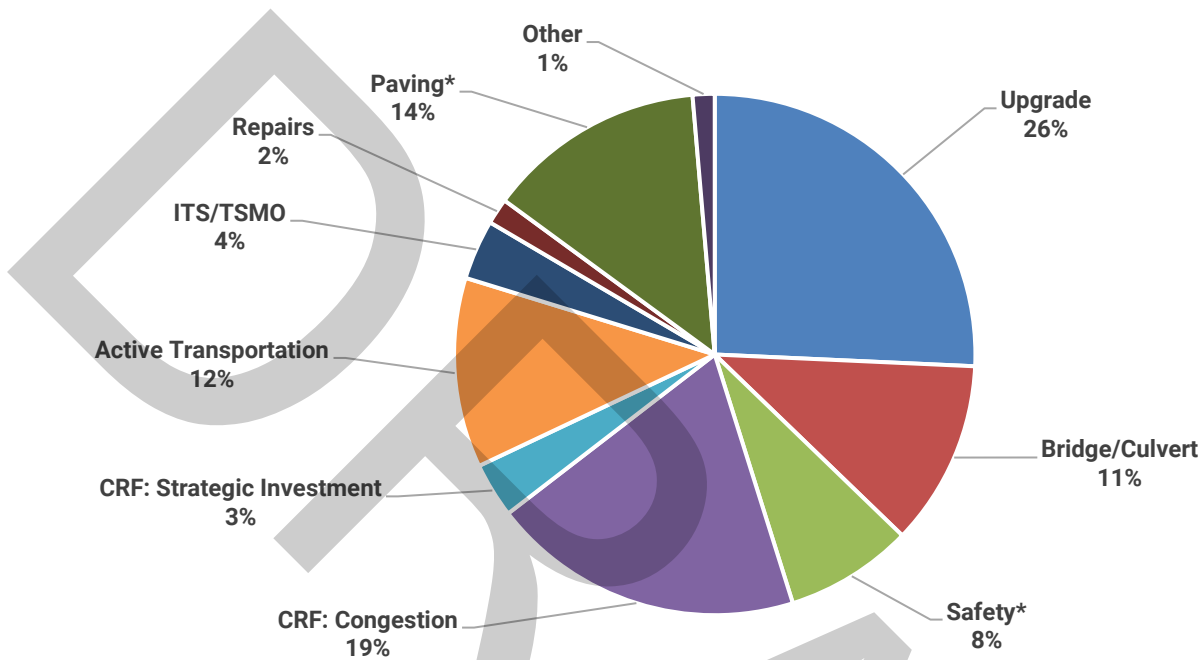


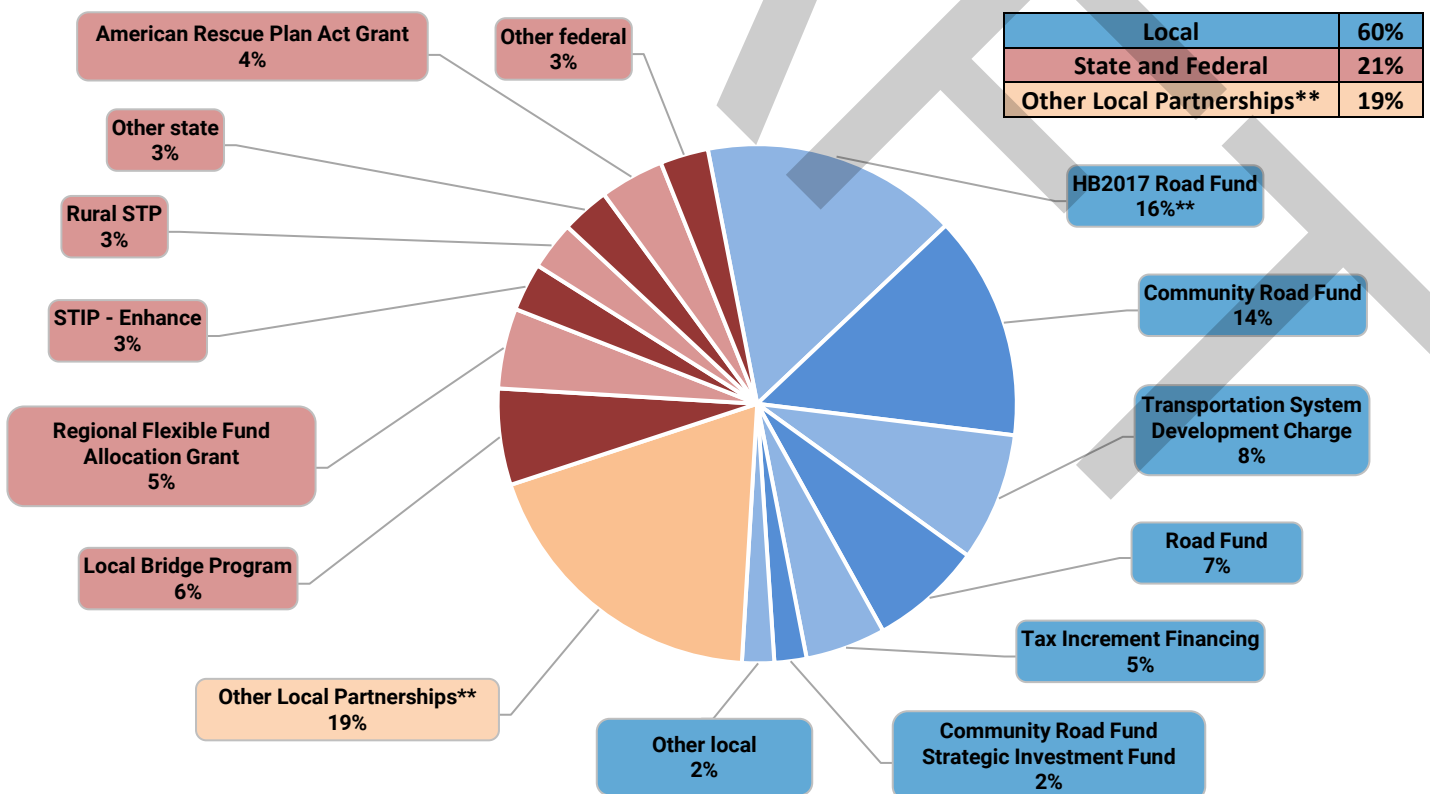
TABLE A: 5-YEAR CAPITAL IMPROVEMENT PROGRAM PROJECT LIST – FY 23/24 – FY 27/28

Figure 2: Capital Project Spending, FY 23/24 – FY 27/28



* Inclusive of Community Road Fund investment for this category

Figure 3: CIP Funding Source, FY 23/24 – FY 27/28



** Associated solely with SE 172nd Ave Improvements (Project CRC 7)

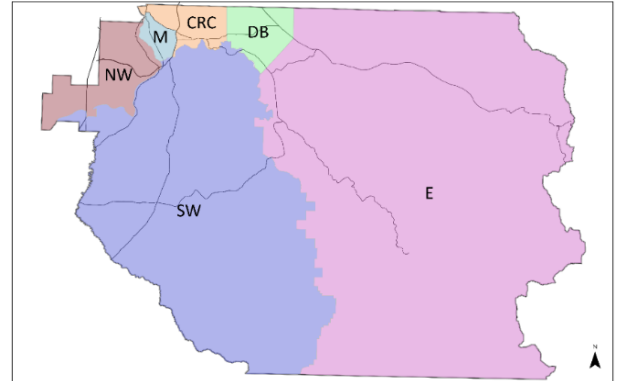
Using CIP Tables and Maps

Projects included in Tables A and B are mapped on Figure 4. The tables include the following information:

Map ID

Map ID is a spatial identifier that categorizes the area of the project. The location codes are:

- **NW:** Northwest county
- **SW:** Southwest county
- **M:** McLoughlin Blvd area
- **CRC:** Clackamas Regional Center area
- **DB:** Damascus/Boring area
- **E:** East county



The following projects are not mapped, and are marked with **NM** (Not mapped) as their Map ID:

1. Projects that are spread across 20 or more locations countywide

These projects tend to be Safety projects or Intelligent Transportation Systems and Transportation Systems Management & Operations (ITS/TSMO) projects. Typically, these kinds of projects will focus on small upgrades performed on many locations. These projects are not included on the Figure 4 map due to practical constraints.

2. Planning projects that are not tied to a specific geographic area.

Planning projects may have a county-wide focus (such as the Walk Bike Clackamas Plan) or a non-spatial focus (such as the ODOT DUI Grant Planning Project).

Paving projects are included in the mapping but are given different symbology on the map to help differentiate this work and have a **P** as their Map ID prefix. The selection of paving projects is determined by constant re-evaluation of road condition, and road segments identified for resurfacing are added to the 5-Year Pavement Management Plan. Paving projects that are referenced in this plan are denoted as **PMP** in the TSP ID column (see below). More information on the PMP and how the county prioritizes paving projects can be found at <https://www.clackamas.us/transportation/5-year-resurfacing>.

TSP ID

If a project was identified in the Transportation System Plan or Transportation Safety Action Plan (see Appendices C and D), the **TSP ID** shows that project identifier. If the project was identified in the Pavement Management Plan, it will be denoted as **PMP**. These help to demonstrate the basis for project selection. Some projects are not referenced in the TSP or PMP and are denoted with an **NA**. These projects are usually identified through structural need or extraordinary circumstances. For example, Repairs projects that focus on restoring a road after a landslide or Bridge/Culvert projects that focus on restoring a failed culvert are not identified in a long-range plan.

Prospectus

Prospectus # refers to the internal county project identifier for capital projects.

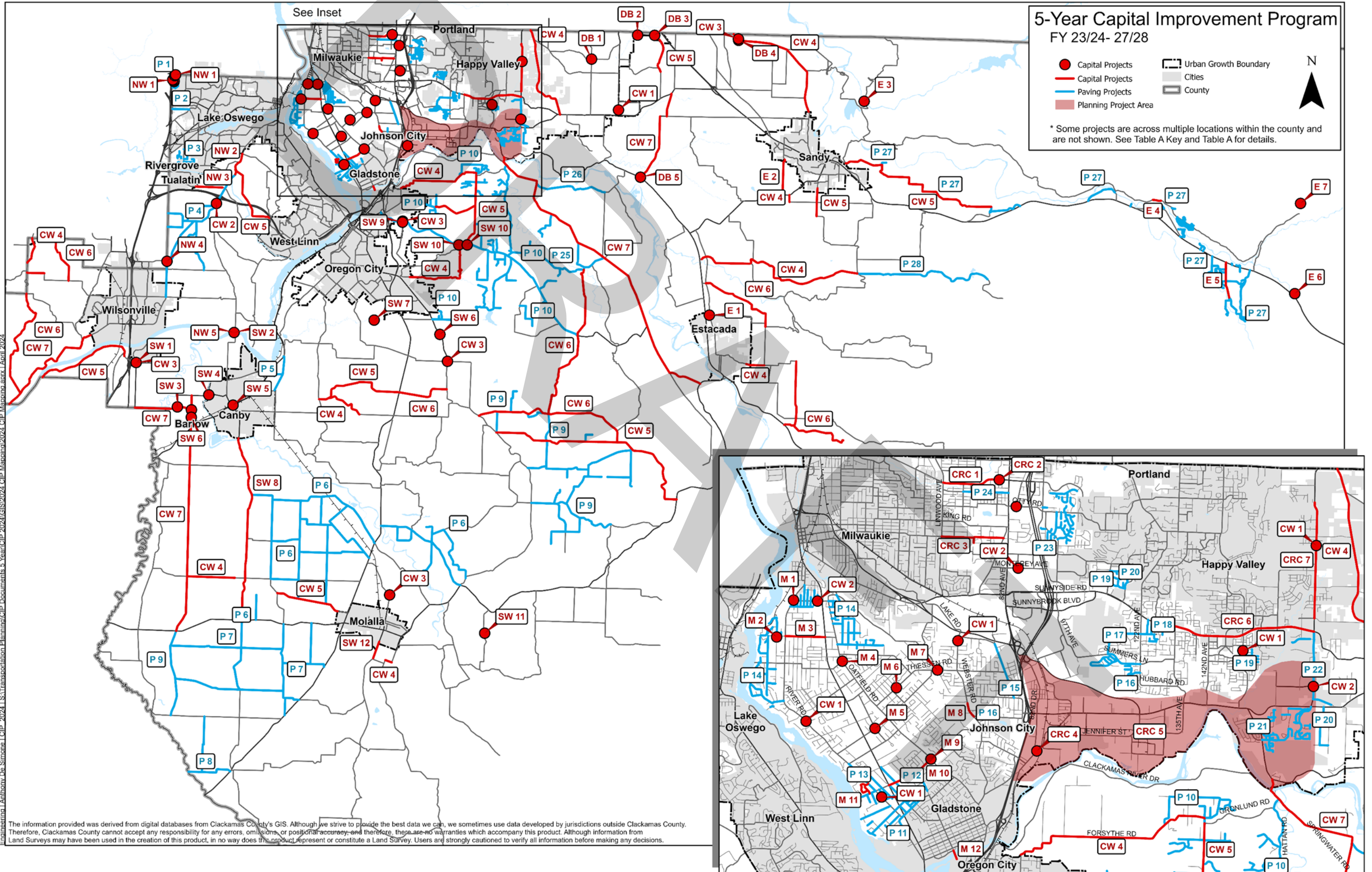
FY

FY columns show the fiscal years (July 1 – June 30) during which the project will be active.

Online Map Companion

In addition to the map shown in Figure 4, an interactive online map of projects can be found at <https://www.clackamas.us/engineering/cip.html>.

FIGURE 4: 5-YEAR CAPITAL IMPROVEMENT PROGRAM PROJECT MAP – FY 23/24 – FY 27/28



The information provided was derived from digital databases from Clackamas County's GIS. Although we strive to provide the best data we can, we sometimes use data developed by jurisdictions outside Clackamas County. Therefore, Clackamas County cannot accept any responsibility for any errors, omissions, or positional accuracy, and therefore, there are no warranties which accompany this product. Although information from Land Surveys may have been used in the creation of this product, in no way does this product represent or constitute a Land Survey. Users are strongly cautioned to verify all information before making any decisions.

TABLE A: 5-YEAR CAPITAL IMPROVEMENT PROGRAM PROJECT LIST – FY 23/24 – FY 27/28

Map ID	Project Category	TSP ID	Prospectus #	Project Name	Project Extent	Description	Funding Source	Cost Estimate (2024 \$)	Anticipated Road Fund Match	FY-23/24	FY-24/25	FY-25/26	FY-26/27	FY-27/28
NW 1	Active Transportation	NA	300323327	ADA: Southwood Park Area	Various intersections in the Southwood Park area	Construct or reconstruct 17 ADA ramps in the Southwood Park area.	HB2017 Road Fund	\$269,206	\$269,206	X				
NW 2	Community Road Fund: Congestion	1088 1089 1090	300320350	Stafford Rd and Childs Rd Roundabout and Improvements	SW Stafford Rd from SW Pattulo Wy to Rosemont Rd	Add traffic signal or roundabout at intersection of SW Stafford Rd and SW Childs Rd, add turn lanes, realign intersection, add bicycle lanes	Community Road Fund (CRF); Transportation System Development Charge (TSDC)	\$17,269,197	\$2,144,214	X	X	X	X	
NW 3	Community Road Fund: Strategic Investment	1081	300323309	Borland - Bike/Ped to Rolling Hills	SW Borland Rd from 500 feet west of SW Prosperity Park Road to SW 35th Ave	Construct sidewalks and multi-use path	CRF Strategic Investment Fund; Transportation System Development Charge (TSDC)	\$2,056,318	\$0	X	X	X	X	
NW 4	Community Road Fund: Congestion	1079	300324301	Stafford Rd-65th Ave-Elligsen Rd Roundabout	SW Stafford Rd-SW 65th Ave-SW Elligsen Rd Intersection	Construct a roundabout at the intersection of Stafford Rd/65th Ave/Elligsen Rd. Travel lanes will be widened to consistent 12-ft width and 6-ft wide bike lanes will be added along the intersection approaches	Community Road Fund (CRF); Transportation System Development Charge (TSDC); City of Wilsonville; Washington County	\$13,592,593	\$0	X	X	X	X	X
NW 5	ITS/TSMO	1000	300316307	Canby Ferry ITS Project	SW Advance Rd to Canby Ferry	Extend fiber optic cable from the existing county fiber from SW Advance Road to Ferry signals, add up to two pan-tilt-zoom CCTV cameras to view the ferry and have images posted on the County's Travel Information website; upgrade ferry notification signs to display green "OPEN" and red "CLOSED"	FHWA Ferry Boat Discretionary Program; Road Fund	\$1,012,246	\$250,175	X				
SW 1	Safety	1093 3100	300323301	Airport Rd @ Miley Rd: Traffic Safety and Capacity Improvements	Intersection of Airport Rd NE and NE Miley Rd	Traffic control evaluation and interim improvements to benefit safety and capacity	HB2017 Road Fund	\$426,664	\$426,664		X	X		
SW 2	Other	NA	300324340	Canby (M.J. Lee) Ferry Ramp Improvements	Canby Ferry	Improve north ramp landing of Canby Ferry and evaluate need for south ramp landing stability improvements	FHWA Ferry Boat Discretionary Program; Road Fund	\$550,000	\$110,000		X	X	X	
SW 3	Safety	1001	300323326	Knights Bridge & Arndt Safety Improvement Project	Intersection of S Knights Bridge Rd & S Arndt Rd	Intersection safety improvements including queue warning system, additional signal heads, and improved signal visibility	HB2017 Road Fund	\$325,000	\$325,000	X	X			
SW 4	Bridge/Culvert	3125	300321303	Molalla River (Knights Bridge Rd) Bridge Rehab	Knights Bridge	Bridge rehab	Local Bridge Program (LBP); Road Fund	\$4,540,663	\$504,204	X	X	X		
SW 5	Active Transportation	NA	300317309	S Ivy St Pedestrian Intersection Improvements	S Ivy St from OR99E to Philander Lee Elemenrary School	Construct bike lanes and sidewalks. Construction traffic signal at intersection of Township Rd	STIP - Enhance; Road Fund; City of Canby	\$6,950,173	\$327,610	X	X	X		
SW 6	Community Road Fund: Safety	1001	300324344	Radar Sign Project: Beaver Creek & Barlow	S Beaver Creek Road near Oregon City and S Barlow Rd near Canby	Install radar speed feedback signs on Beaver Creek Road and Barlow Road near the Oregon City and Canby areas	Community Road Fund (CRF)	\$373,000	\$0	X	X			
SW 7	Bridge/Culvert	NA	300322303	Beaver Creek Culvert Replacement at Warnock Rd	S Warnock Rd at Beaver Creek	Replace failed culvert under Warnock Rd	Road Fund	\$1,489,531	\$1,489,531	X	X	X		
SW 8	Safety	1099	300323325	Canby-Marquam Hwy MP 5.05 - MP 5.35 Safety Improvements	Canby-Marquam Hwy MP 5.05 - MP 5.35	Design and construct various safety improvements on Canby-Marquam Hwy including high friction surface treatment, updated ball-banking to verify safe curve speeds, two radar-activated perimeter LED curve warning signs, and other warning sign enhancements, such as larger chevrons and reflective post strips	HB2017 Road Fund	\$460,000	\$460,000	X	X	X		
SW 9	Bridge/Culvert	NA	GR002	Abernethy Creek (Holly Ln) Bridge Replacement	S Holly Ln at Abernethy Creek	Complete preliminary and final design, environmental permitting, right of way acquisition, and construction for Abernethy Creek (Holly Lane) Bridge	Local Bridge Program (LBP); Road Fund	\$9,397,500	\$965,123		X	X	X	X
SW 10	Community Road Fund: Congestion	1121 2041	300320344	Redland Rd Turn Lanes at Ferguson and Bradley	S Redland Rd at S Ferguson Rd and S Bradley Rd	Add left-turn lanes along Redland Rd at Ferguson Rd and Bradley Rd intersections	Community Road Fund (CRF); Rural STP; Clackamas River Water	\$2,994,409	\$0	X				

FIGURE 4: 5-YEAR CAPITAL IMPROVEMENT PROGRAM PROJECT MAP – FY 23/24 – FY 27/28

SW 11	Bridge/Culvert	NA	300319317	Woodcock Ck (Grimm Rd) Bridge Protection	S Grimm Rd at Woodcock Creek	Repair or replace Grimm Road Bridge over Woodcock Creek which has experienced significant scour	Oregon Watershed Enhancement Board (OWEB) Restoration Grant; Road Fund	\$1,667,895	\$1,338,346	X	X	X		
SW 12	Community Road Fund: Strategic Investment	1115	300324329	Bear Creek Bridge & Molalla Ave Shoulders	Molalla Ave from Sawtell to Molalla City Limits and Bear Creek Bridge	Bear Creek Bridge replacement and Molalla Ave shoulders (gravel)	CRF Strategic Investment Fund; Transportation System Development Charge (TSDC)	\$1,648,000	\$0	X	X	X	X	
M 1	Active Transportation	1073	300324900	SE Park Avenue Pedestrian & ADA Crossing Improvements	Intersection of SE Park Ave and SE River Rd	Upgrade pedestrian crossing including ADA ramp improvements	Community Development Block Program (CDBG) Grant; HB2017 Road Fund	\$194,488	\$49,488	X				
M 2	Other	NA	300323322	Laurie Avenue Stormwater Improvements Project	Area immediately south of the intersection of SE Laurie Ave and SE Courtney Ave	Install a new stormwater mainline and catchbasins on SE Laurie Avenue to reduce the frequency of flooding	Road Fund	\$800,185	\$800,185	X	X			
M 3	Active Transportation	1063 1064	300320357	Courtney Ave Complete Street	SE River Rd to OR 99E	Construct separated sidewalks, buffered bike lanes, rain gardens, lighting, ADA compliant curb ramps, and crosswalk enhancements	Regional Flexible Fund Allocation (RFFA) Grant; Road Fund; Transportation System Development Charge (TSDC)	\$6,536,335	\$20,371	X	X	X	X	
M 4	ITS/TSMO	1069	S2601	Oatfield & Oak Grove Traffic Signal Replacement	Intersection of SE Oatfield Rd and SE Oak Grove Blvd	Reconstruct traffic signal by replacing span wire with three signal poles with mast arms, conduit system, pedestrian push buttons, illumination reconstruct all ADA curb ramps, grind and pave intersection	HB2017 Road Fund	\$1,520,000	\$1,520,000		X	X	X	
M 5	Active Transportation	3063	300323306	Curb Ramp at Naef Rd and Harold Ave	Intersection of SE Naef Rd and SE Harold Ave.	Replace a curb ramp at the south corner of the intersection of SE Naef Rd and SE Harold Ave	Road Fund	\$85,000	\$85,000	X	X			
M 6	Other	NA	300323307	El Camino Way Stormwater Improvements - ARPA	Area surrounding the intersection of SE El Camino Way and SE Thiessen Rd	Increase the capacity of the storm drainage system to convey the 10-year storm event to reduce the frequency of flooding	American Rescue Plan Act (ARPA) Grant	\$1,398,000	\$0	X	X			
M 7	Bridge/Culvert	NA	300323308	Thiessen Culvert Replacement at Kellogg Creek	SE Thiessen Rd at Kellogg Creek	Replace failing joint in culvert and examine similar joints to prevent future failing, and repair roadway damage	American Rescue Plan Act (ARPA) Grant	\$1,551,635	\$0	X	X	X		
M 8	Active Transportation	1076 2025	300321302	Bilquist Elementary Sidewalks	SE Webster Rd from SE Roots Rd to Bilquist Elementary School	Construct sidewalks along both sides of road, widen existing bike lanes, crosswalk upgrades including illumination, pedestrian refuge and ADA compliant curb ramps	ODOT Safe Routes to School Infrastructure Grant; Transportation System Development Charge (TSDC)	\$3,317,307	\$577,591	X	X	X		
M 9	Community Road Fund: Safety	1070	300324341	Oatfield Rd Jennings Ave Signal Rebuild Safety Work Project	SE Oatfield Rd and SE Jennings Ave	Rebuild traffic signal, add illumination and other safety enhancements	Community Road Fund (CRF)	\$1,970,000	\$0	X	X	X	X	
M 10	Active Transportation	1067	300318306	Jennings Ave - Sidewalk and Bike lanes	SE Jennings Ave from OR99E (SE McLoughlin Blvd) to SE Oatfield Rd	Construct curb-tight sidewalk on the north side of Jennings Ave and bike lanes on both sides. Widening the roadway to accommodate bike lanes and sidewalk will require general excavation, rock excavation and new water quality and detention facilities, including new storm water collection infrastructure, removal and construction of a retaining wall and replacement of a guardrail	Rural STP; Regional Flexible Fund Allocation (RFFA) Grant; American Rescue Plan Act (ARPA) Grant; Road Fund	\$8,510,677	\$1,274,718	X	X			
M 11	Other	NA	300323318	Jennings Lodge Estates Swales	SE Faith Ave and SE Morse Ct in the Jennings Lodge area	Raise the swale grade to be flush with the top back of curb to reduce tripping and fall hazard, while utilizing river rock above an amended soil mixture for water quality functionality	Road Fund	\$244,000	\$244,000	X	X	X	X	
M 12	Bridge/Culvert	NA	300320347	Clackamas River (Trolley Trail) Bridge Final Design	Clackamas River at Portland Ave	Continue work from feasibility study and move onto preliminary and final design phase (once a bridge structure type is recommended)	Regional Flexible Fund Allocation (RFFA) Grant; City of Gladstone	\$1,028,000	\$0	X	X			
CRC 1	Community Road Fund: Safety	1027 3016	300320356	Johnson Creek Blvd (79th Ave to End County Maintenance) Improvements	Johnson Creek Blvd from 79th Ave to Multnomah Co. line	Upgrade ADA ramps, install ADA-compliant pedestrian push buttons, resurface roadway pavement	Community Road Fund (CRF); HB2017 Road Fund	\$6,173,749	\$6,105,674	X	X	X		

TABLE A: 5-YEAR CAPITAL IMPROVEMENT PROGRAM PROJECT LIST – FY 23/24 – FY 27/28

CRC 2	Community Road Fund: Safety	1028	300320355	SE Johnson Creek Blvd at 79th Place	SE Johnson Creek Blvd at SE 79th PI	Add a signal at the intersection of Johnson Creek Blvd and 79th PI and install median	Community Road Fund (CRF); Clackamas County Development Agency (CCDA) Grant; All Roads Transportation Safety (ARTS) Program Grant; HB2017 Road Fund	\$3,182,836	\$337,740	X	X	X		
CRC 3	Upgrade	1035 1036	30324?	Monroe St Improvements	Linwood Ave to Fuller Rd	Improve to minor arterial standards; add sidewalks, bicycle lanes and stormwater control.	Tax Increment Financing	\$11,600,000	\$0	X	X	X		
CRC 4	Repairs	NA	300323303	82nd Drive & Jennifer Street Signal Replacement	Intersection of SE 82nd Dr and SE Jennifer St	The signal pole on the SW corner was knocked down and a temporary wood pole is currently being used. Reconstruct all ADA curb ramps at the intersection, replace span wire traffic signal with three-signal poles with mast arms and conduit system, install pedestrian push buttons, grind and pave intersection	Insurance Proceeds; Road Fund	\$1,402,040	\$1,314,540	X	X	X		
CRC 6	ITS/TSMO	3027	S2411	Sunnyside 132nd to 172nd Signal Project	SE Sunnyside Road from SE 132nd to SE 172nd	Adaptive traffic signal control on Sunnyside Road from 132nd to 172nd. Includes upgraded detection for adaptive control at six of the eight intersections, retroreflective signal backplates, supplemental signal heads, and signal ahead warning signs with cross street riders	All Roads Transportation Safety (ARTS) Program Grant; Road Fund	\$2,010,000	\$201,000		X	X	X	
CRC 7	Upgrade	NA	300323304	SE 172nd Avenue Improvements - City of Happy Valley	SE Misty Dr to SE Maple Hill Ln	Widen roadway to five travel lanes, construct sidewalks and landscape strips, improve intersections in project corridor	City of Happy Valley; Road Fund; Transportation System Development Charge (TSDC)	\$44,873,987	\$45,636	X	X	X	X	X
DB 1	Safety	1001	300324338	222nd & Borges All-Way Stop Conversion	Intersection of SE Borges Rd and SE 222nd Dr	Design and construction of a conversion from two-way STOP control to all-way STOP control at the intersection of SE 222nd Drive and SE Borges Rd in the Damascus area	Road Fund	\$70,000	\$70,000	X				
DB 2	Repairs	NA	300321301	Rugg Rd Landslide Repair	Rugg Rd at Hideaway Ct	Construct permanent stabilization measure along Rugg Rd where downhill slope collapsed	Damascus Road Fund	\$970,762	\$970,762	X	X			
DB 3	Bridge/Culvert	NA	300319343	Badger Creek (Rugg Rd) Culvert	SE Rugg Rd at Badger Creek	Replace existing culverts with larger sized, fish friendly culvert or modular bridge	NOAA Fisheries Transformational Habitat Restoration and Coastal Resilience Projects grant; Road Fund	\$681,227	\$381,227	X	X	X	X	
DB 4	Community Road Fund: Safety	NA	300320340	Bluff/327th Intersection Enhancements	Bluff Rd at 327th Ave	Rechannelize to provide lower speeds on movements onto and off Bluff Rd using signs, pavement markings and delineation, and pavement removal	Community Road Fund (CRF)	\$113,663	\$0		X	X		
DB 5	Community Road Fund: Congestion	4061	300320351	Amsigger Rd @ OR224 Intersection Improvements	Intersection of SE Amsigger Rd and OR224	Construct new roundabout intersection to improve safety while minimizing wait times	Community Road Fund (CRF)	\$5,358,221	\$0	X	X	X		
E 1	Community Road Fund: Strategic Investment	1054 1055	300320348	Duus Rd/Eagle Creek Rd Intersection, Relocation, and Turn Lane	SE Duus Rd at SE Eagle Creek Rd	Add new turn lanes and relocate intersection to provide adequate sight distance	CRF Strategic Investment Fund; Transportation System Development Charge (TSDC)	\$1,567,106	\$0	X	X	X		
E 2	Community Road Fund: Strategic Investment	2017	300320339	362nd Ave Paved Shoulders and Safety Improvements	Skogan Rd to OR 211	Pave shoulders and evaluate safety issues	Community Road Fund (CRF); Transportation System Development Charge (TSDC); HB2017 Road Fund	\$2,220,253	\$511,541	X	X			
E 3	Bridge/Culvert	3038	300324348	Bull Run River (Bull Run Rd) Bridge Replacement Design	SE Bull Run Rd at Bull Run River	Design a new Bull Run Bridge on a new alignment.	Federal Bridge Investment Program Grant; Road Fund	\$2,000,000	\$205,400	X	X	X		
E 4	Repairs	NA	300323302	East Barlow Trail Rd Restoration (Winter 2022 Landslide)	E Barlow Trail Rd between Brightwood Bridge Rd and E Boulder Creek Ln	Construct permanent stabilization measure along E Barlow Trail Rd where downhill slope collapsed taking roadway with it and closing roadway	FHWA Emergency Relief Funds; Road Fund	\$1,155,143	\$334,436	X	X			
E 5	Community Road Fund: Congestion	1059	300322301	Welches Rd Bike/Ped	E Welches Rd from US26 to E Birdie Ln	Add sidewalks from US 26 to E Stage Stop Rd and paved shoulders from E Stage Stop Rd to E Birdie Ln. Pedestrian crossing at E Fairway Ave	Community Road Fund (CRF); Transportation System Development Charge (TSDC)	\$3,388,582	\$0	X	X	X	X	

FIGURE 4: 5-YEAR CAPITAL IMPROVEMENT PROGRAM PROJECT MAP – FY 23/24 – FY 27/28

E 6	Bridge/Culvert	NA	300323324	Henry Creek (Arlie Mitchell Road) Culvert Replacement	E Arlie Mitchell Rd at Conway Creek	Replace existing 144" culvert with a precast modular bridge	Oregon Department of Fish and Wildlife (ODFW); US Forest Service (USFS); Oregon Watershed Enhancement Board (OWEB) Restoration Grant; City of Portland; Road Fund	\$1,018,460	\$99,878	X	X				
E 7	Bridge/Culvert	NA	B2302	Conway Creek (Aschoff Road) Culvert Replacement	Aschoff Road at Conway Creek	Replace existing culverts with a precast modular bridge	Federal Culvert AOP Grant; Road Fund	\$1,862,900	\$372,580	X	X	X	X		
P 1	Paving	PMP	300323319	AR Cape Seal: Southwood Park Area	Various road segments in Southwood Park area	Place slurry seal on 2.5 miles of roads in the Southwood Park area.	HB2017 Road Fund	\$508,379	\$508,379		X				
P 2	Paving	PMP	P2602	Contract Paving: Bonita Road Package	Bonita Road from Carman Road to Bangy Road	Pave Bonita Rd with 0.6 miles of asphalt	HB2017 Road Fund	\$474,279	\$474,279		X	X	X	X	
P 3	Paving	PMP	P2605	Chip Seal: Rosewood Package	Various road segments in the Rosewood area	Place 1.7 miles of chip seal on a number of roads in the Rosewood area	HB2017 Road Fund	\$428,397	\$428,397			X	X	X	
P 4	Paving	PMP	P2705	Chip Seal: Stafford Acres Package	Various road segments in the Stafford Acres area	Place 11 miles of chip seal on roads in the Stafford Acres area	HB2017 Road Fund	\$842,300	\$842,300			X	X	X	
P 5	Paving	PMP	300323314	Contract Paving: Haines Road Package	Territorial Road from Haines Rd to Highway 99 and Haines Road from Highway 99 to Mulino Road	Pave 1.8 miles of roads with asphalt in the Haines Road area	Road Fund	\$927,500	\$927,500	X	X				
P 6	Paving	PMP	P2607	Chip Seal: Mackburg/Union Mills Package	Various road segments in the Macksburg/Union Mills area	Place 38 miles of chip seal on a number of roads in the Macksburg/Union Mills area	HB2017 Road Fund	\$2,741,134	\$2,741,134			X	X	X	
P 7	Paving	PMP	P2708	Chip Seal: Yoder Package	Various road segments in the Yoder area	Place 18.5 miles of chip seal on a number of roads in the Yoder area	HB2017 Road Fund	\$1,341,274	\$1,341,274			X	X	X	
P 8	Paving	PMP	P2610	Contract Paving: Marquam Package	Drake Road from highway 213 to the Marion County Line, Farm Road from Monte Cristo Road to Oster Road, Farm Road from Drake Road to Oster Road	Pave 3.6 miles of roads with asphalt in the Marquam area	Rural STP; HB2017 Road Fund	\$1,981,000	\$491,000		X	X	X	X	
P 9	Paving	PMP	P2707	Chip Seal: Hogback Package	Various road segments in the Beaver creek/Highland area	Place 35 miles of chip seal on a number of roads in the Beaver creek/Highland area	HB2017 Road Fund	\$870,243	\$870,243			X	X	X	
P 10	Paving	PMP	300323317	Chip Seal: Park Place Project	Various rural roads	Place 42.1 miles of chip seal on a number of rural roads	HB2017 Road Fund	\$2,811,000	\$2,811,000	X	X				
P 11	Paving	PMP	300323312	Slurry Seal: Jennings Lodge Package	Various road segments in the Jennings Lodge area	Place slurry seal on 6.1 miles of urban roads in the Jennings Lodge area	Road Fund	\$419,000	\$419,000	X	X				
P 12	Paving	PMP	P2411	Contract Paving: Jennings Avenue	SE Jennings Ave from OR99E (SE McLoughlin Blvd) to SE Oatfield Rd	Pave 0.75 miles of road with asphalt.	Rural STP; HB2017 Road Fund	\$975,000	\$75,000		X	X			
P 13	Paving	PMP	P2601	Contract Paving: River Road Package	SE River Rd between SE Jennings Ave and SE Roethe Rd	Pave SE River Road with 0.6 miles of asphalt	HB2017 Road Fund	\$563,460	\$563,460		X	X	X	X	
P 14	Paving	PMP	P2609	Slurry Seal: Oak Grove Package	Various road segments in the Oak Grove area	Place slurry seal on 9.9 miles of roads in the Oak Grove area	HB2017 Road Fund	\$456,900	\$456,900			X	X	X	
P 15	Paving	PMP	P2701	Contract Paving: Hartnell Farms Package	SE Johnson Rd between SE Clackamas Rd and SE Lake Rd	Pave 0.9 miles of road with asphalt on SE Johnson Rd between SE Clackamas Rd and SE Lake Rd	HB2017 Road Fund	\$761,754	\$761,754			X	X	X	
P 16	Community Road Fund: Paving	PMP	P2704	Contract Paving: Royal View Package	Various road segments in Royal View area	Pave 1.6 miles of roads with asphalt in the Royal View area	Community Road Fund (CRF)	\$1,362,288	\$0		X	X	X	X	
P 17	Paving	PMP	P2702	Contract Paving: Highland Summit Package	SE Mather Rd from SE Summers Ln to SE 122nd Ave; SE Summers Ln from SE Mather Rd to SE 122nd Ave	Pave 1.2 miles of road with asphalt in the Highland Summit area	HB2017 Road Fund	\$1,243,194	\$1,243,194			X	X	X	
P 18	Community Road Fund: Paving	PMP	P2604	Contract Paving: Mt Talbert Package	Various road segments in Mount Talbert area	Pave 1.0 miles of roads with asphalt in the Mt Talbert area	Community Road Fund (CRF)	\$933,000	\$0		X	X			

TABLE A: 5-YEAR CAPITAL IMPROVEMENT PROGRAM PROJECT LIST – FY 23/24 – FY 27/28

P 19	Paving	PMP	P2709	Slurry Seal: Vista View Package	Various road segments in the Valley View and Pioneer Park areas of Happy Valley	Place slurry seal on 1.4 miles of roads in the Valley View and Pioneer Park areas of Happy Valley	HB2017 Road Fund	\$135,188	\$135,188			X	X	X
P 20	Paving	PMP	P2710	Slurry Seal: Trillium Creek Package	Various road segments in the Trillium Creek Park area	Place slurry seal on 6.1 miles of roads in the Trillium Creek Park area	Damascus Road Fund; HB2017 Road Fund	\$683,444	\$589,451			X	X	X
P 21	Paving	PMP	P2706	Chip Seal: Goosehollow Package	Various road segments in the Goosehollow Drive area of Damascus	Place 1.7 miles of chip seal on a number of roads in the Goosehollow Drive area of Damascus	HB2017 Road Fund	\$224,153	\$224,153			X	X	X
P 22	Paving	PMP	P2703	Contract Paving: Rock Creek Package	SE 172nd Ave from SE Armstrong Cir to SE Sunnyside Rd; SE Armstrong Cir from Hwy 212 to address 23051 SE Armstrong Cir	Pave 1 mile of road with asphalt in the Rock Creek area	HB2017 Road Fund	\$1,470,266	\$1,470,266			X	X	X
P 23	Paving	PMP	P2608	Slurry Seal: Mt Scott Package	Various road segments in the Mt. Scott area	Place slurry seal on 4.8 miles of roads in the Mt. Scott area	HB2017 Road Fund	\$504,520	\$504,520			X	X	X
P 24	Paving	PMP	300323311	Contract Paving: Overland Park Package	Overland Street from Bell Avenue to 82nd Avenue and 72nd Avenue from Monroe Street to Thompson Road	Pave 0.7 miles of roads with asphalt in the Overland Park area	Road Fund	\$572,505	\$572,505	X	X			
P 25	Paving	PMP	300323316	Contract Paving: Fischers Mill Package	Fischers Mill Road from Fischer's Mill Bridge to Springwater Road; Harding Road from Springwater Road to Fischers Mill Road; Strowbridge from Springwater Road to Fischers Mill Road	Pave 2.0 miles of road along Fischers Mill Road, Harding Road, and Strowbridge Road with asphalt	Rural STP; HB2017 Road Fund	\$1,533,500	\$833,500	X	X			
P 26	Paving	PMP	P2603	Contract Paving: Bakers Ferry Road Package	S Bakers Ferry Road from S Springwater Road to S Harding Road	Pave Bakers Ferry Road with 2.6 miles of asphalt	HB2017 Road Fund	\$1,511,339	\$1,511,339			X	X	X
P 27	Paving	PMP	P2606	Chip Seal: Cherryville to Welches Package	Various road segments in the Cherryville to Welches corridor	Place 25.6 miles of chip seal on a number of roads in the Cherryville to Welches corridor	HB2017 Road Fund	\$1,917,867	\$1,917,867			X	X	X
P 28	Paving	PMP	300323315	Contract Paving: Wildcat Mountain Drive Package	SE Wildcat Mountain Drive from Firwood Road to mile point 5.30.	Pave 5.3 miles of SE Wildcat Mountain Drive with asphalt	Rural STP; American Rescue Plan Act (ARPA) Grant; HB2017 Road Fund	\$1,602,000	\$127,000	X	X	X		
CW 1	Community Road Fund: Safety	1001	300323320	Clackamas County School Beacon Upgrades	6 Locations (11 beacons): River Rd at Jennings Lodge Elem., River Rd at Riverside Elem., 152nd Ave at Oregon Trail Elem., Webster Rd at Alder Creek MS, 242nd Ave at Lewis and Clark CS and Scouters Mountain Elem.	Upgrade solar powered school flashing beacons to AC power	Community Road Fund (CRF)	\$579,741	\$0	X	X	X		
CW 2	ITS/TSMO	1000	300323323	Clackamas County Signal Detection Upgrades	5 Locations: 172nd & Rock Creek, Otty & Fuller, Monterey & 85th, Stafford & Ek, and Park & 27th	Replace traffic signal video detection systems at 4 intersections with Wavetronix radar detection system and add FLIR infrared bicycle detection at 2 intersections	Road Fund	\$584,220	\$584,220	X	X			
CW 3	Safety	1001	300323321	Intersection Design Studies: Six Intersections	Airport Rd NE & NE Miley Rd S Barlow Rd & S Arndt Rd S Beavercreek Rd & S Leland Rd/S Kamrath Rd SE Bluff Rd & SE 327th Ave S Redland Rd & S Holly Ln N Molalla Ave & S Vaughan Rd	Investigate current operations, safety and geometry at six intersections and develop preferred alternatives to a preliminary design level	HB2017 Road Fund	\$100,826	\$100,826	X				
CW 4	Safety	1001	S2602	Rural Corridor Curve Signs - Phase 1	SE 367th Ave, S Casto Rd, S Eves Rd, SE Foster Rd, S Ferguson Rd, SE Coupland Rd, SW Ladd Hill Rd, SW Baker Rd, S Thayer Rd, SE Bluff Rd, S Whiskey Hill Rd, S Carus Rd, SE Wildcat Mountain Dr, and Forsythe Rd	Design and install updated horizontal alignment warning signs on approximately 28 miles of roadway on 14 rural arterial and collector corridors to reduce crashes and to comply with MUTCD standards	HB2017 Road Fund	\$960,000	\$960,000				X	X

TABLE B: 5-YEAR PLANNING PROJECT LIST – FY 23/24 – FY 27/28

Map ID	Project Category	TSP ID	Prospectus #	Project Name	Project Extent	Description	Funding Source	Cost Estimate (2024 \$)	Anticipated Road Fund Match	FY-23/24	FY-24/25	FY-25/26	FY-26/27	FY-27/28
CRC 5	Planning	NA	600223101	Sunrise Corridor Community Visioning Project	Sunrise Corridor	Work with Community to develop a vision for the future of the Sunrise Corridor including transportation, land use, economic opportunities and anti-displacement.	American Rescue Plan Act (ARPA) Grant; Road Fund	\$4,022,315	\$22,315	X	X			
NM	Planning	NA	300322300	Walk/Bike Clackamas Plan	N/A (Planning Project)	A simultaneous update to the Pedestrian and Bicycle Master Plans, both were last updated in 2003. The plan will guide and equitably prioritize future biking and walking transportation investments and active transportation policy in Clackamas County for the next 20 years.	Oregon Department of Land Conservation and Development (DLCD) Grant	\$178,906	\$0	X				
NM	Planning	NA	300324342	ODOT DUI Grant Planning Project	N/A (Planning Project)	Research and develop concepts for a new marketing and communications campaign focused on reducing impaired driving by examining opportunities for intervention prior to someone having their first drink.	ODOT Alcohol-impaired Driving Program (Section 164) Fund Grant; Road Fund	\$62,712	\$12,712	X	X			
NM	Planning	NA	300324343	TSAP Update 2024	N/A (Planning Project)	Transportation Safety Action Plan / Drive to Zero plan	ODOT Transportation Safety Office Grant; Road Fund	\$150,000	\$30,000	X	X	X		
NM	Planning	NA	300324345	Consolidated Planning and Marketing Grant	N/A (Planning Project)	Crash analysis, crash demographic study, traffic safety marketing campaign	USDOT Safe Streets for All (SS4A) Grant; ODOT Safety (Section 402) Fund Grant; Road Fund	\$1,423,801	\$279,301	X	X	X	X	
NM	Planning	NA	300324346	Safe Streets For All: Federal Transportation Planning Project	N/A (Planning Project)	Align the TSAP with the national Safe Systems approach updating language and visual tools and further integrate civil rights and community engagement into the TSAP	USDOT Safe Streets for All (SS4A) Grant	\$330,000	\$0	X	X	X		
NM	Planning	NA	300324347	ODOT Pedestrian Safety Year 4	N/A (Planning Project)	Traffic safety marketing and materials	ODOT Pedestrian Safety (Section 402) Fund Grant; Road Fund	\$35,000	\$10,000	X	X			
NM	Planning	NA	600223102	TSP Update 2023	N/A (Planning Project)	Update of the Transportation System Plan for FY 23-24	Oregon Department of Land Conservation; Road Fund	\$1,623,823	\$1,535,323	X	X	X		

TRANSPORTATION EQUITY INDEX ASSESSMENT

The county’s Transportation System Plan (TSP) outlines six policies related to equity, health and sustainability (TSP Policy 5.C) that focus on:

- Supporting walking, biking, and transit connections in areas with identified transportation-disadvantaged populations
- Coordinating land use and transportation planning to minimize environmental pollution
- Continuing to provide public transit services to under-served areas, particularly for seniors and people with disabilities

In 2019, the county established a transportation equity index to help identify groups that have been historically and/or are currently underserved, marginalized, or negatively impacted by the transportation system. The methodology for this equity index is modeled after approaches from other regional jurisdictions across the country. It uses a threshold-based approach to identify higher concentrations of communities of interest using census data at the block group level, in comparison to the county as a whole. Thresholds are assigned a score and combined with other variables to create a composite score. See Appendix A for a full description of the Transportation Equity Index.

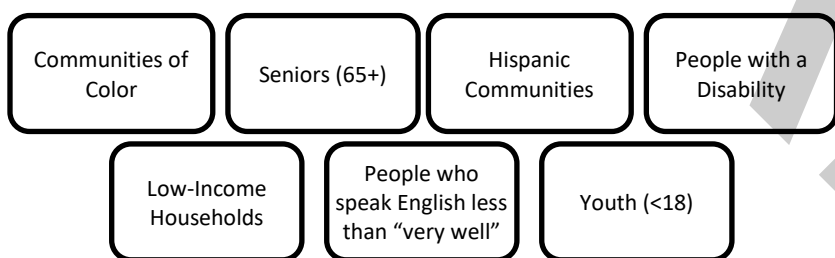
The Clackamas County Transportation Equity Index combines seven demographic indicators into a single index score for each census block group. A higher index score indicates a higher concentration of the groups below in comparison to the county as a whole. Scores range from zero (well below county average) to four (well above county average), with two being the county average.

Transportation Equity

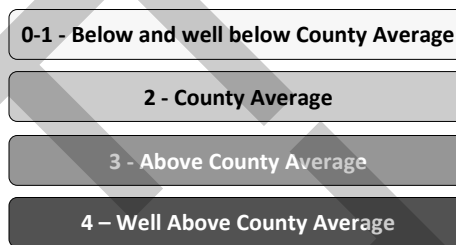
“How do we make sure that there are transportation options for all of the residents of Clackamas County?”

The **Transportation Equity Index** is a number or score that conceptualizes demographic patterns quantitatively. The score makes it easier to see areas with high concentrations of demographic characteristics and visualize the information against other factors in a map.

Relative concentrations of focus communities are combined into...



...a composite Equity Index Score for each census block group.



CIP Update Year	County population	% of population within census block groups of “above-average” equity scores
2021	410,463	37.5%
2024 (current)	420,955	37.9%

Including the Transportation Equity Index in the 5-Year CIP allows us to evaluate how the planned improvements are distributed across areas in the county with higher percentages of people that historically have had less of a voice in transportation planning or that experience greater barriers in navigating the transportation system. Figures 5 and 6 show the county’s composite Transportation Equity Index and the 5-Year CIP projects. This map displays the relationship between where county investments are made through the 5-Year CIP and places that have a higher Transportation Equity Index score.

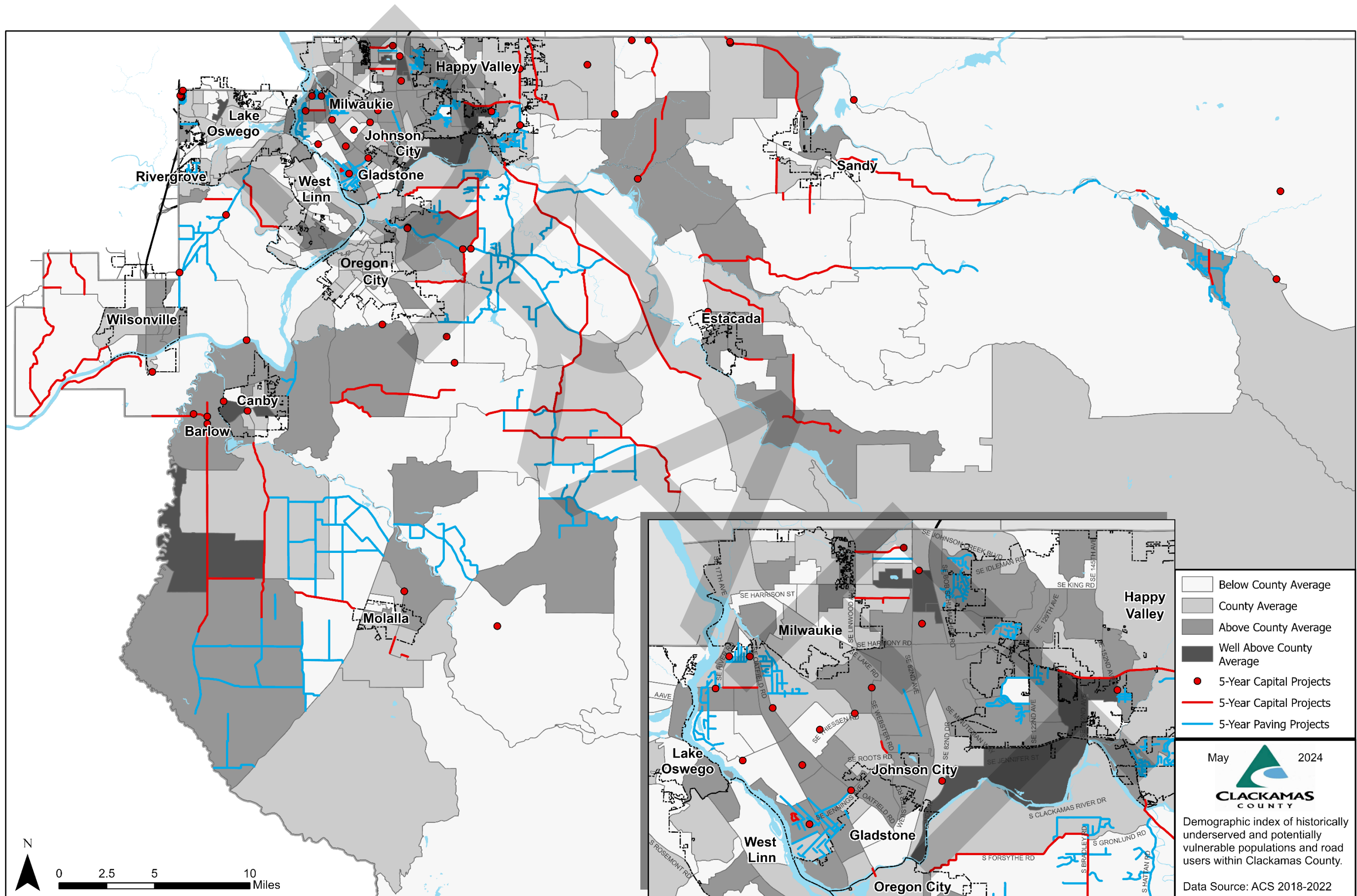


Figure 5: Transportation Equity Index & 2024-2028 CIP Projects

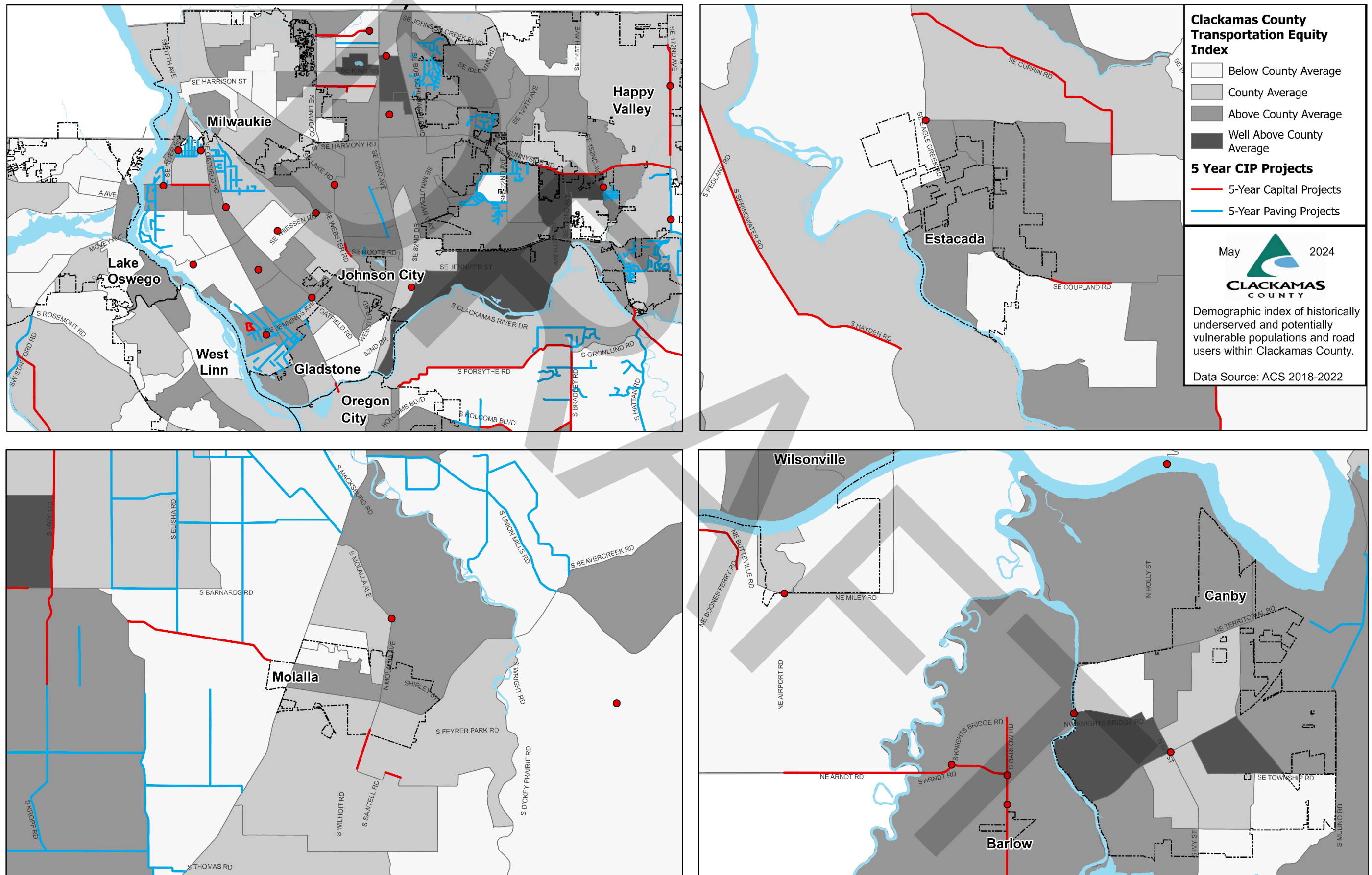


Figure 6: Transportation Equity Index (urban area, Estacada, Canby, Molalla) & 2024-2028 CIP Projects

Over the next five years, approximately 40% of the CIP budget, \$85.4 million, will be spent on transportation investments in census block groups with an above average Transportation Equity Index score. The amount of investment in these areas can be reported by the individual demographic indicators that make up the index. Figure 4 shows the total funding of projects in the 5-Year CIP in areas that have an above average overall Transportation Equity Index score by individual demographic group. Based on these variables, over the next five years the county is projected to spend 38.9% of total project costs (\$85.4 million) and 50.7% of anticipated road fund match (\$26.2 million) in census block groups that have an “above average” or “well above average” total transportation equity index score.

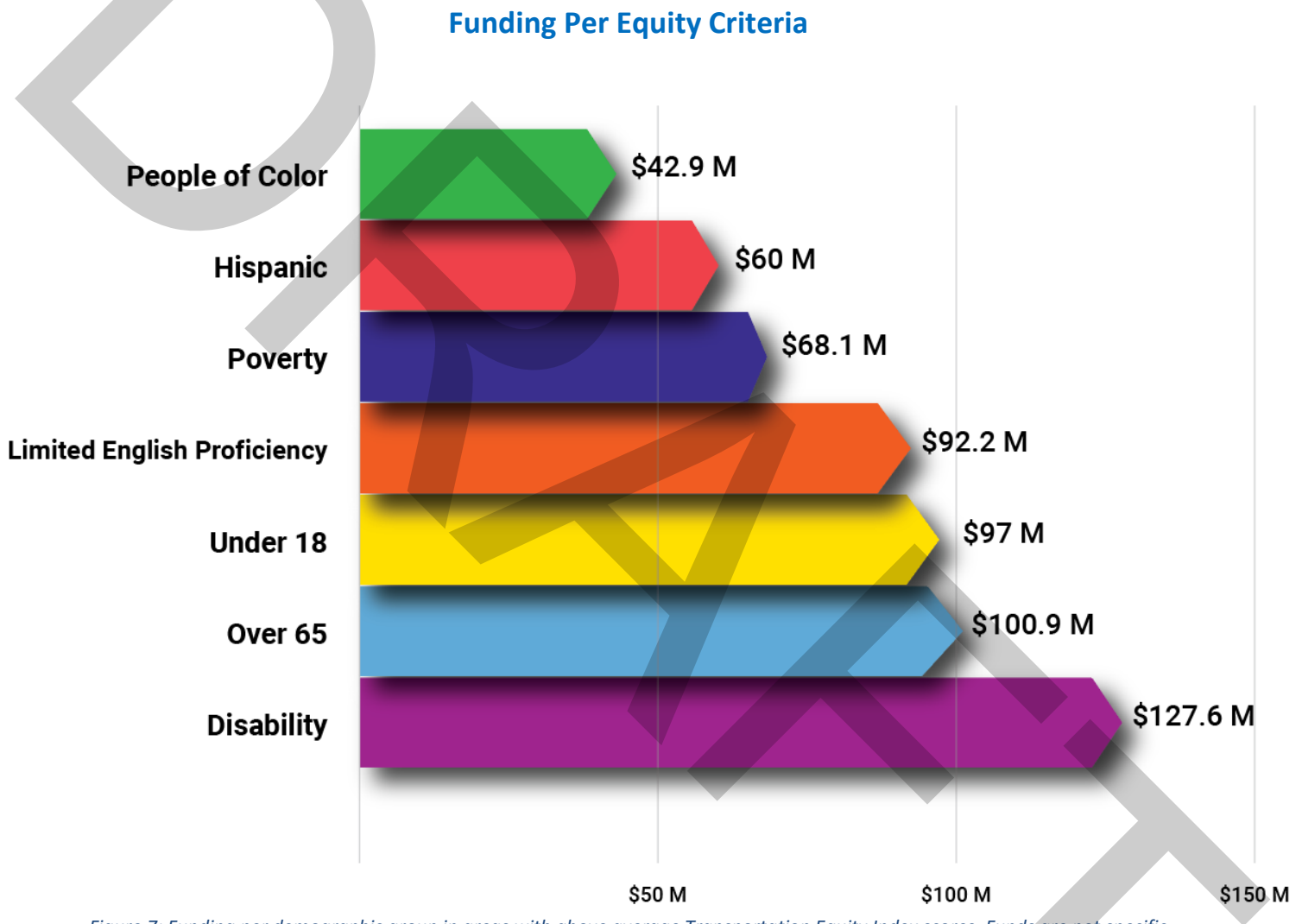


Figure 7: Funding per demographic group in areas with above average Transportation Equity Index scores. Funds are not specific to a single category, as a single project may impact multiple demographic groups with above average Equity Index Scores.

TSP Policy 5.C.1 directs the county to “Support programs and projects, such as pedestrian and bike connections to transit stops that expand and improve transportation options for residents in area with identified transportation-disadvantaged populations.” To better understand how the investments in the 5-Year CIP support this policy, Figure 5 includes the anticipated total expenditure by project type for census block groups with a Transportation Equity Index score above the county’s average, as well as the expenditure by project type for all the 5-Year CIP.

Funding Per Project Type

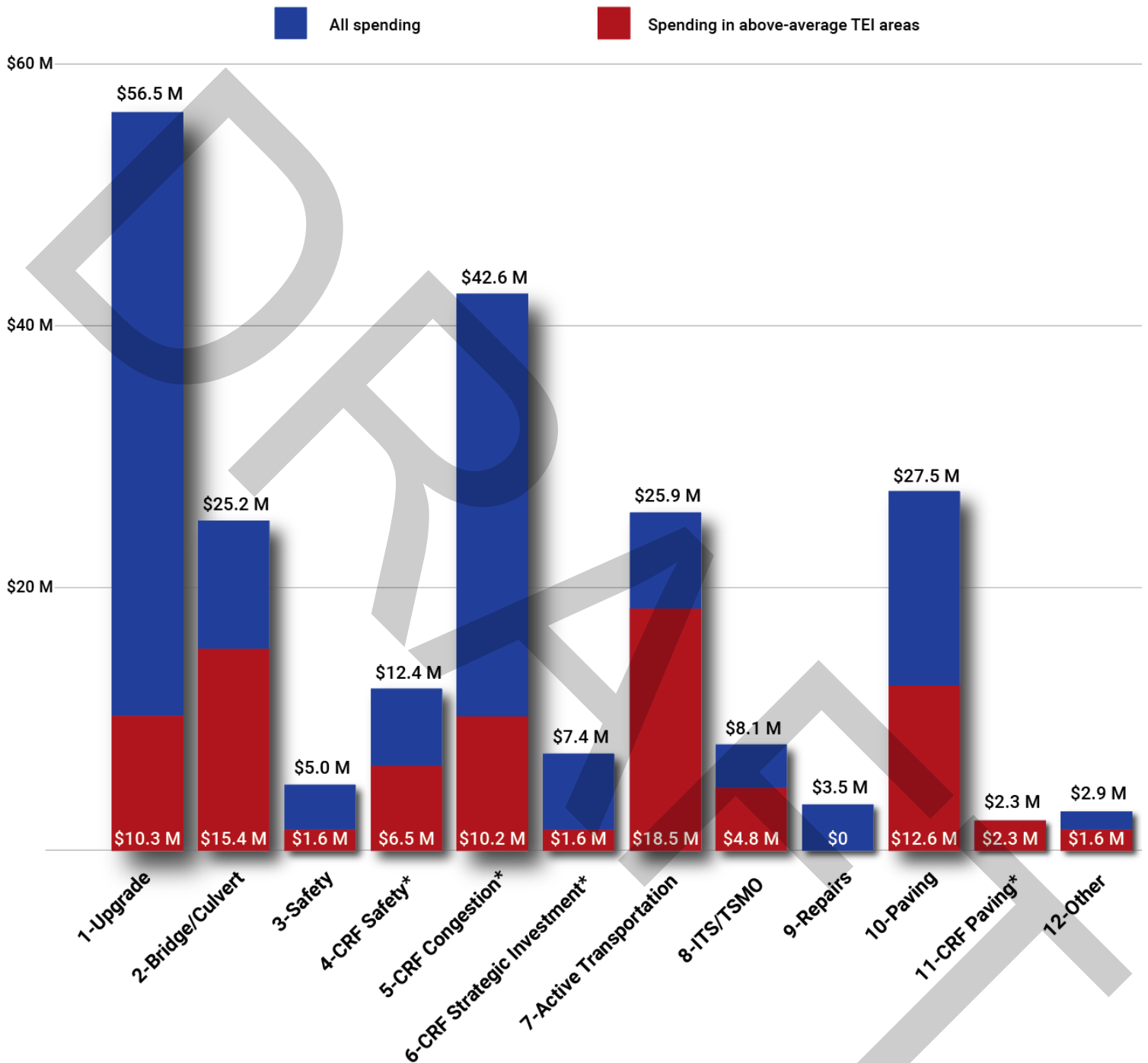


Figure 8: Funding per project type, all spending compared to spending in areas with above average Transportation Equity Index scores. * denotes Community Road Fund projects which use annual vehicle registration fees to allow Clackamas County to complete projects that are most important to our residents and businesses. For more information, see <https://www.clackamas.us/transportation/crf>

By applying this index to the FY 2023/24-2027/28 5-Year CIP, we can clearly see the levels of investment that impact specific communities that have been and/or are underserved, marginalized, or negatively impacted by the transportation system. This application highlights the different levels of investment across the county, specifically in areas with above average Equity Index scores. The Transportation Equity

Index is a lens that helps to identify inequities created and perpetuated by investments in the transportation system. This assessment is a point in time snapshot of how current project selection processes can result in benefits to groups that face greater barriers.

It should also be noted that the Transportation Equity Index investment levels in the last published CIP (FY 2021/22-2026/27) vary from the levels in the current CIP partially due to the release of the 2020 US census. This can be attributed to three factors:

- Some projects that were in progress during the last CIP have been completed by FY 2023/24
- Demographics have changed slightly since the last CIP update
- Census block groups may have changed, affecting the demographics calculations that drive the index. During the process of completing each decennial census, the US Census Bureau may modify census geographies (i.e. block groups) that have experienced changes or declines in population.² The boundaries of some block groups in Clackamas County have been modified due to these changes, and in some cases, it has contributed to changes in Transportation Equity Index scores.

The next step is to incorporate the Transportation Equity Index into the project selection processes to evaluate current practices and implement strategies to reduce disparities, while recognizing that selection of projects in some categories (i.e. paving, bridge/culvert repair) is driven more by the state and lifespan of the infrastructure than by an equity lens. For more information on the development and methodology of the Transportation Equity Index, see Appendix A.

FUNDING SOURCES AND FUTURE PROJECTS

Projects in the 5-Year CIP are funded through a variety of sources, connecting transportation planning to the county's capital construction budget. To be on the 5-Year CIP list, a project must have an identified funding source. A funding forecast completed in October 2012 as a part of the TSP update outlines funding expected to be received over the next 20 years.

Table C: Key Projects Matched with Potential Grant Funding Sources highlights TSP projects that should be considered for the next grant cycle. While we need to identify potential projects as the programs open for applications, ultimately the selection of appropriate projects is determined when the application is developed.

Current Local Funding Sources

Clackamas County Road Fund

The County Road Fund is made up of revenue received through the Oregon State Highway Trust Fund from state gas tax, weight-mile tax, vehicle registration fees (VRF) and vehicle titling fees distributed to the county based on allocation schedules set out in state law. The passage of the "Keep Oregon Moving" House Bill 2017 in 2017 provides approximately an additional \$100 million annually to the County Road Fund (see "HB2017" section on page 24).

The state constitution and Oregon Revised Statutes require State Highway Trust Fund revenue to be used "...for the construction, reconstruction, improvement, repair, maintenance, operation and use of public

² For more information, see:

<https://www.census.gov/programs-surveys/acs/technical-documentation/table-and-geography-changes/2022/geography-changes.html>

highways, roads, and streets...” (including a minimum 1% annual expenditure on bicycle and pedestrian facilities). Road fund money is often used as the local contribution (match) for projects funded by federal, state and other local funding programs.

The County Road Fund also includes federal funds from the Secure Rural Schools program.

Community Road Fund (CRF)

The CRF became effective in January 2020 with the implementation of the county’s first countywide vehicle registration fee. County residents pay \$30 per year when registering a car, truck, van or other passenger vehicle or motorcycle. The fee structure is subject to changes enacted by the Board of Commissioners. For example, in 2023, trailers were changed from a \$30 per year fee to a \$5 per year fee. The funds go toward projects that maintain county roads, build improvements to relieve congestion and make the road system safer.

A 15-member CRF Advisory Committee develops criteria to analyze potential capital congestion relief projects, applies these criteria to high priority projects, recommends the order in which the projects should be constructed to the Board of Commissioners, and reviews the project list annually.

From February 2020 (the first full month of revenue collection) to August 2023, the CRF generated an average of \$11.1 million of annual revenue, with the county receiving about \$5.6 million and the rest allocated to the cities within the county based on population and how much of that population resides within the county borders. (Some cities like Portland and Tualatin have only a small portion of their boundaries within the county.) This closely aligns with revenue forecasts in 2019 that projected \$11 million of annual revenue, with \$5.5 million allocated to Clackamas County.

CRF projects are broken into four sub-categories:

- Safety: projects focused on reducing crashes and the risk of crashes on county roadways
- Congestion: projects designed to reduce congestion problems on county roadways
- Maintenance projects: designed to support the need to pave, chip-seal and otherwise maintain our current road system at a high level
- Strategic Investment: projects that support shared city and county initiatives

Damascus Road Fund

When the city of Damascus disincorporated in July 2016, responsibility for local road maintenance and transportation planning shifted back to Clackamas County. The funds held by the city of Damascus also shifted to the county, with the proviso that all funds be used exclusively on roads in the previously incorporated Damascus area.

Fee in Lieu of (FILO)

Clackamas County Code 1007.10 provides for a fee in lieu of (FILO) required frontage improvements, primarily for sidewalks, on county roads. FILO is typically used when a development is being proposed in an area with few or no sidewalks. The developer pays a fee instead of building the required sidewalk improvements on the frontage, allowing the county to build continuous sidewalks in an area with a high need once enough fees are collected.

Transportation System Development Charges (TSDCs)

TSDCs are one-time assessments on new developments based on the number of vehicle trips the developments are forecast to generate. This equitably spreads the cost of road projects that increase capacity to new and expanding development that rely on road network improvements. These funds are dedicated to projects on an adopted list within a specific geographic area that improve capacity. The funds may not be used for road maintenance.

Improved capacity can include operational efficiencies (e.g., signalization) that increase the number of travelers accommodated by the system or added facility miles.

Urban Renewal (Tax Increment Financing [TIF])

Urban renewal raises money for public improvements through Tax Increment Financing (TIF) in blighted areas. Local investments focus on creating jobs, helping businesses, improving communities and increasing the tax base to result in long-term financial stability for local service providers and property owners. The use of the funds is customized to meet the needs of the approved plan for the urban renewal area.

Expenditures are restricted to making improvements within the geographic limits of the urban renewal area in which the funds were raised and focus on funding infrastructure consistent with the adopted urban renewal plan. Urban renewal frequently provides matching funds for money from federal, state, regional and other local sources.

The Clackamas County Board of Commissioners created the Clackamas County Development Agency (CCDA) in 1977 as the urban renewal authority for Clackamas County. The CCDA uses urban renewal authority to implement programs that provide for economically, socially, and environmentally sound development and redevelopment to revitalize blighted areas, build the county's property tax base and create jobs for the residents of Clackamas County.

There are three county urban renewal districts – one, the North Clackamas Revitalization Area (NCRA), still collects revenue and the other two, the Clackamas Town Center District and the Clackamas Industrial Area (CIA), are forecast to invest revenue in transportation projects over the next 20 years.

Current Federal, State and Regional Funding Sources

American Rescue Plan Act (ARPA)

The American Rescue Plan Act of 2021, also called the COVID-19 Stimulus Package or American Rescue Plan, is an economic stimulus bill signed into law in March 2021 to speed up the country's recovery from the economic and health effects of the COVID-19 pandemic and recession. Under ARPA, States may use their share of State Fiscal Recovery Funds (SFRF) to replace revenues lost because of the pandemic and to address the lingering economic and public health impacts of COVID-19.

Community Development Block Grant (CDBG)

Funding for Community Development Block Grants (CDBG) is provided by federal Department of Housing and Urban Development (HUD). CDBG funds are awarded through a process that involves citizen participation and coordination with participating cities within Clackamas County. Eligible projects include public facility improvements, such as sidewalks, crosswalks, and streets. More information can be found at clackamas.us/communitydevelopment/improvement.html.

FHWA Culvert Removal, Replacement, and Restoration AOP (Aquatic Organism Passage)

The National Culvert Removal, Replacement, and Restoration Grant Program (Culvert Aquatic Organism Passage (AOP) Program) is an annual competitive grant program that awards grants to eligible entities for projects for the replacement, removal, and repair of culverts or weirs that meaningfully improve or restore fish passage for anadromous fish. Anadromous fish species are born in freshwater such as streams and rivers, spend most of their lives in the marine environment, and migrate back to freshwater to spawn.

FHWA Emergency Relief Program

Title 23, United States Code, Section 125, authorizes a special program from the Highway Trust Fund for the repair or reconstruction of federal-aid highways and roads on federal lands that have suffered serious damage as a result of natural disasters or catastrophic failures from an external cause. This program, commonly referred to as the emergency relief or ER program, supplements the commitment of resources

by states, their political subdivisions or other federal agencies to help pay for unusually heavy expenses resulting from extraordinary conditions.

The applicability of the ER program to a natural disaster is based on the extent and intensity of the disaster. Damage to highways must be severe, occur over a wide area and result in unusually high expenses for the highway agency. Applicability of ER to a catastrophic failure is based on the criteria that the failure was not the result of an inherent flaw in the facility, but was sudden, caused a disastrous impact on transportation services and resulted in unusually high expenses to the highway agency.

Clackamas County has used funds from this program to fund projects needed due to federal emergencies, including Lolo Pass / Zig Zag River bridge, South End Road at milepost 3.8, 232nd Drive at milepost 0.3 and E. Barlow Trail Road.

FHWA Ferry Boat Discretionary (FBD) Program

FBD provides funding for ferry facilities on a non-interstate public road that is publicly-owned, publicly-operated or majority publicly-owned, providing substantial public benefits. Projects selected for funding under this program are funded at 80% Federal share.

HB2017 Road Fund (Keep Oregon Moving)

House Bill 2017, approved in 2017, increases the state gas tax, and vehicle title and registration fees over seven years. When all taxes and fees are in place in 2024, HB2017 will produce \$500 million in State Highway Fund revenue annually with investments in public transportation, walking and biking.

Incorporated with this funding is the former Jobs and Transportation Act (JTA) passed in 2009 by the Oregon Legislature. The JTA was designed to address funding shortfalls for some long-standing transportation needs, including Sunrise Project Phase 1, which was completed in June 2016.

Infrastructure Investment and Jobs Act (IIJA) / Bipartisan Infrastructure Law (BIL)

Federal funds can be used to help pay for projects on National Highway System facilities. Periodically, federal legislation reauthorizes federal highway, transit and transportation safety programs funded through the Highway Trust Fund. Between 2012 and 2015, MAP-21 was the reauthorization law between 2012 and 2015, and the FAST Act was the reauthorization between 2016 and 2022. The current reauthorization, the Infrastructure Investment and Jobs Act (commonly known as the Bipartisan Infrastructure Law or BIL), was signed into law in November 2021. IIJA/BIL is a federal infrastructure package including provisions related to federal highway aid, transit, highway safety, freight, rail, and research programs.

Funding for local projects on the National Highway System can be applied for through programs managed directly by federal agencies (BUILD and Federal Lands Access), the state (the STIP, Highway Safety Program and Highway Bridge Program) or programs directed through the local Metropolitan Planning Organization (Metro) such as the Metropolitan Transportation Improvement Program (MTIP).

Among the funding programs included in the IIJA/BIL are:

Bridge Investment Program (BIP)

The IIJA/BIL's Bridge Investment Program (BIP) provides funding for bridge replacement, rehabilitation, preservation, and protection projects that reduce the number of bridges in poor condition, or in fair condition at risk of declining into poor condition. In Oregon, \$268 million in funds is allocated for state and local bridges, and 85% is allocated for larger and higher-volume bridges. Note that this program differs from the Local Bridge Program which is described below.

Surface Transportation Block Grant Program (STBGP)

The Surface Transportation Block Grant program (STBG) provides flexible funding that may be used by States and localities for projects to preserve and improve the conditions and performance on any Federal-aid highway, bridge and tunnel projects on any public road, pedestrian and bicycle

infrastructure, and transit capital projects, including intercity bus terminals. STBG funds are allocated via Regional Flexible Fund Allocation (RFFA) – more information on this is below.

Highway Safety Improvement Program (HSIP)

The purpose of the Federal Highway Safety Improvement Program (HSIP) is to achieve a significant reduction in fatalities and serious injuries on all public roads. HSIP requires a data-driven, strategic approach to improving highway safety that focuses on performance. In the state of Oregon, HSIP funds are allocated via the **All Roads Transportation Safety (ARTS)** program. The principles and purpose of ARTS and HSIP are: reduce fatal and serious injury crashes, include all public roads for consideration, use data to drive decisions, and utilize both traditional “hotspot” methodology and systemic methodology for identifying and prioritizing projects.

Rebuilding American Infrastructure with Sustainability & Equity (RAISE) Grant

Previously known as TIGER and BUILD Discretionary Grants, RAISE provides a unique opportunity for the US Department of Transportation to invest in road, rail, transit and port projects that promise to have a significant impact on the nation, a region or a metropolitan area. To qualify for RAISE grants, projects must be multi-modal, multi-jurisdictional or otherwise challenging to fund through existing programs, and must be regionally significant and closely aligned with economic benefits. In urban areas, the minimum project amount is \$5 million; in rural areas the minimum project amount is \$1 million.

Local Bridge Program

The IJJA/BIL effectively restores Oregon’s State Bridge Program to the levels of the 2021-2024 State Transportation Improvement Program with \$268 million in funds allocated for state and local bridges. At least 15% of these funds (approximately \$40 million) is required to be used on bridges not on the federal-aid highway system, which are low-volume roads that carry local traffic. Note that this program differs from the Bridge Investment Program (BIP) which focuses on larger and higher-volume bridges.

NOAA Fisheries Transformational Habitat Restoration and Coastal Resilience Projects Grant

Provides infrastructure grants for transformational habitat restoration. These funds are intended to help sustain our nation’s fisheries and make significant strides in the recovery of threatened and endangered species and help protect coastal communities and ecosystems from the impacts of climate change. Included in eligible projects are culverts which improve and restore upstream fish passage for sensitive and threatened species.

Rural Surface Transportation Program (Rural STP)

Provides grants for projects to improve and expand the surface transportation infrastructure in rural areas to increase connectivity, improve the safety and reliability of the movement of people and freight, and generate regional economic growth and improve quality of life.

Safe Streets and Roads for All (SS4A)

Provides grants to support local initiatives to prevent transportation-related death and serious injury on roads and streets (in Clackamas County, this is the Drive to Zero initiative).

Metro Transportation System Management Operations (TSMO) program

Oregon Metro’s TSMO program is guided by the Transportation System Management and Operations Strategy Plan. This document helps to guide jurisdictions within Metro to better manage and operate existing roads and transit systems through traffic management strategies and implementation of new technologies. Through TransPort, the group that oversees implementation of the TSMO strategy, Metro allocates federal funding for relevant qualifying projects. For more information, see www.oregonmetro.gov/transportation-system-management-and-operations-tsmo-strategy.

Metropolitan Transportation Improvement Program (MTIP)

MTIP is the federally-mandated four-year implementation schedule of expenditures of federal transportation funds and significant state and local funds in the Portland metropolitan region. For projects to receive federal transportation funding, they must be included in the Regional Transportation Plan (RTP). MTIP coordinates spending of federal and state transportation funds for four different public agencies: Metro, ODOT, TriMet and South Metro Area Transit District. More information can be found on Metro's website: oregonmetro.gov/metropolitan-transportation-improvement-program.

National Fish Passage Program - US Fish and Wildlife Service

The National Fish Passage Program is a voluntary, non-regulatory conservation assistance program that provides financial and technical support to remove or bypass artificial barriers that impede the movement of fish and other aquatic species and contribute to their decline. The program implements fish passage improvement-based, cost-shared projects to protect, restore or enhance habitats that support fish and other aquatic species and their populations. All or a portion of project funds may be transferred to partner organizations through cooperative agreements if the service isn't able to implement a project.

Oregon Department of Land Conservation and Development (DLCD) Grant

The Oregon DLCDC awards grants that are used primarily for Oregon communities' comprehensive planning and plan updates. The fund is divided into functional categories and made available for specific types of projects. The Grants Allocation Plan provides guidance on the grant application categories and the available funds for each category. The plan is developed by the Grants Advisory Committee with assistance from DLCDC staff. The plan is then approved by the Land Conservation and Development Commission at the beginning of each biennium.

Oregon Department of Transportation Safety Office Grant

Through its Transportation Safety Office (TSO), ODOT administers grants that adhere to its mission to deliver transportation safety programs to Oregon citizens. The grant program is based on a complete and detailed problem analysis prior to the selection of projects. Motor vehicle crash data, survey results (belt use, helmet use, and public perception), and other problem identification data are analyzed. Projects are selected using criteria that include response to identified problems, innovation, clear objectives, adequate evaluation plans, and cost-effective budgets. Specific TSO grant programs include:

ODOT Alcohol-impaired Driving Program (Section 164) Fund Grant

Under 23 USC 164, federal funds are disbursed to states for the express purpose of alcohol-impaired driving countermeasures or for the enforcement of laws prohibiting driving while intoxicated, driving under the influence or other related laws or regulations. ODOT distributes funds related to Section 164 through the Transportation Safety Office.

ODOT Highway Safety (Section 402) Fund Grant

Under 23 USC 402, federal funds are disbursed to states for the express purpose of safety-related programming. Specific programs include Bicycle and Pedestrian Safety, Community Safety Programs, and Driver Education Programs. ODOT distributes funds related to Section 402 through the Transportation Safety Office.

Oregon State Highway Fund

Highway revenues in the State of Oregon come from the following main sources:

- Motor vehicle registration and title fees
- Driver's license fees
- Motor vehicle fuel taxes
- Weight-mile taxes.

Net revenues from these taxes and fees are deposited into an account known as the State Highway Fund. With minor exceptions, the [Oregon Constitution \(Article IX, Section 3a\)](#) dedicates highway revenues for the construction, improvement, maintenance, operation and use of public highways, roads, streets and roadside rest areas.

Oregon Watershed Enhancement Board (OWEB)

OWEB is a state agency that provides grants to help Oregonians take care of local streams, rivers, wetlands and natural areas. Community members and landowners use scientific criteria to decide jointly what needs to be done to conserve and improve rivers and natural habitat. OWEB grants are funded from the Oregon Lottery, federal dollars, and salmon license plate revenue.

OWEB accepts grant applications for restoration, technical assistance, and land acquisition. These grants support voluntary efforts by Oregonians to protect and restore healthy watersheds, including actions in support of the Oregon Plan for Salmon and Watersheds, and the Oregon Conservation Strategy.

Regional Flexible Fund Allocation (RFFA)

The RFFA process is used to determine which locally identified priorities are awarded funding to advance the goals of the Regional Transportation Plan. Regional flexible funds are distributed to Metro from three federal grant programs: the Surface Transportation Block Grant Program, the Congestion Mitigation/Air Quality Program, and the Transportation Alternatives Program. Metro then distributes those funds to cities and counties for projects designed to make getting around the region easier and safer. The RFFA process typically takes place on a two-year funding cycle to match closely with the MTIP update schedule. More information can be found on Metro's website: <https://www.oregonmetro.gov/public-projects/regional-flexible-funding-transportation-projects>.

Statewide Transportation Improvement Program (STIP)

The STIP, Oregon's four-year transportation capital improvement program, identifies the funding for and scheduling of transportation projects and programs on federal, state, city and county transportation systems, multimodal projects (highway, passenger rail, freight, public transit, bicycle and pedestrian), and projects in the National Parks, National Forests and Indian tribal lands.

The STIP includes a process for identifying projects that receive federal FAST Act funds as well as a portion of Oregon State Highway Fund. The current STIP process divides funding into two main categories -- Enhance and Fix-it.

Enhance

Enhance, expand or improve the transportation system. Eligible project activities include bicycle and/or pedestrian facilities, Development STIP (D-STIP), modernization projects that add system capacity, most projects previously eligible for Transportation Enhancement funds, projects eligible for Flex Funds, protective right-of-way purchases, public transportation, Safe Routes to Schools, Scenic Byways, Transportation Alternatives, and Transportation Demand Management (TDM)

Fix-It

Includes all capital funding categories that maintain or fix ODOT's portion of the transportation system

These categories do not include non-capital maintenance and operations programs because they are not included in the STIP.

Western Federal Lands Access Program (FLAP)

FLAP was created by MAP-21 to improve access to federal lands. The program is directed towards public highways, roads, bridges, trails and transit systems that are under state, county, town, township, tribal,

municipal or local government jurisdiction or maintenance, and that provide access to federal lands. The following activities are eligible for consideration:

- Preventive maintenance, rehabilitation, restoration, construction and reconstruction
- Adjacent vehicular parking areas
- Acquisition of necessary scenic easements and scenic or historic sites
- Provisions for pedestrians and bicycles
- Environmental mitigation in or adjacent to federal land to improve public safety and reduce vehicle/wildlife mortality while maintaining habitat connectivity
- Construction and reconstruction of roadside rest areas, including sanitary and water facilities
- Operation and maintenance of transit facilities

Proposed projects must be on a public highway, road, bridge, trail or transit system that is located on, adjacent to or provides access to federal lands for which title or maintenance responsibility is vested in a state, county, town, township, tribal, municipal or local government.

Past Funding Sources

The following funding sources have been used for projects within the past five years of the Capital Improvement Program but are currently not in use for the projects listed in this document.

Connect Oregon

Connect Oregon is a lottery bond-based initiative to invest in air, rail, marine and bicycle/pedestrian infrastructure to ensure Oregon's transportation system is strong, diverse and efficient. Projects are eligible for up to 80% of project costs for grants and 100% for loans. A minimum 20% cash match is required from the recipient for all grant-funded projects. Projects eligible for funding from state fuel tax revenues are not eligible.

HB 2017 removed public transit projects from Connect Oregon and directed the Oregon Transportation Commission to distribute the funds to five specific projects:

- Treasure Valley Intermodal Facility (\$26 million)
- Rail expansion in East Beach Industrial Park at the Port of Morrow (\$6.55 million)
- Brooks rail siding extension (\$2.6 million)
- Mid-Willamette Valley Intermodal Facility (\$25 million)
- Oregon International Port of Coos Bay Rail Line Repairs and Bridge Replacement (\$5 million)

With funding going to these projects, no funding is expected to be available until the end of the 2021-2023 biennium.

Federal Highway Administration (FHWA) Accelerated Innovation Deployment (AID) Demonstration Program

AID provides funding as an incentive for eligible entities to accelerate the implementation and adoption of innovation in highway transportation. FHWA encourages the use of AID funds to promote the deployment of the *Every Day Counts* (EDC) initiatives, which provide ways to improve highway planning, design, construction and operation.

This program is one aspect of the multi-faceted Technology and Innovation Deployment Program (TIDP) approach that provides funding and other resources to offset the risk of trying an innovation. AID funds are available for any project eligible for assistance under Title 23, United States Code. Eligible projects

may involve any aspect of highway transportation that addresses TIDP goals, and must include proven innovative practices or technologies such as those included in the EDC initiative. Innovations may include infrastructure and non-infrastructure strategies or activities that the applicant or sub-recipient intends to implement and adopt as a significant improvement from the conventional practice.

Highway Bridge Program (HBP)

HBP is a part of the National Highway Performance Program and the Surface Transportation Program. Bridge improvement and replacement is a major priority of ODOT. To qualify for this funding, a bridge typically needs to have a sufficiency rating of less than 50.

Highway Safety Improvement Program (HSIP)

This ODOT program was operated through the FAST Act to incorporate the functions and funding that were previously contained in the High-Risk Rural Roads Program. The HSIP is focused on projects on local agency roads and ODOT facilities to increase awareness of safety on all roads, promote best practices for infrastructure safety, complement behavioral safety efforts, and focus limited resources to reduce fatal and serious injury crashes. The program, data-driven to achieve the greatest benefits in crash reduction, was developed to be blind to jurisdiction. ODOT recently transitioned the safety program and the completed jurisdictionally-blind safety program was finalized in early 2021. During the transition, funding for local agency roads were allocated to primarily focus on a few systemic low-cost fixes that could be implemented in the shorter timeframe.

Immediate Opportunity Funds (IOF)

The IOF supports primary economic development in Oregon through construction and improvement of streets and roads. The 1987 Legislature created state funding for immediate economic opportunities with certain motor vehicle gas tax increases. Access to this fund is discretionary and the fund may only be used when other sources of financial support are unavailable or insufficient; it is not a replacement or substitute for other funding sources.

The IOF is designed to meet the following objectives:

- Provide needed street or road improvements to influence the location, relocation or retention of a firm in Oregon
- Provide procedures and funds for the Oregon Transportation Commission (OTC) to respond quickly to economic development opportunities
- Provide criteria and procedures for the Oregon Economic and Community Development Department, other agencies, local governments and the private sector to work with ODOT to provide road improvements needed to ensure specific job development opportunities for Oregon, or to revitalize business or industrial centers

Use of the IOF is limited to:

- Type A: Specific economic development projects that affirm job retention and job creation opportunities
- Type B: Revitalization of business or industrial centers to support economic development
- Type C: Preparation of Oregon Certified Project-Ready Industrial Sites

Special Public Works Fund (SPWF)

The SPWF provides funds for publicly-owned facilities that support economic and community development in Oregon. Funds are available to public entities for:

- Planning

- Designing
- Purchasing
- Improving and constructing publicly-owned facilities
- Replacing publicly-owned essential community facilities
- Emergency projects as a result of a disaster

DRPAF

Table C: Key Unfunded Projects Matched with Possible Grant Funding Sources

Project Name (TSP Number)	Description	Possible Funding Source
Sunrise Project Phase II (4036)	Extend the Sunrise Project from I-205 to 172 nd Avenue	STIP Enhance / Federal Grant
I-205 Bottleneck Project (4016)	Improvement to I-205 between Stafford interchange and the east end of the Abernethy Bridge to address congestion issues	STIP Enhance / BUILD
OR 211 (4040)	Canby Marquam Hwy / OR 211 intersection improvements	STIP Fix-it / HSIP
OR 212 Freight Mobility Corridor Improvement	Freight mobility improvements on OR 212 between Rock Creek Junction and US 26	MTIP / STIP
OR212 Foster and Sunnyside Intersection Upgrades	Improve safety and operations at Foster and Sunnyside intersections of OR212	Federal Grant
Barlow Road/Arndt Road/OR 99E Corridor (2029)	Upgrades to the OR 99E/Barlow Road and Arndt Road/Barlow Road intersections and extension of Arndt Road	STIP Enhance / Federal Grant
Bakers Ferry Road – Pathway from Barton Park to Hwy 224 (3101)	Add paved shoulders and turn lanes at major intersections; remove horizontal curve and relocate intersection from Eaden Rd to OR 224	Oregon Community Paths Program
McLoughlin Sidewalk, Safety and ETC (4015)	Add bicycle and pedestrian improvements from Milwaukie city limit to Gladstone city limit	Federal Grant
I-205 Multi-Use Path Gap (1026)	Construct new connection to fill the I-205 multi-use path gap (OR 212 to OR 224)	Federal Grant / RFFA
142 nd Bike/Ped (1006)	Add bike & pedestrian facilities between Sunnyside & Hwy 212	RFFA
Alberta St / 72 nd Ave (2000)	Add sidewalks, bicycle lanes and stormwater facilities	TIF
Luther Rd (2001)	Add sidewalks, bicycle lanes and stormwater facilities	TIF
Overland St	Add sidewalks, bicycle lanes and stormwater facilities	TIF
Jennings/99E/Trolley Trail Intersection (4035)	Improve the pedestrian and bicycle crossings at the intersection of Jennings, OR99E, and Trolley Trail	STIP
US26 Welches to Wildwood (4092/4093)	Add multi-use path along US26	FLAP
Bull Run Truss (3038)	Replace bridge	STIP / HBP / BIP
Dodge Park Bridge (1053)	Replace bridge and include paved shoulders	STIP / HBP / BIP
Wyland Road Bridge	Bridge replacement	STIP / HBP
E. Barlow Pass Bridge	Bridge replacement	FLAP
Lusted Rd Bridge	Replace or upgrade Lusted Rd Bridge over Sandy River	BIP
Tickle Creek Rd Bridge	Replace or upgrade Tickle Creek Rd Bridge over Tickle Creek	BIP
Redland Rd Bridge (3141)	Replace or upgrade Redland Rd East Bridge over Abernethy Creek	BIP
Oak Grove Elementary	Crossing upgrades at Courtney/River and Courtney/Oak Grove	SRTS
View Acres Elementary	Crossing upgrades at View Acres/Hill and Bramble/Hill	SRTS



Appendix
A

TRANSPORTATION EQUITY INDICATORS

Review & Methodology

Purpose

Local Plan Review

Cross Sector Review

Indicator Selection Recommendation

Index Methodology

Date: 12/5/19 (*Updated February 2024*)
Subject: Transportation Equity Indicators – Review & Methodology
From: Abe Moland, Health and Transportation Impact Planner, CCPHD

Purpose

In Clackamas County, a resident's zip code can be a better predictor of health than their genetic code. This is why it is essential to adopt an equity lens to make data informed decisions to consider the unique needs of vulnerable populations in planning and transportation projects and address disparities occurring throughout the county.

There are various equity-based initiatives occurring within the Department of Transportation and Development and other jurisdictions that influence the built environment within the county. This memo 1) reviews existing, publically available methodologies that have been used to understand geospatial distribution patterns of vulnerable populations within Clackamas County, and 2) explores a method for the county to use to incorporate an equity lens to transportation and planning work.

Definitions

- **Transportation Equity Lens** – A geospatial analysis of the community that a) acknowledges that individuals and groups differ in transportation ability or need and b) attempts to address this disparity through intentional distribution of resources to accommodate all users.
- **Transportation Inequity** – Barriers in the transportation system or planning process that prevent individuals or groups from meaningfully participating in the planning process or accessing needed transportation modes to obtain their highest quality of life.

Local Plan Review

Publically available transportation and planning documents (n=40) were collected and analyzed for methodologies to map vulnerable populations. **Appendix A** outlines the collection approach. Plans were included in the analysis if they:

- Included demographic analysis of variables that were framed through a vulnerability, equity, opportunity, environmental justice, or transportation disadvantage lens, or included language that was people-focused and attempted to account for disparities between demographic categories that create and perpetuate inequities;
- Mapped the demographic variables identified, and;
- Were completed after 2005.

Appendix B documents the complete list of plans reviewed. Some plans may have conducted equity analysis in the development stages, but were not included in this review because the final public document did not include mention of the equity lens or documentation of developmental progress memos describing this analysis were not publically available. Of the plans reviewed, less than a quarter (n=9, 22.5%) were found to incorporate an equity lens. The plans included in analysis listed in Table 1.

Table 1. Transportation Plans that included geospatial analysis of equity variables

Plan	Year	Variables Used
Sandy Transit Existing Conditions Report	2019	65 and older per square mile per census block, people who identify as Asian, Black, White, Native American/other, and People who identify as Hispanic
Clackamas County Safety Action Plan	2019	Youth between 15-25, rural populations, and 65 and older
City of Milwaukie Transportation System Plan	2018	More than ¼ mile walk to a transit stop
Gladstone Transportation System Plan	2017	Residents younger than 18 per acre, 65 and older per acre, Hispanic or Latino, disability status by employment rate for the 20-60 population, people who earn 0-1.99x the poverty level
Canby Area Transit Plan	2017	Under 18 by square mile per census block, 65 and older per square mile per census block, People who identify as Asian, Black, White, Native American/other, people who identify as Hispanic, and residents in poverty per square mile by census block group
SMART Transit Plan	2017	Under 18 by square mile per census block, 65 and older per square mile per census block, non-white population by census block, median household income by census block
West Linn Transportation System Plan	2016	Younger than 16, 65 and older, racial minority (undefined, non-English speakers undefined, population with a disability, people who earn 0-1.99 times the federal poverty line
Lake Oswego Transportation System Plan	2013	Residents younger than 18 per acre, 65 and older per acre
Clackamas County Transportation System Plan	2015	17 and younger normalized by census block, 65 and older normalized by census block, Non-white normalized by census block, Non-Hispanic normalized by census block, Households where no adult speaks English well normalized by census block, Households under 200% poverty line normalized by census block, Households with 0-1 vehicles normalized by census block, living within 500ft of a freeway or highway

The plans integrated an equity lens in the following ways:

- **Sandy Transit Existing Conditions Report. (2019)** The report identifies seniors and people of color to understand where need is for transit in the area, what delivery might look like for specific populations (language considerations), and if transit service changes will affect people equitably. It is frames as less of a “need assessment” and more as a civil rights assessment to avoid unequal treatment on the basis of race or ethnicity.
- **Clackamas County Transportation Safety Action Plan. (2019)** The plan updates the 2012 County Safety Action Plan and incorporated an interdisciplinary stakeholder group to inform the discussion defining vulnerable road users. Under contributing factors to serious and fatal crashes, the plan found 36% involved drivers under the age of 25 and 17% involved older adults 65 years and older. The plan also identifies a higher rate of severe crashes occurring in rural areas (45% despite only 20% of the population living in these areas). The Safety Action Plan is the only document to highlight the rural/urban inequity.
- **City of Milwaukie Transportation System Plan. (2018)** The plan defines “transportation disadvantaged” as individuals who have difficulty obtaining transportation because of their age, income, physical, or mental disability. The plan includes a summary of environmental justice findings that make an effort to identify underserved and vulnerable populations to improve

transportation options and avoid future impacts. Findings highlight areas where households are not within ¼ mile of a bus stop, as well as a lack of system connectivity for people who walk or bike.

- **Gladstone Transportation System Plan. (2017)** The plan identifies socio-economically sensitive populations as minorities, elderly people, people with low incomes, and people with disabilities. Evaluation criteria for project prioritization gave one point for a project being in an area with a high concentration of children, disabled, low-income, or elderly people.
- **Canby Area Transit System Master Plan. (2017)** In the existing conditions the transit plan outlines seniors, youth, and low-income residents as populations of focus for transit planning. It also maps residents by race/ethnicity.
- **SMART Master Plan. (2017)** The plan maps median household income and percent non-white populations by census block group.
- **West Linn Transportation System Plan. (2016)** The city identifies equity as one of the six desired outcomes of the planning efforts, defined as “equity exists relative to the benefits and burdens of growth and change to the region’s communities”. Within the context of the TSP, is also outlined as a goal and identified as “transportation facilities that are accessible to all members of the community”. To prioritize projects, the evaluation criteria give points if a project increased the number of transportation disadvantaged populations (elders, youth, and transit riders) within a 20-minute walk, bike, or bus-shed of schools, parks, schools, and employment areas.
- **Lake Oswego Transportation System Plan. (2013)** The plan highlights growing senior populations and system updates that allow people to age in place as important considerations. Within the transit needs analysis, the plan suggest strategies to accommodate people with disabilities or visual impairment and connect disadvantaged communities with community/employment centers. The plan does not define “disadvantaged community”. The plan conducts spatial analysis on senior and youth population densities.
- **Clackamas County Transportation System Plan. (2012)** The plan outlines six policies related to equity, health and sustainability. The policies focus on supporting walking, biking, and transit connections in area with identified transportation-disadvantaged populations, coordinating land use and transportation planning to minimize environmental pollution, and continue to provide public transit services to under-served areas, particularly for seniors and people with disabilities.

Several plans (n=11) included discussion of demographic information through an equity lens or incorporated equity-based language in the guiding principles of the document. **Appendix C** captures descriptions of the language used.

Review Observations

A majority of the plans included reviewed indicators that described youth, seniors, communities of color, and low-income households. Indicators on limited English proficiency, disability, and ethnicity appeared less frequently. Equity indicators related to travel access and the physical environment appeared least frequently. Figure 1 shows the frequency of indicators in plans included.

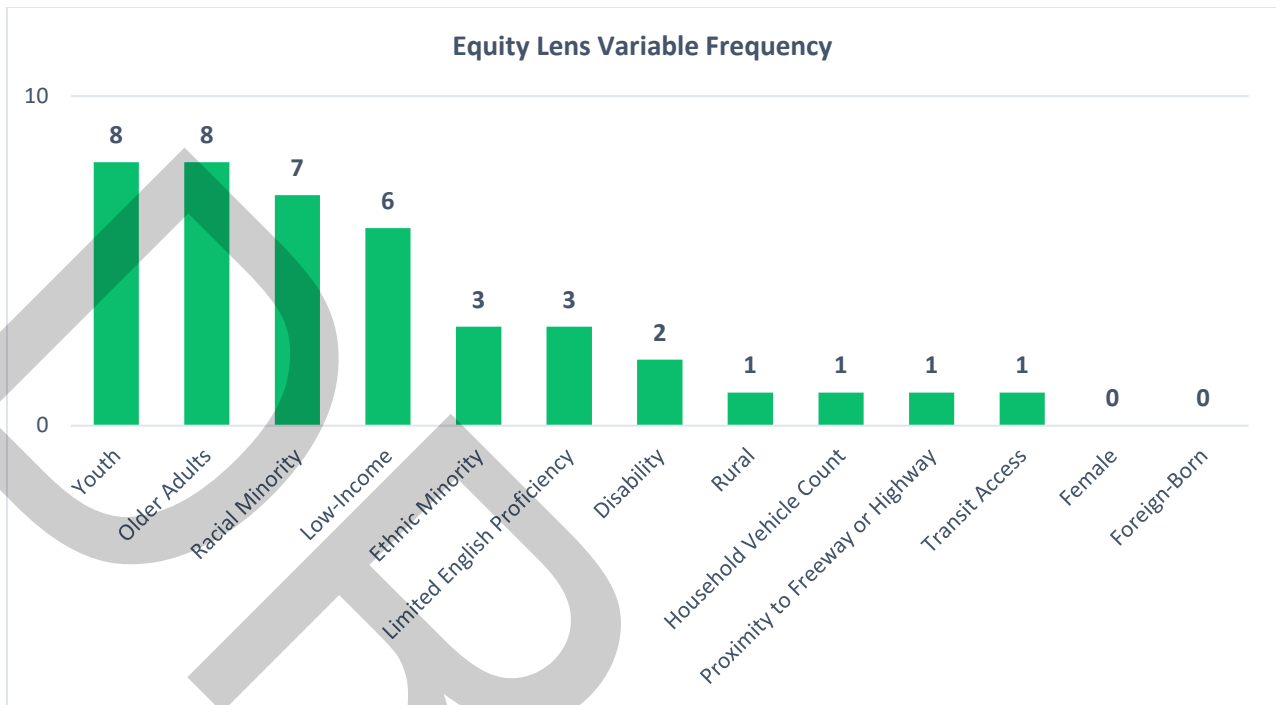


Figure 1. Frequency of variables used to conduct equity-type analysis in transportation and comprehensive plans within Clackamas County boundaries.

When a plan discusses equity and the transportation planning process, it is almost exclusively within the context of transit development, citing transit-dependent populations as one of the most transportation disadvantaged groups.

Cross Sector Review

To inform future direction of transportation equity within Clackamas County, the following plans related to equity within the county were reviewed, as well as leading practices from across the region and nation in developing indices to identify populations with differing needs within the community.

Clackamas County Community Health Improvement Plan (2017)

The Clackamas County Community Health Improvement Plan (CHIP) describes priorities, goals, and objectives to improve the health and quality of life in Clackamas County. These directives are informed through three guiding principles: 1) Assessing life across the lifespan, 2) Grounded in Health Equity, and 3) Trauma-informed approaches. All acknowledge that not all residents in Clackamas County have equitable access to opportunities and systems that contribute to good health due to discrimination and other structural inequities like poverty, institutional racism, and gender inequality.

The CHIP maps percent non-English speakers per census block group (CBG), percent of population within 1 km of a bus stop per CBG, percent children with Medicaid per CBG, and median household income by CBG,

Oregon Metro (2018)

As part of the regional transportation planning process, metro evaluated the region through an equity lens to evaluate the investment strategy against historically marginalized communities in the region.

The final indicators used were people of color, people with low incomes, and English language learners where densities were higher than the regional average.

Delaware Valley Regional Planning Commission (2018)

The Delaware Valley Regional Planning Commission (DRVPC) Communities of Concern report explores the idea that the risk of being in a severe crash is linked to where one lives. The analysis expands the definition of environmental justice communities to include a variety of demographic and socioeconomic indicators of disadvantage beyond race and income.

Variables included were single female headed households, carless households, older adults, and people with limited English proficiency. After creating an index of the demographic and social variables, and normalizing crashes by population and area, they found that in 91% of the census tracts where crash rates were above average, the census tract was also above average for at least one correlated indicator of potential disadvantage. This analysis informed the TIP project benefit evaluation criteria.

Broward Metropolitan Planning Organization (2018)

The Broward MPO in South Florida developed a systematic process to consistently evaluate transportation plans and programs within its region against federal and state nondiscrimination authorities, produce meaningful outcomes for the community through transportation planning programs for vulnerable populations, and identifying adverse impacts early on in the planning process rather than at the project funding or delivery stage. The MPO used a threshold-based approach to analysis with the goals of: 1) Using accessible data, 2) be flexible depending on project needs, 3) be easy to use, 4) be objective, and 5) be open-sourced.

Based on review of existing MPO plans and programs and feedback from a working group, the final indicators selected were racial minority, ethnic minority, youth ages 10-17, older adults aged 65+, population below the poverty line, LEP populations, and populations with a disability. Optional indicators to be used with caution for reliability due to small number included zero vehicle households, female heads of household, and no high school diploma (25+).

Indicator Selection Recommendation

Based upon review of existing plans and best practice, the following indicators are proposed to best capture potential disadvantage in the county:

1. Populations 65 and older
2. Populations younger than 18
3. Communities of Color
4. Hispanic/Latino Ethnicity
5. Low Income Households
6. Limited English Proficiency
7. Disability status

Ultimately, the criteria used in an index of this type should be grounded in feedback and experience of DTD staff and the community members they serve.

Index Methodology

The described below was used to create the index. It is modeled after approaches used by the Delaware Valley Regional Planning Commission and the Broward County Metropolitan Planning Organization. The methodology uses a threshold-based approach to identifying higher concentrations of the population of interest at the census block group level in comparison to the County as a whole. Thresholds were assigned score and then combined with other variables to create a composite score. Note that every ten years, the bounds of census block groups are adjusted by the US Census Bureau during their decennial census. Thus, a Transportation Equity Index from prior to 2020 may not be directly comparable to an index from after 2020, and so forth, because they are no longer comparing the same geographic areas.

The methodology involves five steps:

1. Calculate mean value (county average) of indicator.
2. Calculate standard deviation (SD) of indicator range.
3. Create 5 bins centered on mean value using SD.
 - a. If the indicator sample has a wide distribution (with high SD), the calculation of bins means it is possible that the bin for the 0 score will consist of negative numbers. In these cases, 0 score bin is omitted and that index will only have bins 1 through 4.
4. Normalize values using 0-4 score based on SD bins to develop indicator score.
 - a. Block groups with a zero percent estimate within individual indicator were assigned a score value of zero.
5. Sum individual indicator scores for index score.

Index Interpretation

The scores can be interpreted in the following way for an individual indicator:

Table 2. Individual variable score meaning.

Score	Interpretation
0	Well below county average
1	Below county average
2	County average
3	Above county average
4	Well above county average

The summed score can be interpreted as below.

Table 3. Composite score interpretation.

Score	Interpretation
<12	Below county average
13-14	County average
15-19	Above county average
≥20	Well above county average

A map of the composite equity index is shown in Figure 2.

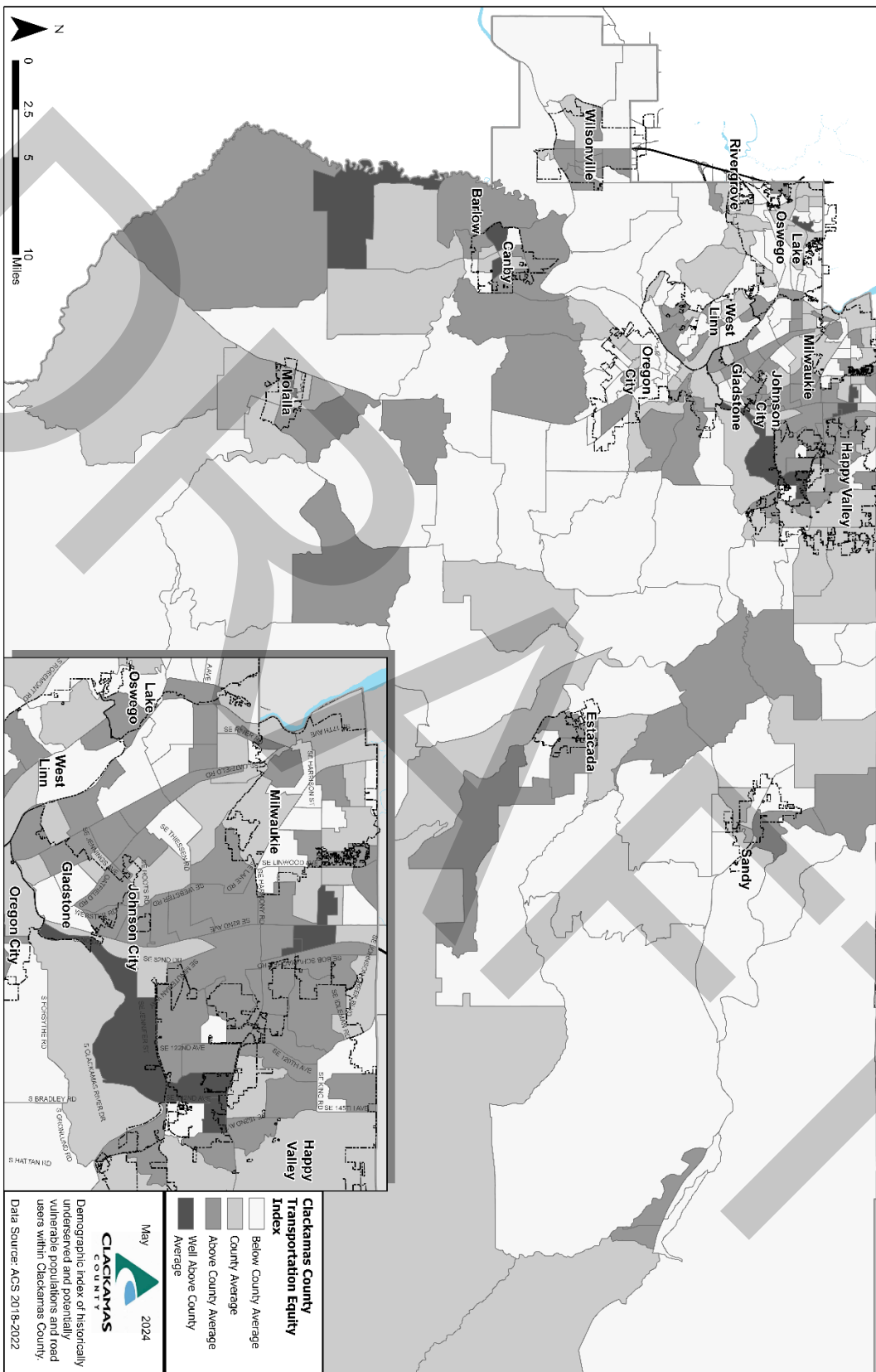


Figure 2. Sample map of the composite equity index score mapped.

Appendix A. Plan Review Methodology

To collect plans, the following search process was followed:

- Review of existing Clackamas County transportation documents
- Review of state transportation documents
- Key word search of city websites
- Key word search of transportation and planning documents including: “equity”, “vulnerable”, “justice”, “opportunity”, “diversity”, and “disadvantage”.
- Snowball collection process from identified plan efforts including staff memos, interim development reports, technical appendices and glossaries, and public meeting notes.

Appendix B. Complete Plan Review List

1. Oregon City Comprehensive Plan (2004)
2. Oregon City Transportation Demand Management Plan (2017) (*strategies for walking/biking access*)
3. Oregon City Beaver Creek Road Concept Plan (2008 and readopted 2016)
 - a. January 17th, 2019 Citizen Involvement Presentation (*acknowledges zoning updates will unlock development opportunities in areas historically underserved that need to drive to reach destinations*)
4. Oregon City Park Place Concept Plan and Appendix (2008)
5. Oregon City South End Concept Plan (2014)
 - a. Planning Commission Issues Matrix (2014) (*Highlights concern for senior citizen needs, specifically mobility options related to TriMet service and housing options that allow aging in place, like first floor unit options*)
6. City of Milwaukie Central Milwaukie Land Use & Transportation Plan (2015)
7. City of Milwaukie Downtown and Riverfront Land use Framework Plan (2015)
8. City of Milwaukie Lake Road Multimodal Plan (1997)
9. City of Milwaukie Tacoma Station Area Plan (2013)
10. Lake Oswego Uplands Neighborhood Plan (2017)
11. Lake Oswego First Addition/Forest Hills Neighborhood Plan (2008) (*mentions diverse age range*)
12. Lake Oswego Evergreen Neighborhood Association Plan (2005) (*“Values broad range of housing types and price levels to bring people of diverse ages and incomes into daily interaction”*)
13. Sandy Comprehensive Plan (1997)
14. Estacada Active Transportation Plan (2018)
15. Estacada Downtown & Riverside Area Plan (2011)
16. Happy Valley Transportation System Plan (2014)
17. Happy Valley Comprehensive Plan (2017)
18. Pleasant Valley North Carver Comprehensive Plan CAC Concept Overview (2019)
19. West Linn Highway 43 Concept Plan (2016)
20. West Linn Comprehensive Plan (2017)
21. Canby Comprehensive Plan (2019) (*acknowledges there are areas of transportation disadvantage and limited transit service*)
22. Canby Transportation System Plan (2010)

23. Molalla Transportation System Plan (2018) *(includes transportation disadvantaged in evaluation criteria but does not define)*
24. Molalla Comprehensive Plan (2014)
25. Wilsonville Active Transportation Plan (2013)
26. Downtown Molalla Development and OR 211 Streetscape Plan (2007)
27. Villebois Village Master Plan (2013)
28. Wilsonville Comprehensive Plan (2019)
29. Mt Hood Multimodal Transportation Plan (2014)

Appendix C. Description of Plans that Discussed Equity but Did Not Map.

The following plans documented an assessment of demographic indicators, but did not map them:

- **Estacada Transportation System Plan (2018).** The plan defines transportation disadvantaged as people who do not have automotive transport of their own due to disability or income status. The plan outlines people with low incomes, seniors, and people with disabilities specifically.
- **Wilsonville Transportation System Plan (Updated 2019).** The plan uses the EPA definition of environmental justice, “the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.” The plan further describes it as an effort to identify underserved and vulnerable populations to improve transportation options and reduce future inequalities. The plan identifies Charbonneau and the southern edge of Villebois as focus areas due to higher proportions of seniors and low income groups, but does not provide maps.

In the planning stages of the Wilsonville TSP, the framing of how environmental justice was discussed at length. Many projects in the plan fulfilled environmental justice goals, they just weren’t documented through that lens. Environmental justice language was important to include for applying for Metro or federal funding. Mapping environmental justice indicators and underserved population areas was cautioned against for avoiding the possible discomfort it might raise if someone was identified as living in one of those areas.

Inequities are not commonly identified in planning documents, however, guiding principles occasionally incorporate language around equitable outcomes that are goals of transportation and land use planning efforts:

- **City of Milwaukie Downtown and Riverfront Land Use Framework Plan (2015)** – Provide for people of all ages, cultures, ethnic groups, and incomes.
- **City of Milwaukie Community Vision (2017)** - Milwaukie is an inclusive community of diverse people from a variety of backgrounds that honors our differences and shared similarities. We are engaged and come together in many ways through various events and community gathering places, where we can celebrate our interests and passions.
- **City of Milwaukie Comprehensive Plan (draft)** – Ensure that [pedestrian and bicycle] improvements are inclusive and provide access for people of all ages and abilities. Provide

housing options and reduce housing barriers for people of all ages and abilities, with a special focus on people of color, aging populations, and people with low incomes.

- **Lake Oswego Transportation System Plan (2014)** – Goal D Accessibility – Provide a multimodal transportation system that is suitable for community members of all ages, income levels and physical abilities to access daily needs and services. Goal G Sustainability - Provide a transportation system that maintains and improves economic vitality, environmental health, social equity and well-being for citizens today and in the future. *(While Goal 4 was people-oriented, the evaluation criteria used for project selection for this goal were mode focused)*
- **Gladstone Transportation System Plan 2017)** – Goal III Accessibility – Provide a multimodal transportation system that is accessible to all members of the community and minimizes out of area travel. Objective A. Ensure adequate access for children, disabled, low-income or elderly people.
- **Sandy Transportation System Plan (2011)** – Transportation Goal: Mobility – Improve mobility for the transportation disadvantaged. *(The plan does not define transportation disadvantaged but outlines transit-dependent individuals as people with disabilities, youth, elderly, and people with low incomes)*
- **West Linn Transportation System Plan (2016)** – Goal 3. Equity - Develop transportation facilities that are accessible to all members of the community. 3B. Ensure transportation services (and impacts) are equitably distributed to all segments of the population.
- **Downtown Molalla Development and OR 211 Streetscape Plan (2007)** – Guiding Principle 3 – Improve walking and bicycling conditions – Strive for universal access to all important destinations for all residents regardless of age, physical capabilities, or skill.
- **Villebois Village Master Plan (2013)** – Diversity: Refers to Villebois’ commitment to providing a community that offers many options and choices for those who live, work, and play there (referring to housing, the village center, parks and open space, and transportation).

While not a transportation-related document, the City of Milwaukie integrates a racial equity lens into their housing policy decision-making structure. Milwaukie defines equitable housing as, “diverse, quality, physically accessible, affordable housing choices with access to opportunities, services, and amenities”. The lens tool that Milwaukie developed asks questions about unintended consequences, how policy supports historically marginalized communities, and who benefits and is burdened from decisions. The lens also highlights that people of color in Milwaukie are more likely to be cost-burdened from rent, have lower rates of homeownership, and have been historically underrepresented in the decision-making process in comparison to white people.

Additionally, the City of West Linn Sustainable West Linn Strategic Plan outlines a goal to work towards transportation affordability, aiming to have all households in West Linn spending 15% of their income on transportation costs.



Appendix B

TRANSPORTATION EQUITY INDICES MAPPING

MAPS

Map 1: Communities of Color

Map 2: Seniors (over 65 yrs)

Map 3: Hispanic Communities

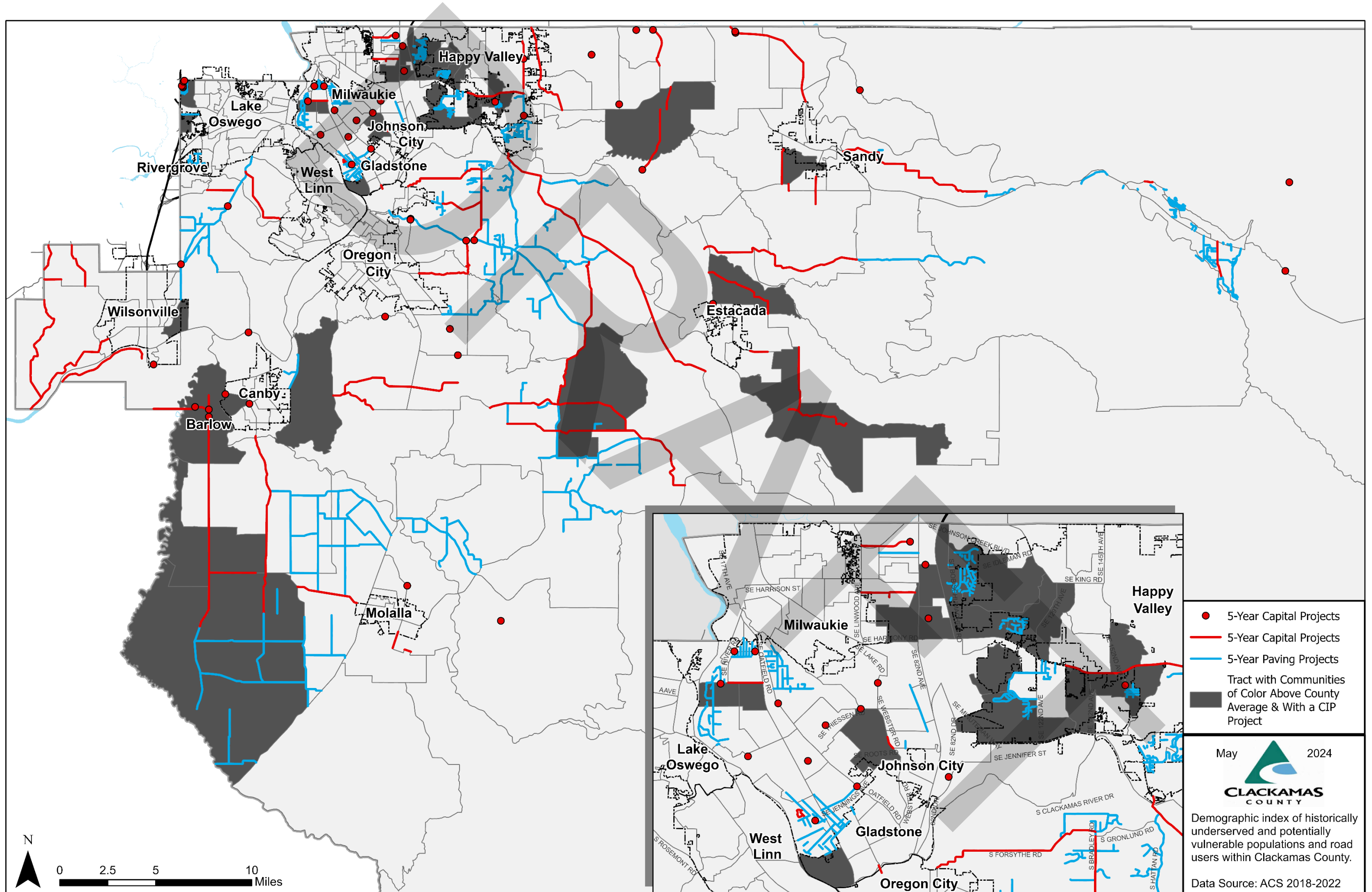
Map 4: People with a Disability

Map 5: Low-Income Households

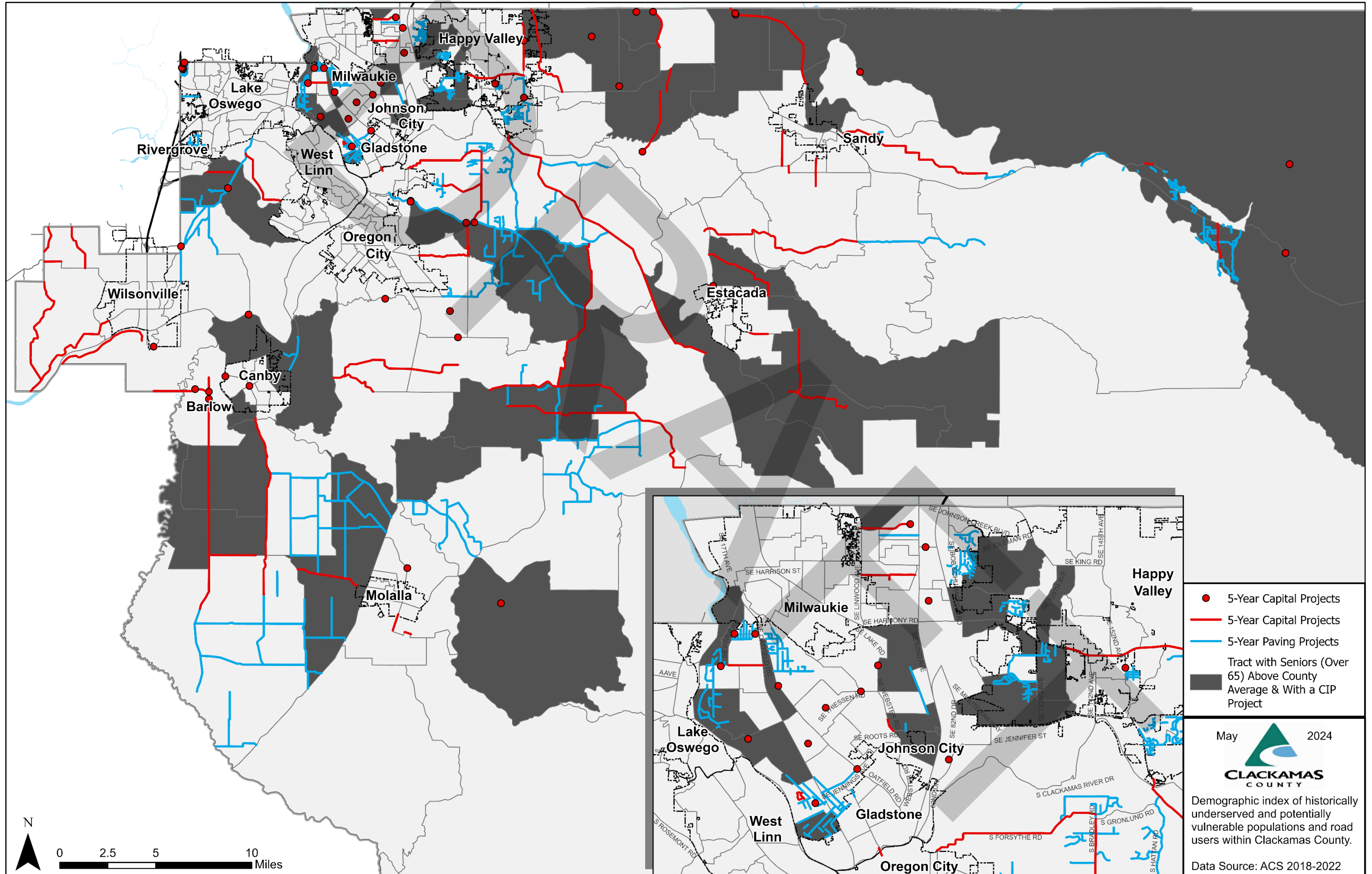
Map 6: Low English Proficiency

Map 7: Youth (under 18 yrs)

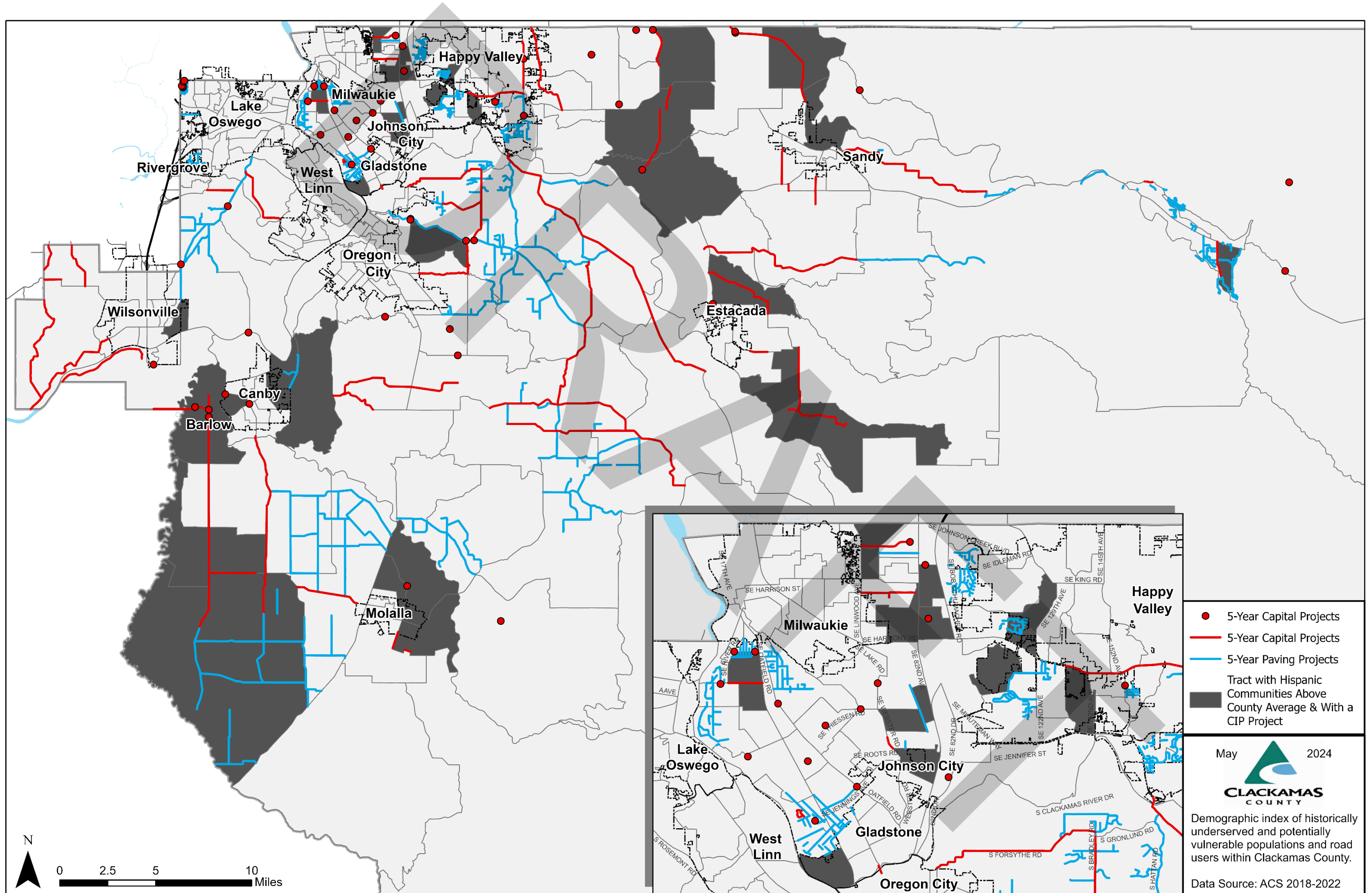
APPENDIX B MAP 1: TRANSPORTATION EQUITY INDEX – COMMUNITIES OF COLOR



APPENDIX B MAP 2: TRANSPORTATION EQUITY INDEX – SENIORS (OVER 65 YEARS)



APPENDIX B MAP 3: TRANSPORTATION EQUITY INDEX – HISPANIC COMMUNITIES



- 5-Year Capital Projects
- 5-Year Capital Projects
- 5-Year Paving Projects
- Tract with Hispanic Communities Above County Average & With a CIP Project

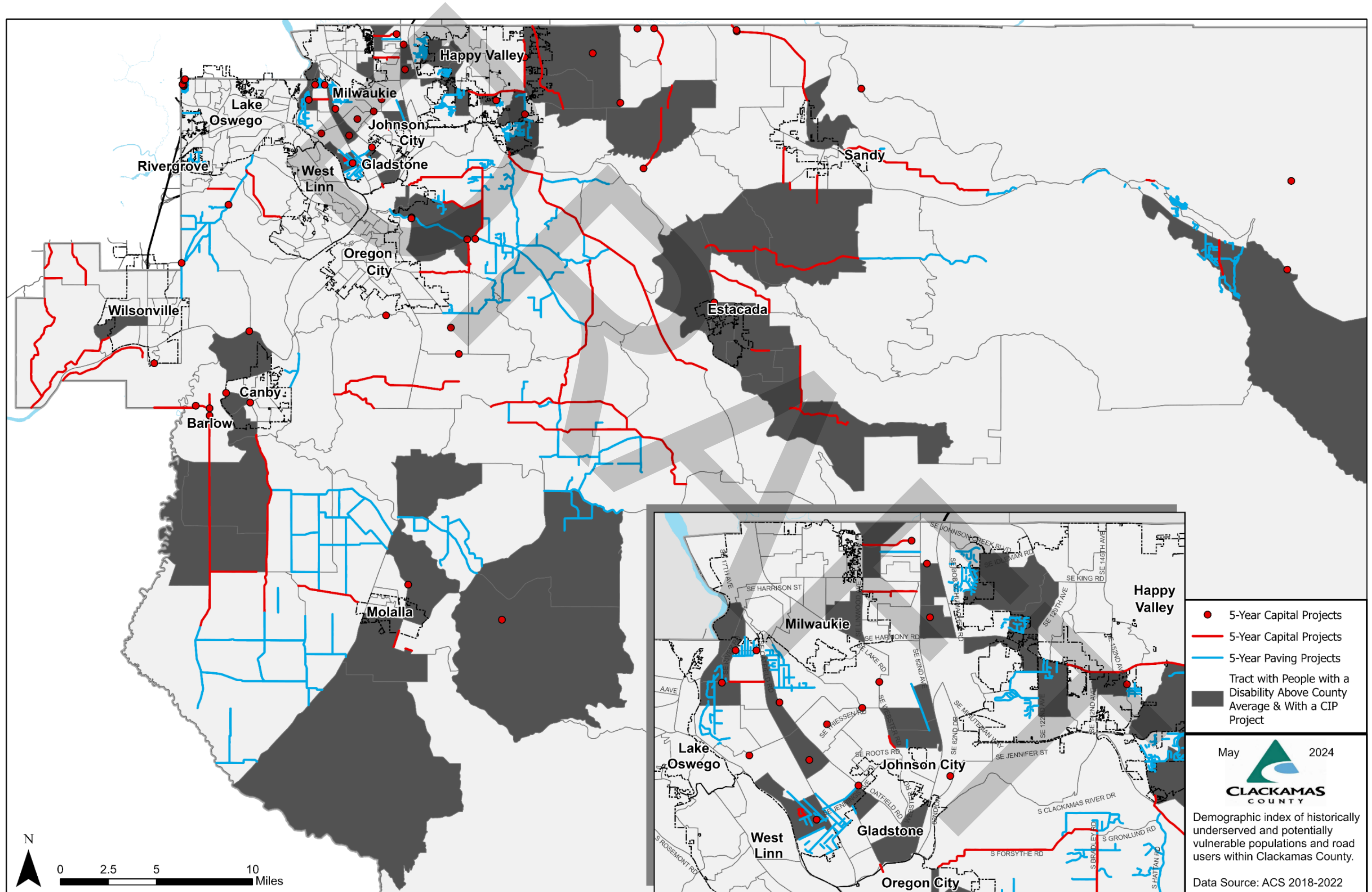
May 2024



Demographic index of historically underserved and potentially vulnerable populations and road users within Clackamas County.

Data Source: ACS 2018-2022

APPENDIX B MAP 4: TRANSPORTATION EQUITY INDEX – PEOPLE WITH A DISABILITY



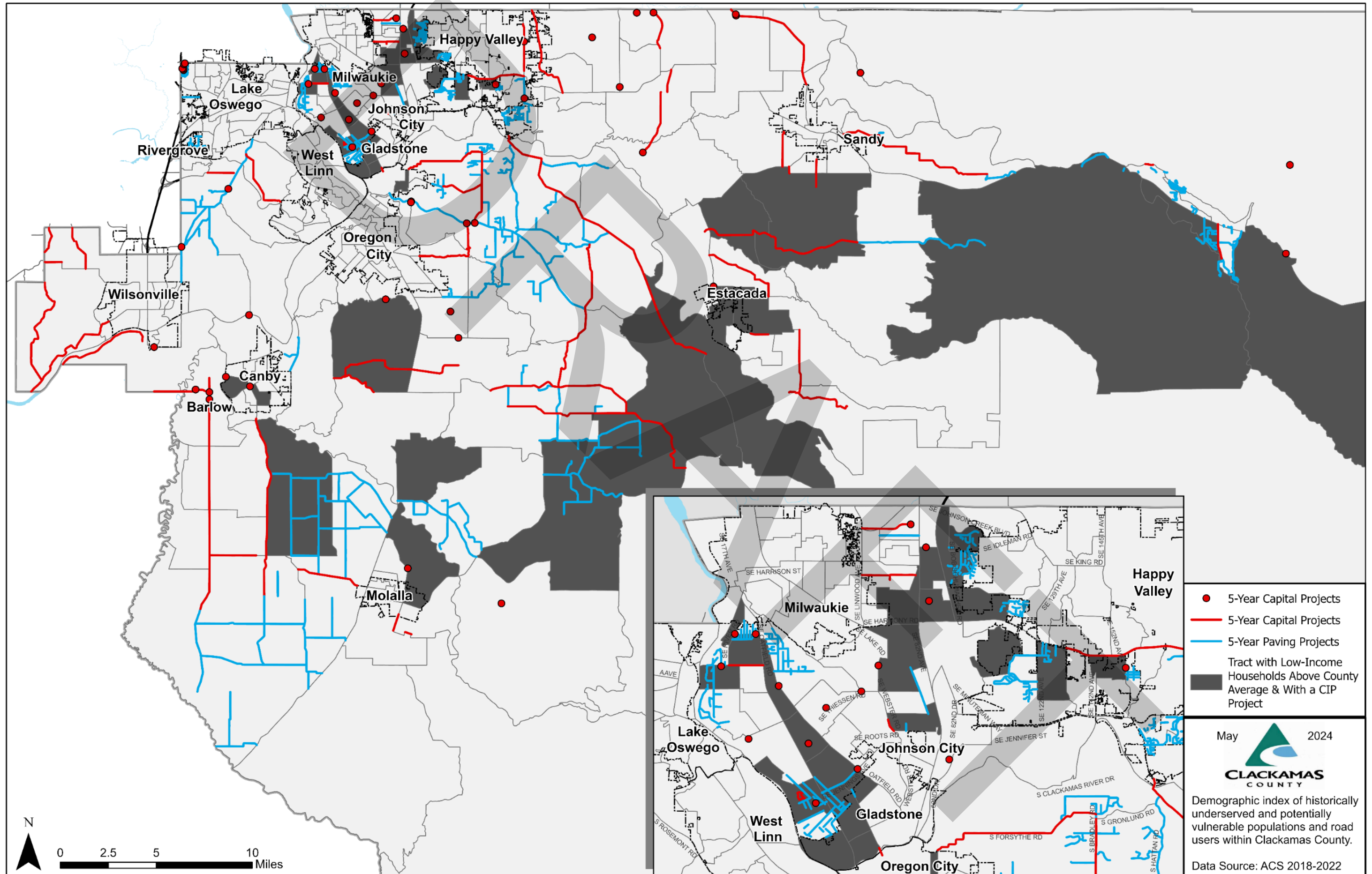
- 5-Year Capital Projects
- 5-Year Capital Projects
- 5-Year Paving Projects
- Tract with People with a Disability Above County Average & With a CIP Project

May 2024

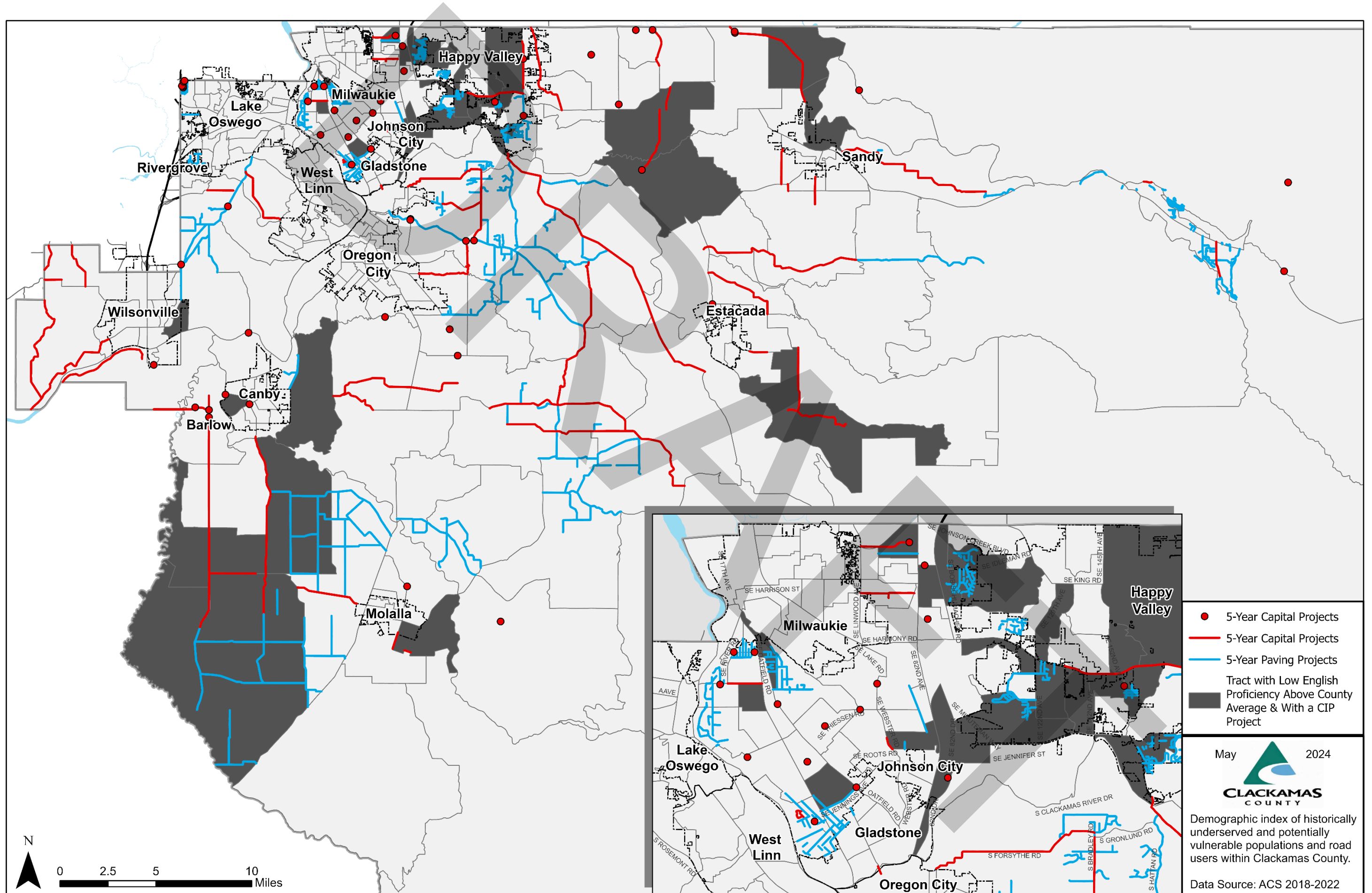
CLACKAMAS COUNTY

Demographic index of historically underserved and potentially vulnerable populations and road users within Clackamas County.

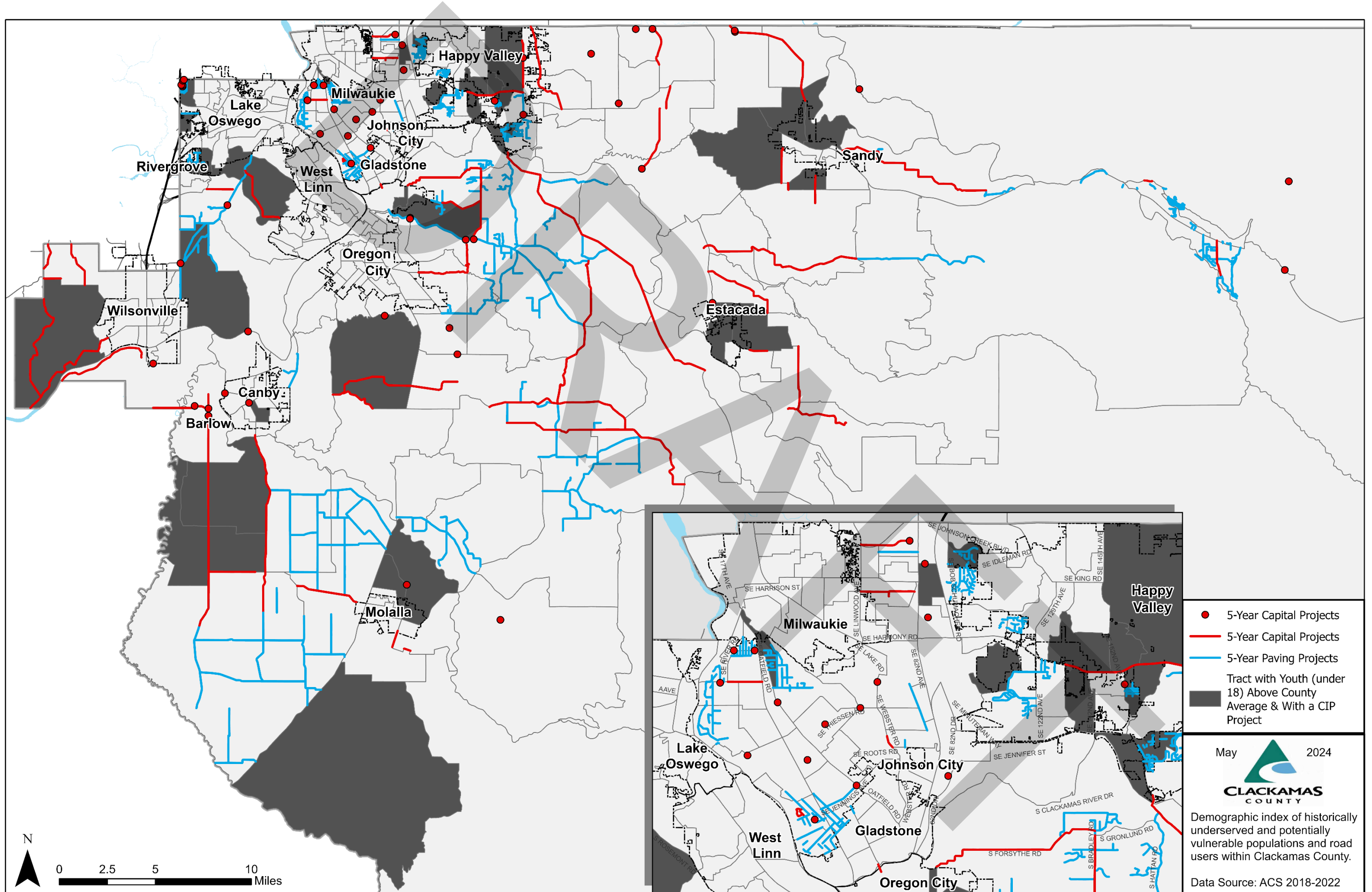
Data Source: ACS 2018-2022



APPENDIX B MAP 6: TRANSPORTATION EQUITY INDEX – LOW ENGLISH PROFICIENCY



APPENDIX B MAP 7: TRANSPORTATION EQUITY INDEX – YOUTH (UNDER 18)



TRANSPORTATION SAFETY ACTION PLAN 2021

PROJECTS

Transportation Safety Action Plan Projects

Appendix
C

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APPENDIX A: Transportation Safety Action Plan Projects

CIP Category	Link to Project code	Project Name	Description/Application	Cost Estimate	Potential Funding Source	Annual Cost
ITS						
ITS	1000 - ITS Plan	FYA (only 5-section heads "doghouse" to FYA)	All signalized intersections with 5-section (doghouse) signals	\$ 120,000	RF, TG	\$ 120,000
ITS	1000 - ITS Plan	Reflective strips on backplates	Signalized intersection with a high crash history	\$ 80,000	RF, TG, JC	\$ 40,000
ITS Year 1	1001 - ITS Plan	Support County communications		\$ 10,000		\$ 10,000
ITS	1000 - ITS Plan	Red/Green Light Extension Project	Signalized intersection with high red-light crashes	\$ 300,000	RF, TG, JC	\$ 30,000
ITS Years 1 - 3	1000 - ITS Plan	Advance Ped Crossing - Upgrade all push buttons at all signalized intersections to a new standard accessible pedestrian signal (APS) Buttons	At all signalized intersections	\$ 1,000,000	RF, JC, TG	\$ 333,333
ITS Years 1 - 4	1000 - ITS Plan	Advance Ped Crossing - install pedestrian countdown heads	At all signalized intersections	\$ 500,000	RF, JC, TG	\$ 125,000
ITS	1000 - ITS Plan	School zone beacon signs	Evaluate 7-5 school zones and replace static <i>School Zones</i> with <i>When Flashing School Zones</i> when warranted	\$ 750,000	RF, TG, JC	\$ 150,000
ITS	1000 - ITS Plan	Advance Ped Crossing - Install rectangular rapid-flashing beacons at mid-block crossings	All crossings near school frontage and mid-block locations based on an evaluation.	\$ 400,000	RF, TG, JC	\$ 80,000
ITS Years 2 - 4	1000 - ITS Plan	Improve Bike Detection - deploy radar or bike loops at all signals	At all signalized intersections with bike lanes	\$ 2,500,000	RF, TG	\$ 833,333
ITS Years 2 - 5	1000 - ITS Plan	Illumination (convert incandescent to LED to match the corridor and add illumination at location without lighting)	Signalized intersections	\$ 300,000	RF, TG	\$ 100,000
Safety Programs						
Safety Programs	1001	Radar Speed Feedback Program	Install feedback signs on county roads based on crash statistics criteria	\$ 1,250,000		\$ 250,000
Safety Programs	1001	Traffic Calming Program - Collector Streets	Develop a program to support traffic calming on collector streets in the urban area	\$ 30,000		\$ 15,000
Safety Programs	1001	Neighborhood Greenway Streets	Develop 20 mph residential street criteria and annual budget for signs	\$ 50,000		\$ 10,000
Safety ADA						
Safety ADA	1025	I-205 Multi-Use Path Connection	Construct ADA compliant access to the commercial area from the I-205 Multi-Use Path	\$ 80,000		\$ 26,667
Safety ADA	1000 - ITS Plan	ADA sidewalk ramp improvements at push button locations and mid-block crossing locations	At all non-compliant sidewalk ramps at/near push buttons and mid block crossings	\$ 3,000,000	RF, DA, TG	\$ 600,000
Safety SPIS						
Safety SPIS	1067 / 1068	SPIS - Jennings Av/Addie Rd	Regrade Jennings (lower) to create improved sight distance	\$ 800,000		\$ 400,000
Safety SPIS	1044	Springwater Rd/Hattan Rd	Evaluate intersection safety and make improvements	\$ 100,000		\$ 50,000
Safety SPIS	3046	SPIS - Kelso Rd/312th Av	Evaluate intersection safety and make improvements	\$ 25,000		\$ 12,500
Safety SPIS	3089	Ladd Hill Rd/Bell Ave	Vegetation/fixed object removal to improve safety and sight distance	\$ 100,000		\$ 50,000
Safety SPIS	1130	SPIS - Thiessen Rd/Oetkin Rd	Evaluate intersection safety and make improvements	\$ 250,000		\$ 83,333
Safety SPIS	3101	SPIS - Bakers Ferry Rd/Barton Park Rd	Construct roundabout or realign intersection to improve safety and clarity	\$ 2,000,000		\$ 666,667
Safety SPIS	1005	SPIS - Sunnyside Rd/132nd Ave	Evaluate intersection safety and make improvements	\$ 50,000		\$ 16,667
Safety SPIS	1003 / 2009 / 3022	SPIS - SE 122nd/Mather Rd	Evaluate intersection safety and make improvements	\$ 2,000,000		\$ 2,000,000
Safety SPIS	1092 / 3081 / 3089	362/Deming and Wilsonville@Ladd Hill	Remove crest vertical curve to improve sight distance	\$ 1,100,000		\$ 1,100,000

Safety SPIS	1081	Borland Rd/Ek Rd	Reconfigure intersection for improved safety and operations	\$ 1,100,000		\$ 1,100,000
Safety Study						
Safety Study	1001	Bike / ped facilities	Systemic review of urban collectors and arterials for possible reallocation of space for bike/ped facilities	\$ 200,000	RF	\$ 40,000
Safety Study	1001	DTZ - CPO safety RSA grant program	Grants for CPO's to conduct RSA/HIA within their boundaries	\$ 200,000		\$ 40,000
Safety Study	1001	DTZ - DDACTS - neighborhood safety - crime prevention by environmental design	Data driven crime-safety analysis to identify linkage between high crash/safety concern areas and crime - set up system	\$ 40,000	CCSO, JC, RF, SC	\$ 8,000
Safety Study	1001	DTZ - Transportation options for transportation disadvantaged	Work with transit partners to maximize ability to transport people who need rides - reduce driving of elderly/others by providing alternative transportation	\$ 25,000	JC	\$ 5,000
Safety Study	1001	DTZ - Young Driver Education Program	Outreach to young drivers (ages 15-25); one of top 3 TSAP risk factors	\$ 50,000	JC, SC	\$ 10,000
Safety Study	1001	DTZ-TSAP-Safety Outreach	Community outreach/PSA's - PCN work with the public	\$ 250,000	JC, SC, RF, TG, HG	\$ 50,000
Safety Study	1001	Systemic - "T" Intersection sign/markings treatments	Create standard list of treatments to improve safety at all T-intersections County-wide, focusing first on rural area and evaluating need at intersections in the urban area	\$ 750,000		\$ 150,000
Safety Study	1001	Systemic - 2-way stop controlled intersection treatments	Create standard list of treatments to improve safety at all 2-way stop-controlled intersections County-wide, focusing first in rural area and evaluating need at intersections in the urban area	\$ 900,000		\$ 180,000
Safety Study	1001	Systemic - School zone evaluations/safety upgrades	Evaluate all school zones and implement improvements when necessary including sidewalks, curb ramps, crosswalks, radar speed signs, flashers, rapid flashing beacons, traffic calming	\$ 4,000,000		\$ 800,000
Safety Study	1001	Systemic- All-way stop-controlled intersection treatments	Create standard list of treatments to improve safety at all all-way stop-controlled intersections County-wide, focusing first in rural area and evaluating the need at intersections in urban area	\$ 150,000	RF, JC, TG	\$ 30,000
Safety - Fix-It Programs						
Safety Fix-it	1001	Maintenance - Buttons	Annual program to support installation/maintenance of centerline buttons on all rural collectors and arterials	\$ 400,000	RF, JC	\$ 80,000
Safety Fix-it	1001	Maintenance - Guardrails	Annual program to support installation/removal/ maintenance/cleaning/repair and delineation of guardrails	\$ 750,000	RF, JC	\$ 150,000
Safety Fix-it	1001	Maintenance - Roadway General	Shoulders, safety edge, centerline rumble strips, pavement markings, clear zone	\$ 750,000	RF, JC	\$ 150,000
Safety Fix-it	1001	Maintenance - Signs	Clean, repair and/or replace if not current with MUTCD requirements	\$ 200,000	RF, JC, TG	\$ 40,000
Safety Fix-it	1001	Maintenance - Vegetation	Remove overgrown vegetation inhibiting sight distance along all roads	\$ 250,000	RF, JC	\$ 50,000

TRANSPORTATION SYSTEM PLAN 2013

PROJECTS

Table 5-3a, 20-Year Capital Projects

Table 5-3b, Preferred Projects

Table 5-3c, Long-Term Capital Projects

Table 5-3d, Regional Capital Projects

Appendix D

MAPS

Map 5-11a, Greater Clackamas Regional Center / Industrial Area

Map 5-11b, East County

Map 5-11c, Greater McLoughlin Area

Map 5-11d, Northwest County

Map 5-11e, Southwest County-Northern Portion

Map 5-11f, Southwest County-Southern Portion

Table 5-3a 20-Year Capital Projects

Project ID	Map	Project Name / Street Name	Segment / Locations	Project Description
1000	County-wide	ITS Plan Program	N/A	Develop a program to support the implementation of the County's ITS Plan and support the County's efforts to make improvements to traffic operations based on the ITS Plan. Deploy traffic responsive signal timing, ramp metering, traffic management equipment for better routing of traffic during incidents along the three key ODOT corridors - I-205, I-5, 99E. Install signal controller upgrades and update County ITS plan.
1001	County-wide	Transportation Safety Action Plan Program	N/A	Develop a program to support the implementation of the County's TSAP and support the County's efforts to make improvements based on the outcomes of the road safety audits and other safety studies.
1002	5-11a	122nd Ave	Eagle Glen Dr to Hubbard Rd	Perform road safety audit or transportation safety review to identify appropriate safety improvements
1003	5-11a	122nd Ave	Sunnyside Rd to Hubbard Rd	Fill gaps in pedestrian facilities, turn lanes at Mather Rd
1004	5-11a	122nd Ave	Sunnyside Rd to Timber Valley Dr	Add bikeways and turn lanes at major intersections
1005	5-11a	132nd Ave	Sunnyside Rd to OR 212	Add bikeways, pedestrian facilities, traffic calming and turn lanes at major intersections
1006	5-11a	142nd Ave	Sunnyside Rd to OR 212	Add bikeways and pedestrian facilities
1007	5-11a	72nd Ave Multi-Use Path Connection	Thompson Rd to Harmony Rd	Construct multi-use path
1008	5-11a	82nd Dr	OR 212 to Lawnfield Rd	Fill in bikeways and pedestrian facilities gaps
1009	5-11a	85th Ave	Causey Ave to Monterey Ave	Add sidewalks and bikeways. Perform Pedestrian Safety Audit to verify lighting, crosswalk striping and signing at Causey Ave.
1010	5-11a	92nd Ave	Johnson Creek Blvd to Emmert View Ct	Fill gaps in pedestrian facilities
1011	5-11a	97th Ave / Mather Rd	Lawnfield Rd to Summers Ln	Add bikeways, pedestrian facilities and eastbound left turn lanes at Mather Rd / Summers Ln
1012	5-11a	Boyer Dr	OR 213 to Fuller Rd	Construct new 2 lane roadway with turn lanes at OR 213 and Fuller Rd, bikeways and pedestrian facilities; install flashing yellow arrow for left turns on northbound and southbound approaches at OR 213 intersection.
1013	5-11a	Boyer Dr / 85th Ave / Spencer Dr	OR 213 to I-205 bike path	Add bikeways
1014	5-11a	Causey Ave	Fuller Rd to I-205	Add bikeways and shared facility markings in accordance with the Active Transportation Plan.
1015	5-11a	Clackamas Industrial area multi-modal improvements	N/A	Complete bike and pedestrian connections within the Clackamas Industrial area on Jennifer St., Evelyn St., 106 th Ave, 122 nd Ave, 130 th Ave and 135 th Ave.
1016	5-11a	Clackamas Regional Center Bike/Pedestrian Corridors	N/A	Construct pedestrian and bike improvements as described in the Clackamas Regional Center Pedestrian / Bicycle Plan
1017	5-11a	Clackamas Town Center Alternative Performance Standards Study	Clackamas Regional Center	Develop alternative performance standards for the intersections within the Clackamas Regional Center.
1018	5-11a	Clackamas Town Center Circulation Plan	West of the Town Center	Study area circulation and create plan
1019	5-11a	Flavel Dr	Alberta Ave to County boundary	Add bikeways in accordance with the Active Transportation Plan.
1020	5-11a	Fuller Rd	Otty St to Johnson Creek Blvd	Add pedestrian facilities, turn lanes, on-street parking, central median and landscaping.
1021	5-11a	Fuller Rd / King Rd Improvements	Fuller Rd / King Rd intersection	Restrict access to right-in/right-out only

Table 5-3a 20-Year Capital Projects

Project ID	Map	Project Name / Street Name	Segment / Locations	Project Description
1022	5-11a	Harmony Rd	OR 213 to OR 224	Construct bikeways and pedestrian facilities. Linwood Ave to Aquatic Center, construct in accordance with the Active Transportation Plan. Provide left turn movement for cyclists from Harmony Rd to CCC Harmony Campus and a pedestrian crossing.
1023	5-11a	Harmony Rd	Railroad Ave / Linwood Ave / Harmony Rd	Railroad crossing and intersection improvements based on further study of intersection operations including bikeways and pedestrian facilities to be undertaken jointly by the City of Milwaukie and the County
1024	5-11a	Harmony Rd / Sunnyside Rd	Harmony Rd / Sunnyside Rd / OR 213 intersection	Extend queue storage and double left turn lanes on westbound approach and rebuild median, including pedestrian island; extend queue storage on eastbound approach and install median; convert to right-in-right-out accesses on frontage road.
1025	5-11a	I-205 Multi-Use Path Connection	Between Sunnyside Rd and Sunnybrook Blvd	Construct ADA compliant access to the commercial area from the I-205 Multi-Use Path
1026	5-11a	I-205 Multi-Use Path Gap	OR 224/OR 213 to OR 212	Study the I-205 multi-use path gap to create a plan for connection and path completion in accordance with the Active Transportation Plan
1027	5-11a	Johnson Creek Blvd	55th Ave to I-205	Perform road safety audit or transportation safety review to identify appropriate safety improvements
1028	5-11a	Johnson Creek Blvd	Johnson Creek Blvd near 79th Pl	Add signal to either Johnson Creek Blvd and 79th Pl or 80th Ave
1029	5-11a	Johnson Creek Blvd	55th Ave to Bell Ave	Widen to 3 lanes with bikeways and pedestrian facilities
1030	5-11a	Johnson Creek Blvd	Johnson Creek Blvd / OR 213 intersection	Extend westbound left-turn lane and rebuild median; install dual northbound and southbound left-turn lanes
1031	5-11a	Johnson Creek Blvd	OR 213 to 92nd Ave	Add pedestrian facilities with a crossing near 77th Ct, restripe for bikeways. Analyze for turn lane improvements at 92nd Ave.
1032	5-11a	Johnson Rd	SE Lake Rd to North Clackamas Park Trail	Identify bike/pedestrian connections to fill gaps along 82nd Ave
1033	5-11a	Lake Rd	Lake Rd / International Way intersection	Add northbound right-turn lane
1034	5-11a	Linwood Ave	Monroe St to Johnson Creek Blvd	Add pedestrian facilities in accordance with the Active Transportation Plan.
1035	5-11a	Monroe St	72nd Ave to Fuller Rd	Add bikeways, pedestrian facilities and traffic calming in accordance with the Active Transportation Plan.
1036	5-11a	Monroe St / 72nd Ave / Thompson Rd / Fuller Rd	Linwood Ave to Causey Ave	Add bikeways and traffic calming in accordance with the Active Transportation Plan.
1037	5-11a	Monterey Ave	Stevens Rd to Bob Schumacher Rd	Construct collector roadway with bikeways and pedestrian facilities
1038	5-11a	Monterey Ave	OR 213 to Fuller Rd	Construct new 2 lane extension with pedestrian facilities and bikeways. Install flashing yellow arrow for left-turns on northbound and southbound approaches at OR 213 intersection.
1039	5-11a	North Clackamas Regional Park Trail	Linwood Ave to North Clackamas Park Complex	Construct multi-use path
1040	5-11a	North Clackamas Regional Parks Trail	OR 213 to Linwood Ave	Construct multi-use path
1041	5-11a	Otty Rd	OR 213 to 92nd Ave	Improve to minor arterial standard consistent with Fuller Road Station Plan; improve curb radius; add turn lanes, on-street parking, central median, landscaping, bikeways and pedestrian facilities. Install pedestrian crossings between Fuller Rd and I-205 and near 91st Ave.
1042	5-11a	Otty St	Otty St / OR 213 / Otty Rd	Realign Otty St with Otty Rd at OR 213; install dual westbound left-turn lanes; install flashing yellow arrow for left-turns on northbound and southbound approaches.
1043	5-11a	Southwest Connector Multi-Use Path	North Clackamas Aquatic Center access road to 82nd Ave	Construct multi-use path in accordance with the Active Transportation Plan.

Table 5-3a 20-Year Capital Projects

Project ID	Map	Project Name / Street Name	Segment / Locations	Project Description
1044	5-11a	Springwater Rd	OR 224 to Hattan Rd	Widen to 3 lanes with shoulders (in accordance with the Active Transportation Plan between Clackamas River Dr and Gronlund Rd) and pedestrian facilities; bridge remains two lanes
1045	5-11a	Sunnyside Rd	93rd Ave to 126th Ave	Perform road safety audit or transportation safety review to identify appropriate safety improvements
1046	5-11a	Sunnyside Rd	Sunnyside Rd / Stevens Rd intersection	Intersection improvements, such as additional turn lanes, turn lane extensions, and/or signal timing modifications
1047	5-11a	Tolbert St Overcrossing	82nd Dr to Industrial Way	Construct new 2 lane overcrossing with bikeways and pedestrian facilities
1048	5-11b	282nd Ave	US 26 to OR 212	Perform road safety audit or transportation safety review to identify appropriate safety improvements
1049	5-11b	Amisigger Rd / Kelso Rd	OR 224 to Kelso / Richey Rd	Add paved shoulders; turn lanes at Amisigger/OR 212 and Kelso/Richey; smooth curves.
1050	5-11b	Arrah Wanna Blvd	US 26 to Fairway Ave	Add paved shoulders. In the interim, add 4-foot paved shoulders.
1051	5-11b	Cazadero Multi-Use Trail	Community of Boring to City of Estacada	Construct multi-use path in accordance with the Active Transportation Plan.
1052	5-11b	Compton Rd	US 26 to 352nd Ave	Perform road safety audit or transportation safety review to identify appropriate safety improvements
1053	5-11b	Dodge Park Rd Bridge	~192 feet south of Pipeline Rd	Replace bridge nearing the end of its useful life and include paved shoulders
1054	5-11b	Eagle Creek Rd	Firwood Rd to Duus Rd	Perform road safety audit or transportation safety review to identify appropriate safety improvements
1055	5-11b	Eagle Creek Rd	Currin Rd to Duus Rd	Remove horizontal curve, relocate intersection, add paved shoulders and turn lanes at major intersection; investigate speed zone south of Currin Rd
1056	5-11b	Fairway Ave	Arrah Wanna Blvd to Salmon River Rd	Add paved shoulders
1057	5-11b	OR 211	OR 211 / Judd Rd intersection	Realign roadway
1058	5-11b	Richey Rd	Kelso Rd to OR 212	Add paved shoulders and left turn lane at Richey Rd and OR 212
1059	5-11b	Welches Rd	US 26 to Birdie Ln	Add paved shoulders; add pedestrian facilities in Welches rural center; evaluate pedestrian crossing near Stage Stop Rd; add multi-use path. Improve pedestrian crossing near Fairway Ave with advance signs and split flashing beacons
1060	5-11c	Aldercrest Dr	Thiessen Rd to Oatfield Rd	Perform road safety audit or transportation safety review to identify appropriate safety improvements
1061	5-11c	Concord Rd	River Rd to Oatfield Rd	Fill gaps in pedestrian facilities
1062	5-11c	Concord Rd	River Rd to Oatfield Rd	Add turn lanes at major intersections
1063	5-11c	Courtney Ave	OR 99E to Oatfield Rd	Fill gaps in pedestrian facilities and bikeways
1064	5-11c	Courtney Ave	River Rd to OR 99E (McLoughlin Blvd)	Construct pedestrian facilities / complete gaps on the south side; add bikeways
1065	5-11c	Harold Ave	Concord Rd to Roethe Rd	Add pedestrian facilities and traffic calming
1066	5-11c	Hull Ave	Wilmot St to Tims View Ave	Fill gaps in pedestrian facilities
1067	5-11c	Jennings Ave	Webster Rd to OR 99E	Perform road safety audit or transportation safety review to identify appropriate safety improvements
1068	5-11c	Jennings Ave	River Rd to Oatfield Rd	Widen to 2-lane urban minor arterial standard with bikeway and pedestrian facilities infill
1069	5-11c	Oak Grove Blvd	Oatfield Rd to River Rd	Fill gaps in pedestrian facilities and bikeways
1070	5-11c	Oatfield Rd	Jennings Ave to Lake Rd	Perform road safety audit or transportation safety review to identify appropriate safety improvements
1071	5-11c	Oatfield Rd	Oatfield Rd / Park Rd intersection	Install traffic signal and add turn lanes

Table 5-3a 20-Year Capital Projects

Project ID	Map	Project Name / Street Name	Segment / Locations	Project Description
1072	5-11c	Oatfield Rd	Oatfield Rd / McNary Rd intersection	Add southbound and eastbound left-turn lanes
1073	5-11c	Park Ave	River Rd to OR 99E (McLoughlin Blvd)	Add pedestrian facilities
1074	5-11c	River Rd	Lark St to Courtney Ave	Add pedestrian facilities
1075	5-11c	River Rd	Oak Grove Blvd to Risley Ave	Fill gaps in bikeways in accordance with the Active Transportation Plan and fill gaps in pedestrian facilities
1076	5-11c	School Pedways	Johnson Rd / Clackamas Rd / Webster Rd	Fill gaps in pedestrian facilities on Johnson Rd, Clackamas Rd and Webster Rd within 1/4 mile of schools
1077	5-11c	Thiessen Rd	Thiessen Rd / Aldercrest Rd intersection	Add turn lanes on Thiessen Rd; consider converting to two-way stop controlled
1078	5-11c	Torbark Rd	River Rd to Trolley Trail	Fill gaps in pedestrian facilities
1079	5-11d	65th Ave	65th Ave / Elligsen Rd / Stafford Rd intersection	Construct roundabout
1080	5-11d	Advance Rd	53rd Ave to 43rd Dr	Grade and sight distance improvements
1081	5-11d	Borland Rd	Tualatin city limits to Stafford Rd	Add paved shoulders in accordance with the Active Transportation Plan and turn lanes at major intersections
1082	5-11d	Borland Rd	Stafford Rd to West Linn city limits	Add paved shoulders in accordance with the Active Transportation Plan
1083	5-11d	Carman Dr	Lake Oswego city limits to Roosevelt Ave	Add bikeways and pedestrian facilities; analyze for turn lanes
1084	5-11d	Childs Rd	Sycamore Ave to 65th Ave	Transfer roadway to local jurisdiction
1085	5-11d	French Prairie Bridge	Willamette River near I-5	Construct a bridge in accordance with the Active Transportation Plan
1086	5-11d	Rosemont Rd	Stafford Rd to West Linn	Add paved shoulders and turn lanes at major intersections
1087	5-11d	Stafford Rd	I-205 to Boeckman Rd / Advance Rd	Perform road safety audit or transportation safety review to identify appropriate safety improvements
1088	5-11d	Stafford Rd	Rosemont Rd to I-205	Add paved shoulders in accordance with the Active Transportation Plan and turn lanes at major intersections
1089	5-11d	Stafford Rd	Stafford Rd / Childs Rd intersection	Install traffic signal and southbound and northbound turn lanes or roundabout
1090	5-11d	Stafford Rd	Rosemont Rd to I-205	Perform road safety audit or transportation safety review to identify appropriate safety improvements
1091	5-11d	Tonquin Trail	Willamette River through Wilsonville	Construct bike / pedestrian facilities pursuant to the Tonquin Trail Master Plan
1092	5-11d	Wilsonville Rd / Ladd Hill Rd	Wilsonville Rd / Ladd Hill Rd	Install Collision Countermeasure System
1093	5-11e	Airport Rd	Airport Rd / Miley Rd intersection	Install traffic signal
1094	5-11e	Barlow Rd	Barlow Rd / OR 99E intersection	Add dual left-turn lanes on southbound Barlow Rd
1095	5-11e	Beavercreek Rd	Lower Highland Rd to Butte Rd	Perform road safety audit or transportation safety review to identify appropriate safety improvements
1096	5-11e	Beavercreek Rd	Ferguson Rd to Spangler Rd	Perform road safety audit or transportation safety review to identify appropriate safety improvements
1097	5-11e	Beavercreek Rd	Henrici Rd to Yeoman Rd/Steiner Rd	Add paved shoulders in accordance with the Active Transportation Plan and turn lanes at major intersections.
1098	5-11e	Beavercreek Rd	Beavercreek Rd / Leland Rd / Kamrath Rd intersection	Construct roundabout with additional analysis

Table 5-3a 20-Year Capital Projects

Project ID	Map	Project Name / Street Name	Segment / Locations	Project Description
1099	5-11e	Canby-Marquam Highway	Canby-Marquam Hwy / Lone Elder Rd intersection	Reconstruct intersection; install northbound left-turn lane and southbound right-turn lane
1100	5-11e	Canby-Marquam Highway	~1,900 ft south of Barnards Rd	Replace bridge nearing the end of its useful life with 2-lane structure including paved shoulders
1101	5-11e	Clarks Four Corners Intersection	Beavercreek Rd / Unger Rd	Reconstruct intersection
1102	5-11e	Emerald Necklace Trail	To Canby Ferry	Extend Molalla Forest Rd to Locust St in accordance with the Active Transportation Plan.
1103	5-11e	Ferguson Multi-Use Path	Thayer Rd to Ferguson Rd	Multi-use path to connect Ferguson Rd to Thayer Rd
1104	5-11e	Fischers Mill Rd	Fischers Mill / Hattan Rd intersection	Install eastbound left-turn lane
1105	5-11e	Graves Rd/Passmore Rd/Mulino Rd/ OR 213	Graves Rd/Passmore Rd/Mulino Rd/ OR 213	Work in conjunction with the Molalla River School District, ODOT and community stake-holders to complete a safety audit to look at all options for the safe movement of Mulino Elementary School students in relation to the adjacent transportation system. Utilize the results from the audit to develop a list of projects and/or programs to maximize safety for all users.
1106	5-11e	Greater Arndt Rd/I-5/Canby Access Feasibility Study	Southwest County in the vicinity of Arndt Rd/I-5/Canby	Conduct an alternatives analysis and land use study to identify and consider roadway improvements to address access to I-5 within the Southwest County and address capacity deficiencies.
1107	5-11e	Hattan Rd	Hattan Rd / Gronlund Rd intersection	Install southbound right-turn lane
1108	5-11e	Henrici Rd	Beavercreek Rd to Ferguson Rd	Add paved shoulders and turn lanes at major intersections. Remove horizontal and vertical curves
1109	5-11e	Holly St	Territorial Rd to Canby Ferry	Add paved shoulders in accordance with the Active Transportation Plan.
1110	5-11e	Hult Rd	OR 211 to Unger Rd	Re-open and improve Hult Rd
1111	5-11e	Klang's Mill Bridge	~1,000 ft north of OR 211	Replace bridge nearing the end of its useful life
1112	5-11e	Lone Elder Rd Bridge	~5,800 feet east of Barlow Rd	Replace bridge (nearing the end of its useful life) and include paved shoulders
1113	5-11e	Maplelane Rd	Beavercreek Rd to Ferguson Rd	Perform road safety audit or transportation safety review to identify appropriate safety improvements
1114	5-11e	Meridian Rd	Meridian Rd / Whiskey Hill Rd intersection	Limit access/egress points to and from school on NE corner of intersection
1115	5-11e	Molalla Ave Flooding	Just south of city of Molalla	Construct bridge to resolve flooding issues
1116	5-11e	Mulino Rd	Mulino Rd / 13th Ave	Relocate intersection to south away from railroad trestle
1117	5-11e	OR 170	OR 99E to Macksburg Rd	Perform road safety audit or transportation safety review to identify appropriate safety improvements
1118	5-11e	Redland Rd	OR 213 to Hattan Rd	Perform road safety audit or transportation safety review to identify appropriate safety improvements
1119	5-11e	Redland Rd	Redland Rd / Springwater Rd intersection	Perform road safety audit or transportation safety review to identify appropriate safety improvements
1120	5-11e	Redland Rd	Redland Rd / Holly Rd intersection	Install traffic signal and westbound and northbound left-turn lanes or roundabout
1121	5-11e	Redland Rd	Redland Rd / Ferguson Rd intersection	Construct roundabout
1122	5-11e	Ridge Rd	~1 miles north of Lower Highland Rd	Fix sinkhole
1123	5-11e	Springwater Rd	Springwater Rd / Clackamas River Dr intersection	Install signal at Clackamas River Dr

Table 5-3a 20-Year Capital Projects

Project ID	Map	Project Name / Street Name	Segment / Locations	Project Description
1124	5-11e	Springwater Rd	400 ft east of Hattan Rd	Construct bridge to accommodate paved shoulders
1125	5-11e	Springwater Rd	Hattan Rd to Bakers Ferry Rd	Add paved shoulders in accordance with the Active Transportation Plan and turn lanes at major intersections
1126	5-11e	Township Rd	Central Point Rd to Canby City limit	Add paved shoulders and turn lanes at major intersections
1127	5-11e	Union Mills Rd	OR 213 to OR 211	Add turn lanes at major intersections
1128	5-11e	Union Mills Rd	OR 213 to OR 211	Construct a shoulder on the south side of the roadway
1129	5-11e	Upper Highland Rd	Beavercreek Rd to Lower Highland Rd	Perform road safety audit or transportation safety review to identify appropriate safety improvements
1130	5-11c	Oetkin Rd - Naef Rd	Thiessen Rd to River Rd	Construct bike boulevard consistent with the Active Transportation Plan
1131	5-11c	River Rd	Park Ave to Glen Echo Ave	Construct buffered bike lane in accordance with the Active Transportation Plan.
1132	5-11a	Bob Schumacher Rd	Otty Rd to Sunnyside Rd	Investigate improved striping including centerline rumble stripe.
1133	5-11a	97th Ave	Sunnybrook Blvd to Mather Rd	Investigate improved striping including outside fog lines and rumble striping. Verify lighting, drainage and surface friction.
1134	5-11a	92nd Ave	Phillips Pl	Install a pedestrian crossing near Phillips Pl
1135	5-11a	Otty St	80th Ave	Install a pedestrian crossing near 80th Ave
1136	5-11a	Fuller Rd	Boyer Dr to Sunnyside Dr	Install pedestrian crossings near Boyer Dr, Causey Ave, Stephanie Ct and Southgate St
1137	5-11b	Brightwood Loop Rd	US 26 to US 26	Add 4-foot paved shoulders

Table 5-3b Preferred Projects

Project ID	Map	Project Name / Street Name	Segment / Locations	Project Description
2000	5-11a	Bell Ave / Alberta St / 72nd Ave	King Rd to County line	Add bikeways and pedestrian facilities
2001	5-11a	Clatsop St / Luther Rd	72nd Ave to Fuller Rd	Add turn lanes and signals at OR 213 intersection; add bikeways, pedestrian facilities and traffic calming
2002	5-11a	Evelyn St	OR 224 to Jennifer St	Add bikeways and pedestrian facilities
2003	5-11a	Evelyn St / Mangan Dr	Jennifer St to Water Ave	Add bikeways
2004	5-11a	Hubbard Rd	122nd Ave to 132nd Ave	Fill gaps in pedestrian facilities
2005	5-11a	Jennifer St	82nd Dr to 135th Ave	Add pedestrian facilities
2006	5-11a	Lake Rd	Milwaukie City limits east to OR 224	Fill gaps in pedestrian facilities
2007	5-11a	Linwood Ave	Linwood Ave / Monroe St intersection	Add curbs/sidewalks, improve horizontal alignments
2008	5-11a	Linwood Ave	Queen Rd to Johnson Creek Blvd	Add bikeways in accordance with the Active Transportation Plan
2009	5-11a	Mather Rd	Summers Ln Rd to 122nd Ave	Add bikeways, pedestrian facilities and eastbound left turn lanes at Mather Rd / 122nd Ave
2010	5-11a	Monroe St / 72nd Ave / Thompson Rd	Linwood Ave to Fuller Rd	Add pedestrian facilities
2011	5-11a	Scouters Mountain / Mt Scott Loop Trail	Loop trail through Happy Valley, Damascus, Clackamas County and Portland	Construct multi-use path in accordance with the Active Transportation Plan
2012	5-11a	Stevens Rd / Stevens Way	Causey Ave to Idleman Rd	Add pedways and optional traffic calming
2013	5-11a	Strawberry Ln	Strawberry Ln / 82nd Dr intersection	Install traffic signal and eastbound turn lane
2014	5-11a	Sunnybrook Blvd	Sunnybrook Blvd / 82nd Ave intersection	Add dual southbound left-turn lanes, extend queue storage for southbound lefts and westbound lefts
2015	5-11a	Sunnyside Rd	OR 213 to 97th Ave	Modified boulevard treatment including lane redesign, medians, beautification, curb extensions, reconstructed sidewalks, landscaping, south side bikeways. Consider flashing yellow arrow for left-turns at signalized intersections.
2016	5-11b	282nd Ave	282nd / Haley Rd intersection	Install traffic signal and reduce speed limit on 282nd
2017	5-11b	362nd Ave	Skogan Rd to OR 211	Add paved shoulders
2018	5-11b	Eagle Creek Rd	OR 211 to Duus Rd	Add paved shoulders
2019	5-11b	Firwood Rd	Wildcat Mountain Dr to US 26	Add paved shoulders and turn lanes at major intersections.
2020	5-11c	Clackamas Rd	Johnson Rd and Webster Rd	Fill gaps in bikeways and pedestrian facilities
2021	5-11c	Jennings Ave	Oatfield Rd to Webster Rd	Widen to 2-lane urban minor arterial standard with bikeway and pedestrian facilities infill
2022	5-11c	Lake Oswego to Milwaukie Bridge	Between Sellwood and Oregon City	Construct bike/pedestrian crossing over the Willamette River in accordance with the Active Transportation Plan
2023	5-11c	Roots Rd	Webster Rd to McKinley Rd	Add pedestrian facilities

Table 5-3b Preferred Projects

Project ID	Map	Project Name / Street Name	Segment / Locations	Project Description
2024	5-11c	Thiessen Rd	Oatfield Rd to Webster Rd	Add bikeways and pedestrian facilities. For the Oetkin Rd to Webster Rd section, construct in accordance with the Active Transportation Plan
2025	5-11c	Webster Rd	OR 224 to Gladstone	Fill gaps in bikeways and pedestrian facilities
2026	5-11d	Advance Rd	~2,900 ft west of Mountain Rd	Realign roadway and grade improvements
2027	5-11d	Advance Rd	65th Ave to Mountain Rd	Add paved shoulders
2028	5-11d	Stafford Rd / 65th Ave	I-205 to Boeckman Rd / Advance Rd	Add paved shoulders in accordance with the Active Transportation Plan and turn lanes at major intersections
2029	5-11e	Arndt Rd Extension	Barlow to OR 99E	Construct new 2 or 3 lane roadway
2030	5-11e	Barlow Rd	Knights Bridge Rd to OR 99E	Add paved shoulders
2031	5-11e	Beavercreek Multi-Use Path	Loder Rd to Ferguson Rd	Construct multi-use path consistent with the Beavercreek Road Concept Plan
2032	5-11e	Boones Ferry Rd	Boones Ferry Rd / Butteville Rd intersection	Remove bank, remove/decrease horizontal curve
2034	5-11e	Dryland Rd	Macksburg Rd S to Macksburg Rd N	Realign to form one intersection at Dryland Rd
2035	5-11e	Hattan Rd	Fischers Mill Rd to Gronlund Rd	Add paved shoulders and turn lanes at major intersections
2036	5-11e	Henrici Rd	OR 213 to Beavercreek Rd	Add paved shoulders and turn lanes at major intersections
2037	5-11e	Henrici Rd	Ferguson Rd to Redland Rd	Add paved shoulders and turn lanes at major intersections. Remove horizontal and vertical curves
2038	5-11e	Molalla Forest Rd	City of Canby to City of Molalla	Pave to provide bicycle access in accordance with the Active Transportation Plan
2039	5-11e	Mulino Rd (13th St segment)	Canby city limits to OR 213	Add paved shoulders and turn lanes at major intersections
2040	5-11e	Newell Creek Trail / Oregon City Loop Trail	Loop around the perimeter of Oregon City	Construct Oregon City Loop Trail and Newell Creek Trail in accordance with the Active Transportation Plan
2041	5-11e	Redland Rd	Redland Rd / Bradley Rd intersection	Install eastbound left-turn lane
2042	5-11e	Redland Rd	Redland Rd / Fischers Mill Rd / Henrici Rd intersection	Install eastbound left-turn, eastbound right-turn and westbound right-turn lanes at Henrici Rd
2043	5-11e	Springwater Rd	Springwater Rd / Bakers Ferry Rd intersection	Install southbound left-turn lane; realign intersection to fix skew
2044	5-11b	Sleepy Hollow Rd	Barlow Trail Rd to US 26	Add 4-foot paved shoulders

Clackamas County Comprehensive Plan

Table 5-3c Long Term Capital Projects

Project ID	Map	Project Name / Street Name	Segment/ Locations	Project Description
3000	5-11a	106th Ave	OR 212 to Jennifer St	Add bikeways and pedestrian facilities
3001	5-11a	152nd Ave Phase 2	Sunnyside Rd to OR 212	Add bikeways, pedestrian facilities and turn lanes at major intersections
3002	5-11a	162nd Ave	Sager Rd north to County line	Add bikeways, pedestrian facilities, turn lanes at major intersections
3003	5-11a	172nd Ave Bridge	N140 feet south of Troge Rd	Replace bridge nearing the end of its useful life
3004	5-11a	82nd Dr	OR 212 to Gladstone	Widen to Slane with bikeways and pedestrian facilities
3005	5-11a	84th Ave	Sunnyside Rd to Sunnybrook Blvd	Fill in bikeways and pedestrian facilities gaps
3006	5-11a	93rd Ave	Sunnyside Rd to Sunnybrook Blvd	Add bikeways in accordance with the Active Transportation Plan
3007	5-11a	Cheldelin Rd	Foster Rd to 190th Dr	Add bikeways and pedestrian facilities
3008	5-11a	Cheldelin Rd (Clatsop St extension)	172nd Ave to Foster Rd	Construct new two lane roadway with bikeways and pedestrian facilities
3009	5-11a	Cornwell Ave	OR 213 to Fuller Rd	Add pedestrian facilities; connect to 1-205 Multi-Use Path
3010	5-11a	Fuller Rd	Orty Rd to King Rd / OR 213	Construct new 2 lane extension with pedestrian facilities and bikeways
3011	5-11a	Fuller Rd	Johnson Creek Blvd to County line	Add pedestrian facilities
3012	5-11a	Hillcrest St	92nd Ave to Stevens Rd	Add pedestrian facilities
3013	5-11a	1-205 Pedestrian / Bike Overpass	Between Causey Ave and Sunnyside Rd	Construct a bike / pedestrian crossing over 1-205 to connect transit services, businesses and residents in accordance with the Active Transportation Plan
3014	5-11a	Idleman Rd	92nd Ave to Westview Ct	Fill gaps in bikeways and pedestrian facilities
3015	5-11a	Jennifer St	106th Ave to 130th Ave	Add bikeways
3016	5-11a	Johnson Creek Blvd	Bell Ave to OR 213	Widen to 3 lanes from Bell Ave to 76th Ave and 5 lanes from 76th Ave to 82nd Ave ; add bikeways and pedestrian facilities
3017	5-11a	King Rd	Milwaukie City Limits to Spencer Dr	Fill gaps in pedestrian facilities in accordance with the Active Transportation Plan
3018	5-11a	Lake Rd	OR 224 west to Milwaukie city limits	Add pedestrian facilities and turn lanes at major intersections
3019	5-11a	Lake Rd	Johnson Rd to Webster Rd	Fill gaps in pedestrian facilities and bikeways
3020	5-11a	Linwood Ave Bridge over Johnson Creek	Bridge	Construct bridge with bike lanes and sidewalks in accordance with the Active Transportation Plan
3021	5-11a	Luther Rd Bridge	Bridge crossing Johnson Creek	Replace bridge
3022	5-11a	Mather Rd	Mather Rd / 122nd Ave intersection	Install traffic signal or compact roundabout
3023	5-11a	Mather Rd	122nd Ave to 132nd Ave	Construct new 2 lane roadway with pedestrian facilities and bikeways
3024	5-11a	Mather Rd	Industrial Way to 98th Ave	Maintain as pedestrian facilities and bikeway. Construct undercrossing at Sunrise Expressway.

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Table 5-3c Long Term Capital Projects

Project ID	Map	Project Name / Street Name	Segment/ Locations	Project Description
3025	5-11a	Michael Dr	72nd Ave to Fuller Ave	Fill gaps in pedestrian facilities
3026	5-11a	Phillips Creek Multi-Use Path	Causey Ave to North Clackamas Regional Parks Trail	Construct multi-use path
3027	5-11a	Sunnyside Rd Adaptive Signal Timing	OR 213 to 172nd Ave	Add adaptive timing to traffic signals
3028	5-11a	Valley View Terrace	Sunnyside Rd to Otty Rd	Add bikeways and pedestrian facilities
3029a	5-11a	West 82nd Ave Parallel Road	Luther Rd to Johnson Creek Blvd	Construct collector road parallel to OR 213 with bikeways and pedestrian facilities
3029b	5-11b	West 82nd Ave Parallel Road	Johnson Creek Blvd. to King Rd	Construct collector road parallel to OR 213 with bikeways and pedestrian facilities
3030	5-11b	282nd Ave	282nd Ave /OR 212 intersection	Add second right-turn lane on 282nd Ave and additional intersection improvements as needed
3031	5-11b	282nd Ave	OR 212 to Multnomah County line	Add paved shoulders
3032	5-11b	352nd Ave /Dunn Rd	Bluff Rd to Bluff Rd	Add paved shoulders
3033	5-11b	362nd Dr	Colorado Rd to Dubarko Rd	Remove or decrease horizontal and vertical curves
3034	5-11b	362nd Dr	362nd Ave /Deming Rd intersection	Remove or decrease vertical curve, relocate intersection
3035	5-11b	Barlow Trail Rdl Lolo Pass Rd	Between communities of Timberline, Welches and ZigZag	Add paved shoulders in accordance with the Active Transportation Plan. In the interim, install 4-foot shoulders or 4-foot shoulders at specific areas with limited sight distance or steep uphill sections.
3036	5-11b	Bluff Rd	City of Sandy to County line	Add paved shoulders in accordance with the Active Transportation Plan
3037	5-11b	Bull Run Rd	Ten Eyck Rd to Multnomah County line	Add paved shoulders and turn lanes at major intersections.
3038	5-11b	Bull Run Truss	Bull Run truss between Waterworks Rd and Bowman Rd	Replace bridge nearing the end of its useful life
3039	5-11b	Coalman Rd / Cherryville Dr	Ten Eyck Rd to US 26	Add paved shoulders. In the interim, add 4-foot paved shoulders.
3040	5-11b	Compton Rd	US 26 to 352nd Ave	Remove vertical curve near Orient Dr and relocate intersection; add paved shoulders
3041	5-11b	Coupland Rd	Estacada City limits to Divers Rd	Add paved shoulders and turn lanes at major intersections
3042	5-11b	Eagle Creek Rd	Keegan Rd to Currin Rd	Realign Eagle Creek Rd to remove or decrease downgrade
3043	5-11b	Firwood Rd	Firwood Rd /Trubel Rd intersection	Realign Trubel Rd to remove or decrease downgrade
3044	5-11b	Hayden Rd	Springwater Rd to OR 211	Add paved shoulders in accordance with the Active Transportation Plan

Clackamas County Comprehensive Plan
Table 5-3c Long Term Capital Projects

Project ID	Map	Project Name / Street Name	Segment/ Locations	Project Description
3045	5-11b	Howlett Rd	OR 211 to Wildcat Mountain Dr	Add paved shoulders
3046	5-11b	Kelso Rd	Richey Rd to Orient Dr	Add paved shoulders
3047	5-11b	Kelso Rd	Orient Dr to Sandy Urban Growth Boundary	Remove vertical curve, relocate intersection, add paved shoulders and turn lanes at major intersections; investigate speed zone
3048	5-11b	Lolo Pass Rd	US 26 to Barlow Trail Rd	Safety analysis; add paved shoulders in accordance with the Active Transportation Plan
3049	5-11b	Mt Hood Aerial Transportation Link	Between Ski Bowl, Government Camp Village and Timberline Lodge	Aerial transportation link
3050	5-11b	Orient Dr	US 26 north to County line	Add paved shoulders
3051	5-11b	Porter Rd Bridge over Delph Creek	-100ft east of Wilcox Rd	Replace bridge
3052	5-11b	Salmon River Rd	US 26 to Welches Rd	Add paved shoulders. Between US 26 and Fairway Ave, add paved shoulders or multi-use path
3053	5-11b	Springwater Rd	Hayden Rd to OR 211	Add paved shoulders
3054	5-11b	TenEyck Rd	Lusted Rd to City of Sandy	Remove vertical curve, relocate intersection, add paved shoulders, turn lanes at major intersections; investigate speed zone. For paved shoulders between City of Sandy and Marmot Rd, refer to the Active Transportation Plan
3055	5-11b	Tickle Creek Trail	Springwater Corridor to Sandy city limits	Construct multi-use path in accordance with the Active Transportation Plan
3056	5-11b	Welches Rd	Birdie Ln to Salmon River Rd	Add paved shoulders or add multi-use path
3057	5-11b	Wildcat Mountain Dr	OR 224 to Firwood Rd	Add paved shoulders
3058	5-11c	Aldercrest Dr	Thiessen Rd to Oatfield Rd	Add pedestrian facilities to one side of the road and bikeways
3059	5-11c	Clackamas Rd	Clackamas Rd / 1-205 interchange	Construct bike/pedestrian bridge over 1-205
3060	5-11c	Hill Rd	Oatfield Rd to Thiessen Rd	Add bikeways and pedestrian facilities
3061	5-11c	Johnson Rd / McKinley Rd	OR 224 to 1-205 multi-use path	Bikeway and pedestrian facilities infill. From Thiessen Rd to 1-205 Multi-use Path, construct in accordance to the Active Transportation Plan
3062	5-11c	McNary Rd / Mabel Ave	Oatfield Rd to Webster Rd	Add bikeways and pedestrian facilities
3063	5-11c	Naef Rd	Oatfield Rd to River Rd	Add pedestrian facilities in accordance with the Active Transportation Plan
3064	5-11c	Oatfield Rd	Oatfield Rd / Hill Rd intersection	Add left-turn lanes, install signal if warranted
3065	5-11c	Oatfield Rd	Milwaukie city limits to Gladstone city limits	Fill gaps in pedestrian facilities and bikeways

Clackamas County Comprehensive Plan

Table 5-3c Long Term Capital Projects

Project ID	Map	Project Name / Street Name	Segment/ Locations	Project Description
3066	5-11c	Oatfield Ridge Connection	Between Jennings Ave and Thiessen Ave over Oatfield Ridge	Construct multi-use path
3068	5-11c	Portland Ave	Jennings Ave to Hull Ave	Fill gaps in pedestrian facilities
3069	5-11c	Risley Ave	Arista Dr to Hager Rd	Fill gaps in pedestrian facilities
3070	5-11c	River Rd	Courtney Ave to Oak Grove Blvd	Add pedestrian facilities
3071	5-11c	River Rd	Risley Ave to Rinearson Rd	Add pedestrian facilities
3072	5-11c	Roethe Rd	River Rd to OR 99E (McLoughlin Blvd)	Add bikeways, pedestrian facilities and traffic calming
3073	5-11c	Rusk Rd	OR 224 South to Aldercrest Rd	Add pedestrian facilities on one side of the roadway and bikeways
3074	5-11c	Strawberry Ln	Webster Rd to 82nd Dr	Add pedestrian facilities and fill bikeway gaps
3075	5-11c	Thiessen Rd	Thiessen Rd / Hill Rd intersection	Add right-turn lane on Thiessen Rd; consider converting to two-way stop controlled or installing roundabout
3076	5-11c	View Acres Rd	Oatfield Rd to Hill Rd	Add pedestrian facilities and traffic calming
3077	5-11c	Webster Rd	Webster Rd / Jennings Ave and Webster Rd / Roots Rd intersections	Construct traffic signals, turn lanes
3078	5-11c	Webster Rd	Webster Rd / Strawberry Ln intersection	Add signal; construct southbound and westbound left-turn lane
3079	5-11d	65th Ave	Stafford Rd to Tualatin city limits	Add paved shoulders
3080	5-11d	Baker Rd	Tooze Rd to County line	Add paved shoulders
3081	5-11d	Bell Rd	Ladd Hill Rd to Wilsonville Rd	Add paved shoulders
3082	5-11d	Bonita Rd	Carman Dr to 1-5	Add bikeways and pedestrian facilities
3083	5-11d	Childs Rd	Stafford Rd to Lake Oswego city limits	Add pedestrian facilities, bikeways and turn lanes at major intersections
3084	5-11d	Graham's Ferry Rd	County line to Westfall Rd	Add paved shoulders
3085	5-11d	Graham's Ferry Rd	Wilsonville Rd to Wilsonville city limits	Add paved shoulders
3086	5-11d	Hoffman Rd / Peach Cove Rd / Riverwood Rd	Mountain Rd to Tualatin River	Add paved shoulders
3087	5-11d	Homesteader Rd	Stafford Rd to Mountain Rd	Add paved shoulders
3088	5-11d	Johnson Rd	Stafford Rd to West Linn city limits	Add paved shoulders and turn lanes at major intersections

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Table 5-3c Long Term Capital Projects

Project ID	Map	Project Name / Street Name	Segment/ Locations	Project Description
3089	5-11d	Ladd Hill Rd	Wilsonville Rd to Washington County line	Add paved shoulders and turn lanes at major intersections
3090	5-11d	Mountain Rd	Stafford Rd to Canby Ferry	Add paved shoulders in accordance with the Active Transportation Plan
3091	5-11d	Petes Mountain Rd	West Linn city limits to Hoffman Rd	Add paved shoulders and turn lanes at major intersections
3092	5-11d	Pleasant Hill Rd / McConnell Rd / Tooze Rd	Ladd Hill Rd to Westfall Rd	Add paved shoulders
3093	5-11d	Schaeffer Rd	Mountain Rd to Petes Mountain Rd	Add paved shoulders
3094	5-11d	Schatz Rd / 55th Ave / Meridian Way	65th Ave to Stafford Rd	Add paved shoulders
3095	5-11d	Tualatin / Lake Oswego Pedestrian and Bicycle Bridge	Tualatin River Bridge	Construct bike / pedestrian bridge
3096	5-11d	Wilsonville Rd	Wilsonville Rd / Bell Rd intersection	Realign roadway and grade improvements
3097	5-11d	Wilsonville Rd	Wilsonville Rd / Edminston Rd intersection	Remove bank, remove horizontal curve, relocate intersection
3098	5-11d	Wilsonville Rd Bridge	-300 feet south of Bell Rd	Replace bridge nearing the end of its useful life
3099	5-11d	Wisteria Rd / Woodbine Rd	Rosemont Rd to Johnson Rd	Add paved shoulders
3100	5-11e	Airport Rd	Arndt Rd to Miley Rd	Add turn lanes at major intersections
3101	5-11e	Bakers Ferry Rd	Springwater Rd to OR 224	Add paved shoulders in accordance with the Active Transportation Plan and turn lanes at major intersections; remove horizontal curve and relocate intersection from Eaden Rd to OR 224
3102	5-11e	Barnards Rd	Meridian Rd to Canby-Marquam Hwy	Add paved shoulders
3103	5-11e	Barnards Rd	Needy Rd to Stuwe Rd	Reconstruct bridge and widen to 36 feet
3104	5-11e	Beavercreek Rd	Yeoman Rd to Steiner Rd to OR 211	Add paved shoulders
3105	5-11e	Bradley Rd	Redland Rd to Holcomb Blvd	Add turn lanes at major intersections
3106	5-11e	Bradley Rd	Gronlund Rd to Redland Rd	Add paved shoulders
3107	5-11e	Buckner Creek Rd	Gard Rd to Cochell Rd	Add paved shoulders
3108	5-11e	Canby-Marquam Highway	OR 170 / Macksburg Rd intersection	Reconstruct intersection; install southbound left-turn lane and northbound right-turn lane
3109	5-11e	Canby-Marquam Highway	City of Canby to OR 211	Add paved shoulders
3110	5-11e	Carus Rd	Central Point Rd to Beavercreek Rd	Add paved shoulders in accordance with the Active Transportation Plan
3111	5-11e	Casto Rd	Spangler Rd to Central Point Rd	Add paved shoulders and turn lanes at major intersections

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Table 5-3c Long Term Capital Projects

Project ID	Map	Project Name / Street Name	Segment/ Locations	Project Description
3112	5-11e	Central Point Rd	Parrish Rd to Mulino Rd	Smooth curves; add paved shoulders (Parrish Rd to Bremer Rd in accordance with the Active Transportation Plan)
3113	5-11e	Clackamas River Dr	Oregon City limits to Springwater Rd	Construct bikeway in accordance with the Active Transportation Plan. Add turn lanes at Springwater Rd and Forsythe Rd.
3114	5-11e	Fellows Rd	Redland Rd to Lower Highland Rd	Add paved shoulders and turn lanes at major intersections
3115	5-11e	Ferguson Rd	Beavercreek Rd and Henrici Rd	Reduce the speed limit and install traffic calming
3116	5-11e	Fischers Mill Rd	Redland Rd to Springwater Rd	Add paved shoulders in accordance with the Active Transportation Plan
3118	5-11e	Forsythe Rd	Oregon City limit to Bradley Rd	Add center turn lane and paved shoulders
3119	5-11e	Forsythe Rd	Forsythe Rd / Victory Rd intersection	Realign, widen Victory Rd; remove or decrease curves along Forsythe Rd; relocate intersection
3120	5-11e	Gard Rd	-100 ft south of Old Clarke Rd	Reconstruct bridge to accommodate paved shoulders
3121	5-11e	Gronlund Rd / Hattan Rd	Bradley Rd to Springwater Rd	Add paved shoulders and turn lanes at major intersections
3122	5-11e	Henrici Rd	Between Driftwood Dr and Shore Vista Dr	Widen bridge to accommodate paved shoulders
3123	5-11e	Holcomb Blvd	Edenwild Ln to Bradley Rd	Add paved shoulders and turn lanes at Holcomb Blvd / Bradley Rd
3124	5-11e	Kamrath Rd	Carus Rd to Spangler Rd	Safety analysis at Carus Rd, add paved shoulders, remove or decrease horizontal curves north of Spangler Rd
3125	5-11e	Knights Bridge Rd Bridge	-3,200 feet east of Barlow Rd	Replace bridge (nearing the end of its useful life)
3126	5-11e	Leland Rd	Oregon City line to Beavercreek Rd	Add paved shoulders
3127	5-11e	Leland Rd	-1,000 ft north of Warnock Rd	Reconstruct bridge to accommodate paved shoulders
3128	5-11e	Lone Elder Rd	County line to Canby-Marquam Hwy	Add paved shoulders
3129	5-11e	Lower Highland Rd	Beavercreek Rd to Fellows Rd	Add paved shoulders and turn lanes at major intersections
3130	5-11e	Macksburg Rd	Canby Marquam Hwy to OR 213	Add paved shoulders and turn lanes at major intersections
3131	5-11e	Maplelane Rd	1,800 ft west of Walker Rd	Add paved shoulders
3132	5-11e	Maplelane Rd	Oregon City Urban Growth Boundary to Ferguson Rd	Add paved shoulders
3133	5-11e	Mattoon Rd	Fischers Mill Rd to Redland Rd	Add paved shoulders in accordance with the Active Transportation Plan and turn lanes at major intersections; remove vertical curves, remove horizontal curves north of Redland Rd
3134	5-11e	Meridian Rd	Lone Elder Rd to OR 211	Add paved shoulders
3135	5-11e	Meridian Rd	Elliott Prairie Rd to Barlow Rd	Add paved shoulders; remove or decrease horizontal and vertical curves

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Table 5-3c Long Term Capital Projects

Project ID	Map	Project Name / Street Name	Segment/ Locations	Project Description
3136	5-11e	Miley Rd	Airport Rd to Eilers Rd	Add paved shoulders
3137	5-11e	Molalla Ave	OR 213 to Molalla City limits	Add paved shoulders
3138	5-11e	New Era Rd / Haines Rd	OR 99E to Ieland Rd	Add paved shoulders
3140	5-11e	Redland Rd	900 ft west of Holly Ln	Reconstruct bridge to include shoulders and bikeways
3141	5-11e	Redland Rd	-400ft west of Holly Ln	Reconstruct bridge to include shoulders and bikeways
3142	5-11e	Redland Rd	Henrici Rd to Oregon City limit	Add paved shoulders and bikeway in accordance with the Active Transportation Plan
3143	5-11e	Redland Rd	Henrici Rd to Springwater Rd	Add paved shoulders and turn lanes at major intersections. For the section between Mattoon Rd and Jubb Rd, see the Active Transportation Plan.
3144	5-11e	Ridge Rd	Lower Highland Rd to Redland Rd	Add paved shoulders
3145	5-11e	Rock Creek (Kropf Rd) Bridge	3,500 ft north of Gibson Rd	Replace bridge
3146	5-11e	S Killdeer Rd	Ferguson Road and Yeoman Road	Extend S Killdeer Rd to connect with S. Ivel Rd. and provide bike/pedestrian access
3147	5-11e	South End Rd	Oregon City limits to OR 99E	Smooth curves; add paved shoulders
3148	5-11e	Spangler Rd	Casto Rd to Beaver Creek Rd	Add paved shoulders and turn lanes at major intersections
3149	5-11e	Springwater Rd	Bakers Ferry Rd to Hayden Rd	Add paved shoulders and turn lanes at major intersections. For paved shoulders between Eaden Rd and Hayden Rd, see the Active Transportation Plan.
3150	5-11e	Thayer Rd/Ferguson Rd	Oregon City line to Redland Rd	Add paved shoulders
3151	5-11e	Toliver Rd	Dryland Rd to Molalla city Limits	Add paved shoulders in accordance with the Active Transportation Plan
3152	5-11e	Unger Rd	Beaver Creek Rd to OR 211	Add paved shoulders and turn lanes at major intersections
3153	5-11e	Union Hall Rd	Central Point Rd to El Dorado Rd	Add paved shoulders
3154	5-11f	Bird Rd	Groshong Rd to Wilhoit Rd	Add paved shoulders and turn lanes at major intersections
3155	5-11f	Blair Rd	Groshong Rd to Maple Grove Rd	Add paved shoulders and turn lanes at major intersections
3156	5-11f	Callahan Rd S / Ramsby Rd	Dickey Prairie Rd to Fernwood Rd	Add paved shoulders and turn lanes at major intersections
3157	5-11f	Dhooghe Rd	OR 211 to Fernwood Rd	Add paved shoulders and turn lanes at major intersections
3158	5-11f	Fernwood Rd	Dhooghe Rd to Callahan Rd	Add paved shoulders and turn lanes at major intersections
3159	5-11f	Gray's Hill Rd	Green Mountain Rd to OR 211	Add paved shoulders
3160	5-11f	Maple Grove Rd	Nowlens Bridge Rd to Sawtell Rd	Add paved shoulders and turn lanes at major intersections

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Table 5-3c Long Term Capital Projects

Project ID	Map	Project Name / Street Name	Segment/ Locations	Project Description
3161	5-11f	Nowlens Bridge Rd	OR 213 to Maple Grove Rd	Add paved shoulders and turn lanes at major intersections
3162	5-11f	Sawtell Rd	Maple Grove Rd to Wilhoit Rd	Add paved shoulders and turn lanes at major intersections
3163	5-11f	Wildcat Rd	Wilhoit Rd to OR 213	Add paved shoulders and turn lanes at major intersections
3164	5-11f	Wright Rd	OR 211 to Callahan Rd	Add paved shoulders
3165	5-11a	Sunnyside Rd	93rd Ave to OR 212	Add pedestrian facilities and bikeways in accordance with the Active Transportation Plan
3167	5-11b	Marmot Rd	Ten Eyck to Barlow Trail Rd	Add paved shoulders in accordance with the Active Transportation Plan. In the interim, widen to 4-feet within Wildwood/Timberline, Zigzag, Rhododendron and Wemme/Welches .
3168	5-11c	Thiessen Rd	Webster Rd to Johnson Rd	Add pedestrian facilities and bikeways in accordance with the Active Transportation Plan
3169	5-11d	Willamette River Greenway	Lake Oswego north to County Line	Construct multi-use path in accordance with the Active Transportation Plan.
3170	5-11d	Willamette River Greenway	Canby Ferry to City of Wilsonville	Construct multi-use path in accordance with the Active Transportation Plan.
3171	5-11e	Bremer Rd	Central Point Rd to Haines Rd	Add paved shoulders in accordance with the Active Transportation Plan
3172	5-11e	Butteville Rd	Willamette River to County line	Add paved shoulders in accordance with the Active Transportation Plan
3173	5-11e	Dryland Rd	Macksburg Rd to Toliver Rd	Add paved shoulders in accordance with the Active Transportation Plan
3174	5-11e	Eaden Rd	Bakers Ferry Rd to Springwater Rd	Add paved shoulders in accordance with the Active Transportation Plan
3175	5-11e	Haines Rd	Bremer Rd to Territorial Rd	Add paved shoulders in accordance with the Active Transportation Plan
3176	5-11e	Harms Rd	Kraxberger Rd to Macksburg Rd	Construct bikeway in accordance with Active Transportation Plan
3177	5-11e	Hwy 170 /Kraxberger Rd	City of Canby to Harms Rd	Add paved shoulders in accordance with the Active Transportation Plan
3178	5-11e	Jubb Rd	Redland Rd to Springwater Rd	Add paved shoulders in accordance with the Active Transportation Plan
3179	5-11e	Kamrath Rd	Leland Rd to Carus Rd	Add paved shoulders in accordance with the Active Transportation Plan
3180	5-11e	Knights Bridge Rd / Barlow Rd /Arndt Rd	Canby boundary to Airport Rd	Add bikeway in accordance with the Active Transportation Plan
3181	5-11e	Territorial Rd	Haines Rd to OR 99E	Add bikeways in accordance with the Active Transportation plan
3182	5-11e	Willamette River Greenway	Oregon City to Canby	Construct multi-use path in accordance with the Active Transportation Plan.

Table 5-3d Regional Capital Projects

Project ID	Map	Project Name / Street Name	Segment / Locations	Project Description	Priority
4000	County-wide	TSP Refinement	State facility locations applicable where mobility target is not met in 2035	TSP Refinement to develop alternative mobility targets for state facilities consistent with Oregon Highway Plan (OHP) 1F3.	High
4001	5-11a	I-205 / Sunnyside Road interchange	I-205 / Sunnyside Road interchange	Add dual northbound right-turns; install bike signal; construct sidewalk extension / bulb to accommodate pedestrians and bicyclists around signal pole.	High
4002	5-11a	OR 212	OR 212 / 172nd Ave intersection	Add second eastbound left-turn lane	High
4003	5-11a	OR 212	SE 162nd to Anderson Rd	Add bikeways, pedestrian facilities ways, and landscape pedestrian facilities buffer; widen to 6 lanes within Happy Valley; add center turn lane within Damascus	High
4004	5-11a	OR 213	Sunnybrook Blvd to Portland City Limits	Extend fiberoptic communications, CCTV at key intersections and adaptive signal timing	High
4005	5-11a	OR 224	OR 224 / Lake Rd / Webster Rd intersection	Add turn-lanes, including second left-turn lane on westbound OR 224, second left-turn lane and right-turn lane on northbound SE Webster Rd, and second left-turn lane on southbound SE Lake Rd	High
4006	5-11a	OR 224	OR 224 / Johnson Rd intersection	Add second left-turn lane on westbound OR 224	High
4007	5-11a	OR 224	OR 224 / Hubbard Rd / 135th Ave intersection	Add intersection improvements, including right-turn lanes	High
4008	5-11a	OR 224	Springwater Rd / OR 224 intersection	Add signal and turn lanes on all approaches	High
4009	5-11a	OR 224	Rock Creek Junction to Midway St	Widen to four lanes; add bikeways.	High
4010	5-11a	Sunrise Project - Preliminary Engineering	Webster Rd/ OR 224 to 172nd Ave / OR 212	Preliminary engineering from Webster Rd to 172nd Ave	High
4011	5-11a	Sunrise Project - Right-of-Way	Webster Rd/ OR 224 to 172nd Ave / OR 212	Acquire right-of-way to accommodate 6 lane expressway plus auxiliary lanes	High
4012	5-11a	SunriseProject - Multi-use Path	122nd to Rock Creek Junction	Construct multi-use path from 122nd to Rock Creek Junction parallel to the Sunrise project consistent with FEIS.	High
4013	5-11b	OR 224	OR 224 /232nd Ave intersection	Install traffic signal or roundabout	High
4014	5-11b	OR 224	Eaglecreek Rd / OR 224 intersection	Install signal	High
4015	5-11c	OR 99E	Milwaukie city limit to Gladstone city limit	Add bikeways, pedestrian facilities ways, median enhancements, crosswalks and pedestrian facilities refuges	High
4016	5-11d	I-205	Stafford Rd to OR 99E	Work with ODOT, Metro, Oregon City, West Linn and any other effected jurisdictions to analyze and develop a solution to the transportation bottle neck on I-205 between Oregon City and I-205 / Stafford Road Interchange. Possible solutions include widening to 3-lanes in each direction.	High
4017	5-11e	I-205	Willamette River to West Linn city limit	Add southbound truck climbing lane	High
4018	5-11e	I-205	I-205 Corridor	Corridor-wide operational improvements	High
4019	5-11e	OR 211	Beavercreek Rd, Union Hall Rd to Dhooghe Rd	Widen to include shoulders, bikeways, add passing lanes where needed and turn lanes at major intersections	High
4020	5-11e	OR 213	OR 213 / Spangler Rd intersection	Install traffic signal to replace existing two-way stop	High

Table 5-3d Regional Capital Projects

Project ID	Map	Project Name / Street Name	Segment / Locations	Project Description	Priority
4021	5-11e	OR 213	OR 213 / Henrici Rd intersection	Install traffic signal or roundabout and additional intersection improvements as needed	High
4022	5-11e	OR 213	OR 213 / Leland Rd intersection	Add northbound through auxiliary lane	High
4023	5-11e	OR 213	Leland Rd / Union Hall Rd intersection	Add southbound auxiliary lane	High
4024	5-11e	OR 213	Mulino to Molalla	Perform road safety audit or transportation safety review to identify appropriate safety improvements	High
4025	5-11e	OR 99E	OR 99E / Barlow Rd intersection	Add left-turn lane on southbound Barlow Rd - To widen Barlow Rd to add a southbound left turn lane on the north approach would need to modify the existing railroad crossing warning system	High
4026	5-11a	I-205 / Johnson Creek Blvd interchange	I-205 / Johnson Creek Blvd interchange	Add loop ramp and northbound on-ramp; realign southbound off-ramp and install dual right-turn lanes	Medium
4027	5-11a	I-205 / OR 212/224 Interchange	In vicinity of Roots Rd and McKinley Ave	Connect bikeways in accordance with the Active Transportation Plan	Medium
4028	5-11a	OR 212	Rock Creek Junction to 172nd	Construct climbing lane	Medium
4029	5-11a	OR 212	OR 212 / SE 162nd Ave intersection	Add left-turn pockets and traffic signal	Medium
4030	5-11a	OR 213	Sunnyside Rd to Sunnybrook Rd	Widen to 7 lanes with boulevard treatments	Medium
4031	5-11a	OR 213	OR 213 / Harmony Rd / Sunnyside Rd intersection	Add bikeways, pedestrian facilities ways, dual northbound and southbound left-turn lanes, and lighting; convert driveways north of intersection to right-in / right-out	Medium
4032	5-11a	OR 224	OR 224 / Rusk Rd off-ramp	Extend right-turn lane on OR 224	Medium
4033	5-11a	OR 224	Milwaukie city limits to I-205	Construct multi-use path as parallel route to OR 224	Medium
4034	5-11a	OR 224	Lake Rd / Johnson Rd / Pheasant Ct	Realign Lake Rd / Johnson Rd to provide southern OR 224 access via Pheasant Ct; add turn lanes at OR 224 / Pheasant Ct intersection; close access at Lake / Webster south of OR 224	Medium
4035	5-11a	OR 99E	OR 99E / Jennings Ave intersection	Determine safe connection of Trolley Trail at OR 99E / Jennings Ave intersection	Medium
4036	5-11a	Sunrise Project	I-205 to 172nd Ave	Construct improvements to 172nd	Medium
4037	5-11b	OR 211	Hayden Rd to OR 224	Widen to rural arterial standard with shoulders, bikeways in accordance with the Active Transportation Plan and turn lanes at major intersections	Medium
4038	5-11b	US 26	Govt. Camp Loop W to OR 35	Implement Finding of Mt Hood Multimodal Study including phased safety improvements	Medium
4039	5-11b	US 26	OR 35 Junction to Wasco County line	Widen roadway to include bikeways /shoulders, add passing lanes where needed and turn lanes at major intersections	Medium
4040	5-11e	OR 211	OR 170 (Canby-Marquam Hwy) / OR 211 intersection	Install eastbound and westbound left-turn lanes, and eastbound right-turn lane; remove or decrease horizontal curve	Medium
4041	5-11e	OR 211	Marion County line to OR 170 (Canby-Marquam Hwy)	Widen to include shoulders, bikeways, add passing lanes where needed and turn lanes at major intersections	Medium
4042	5-11e	OR 99E	Barlow Rd to Marion County line	Four lane widening with median, left-turn lanes from mile post 24.05	Medium
4043	5-11e/f	OR 213	Oregon City boundary to Marion County line	Add shoulders and bikeways	Medium

Table 5-3d Regional Capital Projects

Project ID	Map	Project Name / Street Name	Segment / Locations	Project Description	Priority
4044	5-11a	OR 212	I-205 to OR 224	Perform road safety audit or transportation safety review to identify appropriate safety improvements	Low
4045	5-11a	OR 212	Within the Damascus City Limits (Armstrong Cr to 257th)	Obtain right-of-way for future 4 lane facility with planted median and 5 lanes at major intersections; build as major development occurs and apply access management to reduce number of driveways.	Low
4046	5-11a	OR 213	Clatsop St to Sunnyside Rd	OR 213/82nd Avenue Boulevard Design Improvements - Widen to add sidewalks, lighting, central median, planting strips and landscaping; fill gaps in the bike and pedestrian facilities network. Add pedestrian crossings in the vicinity of Luther Rd, Glencoe Rd and south of Boyer Dr. Install access management median Hinkley Ave to Lindy St and Monterey Ave to Harmony Rd. Install advanced street name signs from Sunnyside Rd to Sunnyside Dr. Remove signal at north entrance of Clackamas Town Center and evaluate traffic diversion. 2014 ODOT OR 213 paving project programmed King to OR 224.	Low
4047	5-11a	OR 213 (82nd Ave)	Luther Road to Sunnybrook Blvd	Perform road safety audit or transportation safety review to identify appropriate safety improvements	Low
4048	5-11a	OR 224	Webster Rd and 82nd Ave	Provide frontage connection on the north side of OR 244	Low
4049	5-11a	OR 224	Springwater Rd to 232nd Dr	Shoulder widening, horizontal realignment, realignment of roadway to bluff	Low
4050	5-11b	OR 211	OR 224 to eastbound US 26	Perform road safety audit or transportation safety review to identify appropriate safety improvements	Low
4051	5-11b	OR 211	OR 224 to Hillcockburn Rd	Perform road safety audit or transportation safety review to identify appropriate safety improvements	Low
4052	5-11b	OR 211	Tickle Creek Rd/OR 211 intersection	Remove or decrease horizontal curve, relocate intersection	Low
4053	5-11b	OR 211	362nd Dr / OR 211 intersection	Remove or decrease vertical curve and remove vegetation	Low
4054	5-11b	OR 211	Eagle Creek Rd to Tickle Creek Rd	Widen to include bikeways /shoulders and add passing /climbing lanes where needed	Low
4055	5-11b	OR 211	0.14 miles east of Coop Rd to Jackknife Rd	Widen to add shoulder / bikeways; realign to remove horizontal and vertical curves	Low
4056	5-11b	OR 211	Tickle Creek Rd to 362nd Dr	Widen to include bikeways /shoulders and add passing /climbing lanes where needed	Low
4057	5-11b	OR 211	Bornstedt Rd to City of Sandy	Add shoulders and bikeways	Low
4058	5-11b	OR 224	232nd Ave to OR 211	Perform road safety audit or transportation safety review to identify appropriate safety improvements	Low
4059	5-11b	OR 224	Fish Creek Rd to National Forest Rd 46	Perform road safety audit or transportation safety review to identify appropriate safety improvements	Low
4060	5-11b	OR 224	Bakers Ferry Rd / OR 224 intersection	Add eastbound right-turn lane	Low
4061	5-11b	OR 224	Amisigger Rd / OR 224 intersection	Install traffic signal; add southbound and eastbound left-turn lanes and westbound right-turn lane	Low
4062	5-11b	OR 224	Heiple Rd / OR 224 intersection	Add southbound right-turn lane	Low
4063	5-11b	OR 224	OR 212 to Estacada city limits	Widen to include shoulders and bikeways; add passing lanes where needed	Low
4065	5-11b	US 26	US 26 / Haley Rd intersection	Develop a plan to address to address access and safety issues on US 26 at this intersection and implement that plan	Low

Table 5-3d Regional Capital Projects

Project ID	Map	Project Name / Street Name	Segment / Locations	Project Description	Priority
4066	5-11b	US 26	Kelso Rd to Duncan Rd	Perform road safety audit or transportation safety review to identify appropriate safety improvements	Low
4067	5-11b	US 26	Duncan Rd to Langensand Rd	Perform road safety audit or transportation safety review to identify appropriate safety improvements	Low
4068	5-11b	US 26	Firwood Rd to Sleepy Hollow Dr	Perform road safety audit or transportation safety review to identify appropriate safety improvements	Low
4069	5-11b	US 26	Rhododendron to OR 35	Perform road safety audit or transportation safety review to identify appropriate safety improvements	Low
4070	5-11b	US 26	US 26 / Firwood Rd intersection	Add eastbound right-turn lane	Low
4071	5-11b	US 26	US 26 / Brightwood Loop W	Add westbound right-turn lane	Low
4072	5-11b	US 26	US 26 / Brightwood Loop E	Add westbound right-turn lane	Low
4073	5-11b	US 26	Lolo Pass Rd to Govt. Camp Loop Rd. W	Implement Finding of Mt Hood Multimodal Study including ITS approach with variable speed signage; construct multi-use path between Lolo Pass Rd and John Lake Rd; add enhanced pedestrian crossing, sidewalks, curbs, gutters, pedestrian refuge island, pedestrian illumination and access management in Rhododendron; construct multi-use path connecting Mt. Hood Express transit stop and Pioneer Bridle Trailhead	High
4074	5-11c	OR 99E	Park Ave to Gladstone city limits	Perform road safety audit or transportation safety review to identify appropriate safety improvements	Low
4075	5-11d	OR 43	Lake Oswego to Portland	Develop active transportation connection in accordance with the Active Transportation Plan.	Low
4076	5-11e	OR 211	Dhooghe Rd / OR 211 intersection	Remove or decrease horizontal curve, relocate intersection	Low
4077	5-11e	OR 211	OR 170 (Canby-Marquam Hwy) to City of Molalla	Add shoulders and bikeways	Low
4078	5-11e	OR 211	Needy Rd to 0.6 miles west of Needy Rd	Remove or decrease vertical curve to allow passing zone, add passing lane in one or both directions, possible relocation of intersection	Low
4079	5-11e	OR 211	Molalla city limits to Hayden Rd	Widen to rural arterial standard (2 lanes) with shoulders and bikeways	Low
4080	5-11e	OR 211	Beavercreek Rd to Upper Highland Rd	Perform road safety audit or transportation safety review to identify appropriate safety improvements	Low
4081	5-11e	OR 213	OR 213 / Carus Rd intersection	Install traffic signal to replace existing two-way stop See U339	Low
4082	5-11e	OR 213	OR 213 / Beavercreek Rd intersection	Perform road safety audit or transportation safety review to identify appropriate safety improvements	Low
4083	5-11e	OR 213	Carus Rd / OR 213 intersection	Install southbound left-turn and right-turn lanes	Low
4085	5-11e	OR 99E	Oregon City to Canby	Add shoulders and bikeways	Low
4086	5-11e	OR 99E	Sequoia Parkway to Lone Elder Rd	Perform road safety audit or transportation safety review to identify appropriate safety improvements	Low
4087	5-11e	OR 99E	Territorial Rd to Metro boundary	Perform road safety audit or transportation safety review to identify appropriate safety improvements	Low
4088	5-11b	Government Camp Loop Rd	US 26 to US 26	Add bikeways through Government Camp in accordance with the Active Transportation Plan	High
4089	5-11a	OR 213	Causey Ave to King Rd	Work with TriMet and ODOT to evaluate the Business Access Transit lane and identify projects / approaches to improve safety and enhance transit operation.	High

Table 5-3d Regional Capital Projects

Project ID	Map	Project Name / Street Name	Segment / Locations	Project Description	Priority
4090	5-11a	I-205 MUP	I-205 SB Ramp / Sunnyside Rd	Travelling south on the I-205 multi-use path, install a pedestrian signal to cross the I-205 southbound / Sunnyside right turn lane. Perform traffic analysis to evaluate impacts to vehicle queuing. Modification subject to ODOT approval.	High
4091	5-11a	I-205 MUP	Monterey Ave	Install parabolic mirror and/or signage to resolve limited sight distance issues at the intersection of the I-205 MUP and the path extension at Monterey Ave.	High
4092	5-11b	US 26	Arrah Wanna Blvd to Welches Rd	Add multi-use path on north side of US 26	High
4093	5-11b	US 26	Main Park Rd to Salmon River Rd	Add multi-use path on south side of US 26	High
4094	5-11b	US 26 / Welches Rd	US 26 / Welches Rd	Pedestrian and ADA improvements at signal, including crossing improvements on the north side of the intersection.	Medium
4095	5-11b	US 26 / Arrah Wanna Blvd	US 26 / Arrah Wanna Blvd	Install a continental style crosswalk, accompanied by roadway and streetscape improvements	Medium
4096	5-11b	US 26 / Salmon River Rd	US 26 / Salmon River Rd	Install an enhanced pedestrian crossing	High

Capital Improvement Plan

Greater Clackamas Regional Center / Industrial Area

Priority

- 20-Year Capital Projects (Table 5-3a)
- Preferred Capital Projects (Table 5-3b)
- Long-Term Capital Project Needs (Table 5-3c)

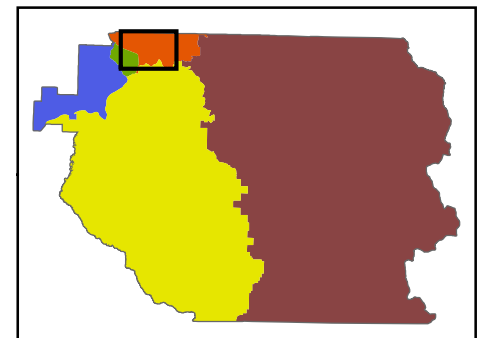
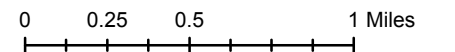
Projects on Non-County Facilities

Priority

- High (Table 5-3d)
- Medium (Table 5-3d)
- Low (Table 5-3d)

- ▲ Study*
- Multi-Use Path*
- ▭ Metro Urban Growth Boundary
- ▭ Incorporated City

*Symbol color consistent with Priority symbologies shown above



Last Updated November 27, 2018

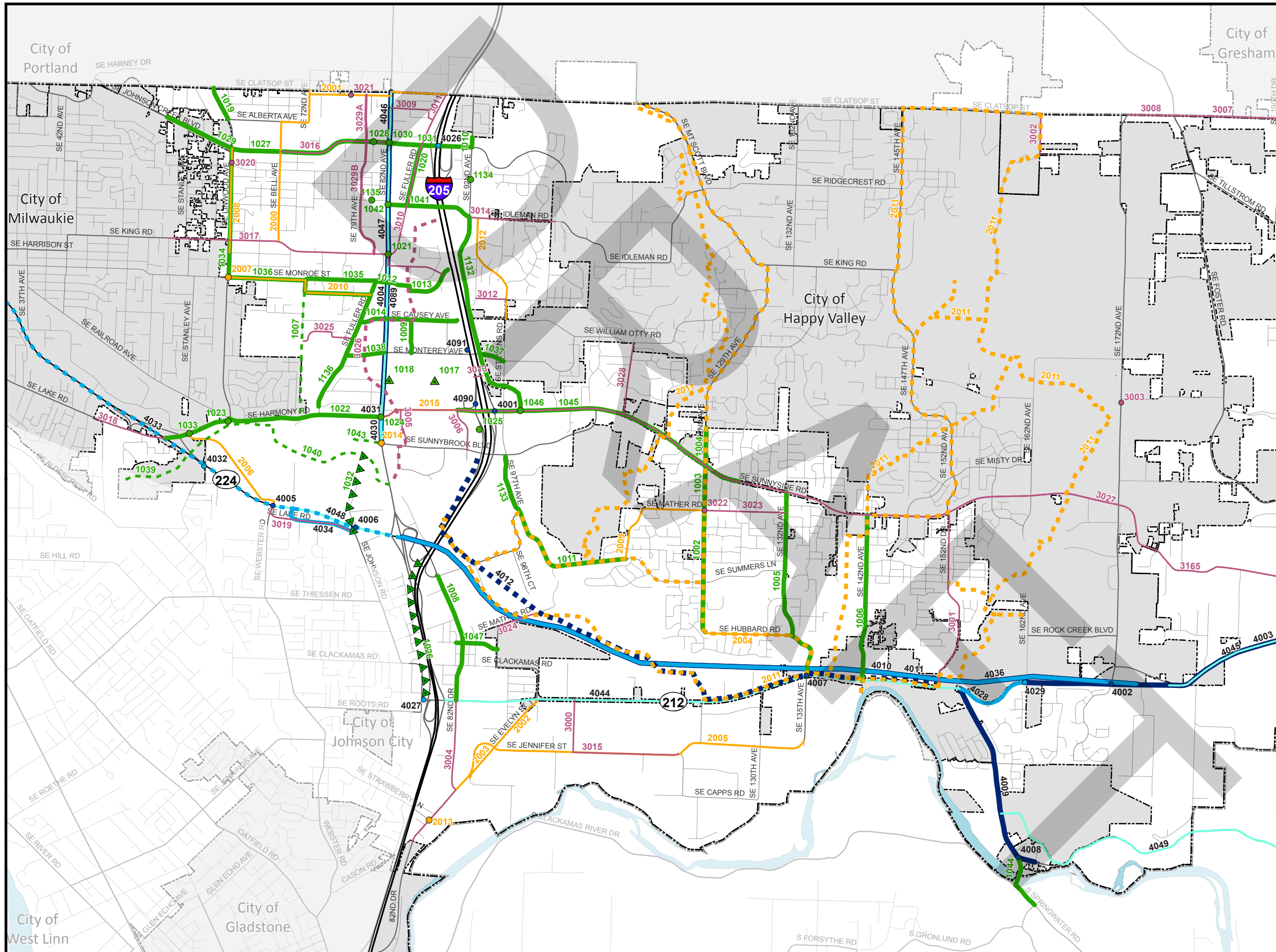


CLACKAMAS COUNTY

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CLACKAMAS COUNTY
COMPREHENSIVE PLAN

MAP 5-11a



Capital Improvement Plan

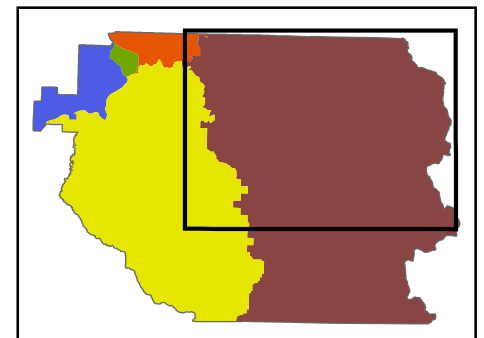
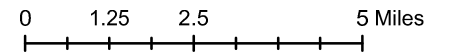
East County

- Priority**
- 20-Year Capital Projects (Table 5-3a)
 - Preferred Capital Projects (Table 5-3b)
 - Long-Term Capital Project Needs (Table 5-3c)

Projects on Non-County Facilities

- Priority**
- High (Table 5-3d)
 - Medium (Table 5-3d)
 - Low (Table 5-3d)

- ▲ Study*
 - Multi-Use Path*
 - Metro Urban Growth Boundary
 - Incorporated City
- *Symbol color consistent with Priority symbologies shown above



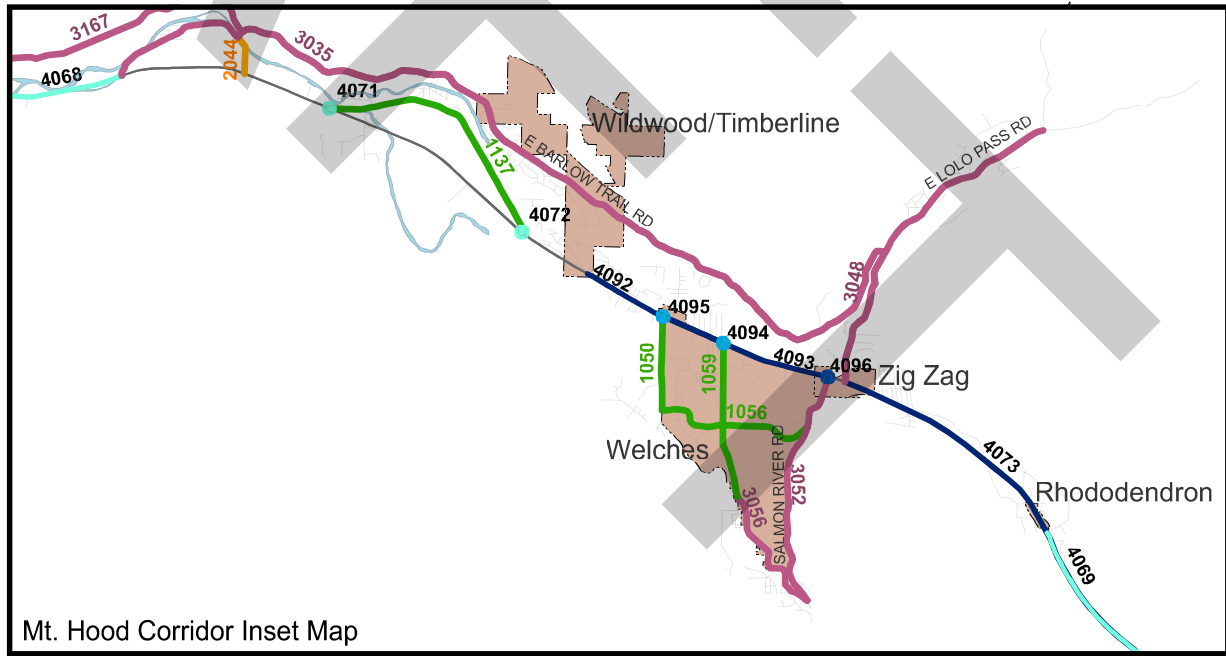
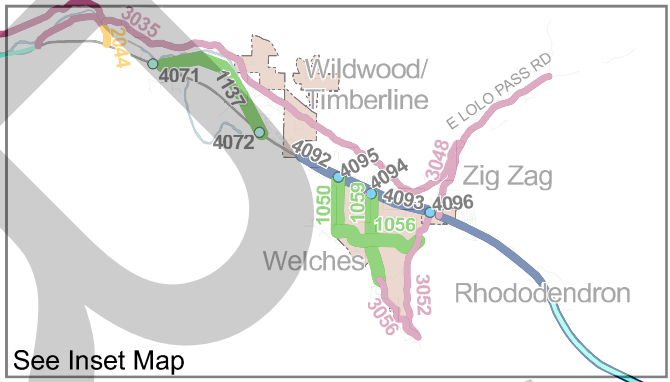
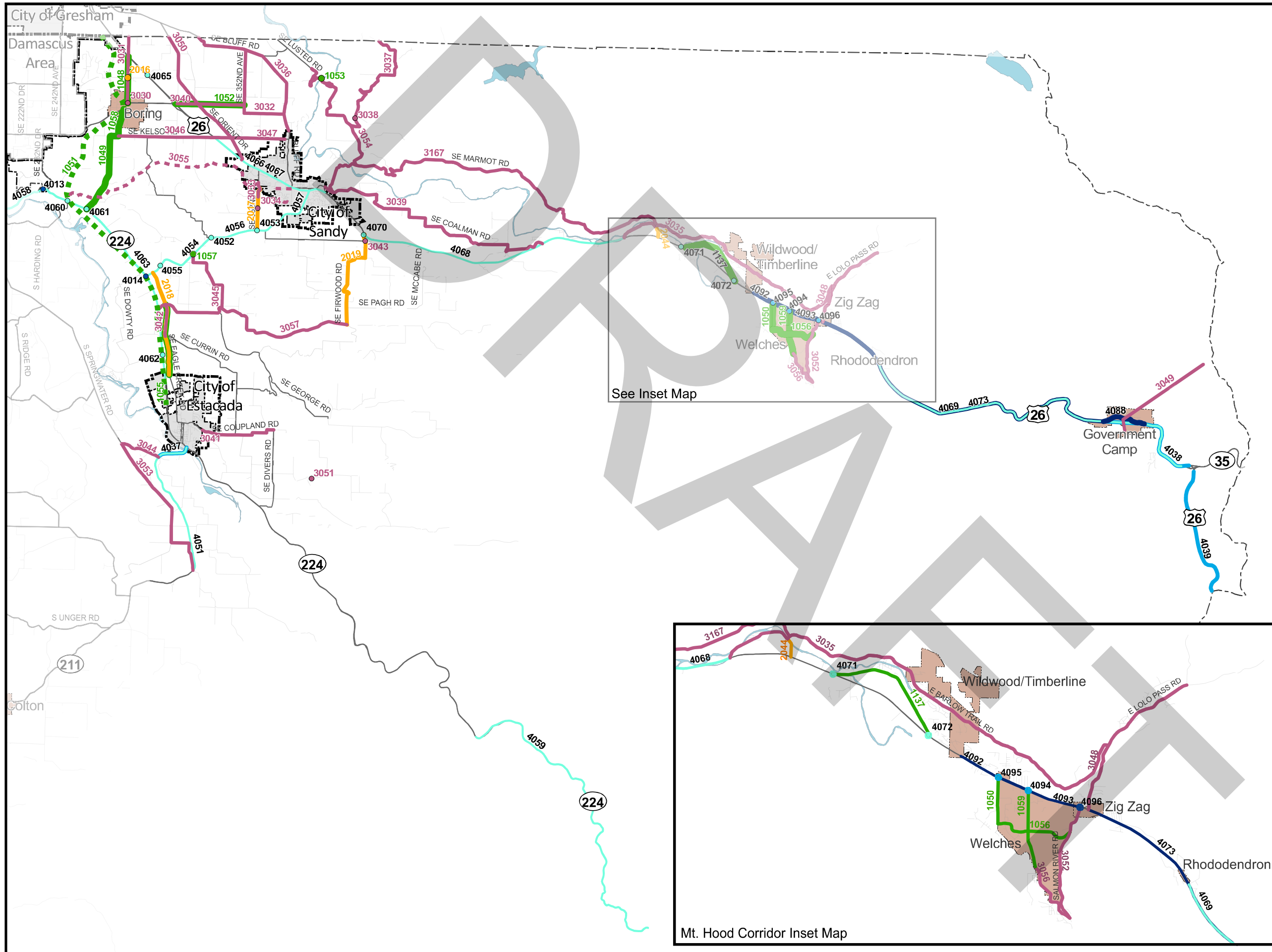
Last Amended May 9, 2017



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CLACKAMAS COUNTY
COMPREHENSIVE PLAN

MAP 5-11b



Mt. Hood Corridor Inset Map

Capital Improvement Plan

Greater McLoughlin Area

Priority

- █ 20-Year Capital Projects (Table 5-3a)
- █ Preferred Capital Projects (Table 5-3b)
- █ Long-Term Capital Project Needs (Table 5-3c)

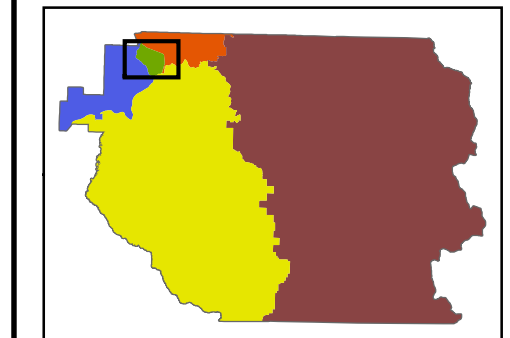
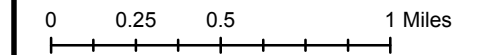
Projects on Non-County Facilities

Priority

- █ High (Table 5-3d)
- █ Medium (Table 5-3d)
- █ Low (Table 5-3d)

- ▲ Study*
- Multi-Use Path*
- Metro Urban Growth Boundary
- Incorporated City

*Symbol color consistent with Priority symbologies shown above



Last Amended June 1, 2015

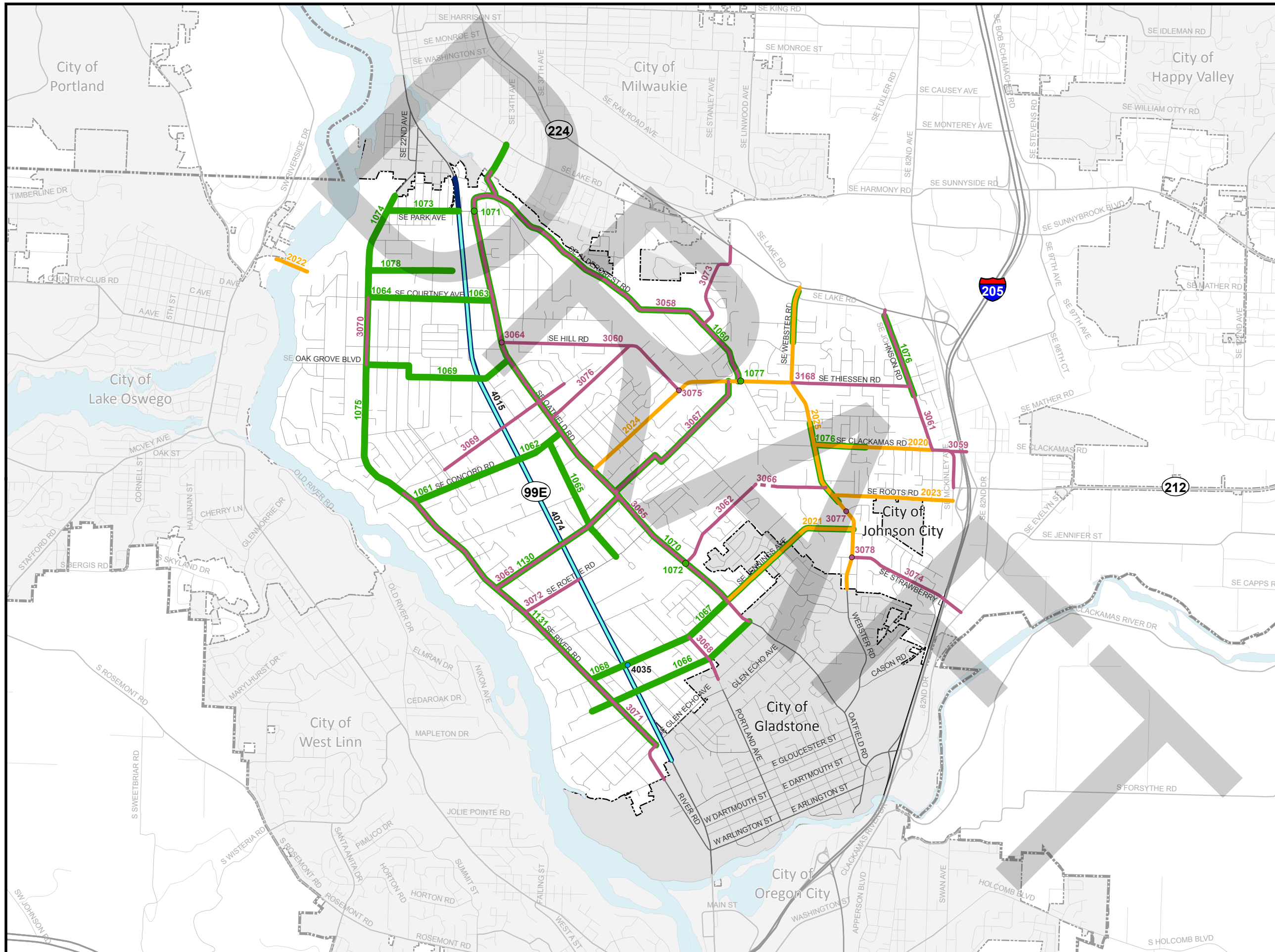


CLACKAMAS COUNTY

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CLACKAMAS COUNTY
COMPREHENSIVE PLAN

MAP 5-11c



Capital Improvement Plan

Northwest County

Priority

- 20-Year Capital Projects (Table 5-3a)
- Preferred Capital Projects (Table 5-3b)
- Long-Term Capital Project Needs (Table 5-3c)

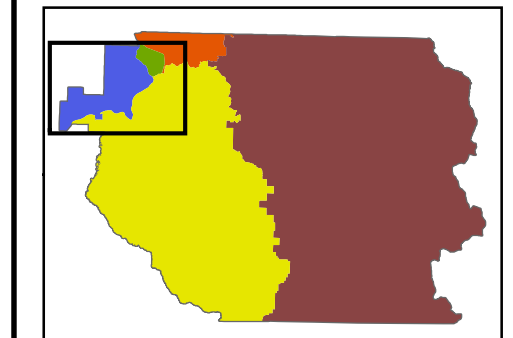
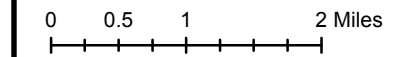
Projects on Non-County Facilities

Priority

- High (Table 5-3d)
- Medium (Table 5-3d)
- Low (Table 5-3d)

- ▲ Study*
- Multi-Use Path*
- ▭ Metro Urban Growth Boundary
- ▭ Incorporated City

*Symbol color consistent with Priority symbologies shown above



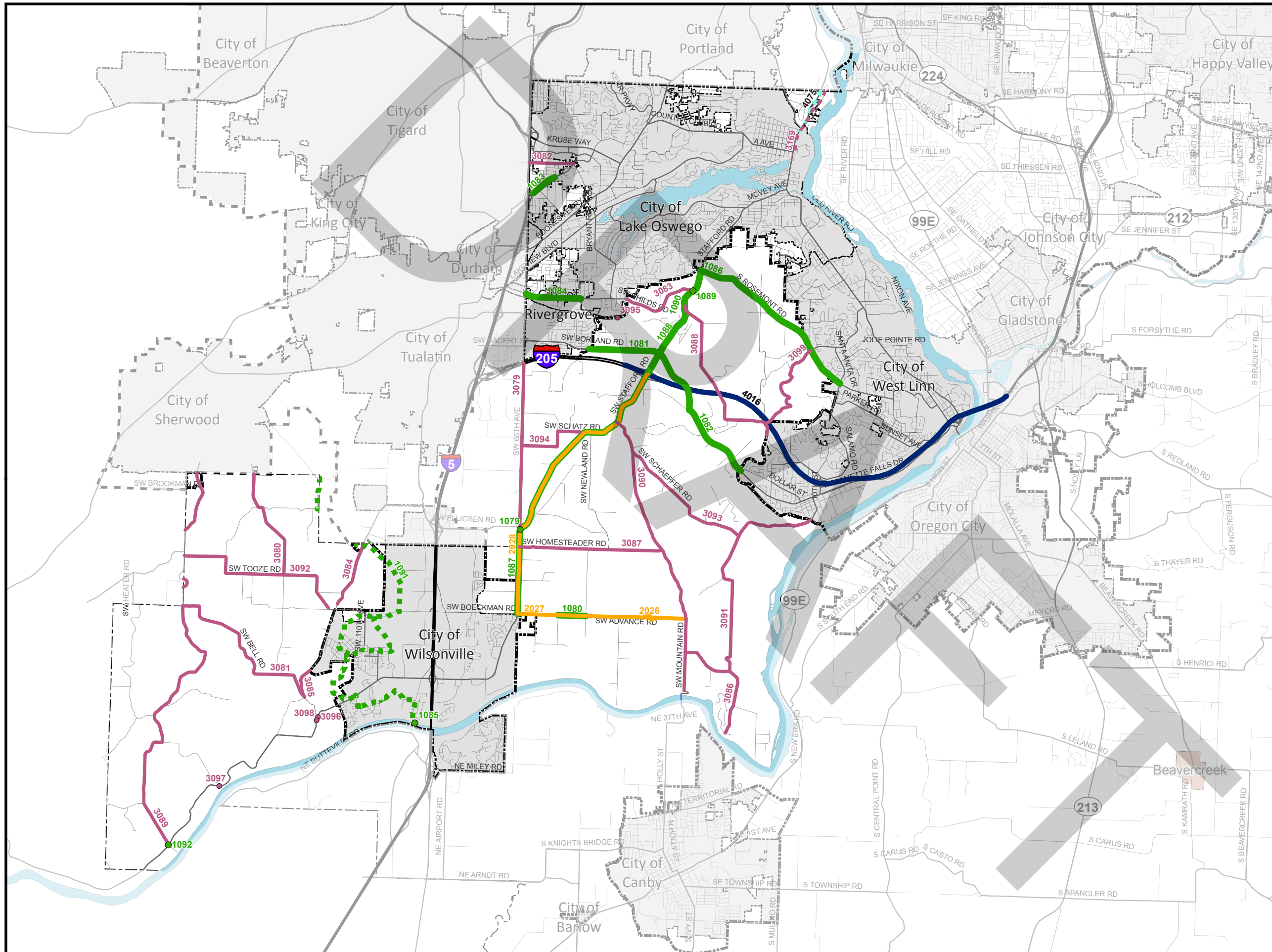
Last Amended June 1, 2015



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CLACKAMAS COUNTY
COMPREHENSIVE PLAN

MAP 5-11d



Capital Improvement Plan

Southwest County - Northern Portion

Priority

- 20-Year Capital Projects (Table 5-3a)
- Preferred Capital Projects (Table 5-3b)
- Long-Term Capital Project Needs (Table 5-3c)

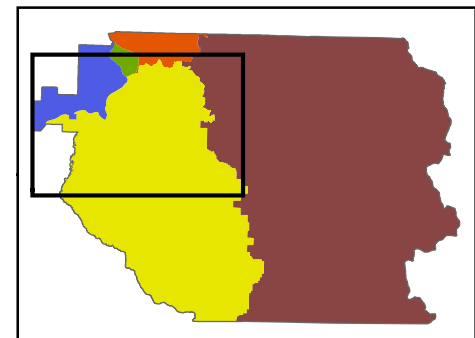
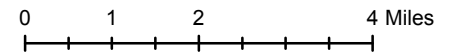
Projects on Non-County Facilities

Priority

- High (Table 5-3d)
- Medium (Table 5-3d)
- Low (Table 5-3d)

- ▲ Study*
- Multi-Use Path*
- Metro Urban Growth Boundary
- Incorporated City

*Symbol color consistent with Priority symbolologies shown above



Last Amended June 1, 2015

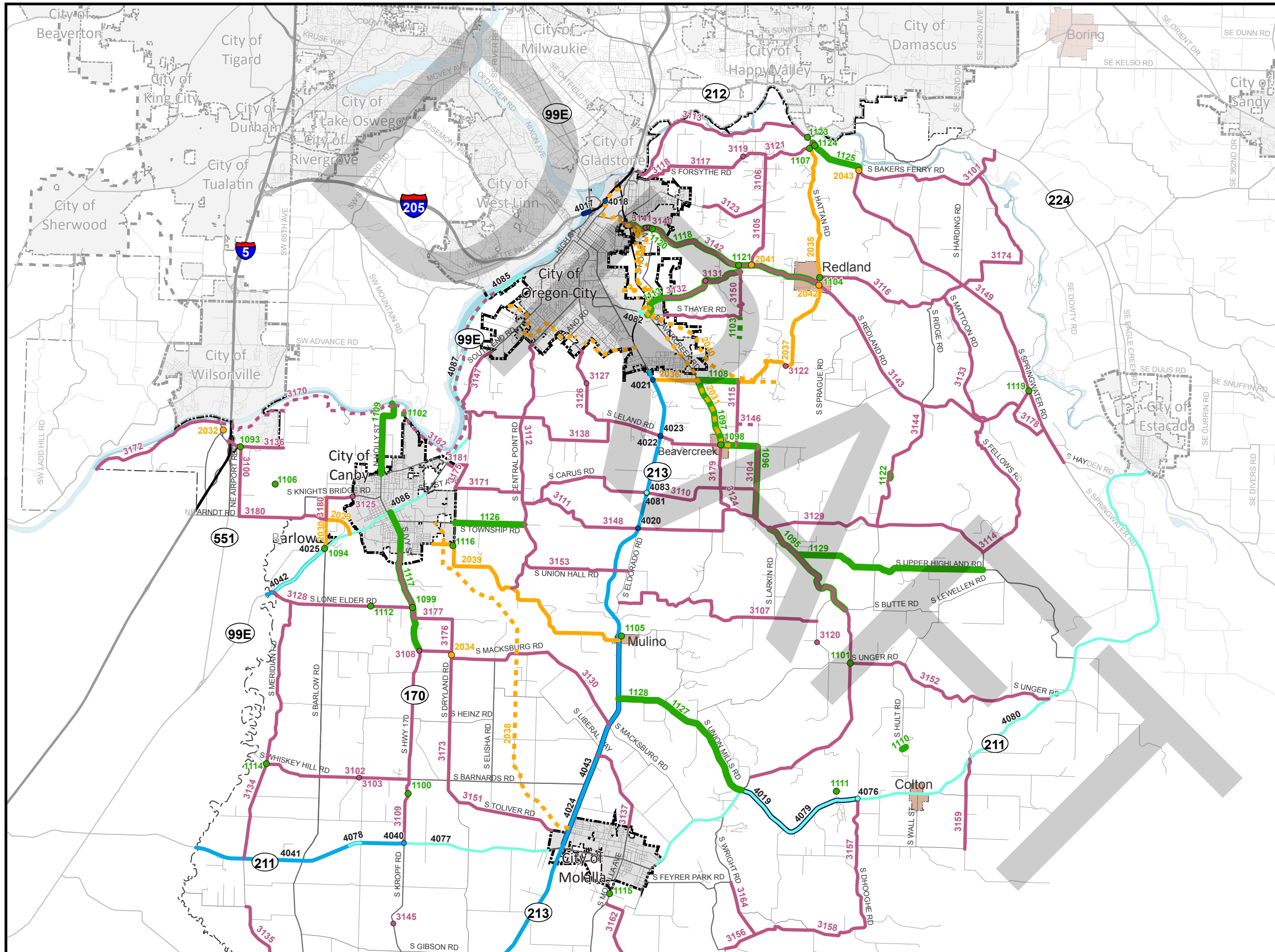


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CLACKAMAS COUNTY
COMPREHENSIVE PLAN

MAP 5-11e



Capital Improvement Plan

Southwest County - Southern Portion

Priority

- 20-Year Capital Projects (Table 5-3a)
- Preferred Capital Projects (Table 5-3b)
- Long-Term Capital Project Needs (Table 5-3c)

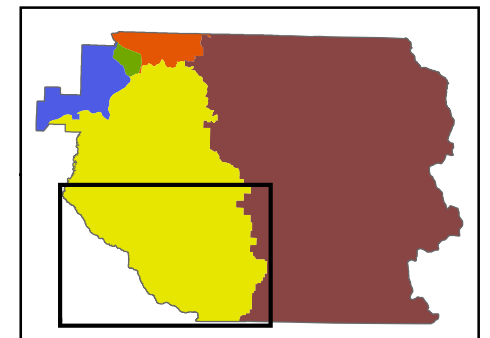
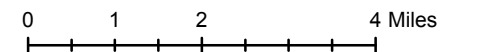
Projects on Non-County Facilities

Priority

- High (Table 5-3d)
- Medium (Table 5-3d)
- Low (Table 5-3d)

- ▲ Study*
- Multi-Use Path*
- Metro Urban Growth Boundary
- Incorporated City

*Symbol color consistent with Priority symbologies shown above



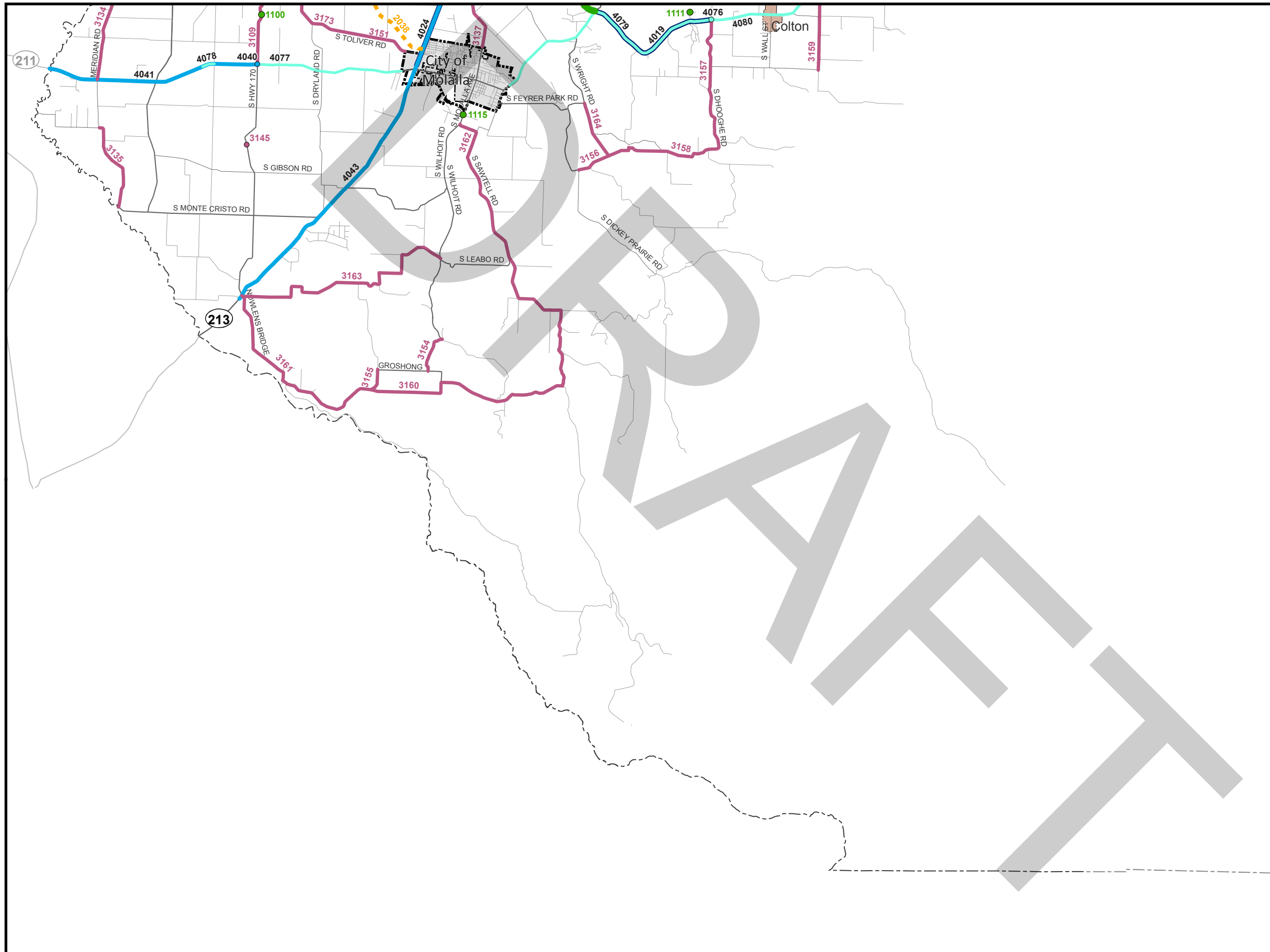
Last Amended June 1, 2015



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CLACKAMAS COUNTY
COMPREHENSIVE PLAN

MAP 5-11f



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Clackamas County

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150 Beavercreek Rd., Oregon City, OR 97045

www.Clackamas.us/transportation/

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Tootie Smith, Chair

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MAY 1, 2024