

CLACKAMAS COUNTY BOARD OF COUNTY COMMISSIONERS

Policy Session Worksheet

Presentation Date: Sept. 24, 2019 **Approx Start Time:** 3 PM **Approx Length:** 30 min

Presentation Title: Five-Year Transportation Capital Improvement Program - Fiscal Years 2019-2023 (FY 2019-23 Five-Year CIP)

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

Presenters: Mike Bezner, Assistant Director of Transportation; Karen Buehrig, Long Range Planning Manager

Other Invitees: Dan Johnson, Director, DTD; Brett Setterfield, Transportation Planner

WHAT ACTION ARE YOU REQUESTING FROM THE BOARD? Approval to place FY 2019-23 Five-Year CIP on the BCC Business Meeting consent agenda for approval.

EXECUTIVE SUMMARY:

Chapter 5 of the Clackamas County Comprehensive Plan, the Transportation System Plan, includes a policy that directs the County maintain a current and complete 5-year Capital Improvement Program (CIP), and to update and adopt the five-year CIP periodically. The Department of Transportation and Development updates the five-year CIP every two years. Attached is a draft of the proposed Five-Year Capital Improvement Program for Fiscal Years 2019-2023 (FY 2019-23 Five-Year CIP). It includes the capital transportation projects scheduled for planning, design or construction in the upcoming five years. Each of these projects have specific funding sources identified.

Projects in the Five-Year CIP have already been identified as needed in previous plans (the TSP, the Transportation Safety Action Plan [TSAP], the Intelligent Transportation System [ITS] Plan), or identified through the bridge and culvert review system, or emerge because of needed repairs.

In order for any project to be constructed, a specific funding source needs to be secured and programmed for design, engineering and construction. The proposed Five-Year CIP details the work schedule over the next five years and specifies the funding source for each project, connecting transportation planning to the County's capital construction budget.

FY 2019-23 Five-Year CIP includes forty-eight (48) programmed projects over the five year period. The total project costs exceed \$83 million. Only 18.7% of the project costs (~\$15 M) will be paid for by the Road Fund. The remaining project costs are planned to be covered through grants, tax-increment financing, Damascus Road fund, and other state, federal or regional funding sources

FINANCIAL IMPLICATIONS (current year and ongoing):

Is this item in your current budget? YES NO

The County Road Fund (the gas tax and other revenues directed to the County) is anticipated to provide 18.7% of the funds for the project on the Five-Year CIP.

All the projects in the Five-Year CIP have been reviewed and previously approved by the BCC through review of grant applications, the Development Agency work program or other project funding requests. The impact to the County Road Fund is anticipated to be approximately \$15,636,925 million over the next five years.

STRATEGIC PLAN ALIGNMENT:

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

The Five-Year CIP Update 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 Long Range Planning Work Program aligns with the following Performance Clackamas Strategic Priorities

- **Build public trust through good government**
- **Grow a vibrant economy**
- **Build a strong infrastructure**
- **Ensure safe, healthy and secure communities**

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:

Public outreach has occurred at various levels for each project, depending on the funding source of the project. The Transportation System Plan Update, where many of these project were initial identified as needed also provided several opportunities for public engagement.

OPTIONS:

1. Approve the proposed Five-Year Transportation Capital Improvement Program - Fiscal Years 2019-2023 (FY 2019-23 Five-Year CIP) at a future 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:

Staff respectfully recommends the Board approves Option 1) direct staff to advance the proposed Five-Year Transportation Capital Improvement Program - Fiscal Years 2019-2023 (FY 2019-23 Five-Year CIP) to a future business meeting for formal consideration.

ATTACHMENTS:

Attachment 1: Five-Year Transportation Capital Improvement Program, Fiscal Years 2019-2023

SUBMITTED BY:

Division Director/Head Approval _____
Department Director/Head Approval _____
County Administrator Approval _____

For information on this issue or copies of attachments, please contact Karen Buehrig @ 503-742-4683
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Five-Year Transportation Capital Improvement Program



FISCAL YEARS: 2019 – 2023



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TRANSPORTATION SYSTEM PLANNING AND PROJECT PROGRAMMING

Clackamas County is responsible for an extensive transportation network throughout the County. This network is part of a larger regional transportation system that supports the needs of the people and businesses in the County. The vast majority of the County road system (96%) is located outside of cities. Approximately 43 miles of County roads are maintained inside cities with the largest portion of these roads in Happy Valley.

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

- City -- 823 miles
- County -- 1,413 miles
- State -- 265 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 a variety of structures as shown below, as well as a substantial system of sidewalks and bike lanes.

- 1,413 miles of road
- 750 miles of road striping
- 2,372 miles of gravel shoulder
- 28,045 traffic signs
- 113,837 feet of guardrail
- 186 bridges
- 8,254 culverts
- 2,010 manholes
- 9,664 catch basins
- 1 ferry
- 172 traffic signals
- 70 school zone flashers
- 34 traffic surveillance cameras
- 35 miles of fiber optic cable

The major capital improvements needed for the transportation system, including projects needed to increase road capacity, relieve congestion, improve safety, serve new development, support economic growth and provide options to traveling by automobile, are identified within the Clackamas County Transportation System Plan (TSP), which is Chapter 5 of the County Comprehensive Plan and updated about every 10 years. 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 located on roads that are classified as arterials and collectors, with an emphasis on maintaining the operations of the principal arterial system.

20-Year Capital Improvement Plan (20-Year CIP)

The 20-Year CIP was developed and adopted by the Board of County Commissioners (BCC) as a part of the TSP, which is in the Comprehensive Plan (<http://www.clackamas.us/planning/comprehensive.html>). It is divided into three lists, reflecting the expectation that there will not be enough funding for all projects within the 20-year time frame. The criteria for assigning projects to the lists below is in the TSP background material and can be obtained by contacting Clackamas County Transportation and Development at 503-742-4400.

- **20-Year Capital Projects:** The prioritized list of needed transportation projects that can reasonably be undertaken given the current estimates of available funding.
- **Preferred Capital Projects:** A second group of needed, prioritized transportation projects that the County would undertake if additional funding becomes available during the next

20 years. Additional funding includes grants that are more suitable for specific projects in the Preferred Capital list as opposed to the 20-Year Capital list.

- **Long-Term Capital Projects:** The remainder of the transportation projects meet the transportation needs of the County in the next 20 years, but not expected to be funded or constructed by the County, unless suitable grant funding becomes available and is successfully matched.

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

The 5-Year CIP list contains all projects from the 20-Year CIP for which funding has been identified or is anticipated over the next five years. This list includes fully funded projects as well as those that are funded only for preliminary planning and design. It details the schedule for all capital project work in the next five years, creating the five-year program. In addition, it specifies the funding source for each project, connecting transportation planning to the County's capital construction budget. The 5-Year CIP is the exclusive mechanism for funding and building transportation capital projects, which are projects with costs that are reasonably expected to exceed \$50,000.

The BCC adopts the 5-Year CIP with the understanding and acknowledgement that there are limited funds available for needed capital transportation projects within the County. The 5-Year CIP is the BCC's expression of policies, directives, and goals adopted through the transportation system planning process upon recommendation of County staff. County staff on behalf of the BCC have considered, evaluated, and prioritized 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, below) for the needed 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 contains the BCC's discretionary policy decision as to which capital transportation projects will be constructed and is the exclusive list of such projects that will be pursued. The 5-Year CIP includes some projects identified in the 20-Year CIP, the Transportation Safety Action Plan (TSAP), the Intelligent Transportation System (ITS) Plan, the bridge and culvert review system, the ADA Transition Plan projects that emerge because of emergency repairs and through the Transportation Maintenance Work Program. These other plans are reviewed by the BCC through separate processes. Additional information is provided in the appendices of the 5-Year CIP.

The 5-Year CIP is updated periodically to provide a more detailed implementation of the capital project priorities identified in the TSP, TSAP, ITS and other plans. Policy 5.CC.2 of the TSP directly addresses this need:

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). The transportation portion of this policy 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

needed 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 project categories are loosely based on the road user or system that the project benefits or impacts (e.g., bicycle project, pedestrian project or transit project), as follows:

1. **Upgrade** -- Projects that add vehicle capacity to an existing roadway or intersection. This may require the reconstruction of any existing sidewalks and/or bicycle lanes. Other examples include adding intersection turn lanes or installing a traffic signal. 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 have a “new roadway” designation, when an extension or a new road is needed to accommodate vehicle capacity or needed connectivity.

2. **Bridge/Culverts** – Constructing, replacing or upgrading a bridge or culvert.
3. **Safety** – Projects or studies focused on reducing crashes and/or the risk for crashes, including railroad crossings. The Clackamas County Transportation Safety Action Plan (TSAP) (<https://dochub.clackamas.us/documents/drupal/ae811741-789e-465c-9b79-9fba2261ccd0>) 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. Policy and action items set forth in the plan 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 A 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 Capital Improvement Program.

4. **Active Transportation** - Projects located in both the urban and rural area that related to pedestrian and bicyclists. Active Transportation upgrade projects in the UGB add needed sidewalks, bicycle lanes or multi-use paths. Projects outside the UGB include those that add paved shoulders or multi-use paths. There are also more general projects that add needed facilities such as way-finding signage.
5. **Intelligent Transportation Systems (ITS)** – Projects that incorporate ITS 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)
 - Multimodal Operations (MMO)
 - Traveler Information (TI)
 - Data Collection and Management (DCM)
 - Incident and Emergency Management (IM)

- Maintenance and Construction Management (MCM)
- 6. **Repairs** – Capital repairs of major damage caused by storms, flooding, landslides or other natural events that damage portions of the transportation system
- 7. **Study** – Future transportation studies to be undertaken as part of the implementation of the TSP. The TSP identifies a number of transportation planning efforts needed to provide additional details on capital project needs in specific areas of the County.

Table A: 5-Year Capital Improvement Program Project List -- FY 19/20 - FY 23/24

Project Category	Map ID	TSP ID	Prospectus #	Project Name	Project Extent	Description	Funding Source	Cost Estimate (\$2019)	Anticipated Road Fund Match	FY-19/20	FY-20/21	FY-21/22	FY-22/23	FY-23/24
1-Upgrade	CRC 2	1034 2008	TBD	Linwood Ave Improvements	Johnson Creek Boulevard to Monroe Street	Improve to minor arterial standards; add sidewalks, bicycle lanes and stormwater control.	Tax Increment Financing	\$6,000,000	\$0	X	X			
1-Upgrade	CRC 3	1035 1036	30324	Monroe St Improvements	Linwood Ave to Fuller Road	Improve to minor arterial standards; add sidewalks, bicycle lanes and stormwater control. First Phase Project Planning.	Tax Increment Financing; TGM Grant	\$7,500,000	\$0	X	X			
1-Upgrade	CRC 4	1005	22280	ADA Ramps Project #2: Sunnyside Rd. 132nd Ave.-162nd Ave.	132nd to 162nd Ave.	Twelve (12) non-signalized intersections to have curb ramp retrofits, along with twenty-four (24) signalized corners to have signal modifications	Road Fund	\$1,855,000	\$1,855,000	X	X			
1-Upgrade	CRC 14	1000	22287	Fiber Communication on 82nd Drive Project	82nd Dr.	Expand fiber optic communication to three (3) County-owned traffic signals	Road Fund	\$60,000	\$60,000	X				
1-Upgrade	M 9	1000	22288	Fiber Communication Project on Oatfield Rd	Oatfield Rd.	Expand fiber optic communication to three (3) County-owned traffic signals	Road Fund	\$130,000	\$130,000	X				
1-Upgrade	C 3	1106 1000	22286	Clackamas County I-5/I-205 ICM Project	I-5 and I-205	Engage stakeholders and develop a collection of operation strategies and advanced technologies to collaboratively manage transportation corridor as a multimodal system	Surface Transportation Program; Road Fund	\$400,000	\$41,080	X	X	X		
2-Bridge/Culvert	CRC 1	3020	TBD	Johnson Creek Crossing on Linwood Ave	Linwood Ave	Reconstruct and widen to accommodate sidewalks and bike lanes	Tax Increment financing	TBD	\$0		X	X		
2-Bridge/Culvert	CRC 5	1029 1031	TBD	Johnson Creek Crossing on Bell Ave	Bell Ave	Reconstruct and widen to accommodate sidewalks and bike lanes	Tax Increment financing (Cost TBD)	TBD	\$0		X	X		
2-Bridge/Culvert	East 5	NA	22144	Salmon River (Elk Park Rd) Bridge Replacement	Elk Park Road	Replace existing one-lane bridge with new two lane bridge.	Highway Bridge Replacement & Rehab Grant; Road Fund	\$4,797,113	\$930,436	X				
2-Bridge/Culvert	SW 4	NA	22257	Bear Creek (Canby Marquam Hwy) Bridge Replacement	On Canby Marquam Hwy near Barnards	Replace bridge	Highway Bridge Replacement & Rehab Grant; Road Fund	\$2,319,417	\$243,244	X	X	X		
2-Bridge/Culvert	SW 1	NA	22277	Woodcock Ck (Wright Rd) Bridge Protection	Wright Rd.	The existing Wright Road Bridge over Woodcock Creek is experiencing significant scour and evaluation of repair or replacement is required	Road Fund	\$544,881	\$544,881	X	X	X	X	X
2-Bridge/Culvert	SW 5	NA	22276	Woodcock Ck (Grimm Rd) Bridge Protection	Grimm Rd.	The existing Gromm Road Bridge over Woodcock Creek is experiencing significant scour and evaluation of repair or replacement is required	Road Fund	\$485,154	\$485,154	X	X	X	X	X
2-Bridge/Culvert	East 2	NA	22283	Milk Creek (Bonney Rd) Bridge Protection	Bonney Rd.	Evaluate options for bank stabilization and scour repair at the footing	Road Fund	\$460,000	\$460,000	X	X	X	X	X
2-Bridge/Culvert	NW 4	NA	22259	Tualatin River (SW Petes Mtn Rd) Bridge Approaches	SW Petes Mtn Rd.	Repair the asphalt concrete approaches	Road Fund	\$142,499	\$142,499	X				
2-Bridge/Culvert	SW 11	NA	TBD	Molalla River (Knights Bridge Rd) Bridge Rehab	Knights Bridge	Bridge rehab	Local Bridge Program (LBP); Road Fund	\$3,154,839	\$315,484				X	X
3-Safety	DMB 1	NA	TBD	SE 242nd Ave and SE 222nd Dr RSA Implementation	OR 212 to County line	Implement RSA recommendations	Damascus Road Fund	\$200,000	\$0	X				
3-Safety	DMB 2	NA	22279	242nd / Borges Realignment	SE 242nd Ave / SE Borges Rd	Realign/regrade intersection of SE 242nd & SE Borges Rd	Damascus Road Fund	\$600,000	\$600,000	X	X			
3-Safety	CRC 7	1024 2014 4031 1025 1046	30003 30098	CRC Mobility Project	In the area between Sunnyside Rd, Sunnybrook Blvd, Fuller Rd and Stevens Rd	33 discrete or interconnected projects that improve safety and operations of motor vehicle, transit, freight, and pedestrian and bicycle facilities	Tax Increment Financing	\$26,000,000	\$0	X	X			
3-Safety	NW 1	3097	22149	Edminston / Wilsonville AWSC	Edminston Rd / Wilsonville Rd	Convert to all-way stop control	Road Fund	\$171,126	\$171,126	X				
3-Safety	SW 6	NA	22254	Central Point / New Era	Central Point / New Era	Changes in traffic control / intersection enhancements	Road Fund	\$1,368,145	\$1,368,145	X	X			
3-Safety	NW 2	1087 1090	TBD	RSA - Stafford Rd Implementation	Boeckman to Rosemont	Implement RSA recommendations along corridor	Road Fund	\$200,000	\$200,000		X	X		
3-Safety	SW 3	1099	TBD	RSA - Canby Marquam RSA Recommendations	13th to Highway 211	Intersection improvements at Lone Elder, Macksburg and Gribble, and other corridor work	Road Fund	\$250,000	\$250,000		X	X		

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Project Category	Map ID	TSP ID	Prospectus #	Project Name	Project Extent	Description	Funding Source	Cost Estimate (\$2019)	Anticipated Road Fund Match	FY-19/20	FY-20/21	FY-21/22	FY-22/23	FY-23/24
3-Safety	SW 7	1097	TBD	RSA -Beavercreek Recommendations	OC Limits to Ferguson	Finish RSA implementation work, primarily shoulder work	Road Fund	\$50,000	\$50,000		X	X		
3-Safety	C 1	1001	22271	ODOT All Road Transportation Safety (ARTS) Rural Systemic Safety Countermeasures	Countywide	Rural corridor systemic: curve warning signs; rural intersection systemic: enhanced warning signs	ARTS; Road Fund	\$1,770,170	\$117,061	X	X			
3-Safety	M 8	1069	22238	ADA Ramps Project #1: Oak Grove Blvd.	Oak Grove Blvd.	In accordance with the Americans with Disabilities Act, implement curb ramp upgrades at various intersections.	Road Fund	\$593,715	\$557,179	X				
3-Safety	East 1	1001	22273	Duus Rd. Guardrail Project	Duus Rd.	Removal and replacement of damaged portions of guardrail	Road Fund	\$97,500	\$97,500	X				
3-Safety	SW	1001	22272	Dryland Rd Guardrail	Dryland Rd.	Design and install guardrail and end treatments on 400 ft of Dryland Rd; fun acquisition of right of way	Road Fund	\$93,730	\$93,730	X				
3-Safety	C 2	1001	22285	Rural Systemic Horizontal Alignment Signs	Countywide	Design and install horizontal alignment warning signs	Road Fund	\$250,000	\$250,000	X				
3-Safety	CRC 9	1001	TBD	Sunnybrook Blvd ARTS Systemic & Hot Spot Signals and Illumination Project (#36)	Sunnybrook Boulevard from Oak Bluff Blvd to 97th Ave	Install supplemental signal heads, coordinated or adaptive signal timing, and actuated advance warning dilemma zone along Sunnybrook Blvd at Oak Bluff Blvd, 93rd Ave, I-205 southbound, I-205 northbound, and 97th Ave	Highway Safety Improvement Program (HSIP); Road Fund	\$306,100	\$23,875	X	X			
3-Safety	CRC 10	1045	TBD	Sunnyside Rd ARTS Systemic & Hot Spot Signals and Illumination Project (#37)	Sunnyside Rd from Valley View Terr to 132nd Ave	Install urban green bike lanes at conflict points, supplemental signal heads, and actuated advance warning dilemma zone protection systems along Sunnyside Rd at Valley View Terrace, 117th Ave, 119th Ave, and 132nd Ave	Highway Safety Improvement Program (HSIP); Road Fund	\$214,500	\$16,731	X	X			
3-Safety	CRC 11	1031	TBD	Johnson Creek Blvd ARTS Systemic & Hot Spot Signals and Illumination Project (#38)	Johnson Creek Blvd from Fuller Road to 92nd Ave	Install pedestrian countdown timers, coordinated/adaptive signal timing, and dilemma zone protection system along Johnson Creek Blvd at Fuller Rd, I-205 southbound ramp, I-205 northbound ramp, and 92nd Ave	Highway Safety Improvement Program (HSIP); Road Fund	\$285,200	\$22,245	X	X			
3-Safety	M 6	1070	TBD	Oatfield Rd ARTS Systemic & Hot Spot Signals and Illumination Project (#39)	Oatfield Rd. from Oak Grove Blvd to Jennings Ave	Install supplemental signal heads and pedestrian countdown timers along Oatfield Rd at Oak Grove Blvd, Concord Rd, Thiessen Rd, Roethe Rd, and Jennings Rd. Replace doghouses at Roethe Rd with flashing yellow arrow.	Highway Safety Improvement Program (HSIP); Road Fund	\$293,000	\$22,854	X	X			
3-Safety	CRC 12	1045	TBD	SE Sunnyside Rd at 122nd Ave ARTS Systemic & Hot Spot Signals and Illumination Project (#148H)	SE Sunnyside Road at SE 122nd Ave	Add green conflict markings in bike lane, east of the intersection at entrance to strip mall, in area of dropped through lane; Add merge arrows to drop lane; Relocate lane drop sign; Add supplemental signal head for eastbound left turn on existing NE signal pole riser; Add supplemental signal head for westbound left turn on existing SW signal pole riser; Install advance warning dilemma zone radar detection units for east and west approaches on NW and SE existing signal poles; Add one eastbound through signal head on existing SE signal pole mast arm and rearrange existing heads over travel lanes	Highway Safety Improvement Program (HSIP); Road Fund	\$72,700	\$5,670	X	X			
4-Active Transportation	M 1	1078	22243	Torbank Sidewalks	River Rd - Oak Grove Elementary	Construct sidewalks	Fee-in-Lieu; Road Fund	\$706,000	\$279,000	X				
4-Active Transportation	M 4	1066	22248	Portland Avenue Pedestrian Improvements	Portland Ave from Jennings Ave to Hull Ave	Construct sidewalks	CDBG; Road Fund	\$970,523	\$796,151	X				
4-Active Transportation	SW 2	NA	22239	S Ivy Street Pedestrian Intersection Improvements	Hwy 99E in Canby	Construct bike lanes and sidewalks.	STIP - Enhance; Road Fund	\$2,595,117	\$406,302	X	X	X	X	X

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Project Category	Map ID	TSP ID	Prospectus #	Project Name	Project Extent	Description	Funding Source	Cost Estimate (\$2019)	Anticipated Road Fund Match	FY-19/20	FY-20/21	FY-21/22	FY-22/23	FY-23/24
4-Active Transportation	M 3	1068	22234	Jennings Ave - Sidewalk and Bike lanes	McLoughlin Blvd to Oatfield	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.	MTIP - Regional Flexible Funds; Road Fund	\$4,040,213	\$414,098	X	X	X		
4-Active Transportation	M 7	1076	22261	Bilquist School Zone Flashers	Webster Rd. & Clackamas Rd.	Replace existing school zone signage with five (5) hardwired flashing school zone beacons.	Road Fund	\$150,844	\$150,844	X				
4-Active Transportation	CRC 13	1136	TBD	Fuller Rd-Causey Ave Crosswalk	Fuller Rd. & Causey Ave	Construct a crosswalk across Fuller Rd. at Causey Ave/Harmony Dr. with signage, RRFB, pedestrian refuge & ADA compliant curb ramps	ODOT Safe Routes to School Infrastructure Grant; Road Fund	\$185,588	\$37,118		X	X		
4-Active Transportation	M 2	1064	TBD	Oak Grove-Lake Oswego Bridge Feasibility Study	West Oak Grove and Lake Oswego	Analyze the feasibility of a bike/ped bridge over the Willamette River between Oak Grove and Lake Oswego	METRO Project Development Funds	\$806,000	\$0	X	X	X	X	X
5-ITS	CRC 8	1000	22218	Clackamas County Regional Freight ITS Project Phase 1 – Planning and Design and Phase 2 A/B- Construction	Clackamas Industrial Area to Wilsonville	Construct ITS improvements in the following freight corridors/employment areas: 1) OR 224 (Milwaukie Expressway); 2) OR 212 / 224 Clackamas Highway; 3) 82nd Drive between the Gladstone Interchange and OR 213 (82nd Avenue); 4)The City of Wilsonville; and 5) Other areas identified in the planning process	MTIP - Regional Flexible Funds; Road Fund	\$2,105,193	\$240,047	X	X	X	X	
5-ITS	NW 3	1000	22235	Canby Ferry ITS Project	Canby Ferry	Extend fiber optic cable from the existing County fiber from 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	\$674,139	\$144,835	X	X	X	X	
6-Repairs	CRC 6	NA	22252	90th Ave Reconstruction	Monterey Ave to Causey Ave	Road reconstruction	STP; Road Fund	\$2,424,260	\$2,366,704	X	X			
6-Repairs	East 6	NA	22274	E Salmon River Rd Surface Preservation	US 26 to Welches Rd	Paving, surface preservation and guardrail adjustment	Federal Lands Access Program; Road Fund	\$750,000	\$550,000	X	X			
6-Repairs	East 7	NA	22275	Lolo Pass Rd Paving	US 26 to near Muddy Fork Rd	Improving and preserving the road surface and extending a revetment	Federal Lands Access Program; Road Fund	\$4,067,403	\$825,481	X	X	X	X	X
6-Repairs	DMB 3	NA	22269	232nd Drive at MP 0.3	232nd Dr.	Install a deep patch of pavement with improved drainage	FHWA Emergency Relief Grant; Road Fund	\$607,000	\$91,053	X	X	X		
6-Repairs	SW 10	NA	22270	South End Rd at MP 3.8	South End Rd.	Construct a permanent fix to slope instability	FHWA Emergency Relief Grant; Road Fund	\$2,740,000	\$281,398	X	X	X		

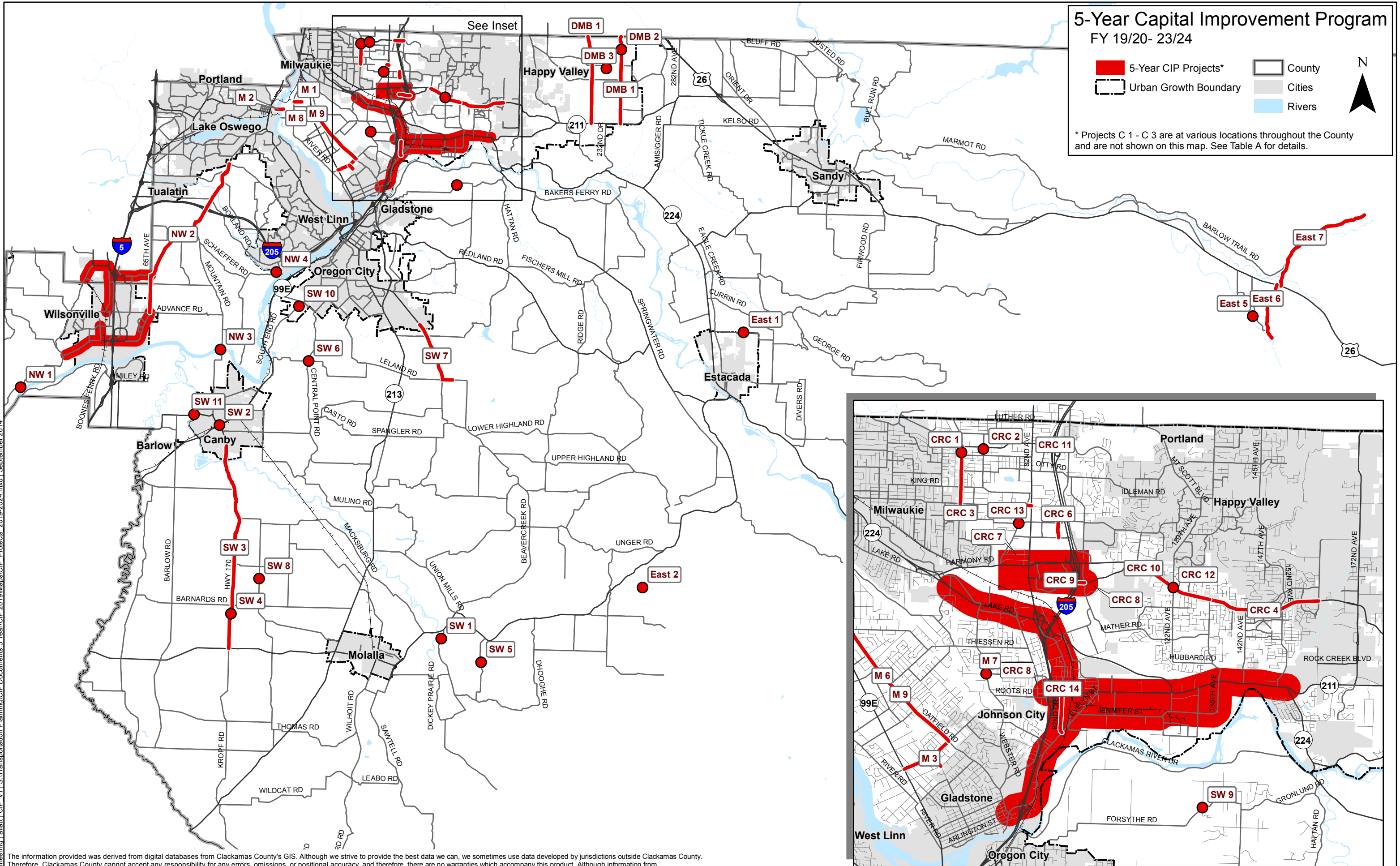
5-Year Capital Improvement Program

FY 19/20- 23/24

- █ 5-Year CIP Projects*
- Urban Growth Boundary
- County
- Cities
- Rivers



* Projects C 1 - C 3 are at various locations throughout the County and are not shown on this map. See Table A for details.



Engineering Labatt L CIP v1 I:\Transportation Planning\CIP Documents 5 Year CIP 2019\Maps\CIP Projects 2019-2024.mxd | September 2014

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.

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 20-year funding forecast was completed in October 2012 as a part of the TSP update process. The funding forecast memo outlines funding expected to be received over the next 20 years. One of the key themes is that ***the County Road Fund is only anticipated to play a minor role (as match money for other funding sources) in future capital projects.***

Since the Road Fund will be used only to match funds from other sources, reliance upon other funding sources for capital projects has increased. To help match projects to appropriate funding sources, recently used sources are reviewed below and potential projects for the next funding cycle are identified. **Table B: Key Projects Matched with Potential Grant Funding Sources** highlights projects in the TSP that should be considered when the next grant cycle is open. While identification of potential projects is needed as the programs become open for applications, ultimately the selection of appropriate projects will be determined when the application is developed.

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. In 2018, the passage of the Keep Oregon Moving House Bill 2017 is projected to earmark nearly \$100 million to the County Road fund over the next 15 years. These funds are distributed to the County based on allocation schedules set out in state law.

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 highways, roads, and streets..." (including a mandatory 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. Since 2001, approximately 17.6% of funding for rural transportation projects and 3.4% of funding for urban transportation projects has come from the Road Fund.

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 increased capacity road projects to new development because new and expanding developments rely on improvements to the road network provided through the County's capital improvement program. These funds are dedicated to projects that improve capacity, may not be used for maintenance projects, and are restricted to projects on an adopted list within a geographic area.

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 funds from urban renewal districts 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.

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

Drive to Zero

Reducing injuries and fatalities in Clackamas County is the mission of the Clackamas Drive to Zero program, emphasizing transportation-related crashes as a leading injury prevention issue. The program's approach to crash reduction includes using the "5E's" (Education, Enforcement, Engineering, Emergency Medical Response and Evaluation). Efforts include selected enforcement, safety education and safety projects.

Fee in Lieu of (FILO)

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

Federal, State and Regional Funding Sources

Federal Highway Trust Fund-Fixing America's Surface Transportation Act (FAST Act)

Projects on National Highway System facilities can access federal funding. 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. The current reauthorization, FAST Act, was enacted in 2016 and is set to expire in 2022. FAST Act contains the following federal aid highway programs and mass transit funding:

- National Highway Performance Program
- Surface Transportation Block Grant Program (STBGP)
- Highway Safety Improvement Program (HSIP)

- Congestion Mitigation & Air Quality Improvement Program (CMAQ)
- Metropolitan Transportation Planning
- Surface Transportation Program (STP)

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

Better Utilizing Investments to Leverage Development (BUILD) Transportation Grant

The BUILD program provides a unique opportunity for the US Department of Transportation to invest in road, rail, transit and port projects that promise to achieve critical national objectives. Previously known as TIGER Discretionary Grants, Congress has dedicated more than \$7.1 billion for 10 rounds of TIGER/BUILD to fund projects since 2009 that have a significant impact on the nation, a region or a metropolitan area.

Each project needs to be multi-modal, multi-jurisdictional or otherwise challenging to fund through existing programs. BUILD uses a rigorous process to select projects with exceptional benefits that explore ways to deliver projects faster and save on construction costs, and that invest in the nation's infrastructure to make communities more livable and sustainable. In urban areas, the minimum project amount is \$5 million; in rural areas the minimum project amount is \$1 million. Projects must be regionally significant and closely aligned with economic benefits.

Underinvestment in rural transportation systems has allowed a slow and steady decline in the transportation routes connecting rural communities. To address these needs, a greater share of BUILD grant funding awards are designed to go toward projects located in rural areas compared to TIGER. At least 30% (\$450 million) of funding is to be utilized for rural projects

Western Federal Lands Access Program (FLAP)

The Federal Lands Access Program 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 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 located on a public highway, road, bridge, trail or transit system that is located on, is 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.

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 Demonstration 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 Demonstration 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.

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 to 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.

This program has been used to fund projects in Clackamas County needed due to federal emergencies, such as Lolo Pass / Zig Zag River bridge, South End Road at milepost 3.8, 232nd Drive at milepost .3 and E. Barlow Trail Road.

FHWA Ferry Boat Discretionary (FBD) Program

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

Statewide Transportation Improvement Program (STIP)

The Statewide Transportation Improvement Program, known as the STIP, is Oregon's four-year transportation capital improvement program. The STIP 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 funds (FAST Act programs) 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. Project activities eligible include bicycle and/or pedestrian facilities; Development STIP (D-STIP); modernization projects that add capacity to the system; 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 the capital funding categories that maintain or fix ODOT's portion of the transportation system. The categories do not include non-capital maintenance and operations programs because they are not included in the STIP.

Oregon State Highway Fund

Highway revenues in the State of Oregon have several major sources:

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

Net revenues from the above 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.

Keep Oregon Moving (HB 2017)

HB 2017, which passed the legislature in 2017, increases the gas tax, as well as vehicle title and registration fees over a seven year period. When all taxes and fees are in place in 2024, HB 2017 will produce \$500 million in State Highway Fund revenue annually along with investments in public transportation, walking and biking.

ODOT will receive about half of the money for roads and bridges, after taking \$10 million per year off the top for Safe Routes to School (rising to \$15 million in 2023) and \$30 million per year off the top for the I-5 Rose Quarter Project string in 2022. About half of the additional State Highway Fund resources provided by HB 2017 will go to local governments, who will receive a 50% increase in the amount they get from the State Highway Fund to fund local road and street maintenance and

improvements. The bill also sets aside \$5 million of county funds each year to ensure counties with small populations but many miles of roads receive an adequate amount to maintain their roads.

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 the first phase of the Sunrise Project, which was completed in June of 2016.

Highway Safety Improvement Program (HSIP)

This ODOT program has been continued under 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 (non-ODOT facilities) and ODOT facilities. The goal is 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 is data-driven to achieve the greatest benefits in crash reduction and was developed to be blind to jurisdiction. While ODOT is currently working to transition the safety program, the completed jurisdictionally-blind safety program is expected to start in 2017. During the transition, funding for local agency roads will be allocated to primarily focus on a few systemic low-cost fixes that can be implemented in the shorter timeframe.

Highway Bridge Program (HBP)

This program 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.

Oregon Watershed Enhancement Board (OWEB)

The 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 in the places where they live. OWEB grants are funded from the Oregon Lottery, federal dollars and salmon license plate revenue.

OWEB will be accepting 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.

Fish America Foundation

Fish America, in partnership with the NOAA Restoration Center, awards grants to local communities and government agencies to restore habitat for marine and anadromous fish species. Successful proposals have community-based restoration efforts with outreach to the local communities. These grants are small, but help with bridge scour projects.

National Fish Passage Program - US Fish and Wildlife

The U.S. Fish and Wildlife Service 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 lacks the capability to implement a project.

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. Connect Oregon 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. If a highway or public road element is essential to the complete functioning of the proposed project, applicants are encouraged to work with their ODOT region, city or county to identify the necessary funding sources.

With the passage of HB 2017, public transit projects are no longer included in Connect Oregon. HB 2017 also directed the Oregon Transportation Commission to distribute Connect Oregon funds to four 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). With funding going to these projects, it's not anticipated there will be available funding in the 2017-2019 biennium for a competitive program, but that may return in 2019-2021 or 2021-2023 biennia.

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. The IOF 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 in providing road improvements needed to ensure specific job development opportunities for Oregon, or to revitalize business or industrial centers

The 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 Special Public Works Fund (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 publically owned facilities;
- replacing publically owned essential community facilities; and
- emergency projects as a result of a disaster.

Metropolitan Transportation Improvement Program (MTIP)

MTIP is the federally-mandated four-year schedule of expenditures of federal transportation funds and significant state and local funds in the Portland metropolitan region. The MTIP provides the upcoming four-year implementation schedule of transportation projects in the Portland 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:

<http://www.oregonmetro.gov/metropolitan-transportation-improvement-program>

Regional Flexible Fund Allocation (RFFA)

The regional flexible fund allocation (RFFA) process is used to determine which locally identified priorities are awarded funding to advance the goals of the RTP. Regional flexible funds are distributed to Metro from three federal grant programs: the Surface Transportation Program, the Congestion Mitigation/Air Quality Program, and the Transportation Alternatives Program. Metro then distributes those funds to cities and counties in the region 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:

<http://www.oregonmetro.gov/public-projects/regional-flexible-funding-transportation-projects>

Table B: 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 to 172 nd Avenue	STIP Enhance / Federal Grant
I-205 Bottleneck Project (4016)	Improvement to I-205 between the Stafford interchange and the east end of the Abernethy Bridge to address congestion issues	STIP Enhance / BUILD
Arndt Rd Connection (1106)	Planning study to develop transportation alternatives and alternative project alignments to provide improved access between I-5 / Wilsonville and Canby	STIP Enhance / HB 2017
US 26 (4093)	Add multi-use path on south side of US 26 between Wildwood Recreation Site to Salmon River Rd	FLAP
Holly St (1109)	Add paved shoulders	STIP Enhance
Courtney Ave (1064)	Construct pedestrian facilities and complete gaps on the south side; add bikeways, improve ADA access, increase transit accessibility	MTIP / RFFA
OR 211 (4040)	Canby Marquam Hwy/ OR 211 intersection – intersection improvements	STIP Fix-it / HSIP
97 th Ave / Mather Rd (1011)	Add bikeways, pedestrian facilities and east-bound left turn lanes at Mather Rd / Summers Lane	RFFA
Alberta St / 72 nd Ave (2000)	Add sidewalks, bicycle lanes and stormwater	TIF
Luther Rd (2001)	Add sidewalks, bicycle lanes and stormwater	TIF
Oak Grove – Lake Oswego (OGLO) Bridge (2022)	Construct bike/pedestrian crossing over the Willamette River	Connect Oregon
Newland Creek (Advance Rd) Bridge (2027)	Replace culverts and roadway embankment with a bridge on the same approximate vertical and horizontal alignment that will improve fish passage to the site.	FHWA AID Demonstration
Bull Run Truss (3038)	Replace bridge	STIP / HBR / BUILD
Badger Creek (Rugg Rd) Culvert	Rugg Road / Springwater Trail culvert replacement	OWEB / ODFW
Overland St	Add sidewalks, bicycle lanes and stormwater	TIF
172 nd Ave / 190 th Ave Connector	Environmental assessment and project construction to connect 172 nd Avenue to 190 th Avenue as envisioned in the 172 nd / 190 th Corridor Management Plan	MTIP
Woodcock Creek (Grimm Rd) Bridge	Bridge replacement	HBR/ OWEB / National Fish Passage
Aschoff Rd	Culvert repair project	OWEB / National Fish Passage
OR 212 Freight Mobility Corridor Improvement	Freight mobility improvements on OR 212 between Rock Creek Junction and US 26	MTIP / STIP

TRANSPORTATION SAFETY ACTION PLAN 2013

PROJECTS

Transportation Safety Action Plan Projects

Appendix A

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	\$ 150,000	RF, TG, JC	\$ 150,000
ITS Year 1	1001 - ITS Plan	Support County-wide master plan		\$ 10,000		\$ 10,000
ITS	1000 - ITS Plan	Red/Green Light Extension Project	Signalized intersection with high red-light crashes	\$ 30,000	RF, TG, JC	\$ 30,000
ITS	1000 - ITS Plan	Johnson Creek Blvd & Linwood - Bike & Ped Improvement Signal Project	Upgrade signal and intersection and accommodate bike signal, safety evaluation	\$ 1,000,000	RF, TG	\$ 250,000
ITS Year 4	1000 - ITS Plan	Supplemental signal heads (left turn/through, far side and/or near side)	Signalized intersection with high left-turn and red-light crash history	\$ -	RF, TG	\$ -
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	Changeable message signs at school zones	Install radar reader signs approaching a school zone. Traffic calming.	\$ 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	\$ 520,000	RF, TG	\$ 130,000
Safety Programs						
Safety Programs	1001	Neighborhood Traffic Calming	Use mobile radar reader signs placed in neighborhoods - requiring staff time to move radar speed signs every other month on requested roadways throughout County	\$ 250,000		\$ 50,000
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 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 RSA						
Safety RSA Year 4	1052	RSA - Compton Rd	Perform road safety audit or transportation safety review to identify appropriate safety improvements	\$ 45,000		\$ 11,250
Safety RSA Year 4	1048	RSA - 282nd Ave	Perform road safety audit or transportation safety review to identify appropriate safety improvements	\$ 40,000		\$ 10,000

Safety RSA Year 5	1045	RSA - Sunnyside Rd	Perform road safety audit or transportation safety review to identify appropriate safety improvements	\$ 40,000		\$ 40,000
Safety RSA Year 5	1054	RSA - Eagle Creek Rd	Perform road safety audit or transportation safety review to identify appropriate safety improvements	\$ 45,000		\$ 45,000
Safety RSA Recommendations	1001	RSA - Beavercreek/Unger Intersection	<u>Low cost recommended improvement options</u> - Install signage "Hill Blocks View" to warn northbound and southbound drivers of sight limitation at Unger with a 45 rider, upgrade pavement markings, relocate advanced warning signage, install delineators and/or RPMs <u>Medium cost improvement options</u> - install intersection beacon or vehicle activated warning system *Please see full RSA report for more detail and long term/high cost recommendations	\$ 400,000		\$ 400,000
Safety SPIS						
Safety SPIS	1097 / 1108 / 2036	SPIS - Beaverck Rd/Henrici Rd	Evaluate intersection safety and make improvements	\$ 50,000		\$ 50,000
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/fix 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	Realign intersection to improve safety and clarity	\$ 500,000		\$ 166,667
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

Appendix B

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

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 undertake 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	Torbank 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

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	~140 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 5 lane 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 I-205 Multi-Use Path
3010	5-11a	Fuller Rd	Otty 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	I-205 Pedestrian / Bike Overpass	Between Causey Ave and Sunnyside Rd	Construct a bike / pedestrian crossing over I-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.
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

Table 5-3c Long Term Capital Projects

Project ID	Map	Project Name / Street Name	Segment / Locations	Project Description
3029	5-11a	West 82nd Ave Parallel Road	King Rd to Luther 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 Rd/ Lolo Pass Rd	Between communities of Timberline, Welches and Zig Zag	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
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	~100 ft 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

Table 5-3c Long Term Capital Projects

Project ID	Map	Project Name / Street Name	Segment / Locations	Project Description
3054	5-11b	Ten Eyck 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 / I-205 interchange	Construct bike/pedestrian bridge over I-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 I-205 multi-use path	Bikeway and pedestrian facilities infill. From Thiessen Rd to I-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
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

Table 5-3c Long Term Capital Projects

Project ID	Map	Project Name / Street Name	Segment / Locations	Project Description
3081	5-11d	Bell Rd	Ladd Hill Rd to Wilsonville Rd	Add paved shoulders
3082	5-11d	Bonita Rd	Carman Dr to I-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
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/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

Table 5-3c Long Term Capital Projects

Project ID	Map	Project Name / Street Name	Segment / Locations	Project Description
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 Beaver Creek 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
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	Beaver Creek 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
3117	5-11e	Forsythe Rd	Oregon City line to Bradley Rd	Add paved shoulders
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 Beaver Creek 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	Beaver Creek 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

Table 5-3c Long Term Capital Projects

Project ID	Map	Project Name / Street Name	Segment / Locations	Project Description
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
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 Leland 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	~400 ft 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
3161	5-11f	Nowlens Bridge Rd	OR 213 to Maple Grove Rd	Add paved shoulders and turn lanes at major intersections

Table 5-3c Long Term Capital Projects

Project ID	Map	Project Name / Street Name	Segment / Locations	Project Description
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
3166	5-11b	Barlow Trail Rd	Marmot Rd to Lolo Pass Rd	Add paved shoulders 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.

Removed Projects:

3117: removed due to duplication with 3118

3166: removed due to duplication with 3035

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

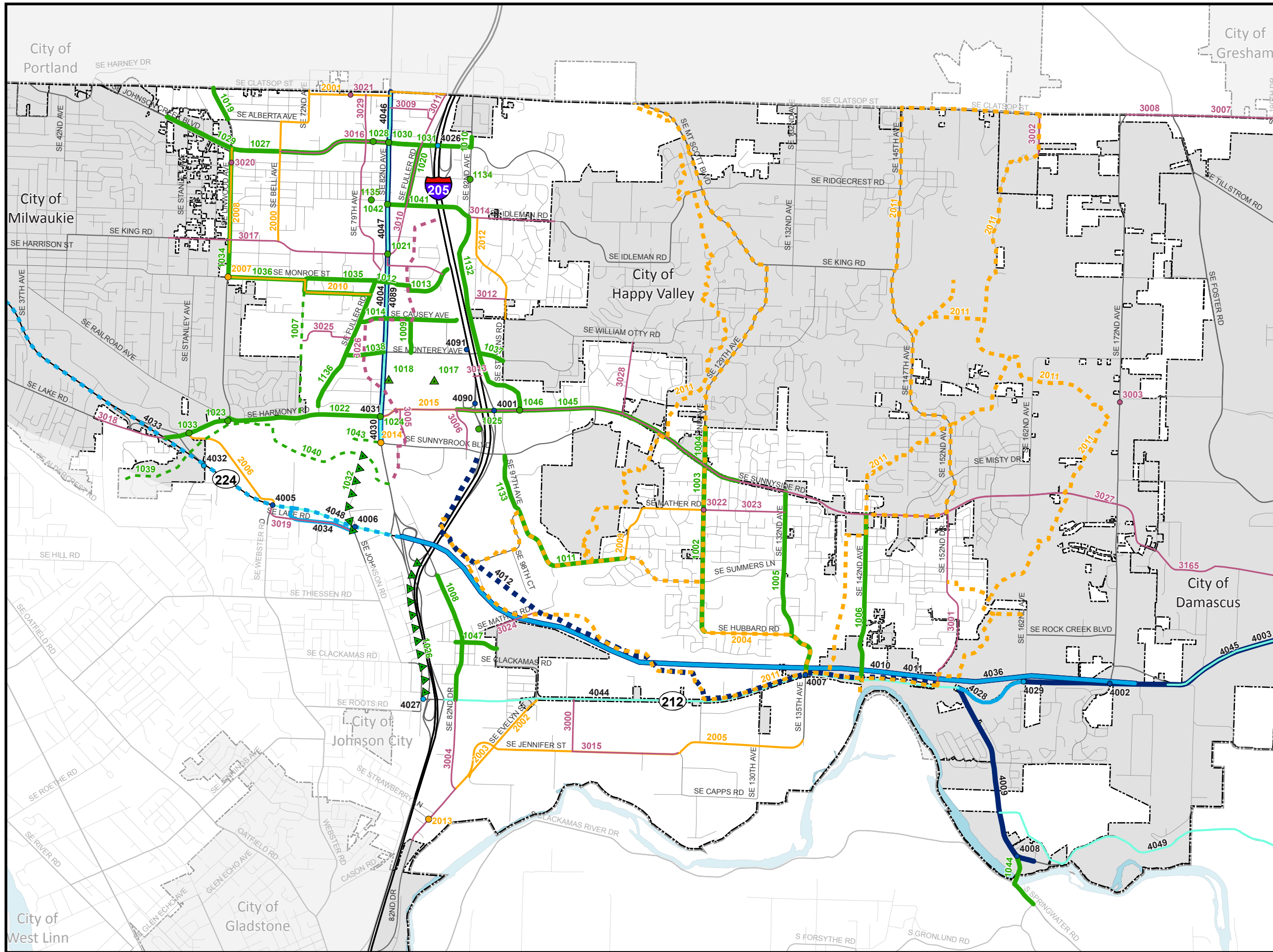
Project ID	Map	Project Name / Street Name	Segment / Locations	Project Description	Priority
4044	5-11a	OR 212	I-205 to OR 224	Perform road safety audit or transportation safety review to identify appropriate safety improvements	Low
4045	5-11a	OR 212	Within the Damascus City Limits (Armstrong Cr to 257th)	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

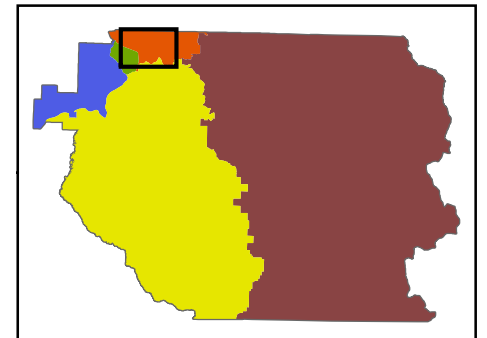
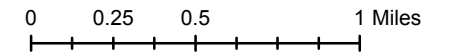
Greater Clackamas Regional Center / Industrial Area

- 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

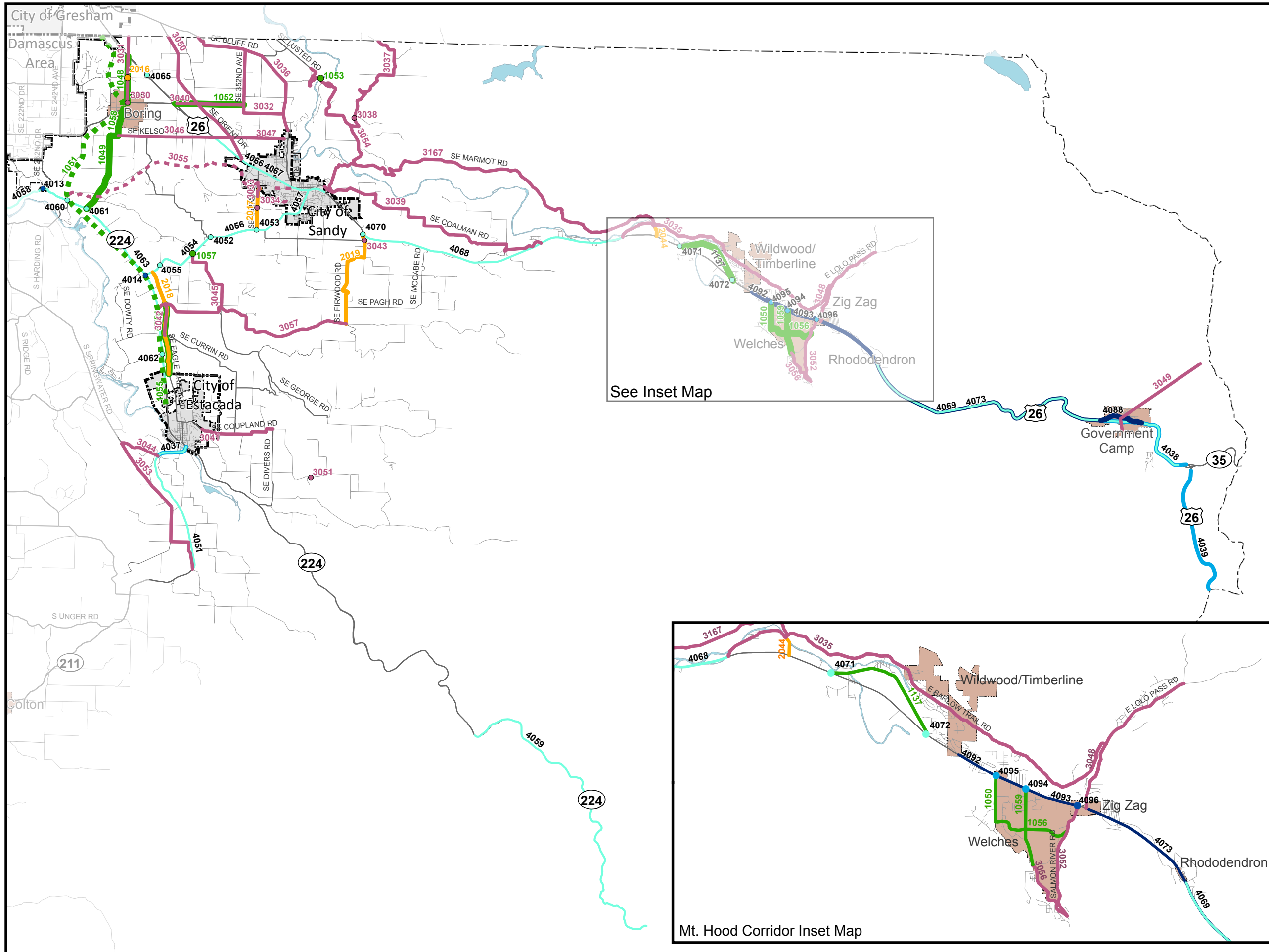


Last Amended January 18, 2017



CLACKAMAS COUNTY COMPREHENSIVE PLAN

MAP 5-11a



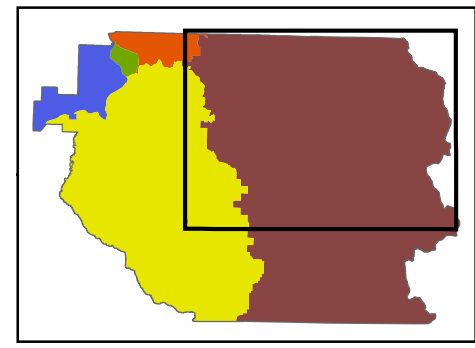
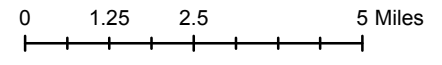
Capital Improvement Plan

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

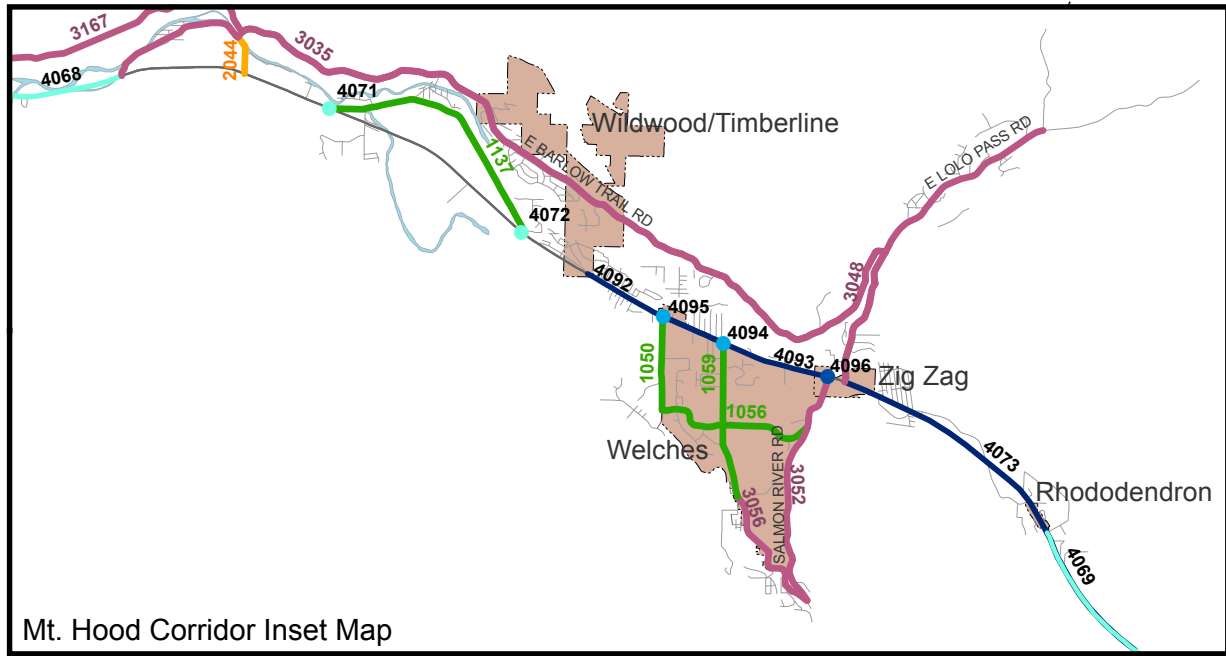


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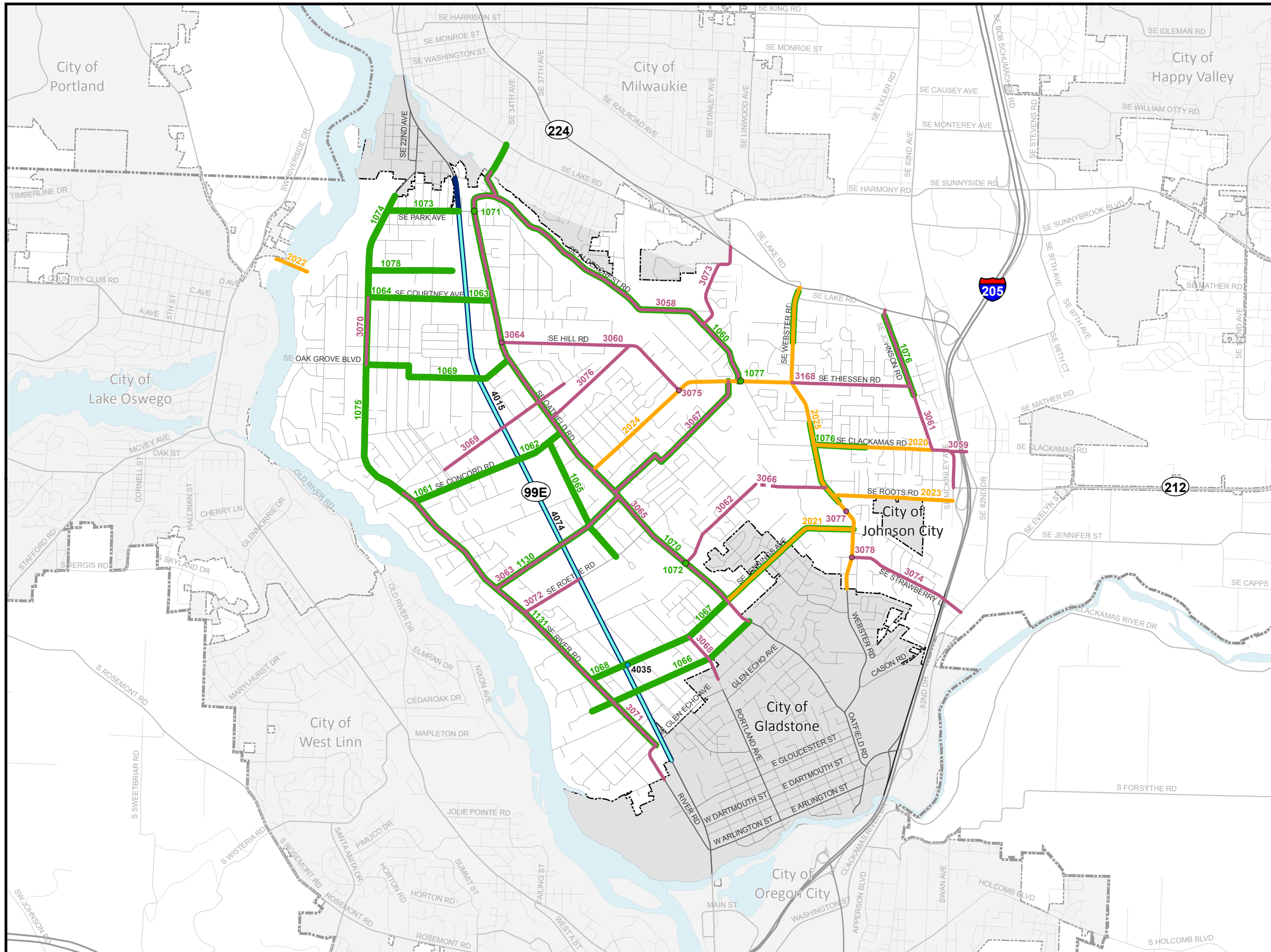


CLACKAMAS COUNTY
COMPREHENSIVE PLAN

MAP 5-11b



Mt. Hood Corridor Inset Map



Capital Improvement Plan

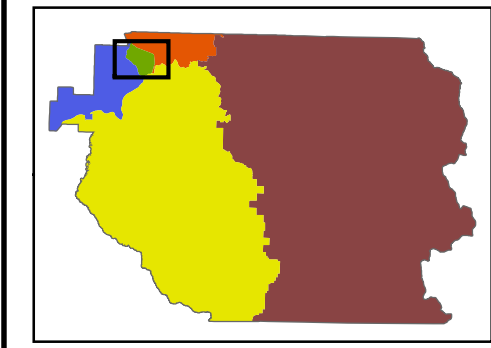
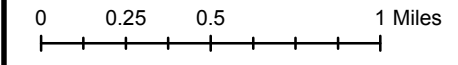
Greater McLoughlin Area

- 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

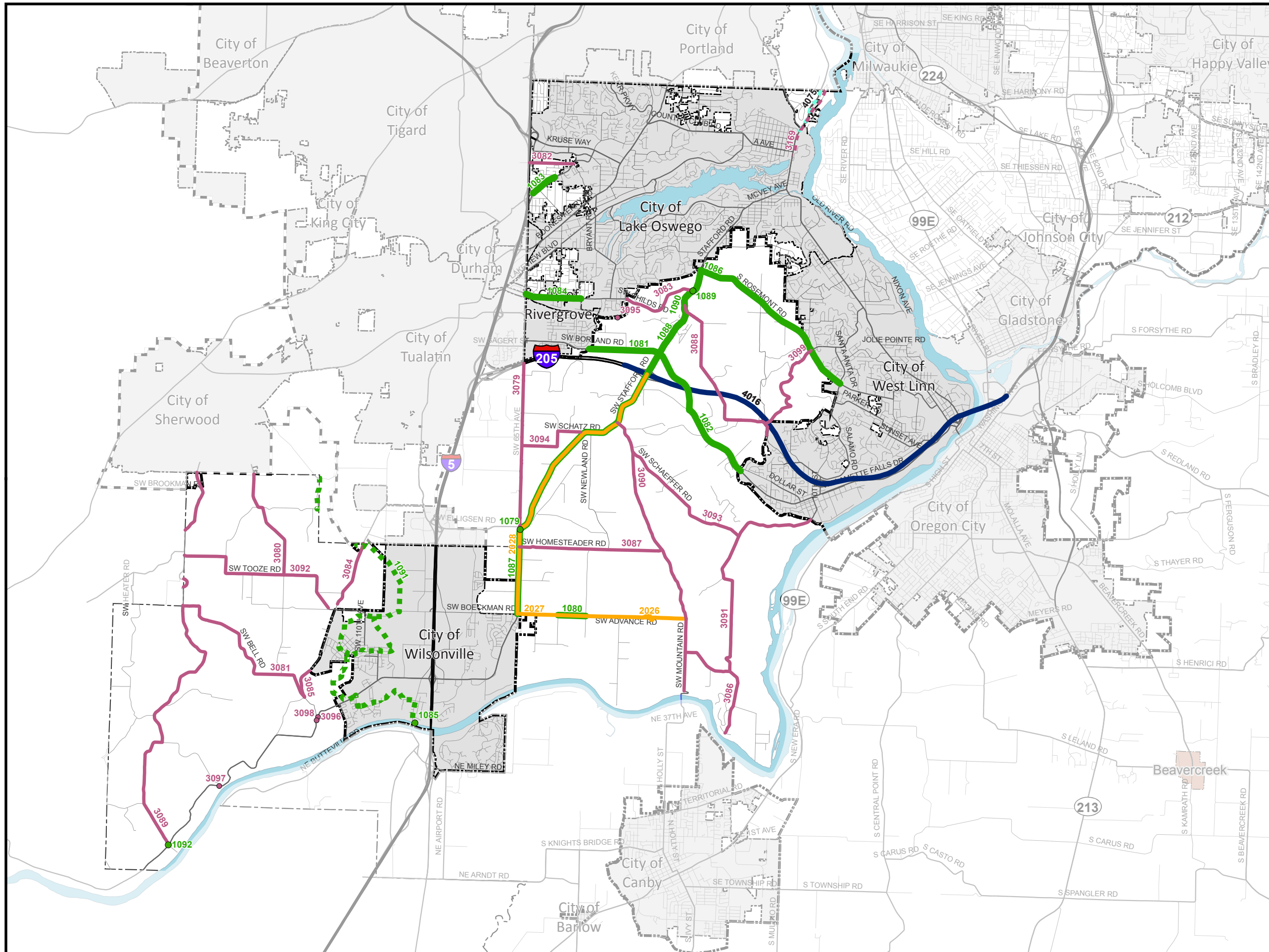


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CLACKAMAS COUNTY
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MAP 5-11c



Capital Improvement Plan

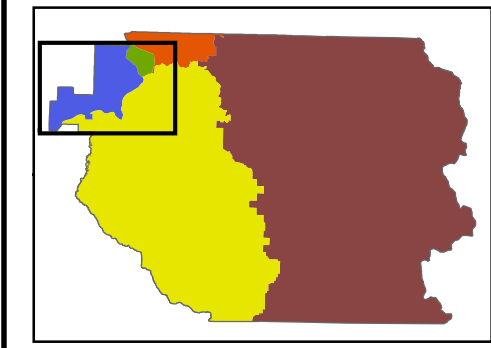
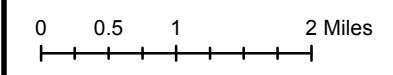
Northwest County

- 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

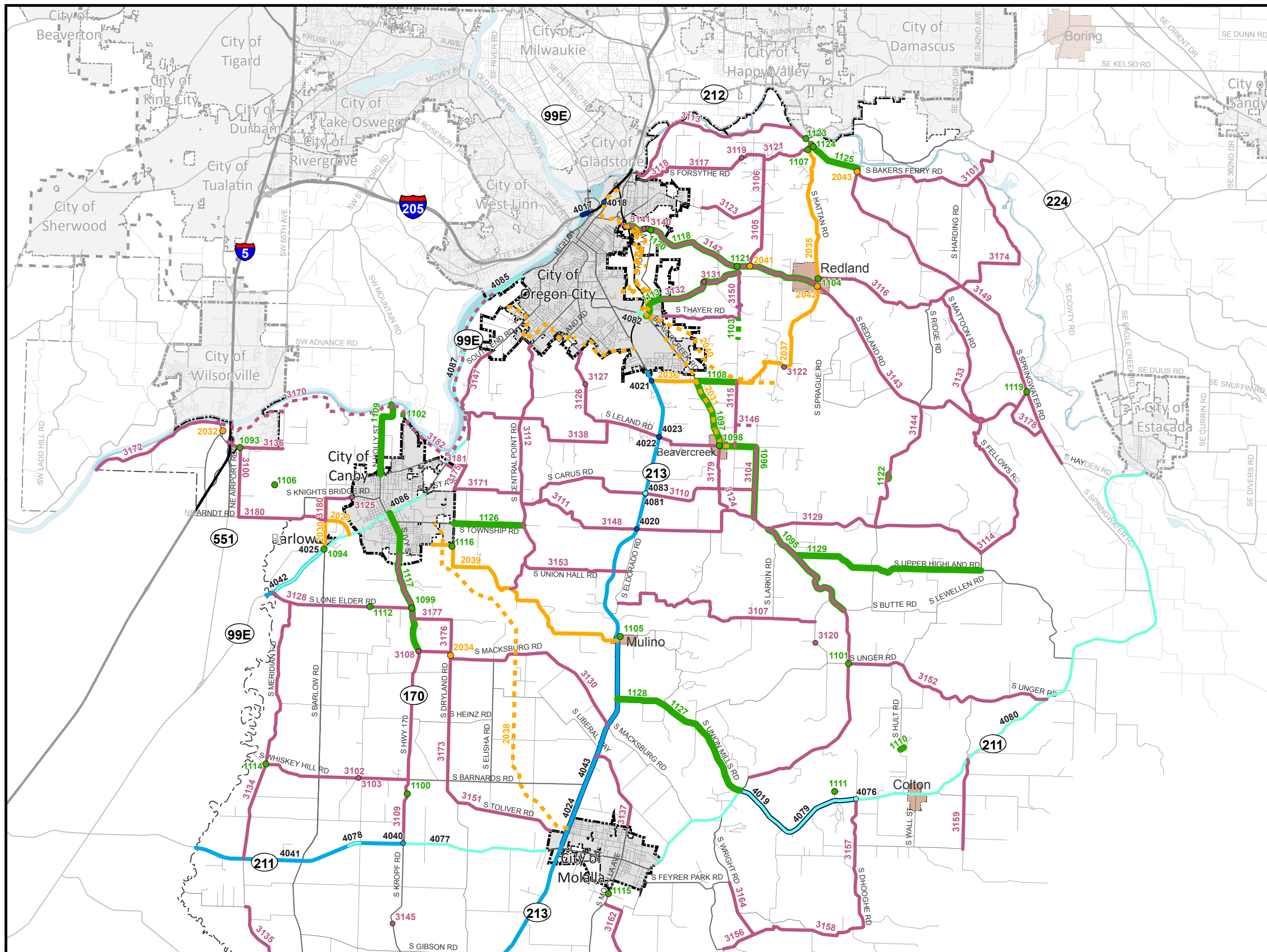


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CLACKAMAS COUNTY
COMPREHENSIVE PLAN

MAP 5-11d



Capital Improvement Plan

Southwest County - Northern Portion

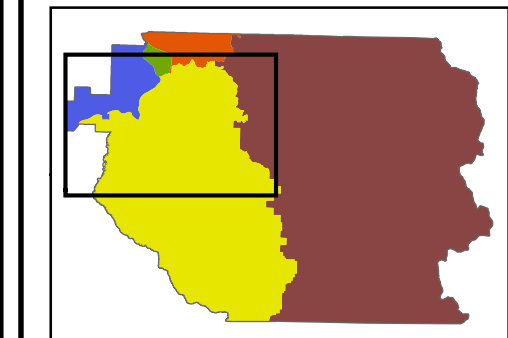
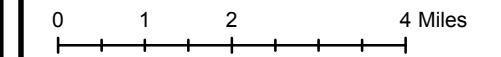
- Priority**
- 20-Year Capital Projects (Table 5-3a)
 - Preferred Capital Projects (Table 5-3b)
 - Long-Term Capital Project Needs (Table 5-3c)

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

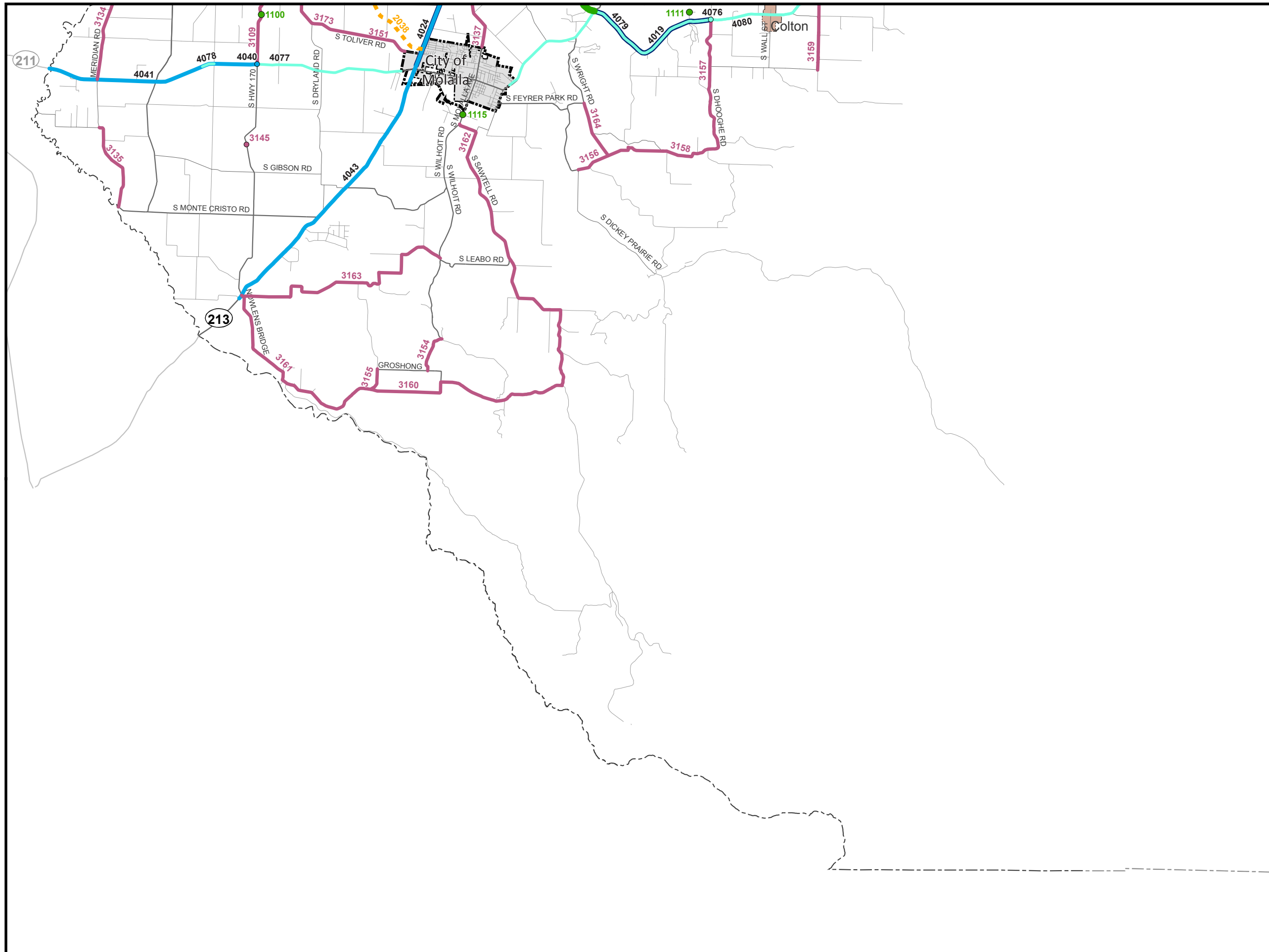


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CLACKAMAS COUNTY
 COMPREHENSIVE PLAN

MAP 5-11e



Capital Improvement Plan

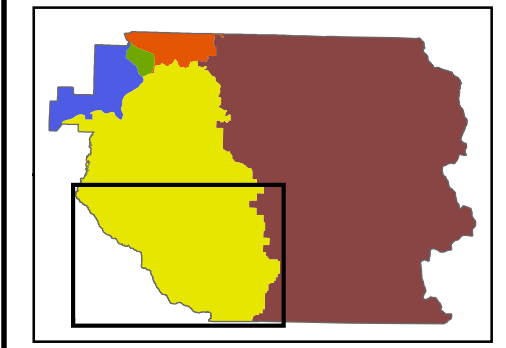
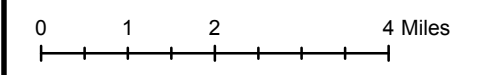
Southwest County - Southern Portion

- 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



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CLACKAMAS COUNTY
COMPREHENSIVE PLAN

MAP 5-11f

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