CLACKAMAS COUNTY

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November 9, 2022

Board of County Commissioners
Clackamas County

Adoption of Previously Approved Comprehensive Plan Amendments
ZDO-284: Amendments to Comprehensive Plan Chapter 5
Transportation System Plan to add projects in the Damascus area

Purpose/Outcomes	Amend the Clackamas County Comprehensive Plan
Dollar Amount and Fiscal Impact	N/A
Funding Source	N/A
Duration	Indefinitely
Previous Board Action	Board of County Commissioners held a public hearing on *September 28, 2022.* Prior BCC actions related to ZDO-284 include a policy session on *July 27, 2022.*
Strategic Plan Alignment	The Performance Clackamas Strategic Plan identifies Build a Strong Infrastructure as a Strategic Priority. This strategic priority is described as follows: *Ensure long-term investments in infrastructure that will support the diverse needs of Clackamas County residents, including: a thriving economy, living wage jobs, housing and transportation alternatives, and a healthy environment.*
Counsel Review	11/1/22, NB
Procurement Review	1. *Was the item processed through Procurement?* yes ☐ no ☒ 2. *If no, provide brief explanation:* The item is an amendment of the Comprehensive Plan and does not involve any procurement activities.

Contact Person	Nate Boderman, Assistant County Counsel; 503-655-8364
Contract No.	N/A

BACKGROUND:

Clackamas County most recently updated the county Transportation System Plan (TSP) in 2013. At the time, Damascus was an incorporated city. When Damascus dis-incorporated in July 2016, all adopted city plans were eliminated and it became necessary for Clackamas County to develop and adopt plans consistent with county policy for the area of the former city. The *Damascus Mobility Plan* was developed to identify changes to the road system in the area of the former city to support existing county land use designations and anticipated traffic growth through 2045.

PROPOSED AMENDMENTS:

Ordinance ZDO-284 proposes the following amendments to the county's Comprehensive Plan that are needed to update the adopted Transportation System Plan to include the needed road improvement projects that were identified in the *Damascus Mobility Plan*.

1. **Updates to Tables 5-3a *20-Year Capital Projects*, 5-3b *Preferred Projects*, 5-3c *Long Term Capital Projects*, and 5-3d *Regional Capital Projects*** to include the 21 proposed prioritized projects on county roads and the seven regional projects that were identified in the *Damascus Mobility Plan*.

2. **Updates to Map 5-11a, *Capital Improvement Plan***, which shows all the projects in the Greater Clackamas Regional Center/Industrial/Damascus Area, including those proposed to be added from the *Damascus Mobility Plan*.

3. **Changes to the text of Comprehensive Plan, including:**

   a. Adding the *Damascus Mobility Plan* to Appendix B, *Summary of Supporting Documents*; and

   b. Minor text amendments to Chapter 5, *Transportation System Plan*, to ensure policies support the proposed changes to the Capital Improvement Plan. These amendments will:
   - remove reference to the City of Damascus, and
   - amend the definitions of "rural" and "urban" as they are used in this chapter, to clarify that within the Portland Metropolitan urban growth boundary, areas with a Comprehensive Plan designation of Agriculture, Forest, Rural, Rural Commercial, Rural Industrial or Unincorporated Community Residential, are subject to the "rural" Plan policies and roadway cross sections.

A public hearing was held on August 22, 2022, for Planning Commission consideration of the proposed Plan amendments. The Planning Commission voted 6-0 to recommend the Board of Commissioners approve ZDO-284 with a proposed condition that projects 1140, 1141, 1142, 1143, 2045 and 2046 only move forward in conjunction with the improvements at OR 212 and Sunnyside Road.

A public hearing was held by the Board of Commissioners on September 28, 2022. After

discussion, the Board of Commissioners voted to approve ZDO-284, as recommended by the Planning Commission *except* that the Board declined to adopt the proposed condition that certain projects be contingent on an intersection improvement by ODOT. The attached Ordinance Exhibit A reflects the amendments, as approved by the BCC.

RECOMMENDATION:

Staff respectfully requests that the BCC adopt the proposed ordinance.

Respectfully submitted,

Nate Boderman
Assistant County Counsel

Attachments:
Ordinance with Exhibits A (Amendments to the Comprehensive Plan) and B (Findings)

ORDINANCE NO. ZDO-284

An Ordinance Amending Chapter 5 and Appendix B of the Clackamas County Comprehensive Plan

WHEREAS, the Oregon Revised Statutes (ORS 197.175) and the Transportation Planning Rule (TPR, OAR 660-012) require the County to adopt and maintain a Transportation System Plan; and

WHEREAS, the adopted Transportation System Plan is required to describe the existing County Transportation System and identify present and future transportation needs throughout the entire unincorporated area of Clackamas County; and

WHEREAS, the most recent update of the Clackamas County Transportation System Plan was adopted in December 2013; and

WHEREAS, the City of Damascus disincorporated as of July 1, 2016; and

WHEREAS, upon disincorporation the area of the City of Damascus became part of the unincorporated area of the County; and

WHEREAS, the addition of the former City of Damascus resulted in a portion of the unincorporated area that was not part of the adopted Clackamas County Transportation System Plan; and

WHEREAS, upon a recommendation of the Planning Commission, the Board of Commission directed staff to prepare an update to the Clackamas County Transportation System Plan for the area of the former city; and

WHEREAS, in consultation with the Damascus Community Planning Organization and members of the community, the staff developed the Damascus Mobility Plan, which included a study of the transportation needs of former city area; and

WHEREAS, the Damascus Mobility Plan recommended 21 transportation improvement projects needed in the former city area; and

WHEREAS, public input was solicited regarding the identified transportation improvement projects and used to prioritize the use of county funds for those projects; and

WHEREAS, the Damascus Mobility Plan and ZDO-284 were presented to the Planning Commission on August 22, 2022; and

WHEREAS, after a public hearing and discussion, the Planning Commission unanimously recommended that the Board of Commissioners adopt the amendments proposed in ZDO-284 with a condition that certain road improvement projects be contingent on an intersection improvement by ODOT; and

WHEREAS, after a duly-noticed public hearing on September 28, 2022, and after considering the recommendation by the Planning Commission, the Board of County

Commissioners orally approved the amendments in ZDO-284, *except* that the Board declined to adopt the condition recommended by the Planning Commission; now therefore

The Board of Commissioners of Clackamas County ordains as follows:

Section 1: The Board adopts, as its findings and conclusions supporting the action described herein, the following document, attached hereto as Exhibit B: **"**Findings of Consistency with Statewide Planning Goals and Guidelines; the Metro Urban Growth Management Functional Plan; the Clackamas County Comprehensive Plan; and the county's Zoning and Development Ordinance (ZDO)."

Section 2: Chapters 5 and Appendix B of the Clackamas County Comprehensive Plan are hereby amended, as shown in Exhibit A, hereto attached.

Section 3: This ordinance shall be effective on December 9, 2022.

ADOPTED this 9th day of November, 2022

BOARD OF COUNTY COMMISSIONERS

_____
Chair

_____
Recording Secretary

Chapter 5: TRANSPORTATION SYSTEM PLAN

The Clackamas County Transportation System Plan (TSP) will guide transportation related decisions and identify the transportation needs and priorities in unincorporated Clackamas County from 2013 to 2033. The TSP has been created in coordination with the County's 16 cities, the State of Oregon, area transit providers, and other affected agencies and has been vetted through an extensive public process, including a series of public outreach events and twelve Public Advisory Committee meetings. The public and county staff worked together to develop the following vision for the TSP and six goals to guide implementation of this vision:

> *Building on the foundation of our existing assets, we envision a well-maintained and designed transportation system that provides safety, flexibility, mobility, accessibility and connectivity for people, goods and services; is tailored to our diverse geographies; and supports future needs and land use plans.*

TSP GOALS

- Goal 1: Provide a transportation system that optimizes benefits to the environment, the economy and the community
- Goal 2: Plan the transportation system to create a prosperous and adaptable economy and further the economic well-being of businesses and residents of the County.
- Goal 3: Tailor transportation solutions to suit the diversity of local communities.
- Goal 4: Promote a transportation system that maintains or improves our safety, health, and security.
- Goal 5: Provide an equitable transportation system.
- Goal 6: Promote a fiscally responsible approach to protect and improve the existing transportation system and implement a cost-effective system to meet future needs.

BACKGROUND AND ISSUES

The County's transportation system includes an extensive network of public and private transportation facilities, including roads, railways, airports, pipelines, waterways, and multi-use paths. The system is intended to allow people to travel where they need to go safely and efficiently, while also providing for efficient movement of goods. The County's transportation system is also intended to support sustainable land use patterns and policies to serve a multitude of public needs without sacrificing air and water quality or creating noise pollution.

Government agencies, public and private service providers, and developers are involved in building and maintaining the County's transportation system. Metro, Portland's metropolitan planning organization, sets general policy guidelines for design, distributes regional funding for certain types of projects within its boundary, and sets standards for the operation of the

transportation system located within the Portland Metropolitan Urban Growth Boundary (UGB). All transportation facilities must conform to standards and guidelines outlined by federal, state and, in some cases, Metro regulatory documents.

Clackamas County faces several challenges as it attempts to continue to develop and maintain a safe and integrated transportation system, appropriate for and accessible to all potential users.

- Limited funding: Funding levels for roads, the backbone of the transportation system, have not kept pace with the mobility needs of our society. Limited funding makes it a challenge to balance the need for maintenance and management of existing facilities with the need for building new facilities to accommodate increased trip demand. As a result, the backlog of needed road maintenance and construction projects has grown larger.

- Reducing congestion: Community members help reduce traffic congestion when they choose to take the bus, join a carpool, or bicycle and walk to destinations. Reducing congestion decreases the need for costly road construction projects while improving air quality, neighborhood livability and access to goods, services and employment.

  Improving the relationship between land uses and transportation can also decrease reliance on automobiles and reduce congestion. Some ways to improve this relationship are to: alter the site design of new construction at or near major transit stops; increase connectivity in transportation systems; provide better pedestrian and bicycle facilities; use land more efficiently; and encourage mixed-use developments.

- Balancing needs: All land-based modes of travel, except rail and pipeline, must share the public rights-of-way. These modes includes autos, trucks, buses, bicycles, pedestrians and, in some localities, equestrians. Balancing the need for mobility (through movement of traffic) with the need for local movement and access to individual properties often creates design and safety challenges for roadways.

- Safety: From 2005 to 2009, there were approximately 160 fatalities and 1,245 serious injuries in Clackamas County due to traffic crashes. One of the County's goals is to improve the safety of its system for all users and reduce the number and severity of crashes for future years. Developing facilities to accommodate all modes of travel will help reduce conflicts that lead to safety problems for some users. The adopted Transportation Safety Action Plan calls for a 50 percent reduction of fatal and serious injury crashes by 2022.

- Fostering economic growth: Monitoring the effects of transportation on employment and economic activity is important during both good and bad economic times. Of particular significance are the ways transportation can be used as a tool to sustain and promote economic development both in the urban industrial and commercial centers and within the county's distinctive rural economy, including agriculture, forestry and equestrian facilities.

- Addressing environmental impacts: Development of transportation infrastructure needs to be sensitive to potential impacts to neighborhoods and to the natural environment, in order to create and maintain livable communities, preserve air and water quality, and conserve energy.

The northwest urban area of the County is within a designated Air Quality Maintenance Area (AQMA). Presently the AQMA meets state and federal air quality standards, but federal law requires the region to implement measures to maintain federal air quality standards. Federal law also prohibits significant degradation of air quality in the Mt. Hood Wilderness.

- Ensuring accessibility: In many areas of the County, transportation disadvantaged populations, such as the elderly, disabled or low-income residents, need improved access to public transit and special transportation services. Clackamas County will ensure that new and rebuilt roads are planned and designed to perform all necessary functions, including being accessible to those who choose not to drive or cannot drive.
- Maintaining and improving rural area roads: Clackamas County also is challenged by the responsibility to maintain and develop a safe and functional road network in rural areas. Upgrades to aging rural roadways are needed to enhance safety and accommodate different modes of travel.

TSP ORGANIZATION

To implement the vision and goals and to address the issues identified above, a series of policies have been created to direct the County in its efforts to build and maintain a multi-modal transportation system. Under each policy category, the countywide policies are listed first, followed by the urban policies, and the rural policies.

The policies are presented in this chapter by major topic or transportation mode as follows:

- **Foundation and Framework**: includes policies relating to coordination; safety; equity, health and sustainability; intelligent transportation systems; and transportation demand management
- **Land Use and Transportation**: includes policies relating to the integration of land use and transportation; parking; rural tourism; and scenic roads.
- **Active Transportation**: includes policies relating to pedestrian and bicycle facilities and multi-use paths.
- **Roadways**: includes policies relating to functional classification; urban and rural roadway considerations; project development; improvements to serve development; and performance evaluation and access standards.
- **Transit:** includes policies relating to transit and transit-supportive amenities.
- **Freight, Rail, Air, Pipeline and Water Transportation**: includes policies relating to general freight movement; freight trucking; rail; airports; pipelines; and water transportation.
- **Finance and Funding:** includes policies relating to funding capital transportation improvements and maintenance.
- **Transportation Projects and Plans:** includes policies relating to the 20-year and five-year capital improvement plans. Also identifies Special Transportation Plans that are adopted by reference as refinements of the TSP and plans or studies that need to be completed in the

future to support the TSP.

- **Definitions:** relevant definitions for use within this chapter.

The TSP also contains the following components:

- The County's ***20-year Capital Improvement Plan:*** a complete list of needed transportation-related projects to address gaps and deficiencies in the transportation network (Tables 5-3[a-d]).
- **Tables, Maps and Figures** illustrating the transportation system and street cross sections, and presenting guidelines and standards for developing the system.
- **Background documents** including detailed findings and conclusions relating to the various components of the transportation system (Appendix B).

FOUNDATION AND FRAMEWORK

Clackamas County's transportation networks serve local communities and also tie into regional networks. Creating a transportation system that is safe and accessible for all users must be done within the context of federal, state, and regional regulations. The system needs to be responsive to new initiatives adopted by these regulatory bodies to ensure the development of a complete and sustainable transportation system. It needs to be responsive to new approaches, techniques and measures developed for assessing the performance of the system. Intelligent Transportation Systems (ITS) and Travel Demand Management (TDM) techniques are two such tools that can be effective in managing the costs of the system and enabling better performance.

Safety is consistently mentioned by citizens as one of the highest concerns related to the transportation system, regardless of individuals' preferred methods of travel. The accessibility of the transportation system for all individuals is also a primary concern. Therefore, prioritizing safety and accessibility is essential in the planning, design, operation and maintenance of the transportation system.

5.A Compliance and Coordination Policies

5.A.1 Support intergovernmental partnerships needed to promote coordination and address multi-jurisdictional transportation needs.

5.A.2 Work collaboratively with federal, state, regional, and local agencies and with County residents to pursue the County's road safety programs and plans.

5.A.3 Work with state and local partners to implement the Oregon Transportation Safety Plan.

5.A.4 Coordinate with the Oregon Department of Transportation (ODOT) in implementing the Oregon Transportation Plan (OTP), Oregon Highway Plan (OHP), Statewide Transportation Improvement Program (STIP), and with other state transportation planning policies, guidelines and programs.

5.A.5 Work with the Oregon Office of Emergency Management to ensure that the TSP supports effective responses to natural and human-caused disasters and emergencies and other incidents, and access during these incidents.

5.A.6 **Urban** Coordinate with Metro and local governments to implement the Regional Transportation Plan (RTP), Regional Transportation Functional Plan (RTFP), Urban Growth Management Functional Plan (UGMFP), and local transportation plans.

5.A.7 **Rural** Pursue formation of an Area Commission on Transportation (ACT) for the portions of Clackamas County outside the Portland Metropolitan Urban Growth Boundary to facilitate a coordinated approach to addressing issues on the state transportation system.

5.B Road Safety Policies

5.B.1 Update the Clackamas County Transportation Safety Action Plan (TSAP) every five years to include necessary changes and document the progress toward the plan's goal of a 50 percent reduction in fatal and serious injury crashes by 2022.

5.B.2 Identify transportation system safety improvements that will reduce fatal and injury crashes for all modes of travel and meet the TSAP goal.

5.B.3 Address the County's top three crash cause factors of Aggressive Driving, Young Drivers (ages 15-25) and Roadway Departure utilizing education, emergency medical services, enforcement, engineering and evaluation.

5.B.4 Support programs, policies, regulations and actions that increase awareness and education about the safety of the transportation system for all users.

5.B.5 Support programs that utilize data-driven approaches to improve safety of the transportation system.

5.B.6 Align County departments, external safety groups, and other public agencies toward common transportation safety goals.

5.B.7 Integrate roadway, safety and traffic data management, health and emergency services data sources.

5.B.8 Integrate Highway Safety Manual (HSM) principles into the planning, engineering, design, operation and maintenance of the transportation system.

5.C Equity, Health and Sustainability Policies

5.C.1 Support programs and projects, such as pedestrian and bike connections to transit stops, that expand and improve transportation options for residents in areas with identified transportation-disadvantaged populations.

5.C.2 Protect neighborhoods, recreation areas, pedestrian facilities, bikeways and sensitive land uses (such as schools, daycare centers and senior centers whose users are more vulnerable to pollution) from transportation-related environmental degradation. Coordinate transportation and land use planning and use mitigation strategies, such as physical barriers and design features, to minimize transmission of air, noise and water pollution from roads to neighboring land uses.

5.C.3 Work with public agencies, private businesses and developers to increase and improve infrastructure necessary to support use of vehicles that use alternative fuels.

5.C.4 Ensure that programs to encourage and educate people about bicycle, pedestrian, and transit transportation options are appropriate for all County residents, particularly transportation-disadvantaged populations.

5.C.5 Build working partnerships between the County's Public Health and Transportation Divisions and utilize tools, such as health impact assessments, to better connect the effects of transportation projects with the health of communities.

5.C.6 Support the continued provision of public transportation services to County populations that are un-served or under-served, as well as the network of community-based, transportation services for seniors and persons with disabilities.

5.D Intelligent Transportation Systems (ITS) Policies

5.D.1 Implement a wide range of ITS strategies aligned with the TSP vision and goals by ensuring safe, efficient, and equitable mobility for people and goods.

5.D.2 Update the ITS Action Plan every five years as part of the County's 5-Year Capital Improvement Program.

5.E Transportation Demand Management (TDM) Policies

5.E.1 Implement Transportation Demand Management techniques—including education, encouragement, and enforcement—appropriate for all County residents , in order to increase efficient use of existing transportation infrastructure and minimize congestion and safety concerns by offering choices of mode, route, and time.

5.E.2 Support and participate in efforts by Metro, the Department of Environmental Quality (DEQ), transit providers, and any area Transportation Management Associations (TMAs) to develop, monitor and fund regional TDM programs.

5.E.3 Provide adequate bicycle and pedestrian facilities to employment areas to encourage use of bicycles or walking for the commute to work and to improve access to jobs for workers without cars.

5.E.4 Support programs that work with schools to identify safe bicycle and pedestrian routes to connect neighborhoods and schools. Seek partnerships and funding to support improvement of these routes.

5.E.5 **Urban** Work with County employers located in concentrated employment areas to develop Transportation Management Associations (TMAs) to coordinate and support private-sector TDM efforts and to work toward mode share targets (Table 5-1) adopted in this Plan.

5.E.6 **Urban** Establish the following year 2040 non-drive-alone targets for growth concept design types (as identified on Map 4-8):

TABLE 5-1
Year 2040 Non-Drive-Alone Modal Targets

Design Type	Non-Drive-Alone Modal Target
Regional Centers Station Communities Corridors	45-55% of all vehicle trips
Industrial Areas Employment Areas Neighborhoods Regionally Significant Industrial Areas	40-45% of all vehicle trips

5.E.7 **Rural** Encourage employers and schools outside urban growth boundaries to implement a range of TDM policies to help their employees and students reduce vehicle miles traveled, maximize use of existing transportation facilities, and increase walking, biking and transit use.

LAND USE AND TRANSPORTATION

Integrating transportation plans with land use plans is a key element in effective management and operation of the entire transportation system. Roads support the wide range of land activities that take place in both the urban and rural areas. Because of the diverse nature of activities and land use types found in Clackamas County, it is of particular importance that the transportation systems are designed to accommodate both urban networks and the different needs of rural area users, including providing safe routes for users of all modes to enjoy the rural area's scenic beauty, and for those participating in agri-tourism and activities related to forestry.

Planning for appropriate amounts of parking supports efficient development of the land within communities. Accommodating on-street parking and planning for off-street parking needs are Transportation System Management (TSM) techniques that are consistent with the Metro Region's 2040 Growth Concept, meet the objectives of the Transportation Planning Rule (TPR), and comply with DEQ's Air Quality Maintenance Plan.

5.F Integration of Land Use and Transportation Policies

5.F.1 Land use and transportation policies shall be integrated consistent with state law regarding preservation of farm and forest lands.

5.F.2 Support efforts to enhance and maintain the function of State highways and County arterials through land use policies, access management strategies, and roadway improvements.

5.F.3 Support and promote an integrated approach to land use and transportation planning and implementation that encourages livable and sustainable communities, decreases average trip length and increases accessibility for all modes.

5.F.4 Support and promote transportation investments that support complete and sustainable communities as a long-term strategy to reduce reliance on long commutes out of the County to employment destinations.

5.F.5 Recognize the County's rural economic engine and the importance of moving goods from rural businesses (including farms, nurseries, livestock, and lumber) to distribution centers.

5.F.6 Require changes in land use plan designation and zoning designation to comply with the Transportation Planning Rule [Oregon Administrative Rules (OAR) 660-012-0060].

5.F.7 **Urban** Require changes in land use plan designation within the Interchange Management Areas identified on Map 5-7 to be consistent with the Transportation Planning Rule (OAR 660-012-0060). If the land uses allowed by the new land use plan designation would cause the interchange mobility standards to be exceeded, either the change shall be denied or improvements shall be made such that the mobility standards are met.

5.G. Parking Policies

5.G.1 Set minimum and, where appropriate, maximum limits on allowed off-street parking of motor vehicles relative to building size, location and use, and to adjacent land uses. In the urban area, parking standards shall be coordinated with regional parking requirements.

5.G.2 Require new multi-family, commercial and institutional development to provide bicycle parking.

5.G.3 Allow shared parking and, where appropriate, on-street parking to be used to comply with parking standards.

5.G.4 **Urban** Allow the removal of existing, on-street parking along arterials and collectors to create bikeways, construct travel or turning lanes, or increase sight distance.

5.G.5 **Urban** Increase area for on-street parking in residential zoning districts by minimizing the width of driveway accesses.

5.G.6 **Urban** Encourage off-street parking in commercial, industrial, and high density residential areas to be located at the sides or rear of buildings, where practical.

5.G.7 **Urban** Consider allowing for decreased parking area requirements for development that:

- provides housing in close proximity to a light-rail station; or
- is located along a transit route, if the development provides pedestrian, bicycle and transit amenities. See Map 5-8a.

5.G.8 **Urban** Consider requiring shared parking within mixed-use development and where adjacent land uses are compatible.

5.H Rural Tourism Policies

5.H.1 **Rural** Encourage agri-tourism and other commercial events and activities that are related to and supportive of agriculture, in accordance with the provisions of ORS 215. Mitigation of traffic impacts and other event impacts may be required to reduce the effects of these limited land uses on the County road system.

5.I Rural Scenic Roads Policies

5.I.1 Implement a County Scenic Road System that is safe and attractive for all users.

5.I.2 Promote the protection of recreation values, scenic features and an open, uncluttered character along designated scenic roads.

Developments adjacent to scenic roads shall be designed with sensitivity to natural conditions and**:**

5.I.2.1 Scenic roads shall have strict access control on new developments.

5.I.2.2 Scenic roads should have shoulders wide enough for pedestrians or bicycles, or a separated path where feasible and when funding is available.

5.I.2.3 Turnouts shall be provided where appropriate for viewpoints or recreational needs.

5.I.2.4 Design review of developments adjacent to scenic roads shall require visual characteristics and signing appropriate to the setting.

5.I.2.5 Buildings shall be set back a sufficient distance from the right-of-way to permit a landscaped or natural buffer zone.

5.I.2.6 Parking areas adjacent to scenic roads shall be separated from the right-of-way by a landscaped buffer.

5.I.2.7 Any frontage roads adjacent to scenic roads shall be separated by a vegetative buffer where feasible

5.I.2.8 Underground placement of utilities shall be encouraged.

5.I.3 The following facilities shall be designated scenic roads: *(see Map 5-1 Scenic Roads)*

- Wilsonville Road
- Stafford Road (City of Lake Oswego to Mountain Road)
- Schaeffer Road
- Pete's Mountain Road (Schaeffer Road to the Tualatin River)
- SW Mountain Road, Canby Ferry Road, N. Locust, NE 37th, and Holly Street
- Canby-Marquam Highway (City of Canby to Hwy 211)
- Clackamas River Drive
- Springwater Road (Clackamas River Drive to Hayden Road)
- Hayden Road
- Redland Road
- Fischer's Mill Road
- Marmot Road/Barlow Trail Road/
- Ten Eyck Road/SE Lusted Road from Ten Eyck Road to the County line.
- Lolo Pass Road
- Salmon River Road
- Still Creek Road
- Timberline Road and West Leg Road
- I-205 west of the Willamette River
- Highway 99E from Oregon City to New Era Rd
- Oregon City Bypass (Newell Creek Canyon segment)
- Highway 211 (Canby-Marquam Highway to Estacada)
- Highway 224 (Carver to Barton and south of Estacada)
- Highway 26 east of the City of Sandy
- Highway 35/Forest Service Road 386

5.I.4 Support implementation of the Oregon Scenic Byway System, including the Mt. Hood Scenic Byway and the West Cascades Scenic Byway.

ACTIVE TRANSPORTATION

Recognizing the increasing importance of having multiple ways to travel through a community and through the region has led to an increased awareness for designing transportation systems to safely enhance active transportation modes. "Active Transportation" is defined to include walking, bicycling and horseback riding.

The County completed transportation systems planning for pedestrian and bicycle modes in 1995 to implement the state's Transportation Planning Rule (TPR), particularly the following TPR principles:

- Land use and transportation are intimately related.
- Over reliance should not be placed on any one transportation mode.
- Walking and bicycling reduce the number of motorized vehicle trips.
- Compact, mixed-use development encourages the use of non-motorized modes.
- Well-planned, properly designed facilities will encourage people to make trips by non-motorized modes.
- Facilities for these non-motorized modes are essential for people not having access to an automobile, and constitute desirable elements in a well-designed community that are enjoyed by people who can drive, but choose to walk or bicycle.

These principles underlie the development of the Clackamas County Pedestrian Master Plan and the Clackamas County Bicycle Master Plan, both of which are adopted by reference. Both master plans were prepared under the guidance of the Clackamas County Pedestrian and Bikeway Advisory Committee, which was guided by the following vision:

> *Create an environment which encourages people to bicycle and walk on networked systems that facilitate and promote the enjoyment of bicycling and walking as safe and convenient transportation modes.*

The Clackamas County Active Transportation Plan (ATP), adopted by reference in Appendix A, contains priority routes connecting communities in both the urban and rural portions of the County. Development of the principal active transportation routes described in the ATP would provide opportunities for residents to safely bicycle or walk to schools, parks, shopping, and employment centers.

5.J General Active Transportation Policies

5.J.1 Coordinate the implementation of pedestrian facilities and bikeways with neighboring jurisdictions and jurisdictions within the county.

5.J.2 Ensure an opportunity for a diverse and representative citizen involvement in the county pedestrian and bicycle planning process by sponsoring the Clackamas County Pedestrian and Bikeway Advisory Committee (CCPBAC) as a forum for public input. Recruit representatives of transportation disadvantaged populations as part of this process.

5.J.3 Monitor and update the Clackamas County Pedestrian Master Plan, Bicycle Master Plan, and Active Transportation Plan through data collection and evaluation, and review activities necessary to maintain and expand the programs established in these plans.

5.J.4 Support bicycle, pedestrian and transit projects that serve the needs of transportation disadvantaged populations.

5.J.5 Coordinate with pedestrian, bicycle, and trail master plans, and with special transportation plans of the County, Oregon Department of Transportation, the United States Forest Service, Metro, and parks providers to achieve safe and convenient crossings and off-road, multi-use path and trail systems connecting to on-road pedestrian facilities and the bikeway networks.

5.J.6 Support the continuation of the "Bikes on Transit" program on all public transit routes.

5.J.7 Inform property owners of their responsibilities for the maintenance of sidewalks and pedestrian pathways.

5.J.8 Identify low traffic volume streets that are appropriate for signing as bicycle routes to enhance safety and connectivity and to supplement the system of bikeways found on the major street system.

5.J.9 **Rural** Support bicycle and pedestrian projects that improve access to public transit stops and provide connections to significant local destinations.

5.K Design Policies

5.K.1 Require bikeways and pedestrian facilities for all new roadway construction or substantial reconstruction, allowing for flexibility to accommodate characteristics of terrain, scenic qualities, existing development, and environmental constraints.

5.K.2 Design and implement innovative bicycle and pedestrian facilities that improve the convenience and safety of these facilities. Use facility types described in the Active Transportation Plan as a reference.

5.K.3 Improve the safety and appeal of walking and biking by supporting the development of bikeways and pedestrian facilities and networks on low volume or local roads and off of existing street rights-of-way.

5.K.4 **Urban** Identify pedestrian facilities and bikeway improvements necessary to ensure direct and continuous networks of pedestrian facilities and bikeways on the county road system.

5.K.5 **Urban** Identify locations where bicycle and pedestrian access is blocked by rivers and other natural barriers and encourage the creation of bicycle and pedestrian facilities to extend across these barriers.

5.K.6 **Urban** Review development plans to ensure that they provide bicycle and pedestrian access.

5.K.7 **Urban** Create a networked system of pedestrian facilities and bikeways connecting cities, neighborhoods, commercial areas, community centers, schools, recreational facilities, employment centers, other major destinations, regional and city bikeways and pedestrian facilities, and other transportation modes. Utilize separate accessways for pedestrian facilities and bikeways where street connections are impractical or unavailable.

5.K.8 **Rural** Support the safe movement of equestrians in rural areas.

5.L Construction Policies

5.L.1 Construct all pedestrian facilities, bikeways, and multi-use paths according to the current County design standards and to the applicable cross section, allowing for flexibility to accommodate characteristics of terrain, scenic qualities, existing development, and environmental constraints, and different designs identified in adopted Special Transportation Plans.

5.L.2 Construct all pedestrian facilities, bikeways, and multi-use paths designated on the Planned Bikeway Network (Maps 5-2a and 5-2b); the Essential Pedestrian Network (Map 5-3); and the Active Transportation Plan (Maps 5-12a and 5-12b).

5.L.3 Construct interim pedestrian facilities and bikeways, as appropriate, on existing streets that are not built to the applicable cross section and where the construction of full street improvements is not practicable or imminent as determined by the County Planning Director and County Road Official or County Engineer.

5.L.4 **Urban** Require that new development include construction of walkways and accessways within the development and between adjacent developments, where appropriate.

5.L.5 **Rural** In Unincorporated Communities, construct walkways adjacent to or within areas of development (such as schools, businesses, or employment centers) and at rural transit stops.

5.M Facilities Policies

5.M.1 Encourage the provision of appropriate, supportive facilities and services for bicyclists, including showers, lockers, bike racks on buses, bike repair and maintenance information/clinics, and secure bicycle parking.

5.M.2 Establish and maintain way-finding systems to facilitate bicycle travel.

5.M.3 Install and maintain the signage and bicycle amenities identified in the Active Transportation Plan.

5.M.4 **Urban** Encourage the provision of street lighting to increase the visibility and personal security of pedestrians and bicyclists.

5.N Multi-Use Path Policies

5.N.1 Support acquisition and development of multi-use paths on abandoned public and private rights-of-way.

5.N.2 Collaborate with the appropriate service providers, such as park providers, to plan for multi-use paths that accommodate equestrian facilities where possible.

5.N.3 **Rural** Consider multi-use paths where travel lanes or wide paved shoulders along roadways may not provide adequate safety for pedestrians or bicyclists.

5.N.4 **Rural** Consider equestrian uses when designing and constructing multi-use paths. Work with local communities and interest groups to plan, develop and maintain multi-use paths that also provide equestrian features. Plan for parking areas at such multi-use paths that support parking needs of equestrians, as well as needs of other path users.

5.N.5 **Rural** Establish a program to plan, develop, and maintain multi-use paths in the rural part of the County.

ROADWAYS

The County's road system permits the movement of goods and people between communities and regions, using any of a variety of modes of travel. Roads provide access to virtually all property. They support established communities and serve new development. They connect rural communities and urban neighborhoods. Roads give structure to our urban form, define our commuting patterns and influence our perceptions of what is far away or close at hand.

Creating and maintaining a safe, continuous County-wide road system, which accommodates movement by all travel modes, means setting standards for development of new roads and redevelopment of existing roads, including design and access standards for urban and rural roads. To ensure roads continue to meet the transportation demands of the County, a method to measure the ongoing performance of the system is essential. In response to new technologies and financial constraints, recent changes have been made to these standards on the state and regional levels. These changes are reflected in this TSP.

5.O Functional Classification and Design Policies

5.O.1 Designate and develop roadways according to the functional classifications and guidelines illustrated in the County Road Typical Cross Sections (Figures 5-1a through 5-1f, and Figures 5-2a through 5-2f) while allowing flexibility to accommodate characteristics of terrain, scenic qualities, environmental constraints, existing development, and adopted Special Transportation Plans.

5.O.2 Designate freeways, arterials, collectors and connectors as shown on Map 5-4a and Map 5-4b. Roadways that do not presently exist but are shown on these maps are shown in approximate locations.

5.O.3 Maintain and improve roads consistent with their functional classification, and reclassify roads as appropriate to reflect function and use.

5.O.4 Develop and implement traffic calming strategies, appropriate for the road functional classification, that will improve the safety and convenience of travel by all modes, particularly in areas with high crash rates or high rates of bicycle and/or pedestrian activity.

5.O.5 **Urban** Consider the Metro Regional Street Design Classifications when designing new county roads or redesigning existing county roads, prior to construction or reconstruction. Map 5-5 shows which roads are designated by each Design Classification.

5.O.6 **Urban** Minimize impacts of managing storm water by allowing for Metro's alternative street standards, such as "green streets," as design alternatives.

5.O.7 **Urban** Design arterials and collectors to allow safe and convenient passage of buses, bicycles, and pedestrians.

5.O.8 **Urban** Streets, alleys, bikeways, pedestrian facilities, multi-use paths, trails and transit stops are allowed uses in all urban zoning districts. Consider all state and County policies relating to these facilities when widening, improving or constructing new transportation infrastructure.

5.O.9 **Rural** Plan to support the existing development pattern and through traffic needs of the rural communities, and not to support or promote urbanization.

5.O.10 **Rural** Consistent with ORS 215.283(3) and OAR 660, Division 12, County road capital improvement projects may be designed and constructed to improve safety and bring roads up to county standards outside the UGB. If the road capital improvement project is not otherwise allowed and would require expansion of right-of-way exceeding the road improvements allowed in the Agriculture or Forest districts, a goal exception would be required for such a project, as provided for in ORS 215.283(3).

5.O.11 **Rural** Streets, alleys, bikeways, pedestrian facilities, multi-use paths, trails and transit stops are allowed uses in all rural zoning districts with the exception of Agricultural and Forest Districts in which they are conditionally allowed by ORS 215.213, 215.283 or OAR Chapter 660, Division 6 (Forest Lands).

5.O.12 **Rural** Recognize the importance of resource-related uses such as agriculture and forestry to the local economy, and the need to maintain a transportation system that provides opportunities to harvest agricultural and forest products and deliver them to market.

5.O.13 **Rural** Design, construct and reconstruct rural arterials and collectors to allow safe and convenient passage of trucks, buses, pedestrians and bicyclists.

5.O.14 **Rural** Support the safe movement of agricultural equipment in rural areas by improving existing roads to county standards and considering design features such as signs, pull-outs for slow-moving vehicles, reduced speeds, and limiting curbs where equipment may move to the shoulder or out of the right-of-way.

5.P Project Development Policies

5.P.1 Before building new roads or adding capacity to existing roads, consider Transportation System Management (TSM) strategies for using the existing road system, including associated pedestrian and bicycle facilities, and system capacity most efficiently.

TSM strategies include:

- Access Management;
- Alternative/Modified Standards (Performance and/or Design Standards);
- Intelligent Transportation System (ITS) applications;
- Operational Improvements;
- Parking Standards;
- Enhanced Bicycle and Pedestrian Facilities; and,
- Road Diet *(For example, restriping a low volume, 4-lane road to a 3-lane configuration with bicycle and pedestrian facilities).*

5.Q Access Standard Policies

5.Q.1 Ensure safe and convenient access for bicyclists, pedestrians, and transit users for land uses that are open to the public. Apply access management in a flexible manner to allow reasonable access and balance the needs of all roadway users.

5.Q.2 Improve multimodal operations and safety by ensuring that Interchange Management Areas and other access plans and projects are coordinated with multimodal connectivity standards and are designed to support safe and convenient access and travel for all modes, when appropriate.

5.Q.3 Support the implementation of state access management standards (OAR Chapter 734, Division 51, as amended, and the Oregon Highway Plan) on state highway facilities and within Interchange Management Areas. Coordinate with the Oregon Department of Transportation for access control on state highways.

5.Q.4 If feasible, allow only collectors, connectors, or other arterials to intersect arterials.

5.Q.5 Access Standards shall be implemented through the Zoning and Development Ordinance and the County Roadway Standards. Where access management standards are adopted by the County in Special Transportation Plans, those standards shall apply.

5.Q.6 Developments should be designed to place driveway accesses on streets with the lowest functional classification or the lowest traffic volume.

5.R Policies on Improvements to Serve Development

5.R.1 Require new development to be served by adequate transportation facilities and access points that are designed and constructed to safely accommodate all modes of travel.

5.R.2 For new developments and land divisions, require right-of-way dedication, on-site frontage improvements to the applicable standards as shown in the roadway Cross Sections (Figures 5-1a through 5-1f and Figures 5-2a through 5-2f) and the County Roadway Standards, and off-site improvements necessary to safely handle expected traffic generated by the development and travel by active modes. Where roadway standards are adopted by the County in Special Transportation Plans, those standards shall apply.

5.R.3 Assess anticipated off-site traffic impacts caused by new developments. The developer may be required to participate financially or otherwise in the provision of off-site improvements, dedications or other requirements.

5.R.4 For new development proposed on a site identified on Map 5-6 (*Potentially Buildable Residential Sites >5 Acres in UGB*), require a conceptual street plan that is consistent with requirements of this section and provides for full street connections at intervals of no more than 530 feet, where feasible.

5.R.5 Require new development that will require construction of new streets to provide full street connections at intervals of no more than 530 feet, where feasible. If full street connections are not feasible at such intervals, require accessways for pedestrians, bicyclists or emergency vehicles at intervals of no more than 330 feet. Exceptions may be made where there are barriers, including topography, railroads, freeways, pre-existing development, existing easements, or environmental constraints such as streams and wetlands.

5.R.6 New development shall accommodate on-site traffic circulation within the boundaries of the site, not by circulating vehicles on and off the site through multiple access points using the public road system. Internal circulation plans should avoid relying on "backing out" maneuvers for new driveways onto all rural arterials and collectors.

5.R.7 **Urban** Require implementation of a road network for undeveloped sites illustrated on Map 5-6. Existing roads shall be extended to provide a direct, connected system.

5.R.8 **Urban** Where appropriate, develop and implement neighborhood traffic circulation plans for all modes intended to improve circulation while minimizing safety concerns and exposure to air and noise pollution.

5.R.9 **Urban** Discourage motor vehicle through-trips on local, connector and collector roads, and encourage bicycle and pedestrian travel on these roads.

5.R.10 **Urban** Allow flexible criteria and standards for local streets that are less than 200 feet in length, are expected to carry very low traffic volumes, and are not capable of being extended.

5.R.11 **Urban** Private streets may be appropriate in areas with topographic constraints that make construction of a road to County standards not feasible. Private roads are not classified as local roads and are not maintained by the County.

5.R.12 **Rural** Discourage through trips on rural local roadways.

5.S System Performance Policies

5.S.1 For County roads, evaluate transportation system performance and the impact of new development. Use the evaluation methodology in the County Roadway Standards.

5.S.2 Evaluate motor vehicle capacity needs for roadways within the urban area using the standards shown in Table 5-2a, except as established below.

Table 5-2a
MOTOR VEHICLE CAPACITY EVALUATION STANDARDS FOR THE URBAN AREA
Weekday Mid-day and Weekday PM Peak Periods

	Maximum Volume to Capacity (V/C) Ratio		
ODOT Roadways and Intersections	**Mid-day One-Hour Peak**	**1st Hour, PM Peak**	**2nd Hour, PM Peak**
OR 99E from OR 224 interchange north to county line OR 213 within the Clackamas Regional Center and the Fuller Road Station Community	0.99	1.1	0.99
I-205 I-5 OR 212 OR 224 OR 213	0.90	0.99	0.99
County Roadways and Intersections by Metro Urban Design Type *See Map 4–8*			
Regional Centers Town Centers Main Streets Station Communities	0.99	1.1	0.99
Corridors Neighborhoods Employment Areas Industrial Areas Regionally Significant Industrial Areas All Other Areas Outside of City Limits	0.90	0.99	0.99

5.S.3 Exceptions to the motor vehicle capacity evaluation standards for review of development proposed on property within Metro's boundary are established as follows:

5.S.3.1 Within the Clackamas Industrial Area, no motor vehicle capacity evaluation standards shall apply.

5.S.3.2 For the intersections of SE Park Avenue/OR 99E, SE Park Avenue/SE Oatfield Road, and SE Park Avenue/SE 27th Street, motor vehicle capacity evaluation standards of the Station Community Design Type shall apply.

5.S.4 Evaluate motor vehicle capacity needs for roadways in the rural area using the standards shown in Table 5-2b.

Table 5-2b
MOTOR VEHICLE CAPACITY EVALUATION STANDARDS FOR THE RURAL AREA
Weekday, AM and PM Peak Periods

	Maximum Volume to Capacity (V/C) Ratio	
ODOT Roadways and Intersections (based on posted speed and highway classification)[1]	**1st Hour, PM Peak Period**	**2nd Hour, PM Peak Period**
Unincorporated areas inside city UGBs	0.80 to 0.95	0.80 to 0.95
Inside Unincorporated Communities	0.70 to 0.80	0.70 to 0.80
All other rural areas	0.70 to 0.75	0.70 to 0.75
County Roadways and Intersections outside of Cities	**Minimum Level of Service (LOS) or Maximum Volume/Capacity Ratio; Weekday Peak Periods**	
	AM Peak Hour	**PM Peak Hour**
Road segments and unsignalized intersections	LOS E	LOS E
Signalized and roundabout intersections	0.90	0.90

[1] See Oregon Highway Plan for details.

5.S.5 Exception to the motor vehicle capacity evaluation standards for review of development proposed on property in the rural area is established as follows:

5.S.5.1 Within Government Camp Village, no motor vehicle capacity evaluation standards shall apply.

5.S.6 The maximum volume to capacity ratio for the ramp terminals of interchange ramps shall be v/c 0.85. (1999 Oregon Highway Plan, OHP Policy 1F Revisions, Adopted by OTC: Dec. 21, 2011).

5.S.7 Where more than one motor vehicle capacity standard would apply at an intersection, the standard allowing the higher level of congestion will be used, except for ramp terminal intersections.

TRANSIT

Public transit service is essential for the mobility of many County residents, and provides an affordable option for others who prefer to use it. The County contains five major public transportation systems. Tri-County Metropolitan Transportation District of Oregon (TriMet), the state's largest transit provider, serves generally the western, more urbanized part of the county. The County also is home to four rural transit providers: South Clackamas Transportation District (SCTD) serving the Molalla area, Sandy Area Metro (SAM), Canby Area Transit (CAT) and Wilsonville's South Metro Area Transit (SMART). Clackamas County also directly supports the Mountain Express service which provides public transit to the Hoodland area along the Highway 26 corridor east of the City of Sandy. All of these services provide public transit as well as specialized services for seniors and persons with disabilities (paratransit) as mandated by the American with Disabilities Act.

Clackamas County participates in the development and implementation of the Coordinated Human Services Transportation Plan which addresses the services available to vulnerable populations throughout the Portland metropolitan area.

The County can influence the type of service provided and the way new developments interface with transit and provide amenities for transit riders. Busses operated by the six districts, as well as each of the school districts in the county must safely share the county's roads with all other users.

5.T Transit Policies

5.T.1 Work with transit agencies to identify existing transit deficiencies in the County, needed improvements, and additional park-and-ride lots needed to increase the accessibility of transit services to all potential users.

5.T.2 Emphasize corridor or roadway improvements that help ensure reliable and on-time transit service in the County.

5.T.3 Encourage transit providers to restructure transit service to efficiently serve local as well as regional needs.

5.T.4 Emphasize transit improvements that improve east-west connections; improve service between the County's industrial and commercial areas and neighborhoods; and best meet the needs of all County residents, employees and employers, regardless of race, age, ability, income level and geographic location.

5.T.5 Coordinate with all applicable transit agencies on all new residential, commercial and industrial developments to ensure appropriate integration of transit facilities and pedestrian access to transit facilities.

5.T.6 Require major developments and road construction projects along transit routes to include provisions for transit shelters, pedestrian access to transit and/or bus turnouts, where appropriate.

5.T.7 Promote park-and-ride lots, transit shelters and pedestrian/bikeway connections to transit. Coordinate the location of these facilities with other land uses to promote shared parking and bicycle/ pedestrian-oriented transit nodes.

5.T.8 Coordinate and cooperate with transit agencies to provide transportation for seniors, people with disabilities, and other transportation-disadvantaged populations. Provide continued support for paratransit services as required within a three-quarter-mile distance from fixed-route transit stops.

5.T.9 Coordinate transit-supportive, roadway improvements with transit-providers to ensure financing and implementation of such improvements.

5.T.10 **Urban** Require pedestrian and transit-supportive features and amenities and direct access to transit for new development.

Pedestrian and transit supportive amenities may include pedestrian/bikeway facilities, street trees, outdoor lighting and seating, landscaping, shelters, kiosks, strict standards for signs, and visually aesthetic shapes, textures and colors. Buildings measuring more than 100 feet along the side facing the major pedestrian/transit access should have more than one pedestrian entrance**.** Pedestrian access should be provided to connect transit centers or transit stops on bus routes with centers of employment, shopping or medium-to-high density residential areas within one-quarter mile of these routes.

5.T.11 **Urban** Coordinate with transit providers to achieve the goal of transit service within one-quarter mile of most residences and businesses within the Portland Metropolitan UGB. Support more frequent service within Regional Centers, Town Centers, Station Communities, and Corridors and Main Streets.

5.T.12 **Urban** Work with federal, state and regional agencies to implement high capacity transit in the regional High Capacity Transit (HCT) System Plan in order to help relieve traffic congestion, provide for transportation alternatives to the automobile, and promote the County's economy. See Map 5-8c for the HCT network in the County.

5.T.13 **Urban** Site new commercial, institutional, and multi-family buildings at major transit stops as close as possible to transit, with a door facing the transit street or side street, and with no parking between the building and front lot lines.

5.T.14 **Rural** Focus safety improvements near existing or planned transit stops.

FREIGHT, RAIL, AIR, PIPELINE AND WATER TRANSPORTATION

In 2009, Clackamas County adopted "Open for Business – Economic Development Plan (EDP)." This plan provides a comprehensive guiding policy document for the County to improve, diversify and grow the economy in Clackamas County. Crucial to economic development is the infrastructure that supports the businesses and the employees that work in those businesses. Specific goals and actions called out by the Economic Development Plan include:

- Maintain mobility for people and freight in the face of expected growth; and
- Respond to the opportunities and challenges faced by its cities and rural areas, and support them in their efforts to develop quality jobs and businesses,

Freight, rail, air, pipelines and water transportation make significant contributions to the movement of people and goods; improve the quality of life; and support economic development in Clackamas County.

Policies relating to the movement of freight via roads, rail, air, pipelines or water transportation must also respond to new regulations to ensure the highest level of safety.

5.U General Freight Policies

5.U.1 Coordinate the planning, development, maintenance and operation of a safe and efficient freight system for all freight modes in Clackamas County with the private sector, ODOT, Metro, the Port of Portland and the cities of Clackamas County.

5.U.2 Promote an inter-modal freight transportation strategy and work to improve multi-modal connections among rail, industrial areas, airports and regional roadways to promote efficient movement of people, materials, and goods.

5.U.3 Work with the private transportation industry, Oregon Economic Development Department, Port of Portland and others to identify and realize investment opportunities that enhance freight mobility and support the County, regional and state economy.

5.U.4 Make freight investments that, in coordination with the County's economic development strategies, help retain and grow the County's job base and strengthen the County's overall economy.

5.U.5 Ensure that freight rail lines and truck routes do not have disproportionately negative impacts on sensitive land uses (places where people with increased risk of adverse impacts from exposure to noise and air pollution are likely to gather, such as schools, senior centers, hospitals, parks, housing). Prioritize mitigation efforts for current sensitive land use areas near freight rail lines and truck routes. Mitigate impacts to sensitive land uses by using vegetative buffers, establishing rail "quiet zones," and coordinating land use plans.

5.V Freight Trucking Policies

5.V.1 Support the Truck Freight Route System, while not prohibiting the use of other roads for local pickup and delivery of goods and services. (See Maps 5-9a and 5-9b).

5.V.2 Improve and maintain the countywide Truck Freight Route System, the Regional Transportation Plan Freight Routes and Oregon Freight Plan Routes, as shown on Maps 5-9a and 5-9b.

5.V.3 Consider Heavy and Oversize Freight Movement requirements on State and County facilities when developing plans for transportation improvements and land use changes along freight routes designated as ORS 366.215 Corridors, as shown on Maps 5-9c and 5-9d.

5.V.4 Consider the safety of all travel modes that use the Truck Freight Route System when designing improvements to this system.

5.V.5 Accommodate freight travel on the Truck Freight Route System by improving facility design and operations.

5.V.6 Identify street improvements to reduce delays and to improve travel time reliability on roadways in the Truck Freight Route system

5.V.7 Work to improve the safety of Truck Freight Routes for all transportation modes.

5.V.8 Support the development of truck layover facilities/staging areas to reduce the conflicts between parked vehicles and adjoining land uses.

5.V.9 Utilize Intelligent Transportation Systems (ITS) solutions to improve safety and operations of freight movement.

5.W Rail Policies

5.W.1 Support the safe and efficient movement of goods by rail.

5.W.2 Support the reduction of the number of at-grade crossings of arterial and collector streets on main rail lines to reduce conflicts between rail use and other transportation modes, and improve safety.

5.W.3 On new or reconstructed arterials and urban collectors, prohibit at-grade crossings of main rail lines without traffic restrictive safety devices.

5.W.4 Support expansion and maintenance needed to establish reliable, higher speed (110-125 mph) freight rail service and intercity rail passenger service in the Willamette Valley.

5.W.5 Encourage the development of rail-accessible land uses within industrial areas adjacent to main rail lines.

5.W.6 Support the development of convenient inter-modal facilities such as ramp, terminal and reload facilities for transfers from truck to rail for long-haul freight movement.

5.W.7 Improve the safety and operations of rail transport at at-grade rail crossings and ensure that all at-grade crossings meet the best practices for facilitating safe, multi-modal crossings, as identified in the most recent version of the "Railroad-Highway Grade Crossing Handbook" (Federal Highway Administration [FHWA]).

5.W.8 Identify and protect existing and abandoned rail rights-of-way for future transportation facilities and services.

5.X Airport Policies

5.X.1 Coordinate with the Port of Portland, the Oregon Department of Aviation, and other affected agencies to implement the Mulino Airport Plan.

5.X.2 Coordinate with Marion County, the City of Wilsonville, the Oregon Department of Aviation, and other affected agencies to develop and implement the Aurora Airport Plan.

5.X.3 Allow new airports as conditional uses in appropriate zoning districts. Require new public use airports to be located within:

- one mile of an arterial roadway, and
- at least one mile away from urban residential areas.

5.X.4 Cooperate with the Oregon Department of Environmental Quality, Oregon Department of Aviation and Federal Aviation Administration to minimize conflicts between airports and uses of surrounding lands.

5.X.5 Require that new airports, airport expansions, or expansions of airport boundaries, except those limited to use by ultra-lights and helicopters, have a runway at least 1,800 feet long and control at least enough property at the end of each runway through ownership, aviation easement, or long term lease to protect their approach surfaces until the approach surfaces are 50 feet above the terrain. Require the runway to be located so as to achieve at least a 20-foot clearance of the approach surface over a county, city or public road.

5.X.6 Apply a Public-Use Airport and Safety overlay zoning district to public-use airports, consistent with ORS 836.600 through 836.630, and as shown on Map 5-10.

5.X.7 Apply a Private-Use Airport and Safety overlay zoning district to privately-owned, private-use airports that served as the base for three or more aircraft, consistent with ORS 836.600 through 836.630, and as shown on Map 5-10.

5.X.8 Recognize privately-owned, private-use airports that served as the base for one or two aircraft on December 31, 1994, as shown in the records of the Oregon Department of Transportation and as shown on Map 5-10.

5.X.9 Encourage establishment of heliports in industrial areas in conjunction with state and federal standards for heliport design and location.

5.X.10 Support the role Clackamas County airports serve in supporting emergency response and disaster assistance.

5.Y Pipeline Policy

5.Y.1 Work with state and federal regulatory agencies, affected communities and pipeline companies to provide safe, quiet, environmentally sensitive, and efficient transport of bulk commodities.

5.Z Water Transportation Policies

5.Z.1 Maintain safe and convenient, multi-modal land access to the Canby ferry, and to public and commercial docks and boat ramps

5.Z.2 Support efforts to minimize noise and negative impacts caused by river transportation on air and water quality and to habitat for fish migration.

5.Z.3 Support the continued operation and maintenance of the Willamette Falls Locks to facilitate water transportation on the Willamette River.

FINANCE AND FUNDING

The vast majority of surface transportation funding in the United States is derived from public sources at the federal, state, and local levels and primarily includes gas and vehicle taxes and fees. For a variety of reasons, including more efficient vehicles, trends toward shortening commutes or carpooling, and a general unwillingness to raise gas tax rates, jurisdictions across the nation are facing decreasing levels of available funding for transportation projects. That, combined with rising construction costs, leads to increasing challenges in finding available funds for all the improvements that are needed to the transportation system.

One way to control costs is to spend wisely by focusing on using and maintaining the transportation systems that exist. The County also is committed to identifying and pursuing potential new funding sources for transportation improvements.

5.AA General Finance and Funding Policies

5.AA.1 Support continuation of current (or equivalent) federal, state, and local funding mechanisms to construct and maintain County transportation projects. Identify and pursue new, permanent funding mechanisms to construct and maintain County transportation facilities and to support programs and projects identified in the TSP.

5.AA.2 Seek dedicated funding sources to implement active transportation projects.

5.AA.3 Establish funding for bicycle, pedestrian and transit projects that serve the needs of transportation disadvantaged populations.

5.AA.4 Consider a transportation system development charge methodology that calculates person trips to allow pedestrian, transit, and bicycle projects, as well as motor vehicle projects, to be funded by TSDCs.

5.AA.5 To the extent practical, invest unrestricted funding sources in a balanced manner between rural and urban areas.

5.AA.6 **Urban** Study creating a transportation facility funding program that establishes a "fee in lieu of" process that may be used by developers to pay for all on-site and off-site transportation facilities required as part of the land development process.

5.BB Maintenance Policies

5.BB.1 Emphasize maintenance of existing rights-of-way, with improvements where appropriate, to improve traffic flow and safety for all transportation modes at a reasonable cost.

5.BB.2 Determine road maintenance needs and priorities and develop an effective and efficient road maintenance program.

5.BB.3 Develop routine maintenance standards and practices for the transportation system, including traffic control devices.

TRANSPORTATION PROJECTS AND PLANS

The County's Capital Improvement Plan (CIP) includes a 20-year plan for needed transportation improvements and the 5-year programmed projects. The CIP was developed through concentrated and intense scrutiny by County staff and several advisory groups. Needed transportation projects were reviewed and analyzed with respect to how the transportation system is expected to function in 2035; how well each reflected the TSP vision and goals; and based on feedback from the public and several advisory committees. The Public Advisory Committee (PAC) developed the final recommendation to the Planning Commission on the project prioritization.

The purpose of the project prioritization was to identify a set of project that could reasonably be expected to be funded over the next 20 years. The funding forecast completed in 2012 indicates that only around 15% of the funding will be available to construct the needed projects. Therefore, the Capital Improvement Plan is divided into three project lists:

- *20-Year Capital Projects*: contains the prioritized list of needed transportation projects that can reasonably be undertaken given the current estimates of available funding.
- *Preferred Capital Projects*: contains a second group of needed, prioritized transportation projects that the County would undertake if additional funding becomes available during the next 20 years.
- *Long-Term Capital Projects*: contains the remainder of the needed transportation projects. Although these projects will be needed to meet the transportation needs of the County in the next 20 years, they are not expected to be funded or constructed by the County.

The CIP will be updated as needed, and additional studies will be completed to optimize the work completed in this TSP by finding new ways to address known problems that cannot be solved by the current CIP. Special Transportation Plans include policy recommendations for a specific geographic areas or transportation facilities within the County Where conflicts exist between provisions of Special Transportation Plans and provisions of Chapter 5, provisions in the Special Transportation Plans take precedence.

5.CC Capital Improvement Plan Policies

5.CC.1 Fund and build the transportation improvement projects identified as needed to accommodate and appropriately manage future transportation needs. These projects are found in the following lists: *20-Year Capital Projects* (Table 5-3a); *Preferred Capital Projects* (Table 5-3b); and Long-Term Capital Projects (Table 5-3c). Project locations are shown on Maps 5-11a through 5-11f.

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.

5.CC.3 Support the construction of prioritized, major transportation improvements in the County as identified by other jurisdictions including the Oregon Department of Transportation, Metro, cities, transit agencies and park providers. The list of needed transportation projects to be built by other jurisdictions is located in Table 5-3d. The project locations are shown on Maps 5-11a through 5-11f.

5.DD Special Transportation Plans and Studies

5.DD.1 Designate the following as Special Transportation Plans:

- The SE 172nd Avenue/190th Drive Corridor Management Plan, adopted by reference in Appendix A;
- The Clackamas County Pedestrian Master Plan, adopted by reference in Appendix A;
- The Clackamas County Bicycle Master Plan, adopted by reference in Appendix A;
- The Clackamas County Airport Plan, adopted by reference in Appendix A;
- Transportation elements of the Community Plans and Design Plans included in Chapter 10;
- The Exception to Statewide Planning Goal 3 (Agricultural Lands), Goal 11 (Public Facilities & Services) and Goal 14 (Urbanization), pursuant to OAR 660, Division 12, to allow for the Arndt Road improvement, which is substantially complete; (For findings of fact and statement of reasons, see Board Order 2003-76.)
- The Exception to Statewide Planning Goal 3 (Agricultural Lands), Goal 11 (Public Facilities & Services) and Goal 14 (Urbanization), pursuant to OAR 660, Division 12, to allow for the Arndt Road improvement listed as project number 2029 on Table 5-3b and shown on Map 5-11e; (For findings of fact and statement of reasons, see Board Order 2003-104.)
- The Clackamas County Active Transportation Plan, adopted by reference in Appendix A; and
- The Clackamas Regional Center Pedestrian/Bicycle Plan, adopted by reference in Appendix A.

5.DD.2 Complete the following studies to develop solutions to previously identified problems.

5.DD.2.1 Conduct an alternatives analysis and land use study to identify and consider roadway improvements to address access to I-5 within the southwest portion of the County and capacity deficiencies along Arndt Road (project #1106).

5.DD.2.2 For the urban unincorporated area, develop a study to identify potential pedestrian, bicycle, and safety performance standards for use during development review.

5.DD.2.3 Develop a circulation study for the area west of the Clackamas Town Center and conduct a Transportation Infrastructure Analysis. (project #1018)

5.DD.2.4 Study the I-205 Multi-use Path gap to identify near term solutions for completing the path. (project #1026)

5.DD.2.5 Identify bicycle and pedestrian improvements to better connect OR 224 to the Clackamas Regional Center along 82nd Avenue**.** (project #1032)

5.DD.2.6 Work with ODOT and~~,~~ the City of Happy Valley ~~and the City of Damascus~~ to review the future need for the Sunrise Unit 2 (parallel to Highway 212, between 172nd Avenue and US 26), identified as a future, planned highway corridor.

5.DD.2.7 Work with ODOT, Metro, Oregon City, West Linn and any other affected jurisdiction to analyze and develop a solution to the transportation bottleneck on I-205 between Oregon City and the I-205 / Stafford Road Interchange. This process may include undertaking an Environmental Impact Statement to identify a preferred alternative that addresses the transportation congestion and facility operations issues on this portion of the I-205 corridor.

5.DD.2.8 Evaluate transitioning from transportation concurrency to safety analysis when a traffic impact study (TIS) is required of new development.

5.DD.2.9 Work with Metro and ODOT over five years to develop Alternate Road Capacity Performance Standards, required by Oregon Highway Plan Policy 1.F., to address the following five intersections. These intersections were forecast not to meet the capacity performance standards adopted in the 2013 TSP, and there were no projects identified that could make the intersections meet the standards.

- SE Harmony Road/SE Linwood Avenue
- OR 212/SE 172nd Avenue – ODOT Intersection
- OR 212/SE 282nd Avenue – ODOT Intersection
- OR 213/S. Henrici Road – ODOT Intersection (traffic signal or roundabout)
- OR 224/SE Lake Road/SE Webster Road – ODOT Intersection

DEFINITIONS

The following definitions apply to usage within Chapter 5.

Airport, Private Use: An airport restricted, except for aircraft emergencies, to use by the owner and his invited guests. The determination as to whether an airport is private or public use is made by the Oregon Department of Aviation.

Airport, Public Use: An airport that is open to use by the flying public, with or without a request to use the airport.

Bikeway: A paved facility provided for use by cyclists. There are five categories of bikeways.

- Shared Roadway: A type of bikeway where motorists and cyclists occupy the same roadway area. Shared lane markings should be provided in the roadway to designate the shared use of the roadway by bicyclists and motorists. On shared roadway facilities, bicyclists may use the full travel lane. Two types of shared roadway facilities are:
    - Bicycle Boulevard: A bicycle facility in a network of connected low volume and low speed roads (typically local or connector roadways) where bicycles share the roadway with vehicles but bicycle movements are prioritized over vehicle movements.
    - Advisory Lanes: A bicycle facility where the center travel lane is shared by two-way automobile traffic and shoulder bikeways or bike lanes are provided on each side of the center lane. Vehicles may use the shoulder bikeways/bike lanes for passing but must yield to bicyclists and oncoming motorists.
- Shoulder Bikeway: A bikeway which accommodates cyclists on paved roadway shoulder.
- Bike Lane: There are three types of bike lanes:
    - Buffered Bike Lane: Bicycle lanes with a striped buffer providing greater separation from vehicles than a typical bike lane.
    - Protected Bike Lane: Bicycle lanes parallel to the roadway and separated from traffic by a buffer as well as by a barrier such as a landscaped buffer, parked cars, or flexible bollards.
    - Conventional Bike Lane: A section of roadway designated for exclusive bicycle use, at the same grade as the adjacent roadway.
- Bike Path: A bike lane constructed entirely separate from the roadway.
- Cycle Track: An exclusive "grade-separated" bike facility elevated above the street level using a low-profile curb and a distinctive pavement material. Two-way cycle tracks are physically separated cycle tracks that allow bicycle movement in both directions on one side of the road.

Truck Freight Route System: A set of identified arterials, collectors and State facilities that support the efficient movement of goods throughout the County.

Functional Classification: The process by which streets and highways are grouped into classes, or systems, according to the character of traffic service that they are intended to provide. Functional classifications found in Clackamas County and typical characteristics of each classification follow:

- Principal Arterials: (Freeway/Expressway and other designated Principal Arterials). Serves interregional and intraregional trips and carries heavy volume at high speed. Primarily Interstate Freeways and State Highways but also includes other roads designated as Principal Arterials. These roads make up the National Highway System.
- Major Arterial: Carries local and through traffic to and from destinations outside local communities and connects cities and rural centers. Moderate to heavy volume; moderate to high speed.
- Minor Arterial: Connects collectors to higher order roadways. Carries moderate volume at moderate speed.
- Collector: Principal carrier within neighborhoods or single land use areas. Links neighborhoods with major activity centers, other neighborhoods, and arterials. Generally not for through traffic. Low to moderate volume; low to moderate speed.
- Connector: Collects traffic from and distributes traffic to local streets within neighborhoods or industrial districts. Usually longer than local streets. Low traffic volumes and speeds. Primarily serves access and local circulation functions. Not for through traffic in urban areas.
- Local: Provides access to abutting property and connects to higher order roads. New local roads should intersect collectors, connectors, or, if necessary, minor arterials. Not for through traffic.
- Alley: May be public or private, to provide access to the rear of property. Alleys should intersect local roads or connectors. Not for through traffic

Level of service (LOS): A performance measure that represents quality of service of an intersection or roadway segment, measured on an A–F scale, with LOS A representing the best operating conditions from the traveler's perspective and LOS F the worst.

Major Transit Stop: A transit center, major bus stop, or light rail stop, as identified on Comprehensive Plan Map 5-8a, *Transit, Urban*.

Major Transit Street: A street with a Frequent Service Bus Line, as identified on Comprehensive Plan Map 5-8a, *Transit, Urban*; existing or planned High Capacity Transit, as identified on Comprehensive Plan Map 5-8c, *High Capacity Transit (HCT) System Plan*; or both.

Mode (also "travel mode"): A particular form of travel, for example, walking, bicycling, traveling by automobile, or traveling by bus.

Multi-use Path: A paved path built for bicycle and pedestrian traffic that is physically separated from motor vehicle traffic, and can be either within the road right-of-way or within an independent right-of-way.

Pedestrian Facilities: Sidewalks, pedestrian pathways, or other facilities that are designed specifically for pedestrian use, as identified by functional classification in cross sections (Figures 5-1 through 5-3) or as determined appropriate by the County Planning Director and the County Road Official or County Engineer.

Principal Active Transportation (PAT) Route: Priority routes for pedestrian and bikeway facilities which form the "spine" of the County active transportation network that have been identified in the Active Transportation Plan. PAT Routes provide connection to key county destinations, link rural and urban communities, and connect to Parkways and Bikeways as identified in the Metro Regional Active Transportation Plan. Specifics about the appropriate bikeway and/or pedestrian facility treatments for the PAT Routes are included in the Active Transportation Plan.

Trail: A hard- or soft-surfaced facility for pedestrians, bicyclists, or equestrians that is separate from vehicular traffic. Trails often go through natural areas and are designed to have a minimal impact on the natural environment.

Transportation Demand Management (TDM): Strategies to achieve efficiency in the transportation system by reducing demand.

Transportation Disadvantaged: Persons who, because of physical or mental disability, income status, or age, are unable to transport themselves or to purchase transportation and are, therefore, dependent upon others to obtain access to health care, employment, education, shopping, social activities, or other life-sustaining activities, or children who are handicapped or high-risk or at-risk.

Road: A public or private way created to provide ingress to, or egress from, one or more lots, parcels, areas or tracts of land, or that provides for travel between places by vehicles. A private way created exclusively to provide ingress and egress to land in conjunction with a forest, farm or mining use is not a "road." The terms "street," "access drive" and "highway" for the purposes of this Plan shall be synonymous with the term "road."

Roadway: That portion of a road or alley that has been improved for vehicular and pedestrian traffic.

Rural: Areas that are either (a) o~~O~~utside the Portland Metropolitan Urban Growth Boundary and outside city limits, or (b) inside the Portland Metropolitan Urban Growth Boundary and have a Comprehensive Plan designation of Agriculture, Forest, Rural, Rural Commercial, Rural Industrial or Unincorporated Community Residential.

Urban: Areas that are i~~I~~nside the Portland Metropolitan Urban Growth Boundary, except areas that have a Comprehensive Plan designation of Agriculture, Forest, Rural, Rural Commercial, Rural Industrial or Unincorporated Community Residential.

Volume-to-Capacity (v/c) Ratio: A volume-to-capacity ratio compares vehicle volumes (the roadway demand) with roadway supply (carrying capacity). Volume refers to the number of vehicles using a roadway at a specific time period (and length of time), while capacity is the road's ability to support that volume based on its design and number of lanes.

DRAFT 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., 106th Ave, 122nd Ave, 130th Ave and 135th 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

DRAFT 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.

DRAFT Table 5-3a 20-Year Capital Projects

Project ID	Map	Project Name / Street Name	Segment / Locations	Project Description
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.
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

DRAFT Table 5-3a 20-Year Capital Projects

Project ID	Map	Project Name / Street Name	Segment / Locations	Project Description
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
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

DRAFT Table 5-3a 20-Year Capital Projects

Project ID	Map	Project Name / Street Name	Segment / Locations	Project Description
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
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	Clarkes 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
1115	5-11e	Molalla Ave Flooding	Just south of city of Molalla	Construct bridge to resolve flooding issues

DRAFT Table 5-3a 20-Year Capital Projects

Project ID	Map	Project Name / Street Name	Segment / Locations	Project Description
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
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

DRAFT Table 5-3a 20-Year Capital Projects

Project ID	Map	Project Name / Street Name	Segment / Locations	Project Description
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
1138	5-11a	SE 242nd Avenue	SE 242nd Ave/SE Borges Road intersection	Extend SE Kingswood Way from SE Borges Road to SE 242nd Avenue. Close SE 242nd Avenue/SE Borges Road intersection to through traffic
1139	5-11a	SE 242nd Avenue	SE 242nd Ave/SE Bohna Park Road intersection	Access management on northwest corner; delineated shoulders on SE 242nd Avenue
1140	5-11a	SE Foster Road	Happy Valley boundary to OR 212	Widen shoulder based on operational and safety analysis during project Development
1141	5-11a	SE Sunnyside Road	SE 187th Avenue to OR 212	Widen shoulder based on operational and safety analysis during project Development
1142	5-11a	SE Sunshine Valley Road	SE 242nd Avenue to east edge of Damascus Mobility Plan area	Widen shoulder based on operational and safety analysis during project Development
1143	5-11a	SE Tillstrom Road	SE Foster Road to SE 242nd Avenue	Widen shoulder based on operational and safety analysis during project Development

Projects shown in red and underlined (projects #1138 to #1143) are proposed to be added from Damascus Mobility Plan (July 2022)

DRAFT 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

DRAFT 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
2045	**5-11a**	**SE 190th Drive**	**County line to 172nd - 190th Connector**	**Widen shoulder based on operational and safety analysis during project development**
2046	**5-11a**	**SE 190th Drive**	**172nd -190th Connector to SE Tillstrom Road**	**Widen shoulder based on operational and safety analysis during project Development**
2047	**5-11a**	**SE 232nd Drive**	**OR 212 to OR 224**	**Widen shoulder based on operational and safety analysis during project development.**

DRAFT Table 5-3b Preferred Projects

Project ID	Map	Project Name / Street Name	Segment / Locations	Project Description
2048	5-11a	SE 242nd Ave	County line to OR 212	Widen shoulder based on operational and safety analysis during project development.
2049	5-11a	SE Tillstrom Road	SE Tillstrom Road/SE Bohna Park Road & SE Wiese Road/SE Bohna Park Road intersections	Reroute SE Bohna Park Road to meet SE Delia Street.

Projects shown in red and underlined (projects #2045 to #2049) are proposed to be added from Damascus Mobility Plan (July 2022)

DRAFT 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

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Project ID	Map	Project Name / Street Name	Segment / Locations	Project Description
3028	5-11a	Valley View Terrace	Sunnyside Rd to Otty Rd	Add bikeways and pedestrian facilities
3029a	5-11a	West 82nd Ave Parallel Road	Luther Rd to Johnson Creek Blvd	Construct collector road parallel to OR 213 with bikeways and pedestrian facilities
3029b	5-11b	West 82nd Ave Parallel Road	Johnson Creek Blvd to King Rd	Construct collector road parallel to OR 213 with bikeways and pedestrian facilities
3030	5-11b	282nd Ave	282nd Ave / OR 212 intersection	Add second right-turn lane on 282nd Ave and additional intersection improvements as needed
3031	5-11b	282nd Ave	OR 212 to Multnomah County line	Add paved shoulders
3032	5-11b	352nd Ave / Dunn Rd	Bluff Rd to Bluff Rd	Add paved shoulders
3033	5-11b	362nd Dr	Colorado Rd to Dubarko Rd	Remove or decrease horizontal and vertical curves
3034	5-11b	362nd Dr	362nd Ave / Deming Rd intersection	Remove or decrease vertical curve, relocate intersection
3035	5-11b	Barlow Trail 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 locations 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

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Project ID	Map	Project Name / Street Name	Segment / Locations	Project Description
3052	5-11b	Salmon River Rd	US 26 to Welches Rd	Add paved shoulders. Between US 26 and Fairway Ave, add paved shoulders or multi-use path
3053	5-11b	Springwater Rd	Hayden Rd to OR 211	Add paved shoulders
3054	5-11b	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

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Project ID	Map	Project Name / Street Name	Segment / Locations	Project Description
3079	5-11d	65th Ave	Stafford Rd to Tualatin city limits	Add paved shoulders
3080	5-11d	Baker Rd	Tooze Rd to County line	Add paved shoulders
3081	5-11d	Bell Rd	Ladd Hill Rd to Wilsonville Rd	Add paved shoulders
3082	5-11d	Bonita Rd	Carman Dr to 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

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Project ID	Map	Project Name / Street Name	Segment / Locations	Project Description
3105	5-11e	Bradley Rd	Redland Rd to Holcomb Blvd	Add turn lanes at major intersections
3106	5-11e	Bradley Rd	Gronlund Rd to Redland Rd	Add paved shoulders
3107	5-11e	Buckner Creek Rd	Gard Rd to Cochell Rd	Add paved shoulders
3108	5-11e	Canby-Marquam Highway	OR 170 / Macksburg Rd intersection	Reconstruct intersection; install southbound left-turn lane and northbound right-turn lane
3109	5-11e	Canby-Marquam Highway	City of Canby to OR 211	Add paved shoulders
3110	5-11e	Carus Rd	Central Point Rd to Beavercreek Rd	Add paved shoulders in accordance with the Active Transportation Plan
3111	5-11e	Casto Rd	Spangler Rd to Central Point Rd	Add paved shoulders and turn lanes at major intersections
3112	5-11e	Central Point Rd	Parrish Rd to Mulino Rd	Smooth curves; add paved shoulders (Parrish Rd to Bremer Rd in accordance with the Active Transportation Plan)
3113	5-11e	Clackamas River Dr	Oregon City limits to Springwater Rd	Construct bikeway in accordance with the Active Transportation Plan. Add turn lanes at Springwater Rd and Forsythe Rd.
3114	5-11e	Fellows Rd	Redland Rd to Lower Highland Rd	Add paved shoulders and turn lanes at major intersections
3115	5-11e	Ferguson Rd	Beavercreek Rd and Henrici Rd	Reduce the speed limit and install traffic calming
3116	5-11e	Fischers Mill Rd	Redland Rd to Springwater Rd	Add paved shoulders in accordance with the Active Transportation Plan
3118	5-11e	Forsythe Rd	Oregon City limit to Bradley Rd	Add center turn lane and paved shoulders
3119	5-11e	Forsythe Rd	Forsythe Rd / Victory Rd intersection	Realign, widen Victory Rd; remove or decrease curves along Forsythe Rd; relocate intersection
3120	5-11e	Gard Rd	~100 ft south of Old Clarke Rd	Reconstruct bridge to accommodate paved shoulders
3121	5-11e	Gronlund Rd / Hattan Rd	Bradley Rd to Springwater Rd	Add paved shoulders and turn lanes at major intersections
3122	5-11e	Henrici Rd	Between Driftwood Dr and Shore Vista Dr	Widen bridge to accommodate paved shoulders
3123	5-11e	Holcomb Blvd	Edenwild Ln to Bradley Rd	Add paved shoulders and turn lanes at Holcomb Blvd / Bradley Rd
3124	5-11e	Kamrath Rd	Carus Rd to Spangler Rd	Safety analysis at Carus Rd, add paved shoulders, remove or decrease horizontal curves north of Spangler Rd
3125	5-11e	Knights Bridge Rd Bridge	~3,200 feet east of Barlow Rd	Replace bridge (nearing the end of its useful life)
3126	5-11e	Leland Rd	Oregon City line to Beavercreek Rd	Add paved shoulders
3127	5-11e	Leland Rd	~1,000 ft north of Warnock Rd	Reconstruct bridge to accommodate paved shoulders
3128	5-11e	Lone Elder Rd	County line to Canby-Marquam Hwy	Add paved shoulders
3129	5-11e	Lower Highland Rd	Beavercreek Rd to Fellows Rd	Add paved shoulders and turn lanes at major intersections
3130	5-11e	Macksburg Rd	Canby Marquam Hwy to OR 213	Add paved shoulders and turn lanes at major intersections
3131	5-11e	Maplelane Rd	~1,800 ft west of Walker Rd	Add paved shoulders
3132	5-11e	Maplelane Rd	Oregon City Urban Growth Boundary to Ferguson Rd	Add paved shoulders

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Project ID	Map	Project Name / Street Name	Segment / Locations	Project Description
3133	5-11e	Mattoon Rd	Fischers Mill Rd to Redland Rd	Add paved shoulders in accordance with the Active Transportation Plan and turn lanes at major intersections; remove vertical curves, remove horizontal curves north of Redland Rd
3134	5-11e	Meridian Rd	Lone Elder Rd to OR 211	Add paved shoulders
3135	5-11e	Meridian Rd	Elliott Prairie Rd to Barlow Rd	Add paved shoulders; remove or decrease horizontal and vertical curves
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 Beavercreek 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	Beavercreek Rd to OR 211	Add paved shoulders and turn lanes at major intersections
3153	5-11e	Union Hall Rd	Central Point Rd to El Dorado Rd	Add paved shoulders
3154	5-11f	Bird Rd	Groshong Rd to Wilhoit Rd	Add paved shoulders and turn lanes at major intersections
3155	5-11f	Blair Rd	Groshong Rd to Maple Grove Rd	Add paved shoulders and turn lanes at major intersections
3156	5-11f	Callahan Rd S / Ramsby Rd	Dickey Prairie Rd to Fernwood Rd	Add paved shoulders and turn lanes at major intersections
3157	5-11f	Dhooghe Rd	OR 211 to Fernwood Rd	Add paved shoulders and turn lanes at major intersections
3158	5-11f	Fernwood Rd	Dhooghe Rd to Callahan Rd	Add paved shoulders and turn lanes at major intersections
3159	5-11f	Gray's Hill Rd	Green Mountain Rd to OR 211	Add paved shoulders
3160	5-11f	Maple Grove Rd	Nowlens Bridge Rd to Sawtell Rd	Add paved shoulders and turn lanes at major intersections

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Project ID	Map	Project Name / Street Name	Segment / Locations	Project Description
3161	5-11f	Nowlens Bridge Rd	OR 213 to Maple Grove Rd	Add paved shoulders and turn lanes at major intersections
3162	5-11f	Sawtell Rd	Maple Grove Rd to Wilhoit Rd	Add paved shoulders and turn lanes at major intersections
3163	5-11f	Wildcat Rd	Wilhoit Rd to OR 213	Add paved shoulders and turn lanes at major intersections
3164	5-11f	Wright Rd	OR 211 to Callahan Rd	Add paved shoulders
3165	5-11a	Sunnyside Rd	93rd Ave to OR 212	Add pedestrian facilities and bikeways in accordance with the Active Transportation Plan
3167	5-11b	Marmot Rd	Ten Eyck to Barlow Trail Rd	Add paved shoulders in accordance with the Active Transportation Plan. In the interim, widen to 4-feet within Wildwood/Timberline, Zigzag, Rhododendron and Wemme/Welches.
3168	5-11c	Thiessen Rd	Webster Rd to Johnson Rd	Add pedestrian facilities and bikeways in accordance with the Active Transportation Plan
3169	5-11d	Willamette River Greenway	Lake Oswego north to County Line	Construct multi-use path in accordance with the Active Transportation Plan.
3170	5-11d	Willamette River Greenway	Canby Ferry to City of Wilsonville	Construct multi-use path in accordance with the Active Transportation Plan.
3171	5-11e	Bremer Rd	Central Point Rd to Haines Rd	Add paved shoulders in accordance with the Active Tranportation Plan
3172	5-11e	Butteville Rd	Willamette River to County line	Add paved shoulders in accordance with the Active Tranportation Plan
3173	5-11e	Dryland Rd	Macksburg Rd to Toliver Rd	Add paved shoulders in accordance with the Active Tranportation Plan
3174	5-11e	Eaden Rd	Bakers Ferry Rd to Springwater Rd	Add paved shoulders in accordance with the Active Tranportation 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 Tranportation 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 Tranportation 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.
3183	**5-11a**	**SE 187th Avenue**	**SE Sunnyside Road to OR 212**	**Improve SE 187th Avenue to three-lane roadway with sidewalks and bike lanes; construct roundabout at SE Sunnyside Road/SE 187th Avenue.**
3184	**5-11a**	**SE 222nd Drive**	**County line to OR 212**	**Widen shoulders based on operational and safety analysis during project development**
3185	**5-11a**	**SE 257th Avenue**	**SE Hoffmeister Road to OR 212**	**Widen shoulders based on operational and safety analysis during project development**
3186	**5-11a**	**SE Bohna Park Road**	**SE Tillstrom Road to SE 242nd Avenue**	**Widen shoulders based on operational and safety analysis during project development**
3187	**5-11a**	**SE Borges Road**	**SE Tillstrom Road to SE 242nd Avenue**	**Widen shoulders based on operational and safety analysis during project development**
3188	**5-11a**	**SE Hoffmeister Road**	**SE 242nd Avenue to SE 257th Avenue**	**Widen shoulders based on operational and safety analysis during project development**
3189	**5-11a**	**SE Royer Road**	**OR 212 to OR 224 (gap in roadway)**	**Widen shoulders based on operational and safety analysis during project Development**

DRAFT Table 5-3c Long Term Capital Projects

Project ID	Map	Project Name / Street Name	Segment / Locations	Project Description
3190	5-11a	SE Telford Road	County line to edge of Damascus Mobility Plan area	Widen shoulder based on operational and safety analysis during project development
3191	5-11a	SE Tong Road	South of OR 212/SE Tong Road intersection	Realign SE Tong Road at OR 212 to align with SE 187 th Avenue to address skew.
3192	5-11a	SE Wiese Road	SE Bohna Park Road to OR 212	Widen shoulders based on operational and safety analysis during project Development
3193	5-11a	SE Wiese Road Realignment	North of OR 212/SE Wiese Road	Realign SE Weise Road to intersect with OR 212 and SE Royer Road.

Projects shown in red and underlined (projects #3184 to #3193) are proposed to be added from Damascus Mobility Plan (July 2022)

DRAFT 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

DRAFT 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

DRAFT 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 Jacknife 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

DRAFT 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

DRAFT 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 improvments at signal, including crossing improvments 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
4097	5-11a	OR 212	OR 212/SE 222nd Drive intersection	Install traffic signal and separate southbound right- and left-turn lanes.	High
4098	5-11a	OR 212	OR 212/SE 242nd Drive intersection	Install separate southbound left-turn.	Low
4099	5-11a	OR 212	OR 212/SE Sunnyside Road-Anderson Road and OR 212/SE Foster Road	Convert OR 212/SE Sunnyside Road intersection to right-in/right-out/left in; add eastbound through and southbound left-turn lane at OR 212/SE Foster Road intersection, provide pedestrian and bicycle facilities.	High
4100	5-11a	OR 212	OR 212/SE Tong Road/SE 187th Avenue Intersection	Signalize intersection.	Medium
4101	5-11a	OR 212 Corridor Plan	SE 172nd Avenue to US 26	Planning effort to establish the long-term vision, conceptual alignment, cross-section, and access locations for OR 212 between SE 172nd Avenue and US 26.	Medium
4102	5-11a	OR 212 Alternative Mobility and Fee in Lieu Strategy	Rock Creek Junction to SE Foster Road	Planning effort to establish alternative mobility standard, acceptable traffic operations levels, improvements, and cost estimates for over-capacity intersections.	High
4103	5-11a	OR 224	OR 224/SE 232nd Drive Intersection	Study to assess need for and feasibility of improvements, such as a signal or roundabout (does not include improvement design or construction).	High

Projects shown in red and underlined (projects #4097 to #4103) are proposed to be added from Damascus Mobility Plan (July 2022)

Capital Improvement Plan

Greater Clackamas Regional Center / Industrial Area / Damascus

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)

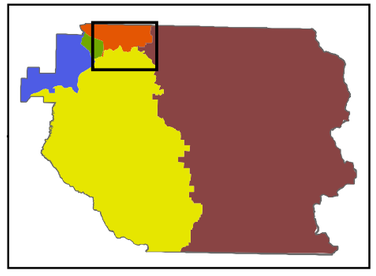
NORTH

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

*Symbol color consistent with Priority symbologies shown above

Note: Proposed Damascus Mobility Plan projects highlighted in yellow

0 0.375 0.75 1.5 Miles



Draft Date - August 8, 2022

CLACKAMAS COUNTY

Department of Transportation & Development
150 Beavercreek Rd Oregon City, OR 97045

CLACKAMAS COUNTY COMPREHENSIVE PLAN

MAP 5-11a

Appendix B

SUMMARY OF SUPPORTING DOCUMENTS

CITIZEN INVOLVEMENT

Citizen and Agency Involvement Program.

Clackamas County Citizen Involvement Program. Comprehensive Plan Chapter 2.

Committee for Citizen Involvement Bylaws.

Committee for Citizen Involvement Roster.

Community Planning Organization Leaders. Lists and maps of CPO areas.

NATURAL RESOURCES AND ENERGY

Clackamas County Energy Project Publications, 1983:

- An Energy Anthology
- Clackamas County Energy Use and Supply Background Data
- Clackamas County Energy Management Plan
- Technical Memorandum, Energy Emergency Planning
- Technical Memorandum, County Buildings
- Technical Memorandum, County Motor Fleet
- Technical Memorandum, County Organization

Clackamas County Resources Atlas, Clackamas County Dept. of Environmental Services, Planning Division. Includes maps of the following:

- General Resources
- Agricultural Land Types and Major Production Areas
- Forest Zones and Vegetative Types
- Cubic Foot Forest Site Classes
- Forest Ownerships
- Urban Forest Cover
- Detailed SCS Soil Mapping Index
- Unique National and Scenic Features
- Open Urban Land Inventory

- Park and Recreation Facilities; Historic and Cultural Sites
- Fisheries and Wildlife Habitats
- Aggregate Sites
- Groundwater Studies Index
- Geologic Hazards, Northwest Clackamas County
- River Corridors, Existing Conditions and Management Strategies
- Precipitation and Physiography

Draft Third Biennial Energy Plan, Action Plan and Recommendations, Oregon Department of Energy, October 1988.

Environmental Geology of the Kellogg Creek-Mt. Scott Creek and Lower Clackamas River Drainage Areas, Northwestern Clackamas County, Oregon, M.S. Thesis, Matthew John Brunego, March, 1978.

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Fish and Wildlife Habitat Protection Plan for Clackamas County, Oregon Department of Fish and Wildlife, 1979.

Geologic Hazards of the Bull Run Watershed, Multnomah and Clackamas Counties, Oregon, Oregon Bulletin 82. Oregon Department of Geology and Mineral Industries, 1974.

Geology and Geologic Hazards of Northwestern Clackamas County, Oregon Bulletin 99, Oregon Department of Geology and Mineral Industries, 1979.

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Ground Water Resources in the East Portland Area, Oregon, U.S. Geological Survey, 1965.

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Oregon Outdoor Recreation "SCORP '83", State Parks and Recreation, Oregon Dept. of Transportation, 1983.

Oregon's Statewide Assessment of Nonpoint Source Problems, Oregon Dept. of Environmental Quality, 1978.

Planning Background Report, Energy; Clackamas County Dept. of Environmental Services, Planning Division.

Planning Background Report, Natural Hazards; Clackamas County Dept. of Environmental Services, Planning Division.

Planning Background Report, Natural Resources; Clackamas County Dept. of Environmental Services, Planning Division.

Planning Background Report, Rivers; Clackamas County Dept. of Environmental Services, Planning Division.

Preliminary Willamette River Greenway, Royston, Hanamoto, Beck and Abey, 1974.

Regional Urban Wildlife Habitat Maps, U.S. Army Engineer District Portland Corps of Engineers, 1978.

Review of Land, Water, Air Quality and Noise Control, 1980-88, Clackamas County Planning and Economic Development Division, 1988.

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State Comprehensive Outdoor Recreation Plan, Technical Documents I, II, and III; ODOT, Parks and Recreation Branch.

Timber for Oregon's Tomorrow, Oregon State University School of Forestry, Beuter, John H.; Johnson, K. Norman; Scheurman, H. Lynn; Research Bulletin 19, January 1976.

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Water Resources Data for Oregon 1976, 1977, U.S. Geological Survey.

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Wilderness Management Plan for the Table Rock Wilderness (Draft), U.S. Dept. of the Interior, Bureau of Land Management, 1986.

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Clackamas County Transportation Safety Action Plan, Kittelson & Associates, July 2013.

Clackamas County ITS (Intelligent Transportation System) Action Plan, DKS Associates, May 2011.

Tri-Met Five-Year Transit Development Plan, Tri-Met, 1987.

SE 172nd Avenue/ SE190th Drive Corridor Management Plan, Appendix A - Environmental Baseline Report, MB&G, Inc., September 20, 2011

SE 172nd Avenue/ SE190th Drive Corridor Management Plan, Appendix B – Analysis of Preferred Alternative

SE 172nd Avenue/ SE190th Drive Corridor Management Plan, Appendix C – 15% Design Plans, Alignment Alternative AT2, Clackamas County, October 24, 2011

SE 172nd Avenue/ SE190th Drive Corridor Management Plan, Appendix E – Corridor Centerline Survey, November 10, 2011

Clackamas County Active Transportation Plan, Appendices A through F

Damascus Mobility Plan, Kittleson & Associates, Inc., July 27, 2022

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Exhibit B
Ordinance ZDO-284

Findings of Consistency with Statewide Planning Goals and Guidelines; the Metro Urban Growth Management Functional Plan; the Clackamas County Comprehensive Plan; and the county's Zoning and Development Ordinance (ZDO)

BACKGROUND

Clackamas County most recently updated the county Transportation System Plan (TSP) in 2013. At the time, Damascus was an incorporated city. When Damascus dis-incorporated in July 2016, it became necessary for Clackamas County to develop and adopt plans consistent with county policy for the area of the former city. The *Damascus Mobility Plan* is intended to present changes to the street system within the area of the former city to support existing county land use designations and regional growth through the 2045 planning horizon. It should be noted that in addition to the *Damascus Mobility Plan*, the county has previously developed and adopted the *Clackamas County Transit Development Plan* that focuses on transit needs and the *Clackamas County Active Transportation Plan* that addresses pedestrian and bicycle system needs. These modal plans addressed the entire unincorporated area of the county including the area of the previous city.

The *Damascus Mobility Plan* is intended to:

- Address gaps in the 2013 Clackamas County Transportation System Plan (TSP) for the unincorporated areas that were previously in the City of Damascus.
- Identify street and intersection changes needed to address near- and long-term vehicular and freight congestion and safety needs. These changes reflect traffic growth associated with land development consistent with the County Comprehensive Plan as well as overall regional growth.
- Address vehicular congestion and identified safety issues at key intersections along the OR 212 corridor between SE 187th Avenue and SE 242nd Avenue and incorporate ODOT proposed improvements to the OR 212 intersections into the *Damascus Mobility Plan*.
- Coordinate with other County planning efforts for the area that identify the needs of people walking, riding bikes and taking transit.

Two key plans supporting this plan are the County's Transit Development Plan and Active Transportation Plan. The *Damascus Mobility Plan* has seven chapters including an executive summary and an introduction; description of the public involvement for the plan and the feedback received; description of existing transportation system conditions; anticipated future conditions; project development including the alternatives analysis; and the OR 212 intersection refinement study. The *Damascus Mobility Plan* includes the list of proposed projects and an analysis of the Year 2040 Build Intersection operations. The *Damascus Mobility Plan* was created with participation by ODOT and Happy Valley. At the same time this project was underway, Happy Valley was developed the Pleasant Valley North Carver Plan which provided guidance on the urbanization of the area extending from the existing Happy Valley limits east to approximately SE 187th Ave. Since the area east of SE 187th is not currently being planned for urban uses, the *Damascus Mobility Plan* focuses on the roadway improvements that are needed to support the current rural development in the county unincorporated area.

A five step process was used to identify the improvements proposed in the *Damascus Mobility Plan:*

1. Identification and documentation of existing conditions related to vehicular transportation and traffic, including an analysis of operations at 17 intersections using traffic volume and delay data collected pre-pandemic in April 2019, and a safety assessment for the five-year period from January 1, 2015 to December 31, 2019.

2. Study of future conditions that included the preparation of population forecasts based on the County's Zoning and Development Ordinance (ZDO) and Metro's 2045 Population and Employment Forecasts.

3. Development of a project list for the Damascus area. The project list was developed through two distinct efforts:
   - A Damascus Mobility Plan Alternatives Analysis that focused on existing and future conditions on the county roads, and
   - A study of the intersections in the OR 212 from SE 187th Avenue to SE 242nd Avenue that provided a more in-depth study of intersections of the local roads and OR 212.

   There were 21 projects identified on county roads during the *Damascus Mobility Plan* process, primarily adding turning lanes at some intersections to improve intersection operations, realigning one or more roads at some intersections to align the "legs" of the intersection and improve safety, and adding shoulders on arterial and collector roads as called for in the adopted TSP and County Roadway Standards. The projects proposed on county roads can be found in Table 5-3a through c, attached, and are highlighted in yellow on attached Map 5-11a. In addition, seven regional projects proposed by ODOT and Happy Valley were identified as beneficial for traffic operations in the Damascus area and are highlighted in Table 5-3d as projects the county should support.

4. Prioritization of the 21 proposed projects on county roads into the categories used in the adopted TSP based on when the projects are needed and the availability of funding:

   - **Tier 1:** Capital projects that are needed within the next 20 years and are matched with anticipated funding.

   - **Tier 2:** Preferred capital projects that are needed to meet population, housing and employment projections but that do not have identified funding at this time.

   - **Tier 3:** Long-term capital projects that would be beneficial if funding is available.

5. Public engagement during the development of the *Damascus Mobility Plan* took place entirely during the Covid-19 pandemic. Due to the pandemic requirements the public engagement was conducted as a virtual, online process. All materials and memoranda were posted online to improve public access to the process. Social media platforms such as Facebook and NextDoor were used to provide updates on the process and notices of the posting of materials. In the course of the process, two virtual open houses were conducted to provide a method for direct public input. The virtual open houses were conducted over a three-week period and included the following:
   - Notification with postcards (printed in English and Spanish) mailed to every residence and business in the former city of Damascus, as well as announcements of the virtual open house posted on social media.

- A special web page linked from the project website with surveys and input tools allowing the public to share their comments and concerns.
- Interactive maps that enabled the public to select intersections and road segments and provide input on issues or suggestions on improvements for that location.
- A Zoom public meeting during which the project team made a presentation and members of the public had the opportunity to ask questions and make comments.
- The engagement process also included one virtual meeting with the Damascus Community Planning Organization (CPO) and an in-person presentation at a CPO-sponsored community meeting.

PUBLIC NOTICE & COMMENTS

Notice of the proposed amendments in ZDO-284 was sent to:

- The City of Happy Valley
- DLCD, Metro, and ODOT

Notice was also published in the newspaper and online. No written comments from members of the public or agencies were received.

There were two public hearings to consider this proposal: one before the Planning Commission (PC) on Monday, August 22, 2022, and one before the Board of Commissioners on Wednesday, September 28, 2022.

- At their hearing, the Planning Commission voted unanimously to recommend approval of the amendments to Comprehensive Plan Chapter 5 Transportation Plan. In that action the Planning Commission included a stipulation that certain proposed projects should not move forward until ODOT completed improvements to the intersection of OR 212 and Sunnyside Road.
- At their hearing, the Board of Commissioners voted to approve ZDO-284, as recommended by the Planning Commission *except* that the Board declined to adopt the proposed condition that certain projects be contingent on an intersection improvement by ODOT.

AMENDMENTS

Ordinance ZDO-284 contains the amendments to the county's Comprehensive Plan that are needed to update the adopted Transportation System Plan to include the needed road improvement projects that were identified in the *Damascus Mobility Plan*. Adoption of the updates to the Transportation System Plan will require the following amendments to the Comprehensive Plan included as **Ordinance Exhibit A**:

1. **Updates to Tables 5-3a *20-Year Capital Projects*, 5-3b *Preferred Projects*, 5-3c *Long Term Capital Projects*, and 5-3d *Regional Capital Projects*** to include the 21 proposed prioritized projects on county roads and the seven regional projects that were identified in the *Damascus Mobility Plan*.

2. **Updates to Map 5-11a, *Capital Improvement Plan***, which shows all the projects in the Greater Clackamas Regional Center/Industrial/Damascus Area, including those proposed to be added from the *Damascus Mobility Plan*. The projects that are proposed to be added in the Damascus area are color-coded to indicate the project priority and are highlighted in yellow on the attached updated Map 5-11a.

3. **Changes to the text of Comprehensive Plan, including:**

   a. Adding the *Damascus Mobility Plan* to Appendix B, *Summary of Supporting Documents*; and

   b. Minor text amendments to Chapter 5, *Transportation System Plan*, to ensure policies support the proposed changes to the Capital Improvement Plan. These amendments will:
   - remove reference to the City of Damascus, and
   - amend the definitions of "rural" and "urban" as they are used in this chapter, to clarify that within the Portland Metropolitan urban growth boundary, areas with a Comprehensive Plan designation of Agriculture, Forest, Rural, Rural Commercial, Rural Industrial or Unincorporated Community Residential, are subject to the "rural" Plan policies and roadway cross sections.

ANALYSIS & FINDINGS

1. Statewide Planning Goals:

This section of the report includes findings on ZDO-284's consistency with Statewide Planning Goals.

Goal 1 – *Citizen Involvement*:
Goal 1 calls for "the opportunity for citizens to be involved in all phases of the planning process" and requires the County to have a citizen involvement program with certain features.

ZDO-284 does not propose any change to the *Citizen Involvement* chapter (Chapter 2) of the County's Comprehensive Plan. The only Comprehensive Plan amendments that would be made by ZDO-284 would be to Chapter 5, *Transportation System Plan.*

ZDO Section 1307 implements policies of Comprehensive Plan Chapter 2, and contains adopted and acknowledged procedures for citizen involvement and public notification of land use applications. Notice of ZDO-284 has been provided consistent with the requirements of Section 1307, including to DLCD, all cities in the County, and all active and recognized CPOs and Hamlets 35 days before the first public hearing. Notice of the ordinance and its scheduled hearings was published in *The Oregonian* more than 10 days in advance and has also been posted on County websites. Before a final decision on ZDO-284 can be made, there will have been at least two public hearings: one before the Planning Commission, held on August 22, 2022, and one before the Board of County Commissioners, held on September 28, 2022.

This proposal is consistent with Goal 1.

Goal 2 – *Land Use Planning*:
Goal 2 requires the County to have and to follow a comprehensive land use plan and implementing regulations. Comprehensive plan provisions and regulations must be consistent with Statewide Planning Goals, but Goal 2 also provides a process by which exceptions can be made to certain Goals.

ZDO-284 does not require an exception to any Statewide Planning Goal. With the ordinance's proposed amendments, the County's adopted and acknowledged Comprehensive Plan will continue to be consistent with Statewide Planning Goals, and the implementing regulations in the ZDO will continue to be consistent with those Goals and with the Comprehensive Plan.

This proposal is consistent with Goal 2.

Goal 3 – *Agricultural Lands*:
ZDO-284 would not amend Comprehensive Plan policies related to agricultural lands, nor would it change any property's land use plan designation or expand any UGB into agricultural lands (i.e., those zoned EFU). ZDO-284 would also not permit new land uses in agricultural lands.

This proposal is consistent with Goal 3.

Goal 4 – *Forest Lands*:
ZDO-284 would not amend Comprehensive Plan policies related to forest lands (i.e., those zoned AG/F or TBR), nor would it change any property's land use plan designation or expand any UGB into forest lands. ZDO-284 would not permit new land uses in forest lands.

This proposal is consistent with Goal 4.

Goal 5 – *Natural Resources, Scenic and Historic Areas, and Open Spaces*:
Goal 5 requires the County to have programs that will protect natural resources and conserve scenic, historic, and open space resources for present and future generations. It requires an inventory of natural features, groundwater resources, energy sources, and cultural areas, and encourages the maintenance of inventories of historic resources. ZDO-284 would not make any change to the County's Comprehensive Plan goals, policies, or inventories, or to ZDO provisions, related to the protection of natural resources, or scenic, historic, or open space resources.

This proposal is consistent with Goal 5.

Goal 6 – *Air, Water and Land Resources Quality*:
Goal 6 instructs the County to consider the protection of air, water, and land resources from pollution and pollutants when developing its Comprehensive Plan. The proposal would not change any Comprehensive Plan goal or policy, or implementing regulation, affecting a Goal 6 resource, nor would it modify the mapping of any protected resource.

This proposal is consistent with Goal 6.

Goal 7 – *Areas Subject to Natural Hazards*:
Goal 7 requires the County's Comprehensive Plan to address Oregon's natural hazards. ZDO-284 would not change the County's acknowledged Comprehensive Plan policies regarding natural disasters and hazards, nor would it modify the mapping of any hazard.

This proposal is consistent with Goal 7.

Goal 8 – *Recreational Needs*:

Goal 8 requires relevant jurisdictions to plan for the recreational needs of their residents and visitors. The proposal would not change any existing, state-acknowledged County Comprehensive Plan policy or implementing regulation regarding recreational needs, nor would it reduce or otherwise modify a mapped recreational resource.

This proposal is consistent with Goal 8.

Goal 9 – *Economic Development*:
Goal 9 requires the County to provide an adequate supply of land for commercial and industrial development. As noted earlier, ZDO-284 would not change the Comprehensive Plan or zoning designation of any property. It also would not add any new restriction to land uses in areas of the County reserved for commercial and industrial development.

This proposal is consistent with Goal 9.

Goal 10 – *Housing*:
The purpose of Goal 10 is to meet housing needs. ZDO-284 would neither reduce nor expand the County's housing land supply, nor would it add new restrictions to housing development.

This proposal is consistent with Goal 10.

Goal 11 – *Public Facilities and Services*:
The purpose of Goal 11 is to ensure that local governments plan and develop a timely, orderly, and efficient arrangement of public facilities and services to act as a framework for urban and rural development. ZDO-284 does not propose any change in adopted plans for the provision of water, sewer, or other public services.

This proposal is consistent with Goal 11.

Goal 12 – *Transportation*:
The purpose of Goal 12 is to ensure that the County's transportation system is adequate to serve land uses. The county is required to have a Transportation System Plan that includes the entire unincorporated area. ZDO-284 will amend the County's Transportation System Plan to incorporate recommended transportation plans and projects within the area of the former City of Damascus, now a part of the unincorporated area of the county and subject to the county's adopted transportation plans and policies. The following amendments to Comprehensive Plan Chapter 5 Transportation System Plan are proposed:

1. **Draft updates to Tables 5-3 a-d** (updated tables attached). These tables contain the lists of the projects in the Damascus area recommended for inclusion in the TSP.

2. **Update of Map 5-11a** (updated map attached).This map shows all the projects in the Greater Clackamas Regional Center/Industrial/Damascus Area, including those proposed to be added from the Damascus Mobility Plan. The projects that are proposed to be added in the Damascus area are color coded to indicate the project priority and are highlighted in yellow on the attached updated Map 5-11a.

3. **Changes to the text of Comprehensive Plan Chapter 5:**

   - **Addition of the Damascus Mobility Plan to the Comprehensive Plan "Appendix B" Summary of Supporting Documents.**

   - **Minor amendments to Comprehensive Plan Chapter 5** to remove reference to the City of Damascus, as well as more clearly define Urban and Rural within the definitions section**.**

This proposal is consistent with Goal 12.

Goal 13 – *Energy Conservation*:
Goal 13 encourages land use plans to consider lot size, building height, density, and other measures in order to help conserve energy. The proposed amendments would not change any policy or implementing regulation regarding energy conservation.

This proposal is consistent with Goal 13.

Goal 14 – *Urbanization*:
The purpose of Goal 14 is to provide for an orderly and efficient transition from rural to urban land use, to accommodate urban population and urban employment inside urban growth boundaries, to ensure efficient use of land, and to provide for livable communities. The Goal primarily concerns the location of UGBs, the establishment of "urbanizable areas" and unincorporated communities, exception lands, and rural industrial uses. ZDO-284 would not modify any UGB or the status or boundaries of any unincorporated community. The ordinance would not modify any urban or rural reserve boundary, allow any new land use in such reserve areas in a manner inconsistent with state law, change the land use plan designation or zoning of any property, or allow any new uses in exception lands in a manner inconsistent with state law.

This proposal is consistent with Goal 14.

Goal 15 – *Willamette River Greenway*:

ZDO-284 would not change any existing requirement related to development in the Willamette River Greenway.

This proposal is consistent with Goal 15.

Goals 16-19:
These four Statewide Planning Goals address estuarine resources, coastal shorelands, beaches and dunes, and ocean resources, respectively, and are **not applicable** to Clackamas County.

2. Metro Regional Transportation Functional Plan

The purpose of the Functional Plan is to implement "the goals and objectives of the Regional Transportation Plan (RTP) and the policies of the RTP and its constituent freight, high-capacity transit and transportation system management and operations plans which cities and counties of the region will carry out in their comprehensive plans, transportation system plans (TSPs), and other land use regulations and transportation projects." The

Board has reviewed the provisions of the Damascus Mobility Plan and determined that it is consistent with the Metro Regional Transportation Functional Plan

Notice of this proposal was provided to Metro to allow a review for consistency with the Regional Transportation Functional Plan. Metro has not submitted any comment on the *Damascus Mobility Plan*.

The proposal is consistent with the Metro Regional Transportation Functional Plan

3. Clackamas County's Comprehensive Plan

The Board finds that the following two chapters of the County's Comprehensive Plan are applicable to this proposal.

Chapter 2 – *Citizen Involvement*:

Chapter 2 aims to promote public participation in the County's land use planning. Its policies largely focus on the County's Community Planning Organization (CPO) program and methods for informing and involving the public. Chapter 2 includes these specific policies:

> *2.A.1 – Require provisions for opportunities for citizen participation in preparing and revising local land use plans and ordinances. Insure opportunities for broad representations, not only of property owners and Countywide special interests, but also of those persons within the neighborhood or areas in question.*
>
> *2.A.6 – Seek citizens' input not only through recognized community organizations, but also through service organizations, interest groups, granges, and other ways.*
>
> *2.A.13 – Insure that the County responds to citizen recommendations through appropriate mechanisms and procedures.*

Consideration of ZDO-284 has proceeded according to the noticing and public hearing requirements of ZDO Section 1307. The public engagement process for the Damascus Mobility Plan included:

- Notification with postcards (printed in English and Spanish) mailed to every residence and business in the former city of Damascus, as well as virtual open house announcements on social media.
- A special web page linked from the project website with surveys and input tools allowing the public to share their comments and concerns.
- Interactive maps that enabled the public to select intersections and road segments and provide input on issues or suggestions on improvements for that location.
- Zoom public meetings were held during which the project team made a presentation and members of the public had the opportunity to ask questions and make comments. There were 21 attendees at the Zoom public meetings.
- The engagement process also included one virtual meeting with the Damascus Community Planning Organization (CPO) and an in-person presentation at a CPO-sponsored community meeting.

- An online open house was conducted during which 604 people visited the online open house and viewed the materials. Of those, 35 provided comments.

Appendix B of the *Damascus Mobility Plan* provides additional detail and copies of all the materials that were used.

This proposal is consistent with Chapter 2.

Chapter 11 – *The Planning Process*:
Chapter 11 of the Comprehensive Plan includes policies requiring inter-governmental and inter-agency coordination, public involvement, and noticing. As explained previously in this report, all required entities have been notified in accordance with law and have been invited to participate in duly-advertised public hearings.

Chapter 11 of the Comprehensive Plan also contains the specific requirement that the Comprehensive Plan and ZDO be consistent with Statewide Planning Goals. The plan has been reviewed and determined to be consistent with the Statewide Planning Goals.

This proposal is consistent with Chapter 11.

4. Zoning and Development Ordinance (ZDO):

The proposed text amendments are legislative. Section 1307 of the ZDO establishes procedural requirements for legislative amendments, which have been or are being followed in the proposal and review of ZDO-284. Notice of this proposal was provided at least 35 days before the first scheduled public hearing to DLCD, as well as other interested agencies, to allow them an opportunity to review and comment on the proposed amendments. Advertised public hearings are being held before the Planning Commission and the BCC to consider the proposed amendments. The ZDO contains no further specific review criteria that must be applied when considering an amendment to the text of the Comprehensive Plan or ZDO.

This proposal is consistent with the Zoning and Development Ordinance.

5. Summary

The Board of Commissioners finds as follows:

1. Local governments are required to adopt and amend as necessary a Transportation System for the full extent of the jurisdiction; and
2. The disincorporation of the City of Damascus requires that the County meet all state planning requirements for the area of the former city; and
3. The required transportation system plan must analyze existing and future transportation needs for the jurisdiction, and identify a fiscally constrained program of projects to serve present and future needs; and
4. There currently exists no adopted transportation system plan for the area of the former city; and

5. Consistent with those requirements the Board of Commissioners directed the development of such a transportation system including a fiscally constrained program of projects; and
6. Traffic analysis and forecasting was applied to determine immediate and long term transportation needs in Damascus; and
7. Public input on transportation needs in Damascus was received through two online open houses, a presentation and input session with the Damascus Community Planning Organization, a presentation and input session with the Planning Commission, a public hearing before the Planning Commission, and a Public Hearing before the Board of Commissioners; and
8. Using the input that has been received from the community, the Damascus Mobility Plan has been prepared to meet all state standards for a transportation system plan; and,
9. The proposed plan has been reviewed for consistency with adopted state, regional and county goals and policies; and
10. Whereby the proposed Damascus Mobility Plan has been determined to be consistent with goals and policies in the adopted 2013 Clackamas County Transportation System Plan, and relevant and state and regional transportation plans; and
11. The recommendations of the Damascus Mobility Plan have been incorporated into ZDO-284; and
12. ZDO-284 will make the following amendments to the adopted Comprehensive Plan Chapter 5, Transportation System Plan:
    A. Updates to Tables 5-3a *20-Year Capital Projects*, 5-3b *Preferred Projects*, 5-3c *Long Term Capital Projects*, and 5-3d *Regional Capital Projects;*
    B. Updates to Map 5-11a, *Capital Improvement Plan*; and
    C. Text amendments to Comprehensive Plan Chapter 5, *Transportation System Plan* and Appendix B, *Summary of Supporting Documents*.
13. Following a noticed public hearing the Planning Commission has recommended that ZDO-284 be adopted causing the proposed amendments to the Comprehensive Plan Chapter 5, Transportation System Plan to be made

Therefore, the Board of Commissioners hereby adopts ZDO-284 and directs that the revisions identified be added to the Comprehensive Plan, Transportation System Plan adopted December 2013.