

## L 17-03 – Alternate Mobility Standards

### Applicant Narrative:

Oregon City's 2013 Transportation System Plan (TSP) determined that the Highway 213 (OR213) corridor from Redland Road to Molalla Avenue (including the intersection of Beaver Creek Road) will exceed the current mobility target in 2035, resulting in more congestion than is allowed. The OR213 intersection with Molalla Avenue is anticipated to meet the target; however, Beaver Creek Road and Redland Road are not anticipated to meet the target.

The existing mobility target at the OR213/Beaver Creek Road intersection is a volume-to-capacity (v/c) ratio at or below 0.99 during the peak first and second hours. The existing mobility target at the OR213/Redland Road intersection is a v/c ratio at or below 1.1 during the peak first hour and 0.99 during the peak second hour, as this intersection is located in a regional center. The alternatives that would meet the existing mobility targets at the OR213/Beaver Creek Road and OR213/Redland Road intersections are not cost feasible, given the financial constraints of the City and other agency partners.

These alternatives can be further considered in the future if additional funding becomes available.

Lacking the financial capability of implementing major capacity-increasing projects at these locations, alternative mobility targets are necessary at each of these intersections; however, some improvements are feasible in the cost-constrained TSP to improve safety and minimize future congestion.

The following improvements are recommended for the intersection of OR213 and Beaver Creek Road:

- Construct a westbound right-turn merge lane. High visibility pavement markings and signage are recommended for pedestrians and bicycles to cross the channelized lane safely, and consideration should be given to installing a rectangular rapid flash beacon (RRFB) for increased visibility.
- Infill sidewalk on Beaver Creek Road from south of the Coltrane Path to north of Marjorie Lane.
- Install various safety improvements outlined on pages 33 and 35 of the final report.

The above improvements will be added as projects in the TSP for future consideration.

For the intersection of OR213 and Beaver Creek Road, the following mobility standards apply:

- During the first, second and third hours, a maximum v/c ratio of 1.00 shall be maintained.

Calculation of the maximum v/c ratio will be based on an average annual weekday peak hour.

For the intersection of OR213 and Redland Road, the following mobility standards apply:

- During the first and second hours, a maximum v/c ratio of 1.10 shall be maintained. Calculation of the maximum v/c ratio will be based on an average annual weekday peak hour.
- During the third hour, a maximum v/c ratio of 1.05 shall be maintained. Calculation of the maximum v/c ratio will be based on an average annual weekday peak hour.

Changes to the TSP to incorporate these improvements and the alternative mobility targets are part of this Legislative application to City's Planning Commission and City Commission. The alternative mobility target and financially feasible improvements that are needed will need to be agreed upon by ODOT and approved by the Oregon Transportation Commission.

The attached full report discusses the process and proposal in greater detail.

This application is being submitted as a legislative amendment to amend the municipal code and the Transportation System Plan project list. The Transportation System Plan is an ancillary document to the Comprehensive Plan.

#### **1. PLANNING CRITERIA**

- ❑ ***17.50 Processes***
- ❑ ***Comprehensive Plan – Goals and Policies***
- ❑ ***RTP***
- ❑ ***Oregon Highway Plan***
- ❑ ***Oregon Transportation Plan***
- ❑ ***TPR***

## **Oregon City Comprehensive Plan**

### **Regular Updates to *Ancillary Documents* Assure Consistency with the Oregon City Comprehensive Plan**

Chapter O of the 2004 Oregon City Comprehensive Plan, Comprehensive Plan Maintenance and Update, contains criteria for approving changes to the comprehensive plan and plan map.

Review of the comprehensive plan should consider:

1. *Plan implementation process.*
2. *Adequacy of the Plan to guide land use actions, including an examination of trends.*
3. *Whether the Plan still reflects community needs, desires, attitudes and conditions. This shall include changing demographic patterns and economics.*
4. *Addition of updated factual information including that made available to the City of regional, state and federal governmental agencies.*

The Oregon City Comprehensive Plan is implemented through City Codes, **ancillary plans**, concept plans, and master plans.

**Ancillary plans** are adopted by the City Commission for such things as parks and recreation, transportation systems, water facilities, and sewer facilities. Usually prepared by City departments through a public process, ancillary plans are approved by the City Planning Commission and adopted by the City Commission to provide operational guidance to city departments in planning for and carrying out city services. These plans are updated more frequently than the comprehensive plan.”

## Relevant Comp Plan and Statewide Planning Goals

### **Relevant Comprehensive Plan Goals and Policies to Address**

#### **Section 1 Citizen Involvement**

##### *Goal 1.2 Community and Comprehensive Planning*

*Ensure that citizens, neighborhood groups, and affected property owners are involved in all phases of the comprehensive planning program.*

*Policy 1.2.1 - Encourage citizens to participate in appropriate government functions and land-use planning.*

*Goal 1.4 Community Involvement - Provide complete information for individuals, groups, and communities to participate in public policy planning and implementation of policies.*

*Policy 1.4.1 - Notify citizens about community involvement opportunities when they occur.*

*Goal 1.5 Government/Community Relations -Provide a framework for facilitating open, two-way communication between City representatives and individuals, groups, and communities.*

RESPONSE: A Community Advisory Group (CAG) and Technical Advisory Group (TAG) were formed to help the City evaluate the feasibility and practicality of the alternatives set forth in this project. The Community Advisory Group (CAG) purpose was to provide meaningful advice and guidance to inform staff, Planning Commission and City Commission concerning Alternative Mobility Targets along the Hwy 213 Corridor. Representatives of these groups included:

#### **Community Advisory Group (CAG)**

- Planning Commission representative
- City Commission representative
- Citizen Involvement Committee representative
- Transportation Advisory Committee representative
- Resident/Property Owner:
  - Maple Lane/Thayer Road area
  - Forest Edge area
  - City wide
- Advocate for:
  - Accessibility
  - Transit

- Cycling
- Business/Property Owner: Commercial/Industrial
- Community Development Department Stakeholder Group representative
- Oregon City Chamber of Commerce representative
- Oregon City Business Alliance representative
- Clackamas Community College representative
- Hamlet of Beavercreek representative

### **Technical Advisory Group (TAG)**

- Oregon Department of Transportation (ODOT)
  - Traffic
  - Transportation Planning
- Metro
- Oregon Department of Land Conservation and Development (DLCD)
- Clackamas County
  - Traffic
  - Transportation Planning
- TriMet
- City of Oregon City
  - Planning
  - Economic Development
  - Engineering
  - Traffic Consultant

The City advertised widely and broadly for representatives to serve on the Community Advisory group. The City held three meetings of the Community Advisory Group during the planning process. In addition, the City created a project webpage and posted all meeting materials and drafts as they became available, and held an open house and work session on December 12, 2017. Attendance at the open house was approximately 20 people. The City's notice process for this Legislative amendment will also include a Citywide mailed notice and multiple public hearings.

### **Section 6: Quality of Air, Water and Land Resources**

*Goal 6.1 Air Quality -Promote the conservation, protection and improvement of the quality of the air in Oregon City.*

*Goal 6.2: Water Quality*

*Control erosion and sedimentation associated with construction and development activities to protect water quality.*

RESPONSE: The proposed amendment adds a TSP project for a right turn acceleration land that adds a limited amount of capacity to the intersection. The Advisory Groups considered, among the alternatives, infrastructure upgrades that would alleviate more congestion but that would also have an impact on nearby natural resources such as Newell Creek and associated wetlands and vegetated corridors. The proposed changes would not have an impact on water quality because they do not require widening of the roadways.

The adoption of alternate mobility standards will result in the City's ability to accept greater levels of traffic congestion at these intersections during peak congestion times. This recommendation balances

various goals, including the provision of public facilities, traffic safety, protection of natural resources, economic development, and livability.

**Goal 11.1 Provision of Public Facilities**

*Serve the health, safety, education, welfare, and recreational needs of all Oregon City residents through the planning and provision of adequate public facilities.*

*Policy 11.1.1*

*Ensure adequate public funding for the following public facilities and services, if feasible:*

- *Transportation infrastructure*

RESPONSE: The City does not have funding to complete large infrastructure projects at these intersections to fully alleviate congestion. Thus, the Advisory Groups evaluated various alternatives, considering the costs and benefits of each. The proposed project for HWY 213 and Beaver Creek is estimated to cost \$2.7M, which is achievable with the City's current and project resources.

**Goal 11.6 Transportation Infrastructure**

*Optimize the City's investment in transportation infrastructure.*

*Policy 11.6.1*

*Make investments to accommodate multi-modal traffic as much as possible to include bike lanes, bus turnouts and shelters, sidewalks, etc., especially on major and minor arterial roads, and in regional and employment centers.*

**Goal 12.1 Land Use-Transportation Connection**

*Ensure that the mutually supportive nature of land use and transportation is recognized in planning for the future of Oregon City.*

*Policy 12.1.1 - Maintain and enhance citywide transportation functionality by emphasizing multi-modal travel options for all types of land uses.*

**Goal 12.3 Multi-Modal Travel Options**

*Develop and maintain a transportation system that provides and encourages a variety of multi-modal travel options to meet the mobility needs of all Oregon City residents.*

*Policy 12.3.1 - Provide an interconnected and accessible street system that minimizes vehicle miles traveled and inappropriate neighborhood cut through traffic.*

*Policy 12.3.2 - Provide an interconnected and accessible pedestrian system that links residential areas with major pedestrian generators such as employment centers, public facilities, and recreational areas.*

*Policy 12.3.3 - Provide a well-defined and accessible bicycle network that links residential areas, major bicycle generators, employment centers, recreational areas, and the arterial and collector roadway network.*

*Policy 12.3.4 - Ensure the adequacy of pedestrian and bicycle connections to local, county, and regional trails.*

*Policy 12.3.5 - Promote and encourage a public transit system that ensures efficient accessibility, mobility, and interconnectivity between travel modes for all residents of Oregon City.*

*Policy 12.3.6 - Establish a truck route network that ensures efficient access and mobility to commercial and industrial areas while minimizing adverse residential impacts.*

*Policy 12.3.8 - Ensure that the multi-modal transportation system preserves, protects, and supports the environmental integrity of the Oregon City community.*

*Policy 12.3.9 - Ensure that the city's transportation system is coordinated with regional transportation facility plans and policies of partnering and affected agencies.*

RESPONSE: Beaver Creek Rd currently includes bicycle lanes and sidewalks, except for a gap between Maple Lane Road and the Coltrane pedestrian path. This proposal includes an additional TSP project to fill the sidewalk gap in the project area on Beaver Creek Road. Highway 213 does not include bicycle and pedestrian infrastructure as a state highway.

Safety improvements identified by the City for further investigation, or to be included as part of future projects in the area include:

- Install intersection enhancements including potential raised crosswalks, bike lane striping continuation, ladder-style crosswalks, and lane narrowing.
- Add wayfinding signage for people walking and biking.
- Enhance bike lanes on Beaver Creek Road with additional markings and green striping in transition areas.
- Add buffers to bike lanes on Beaver Creek Road where feasible.
- Add ADA curb ramps in the OR213/Beaver Creek Road area where missing.
- Add pedestrian facilities to Maple Lane Road between Beaver Creek Road and Thayer Road.
- Add transit stop amenities to existing stops in the area.

These projects will contribute to the multi-modal goals of the Oregon City transportation system.

### **Goal 12.5 Safety**

#### ***Develop and maintain a transportation system that is safe.***

*Policy 12.5.1 -Identify improvements that are needed to increase the safety of the transportation system for all users.*

*Policy 12.5.2 -Identify and implement ways to minimize conflict points between different modes of travel.*

*Policy 12.5.3 -Improve the safety of vehicular, rail, bicycle, and pedestrian crossings.*

RESPONSE: The OR213/Beaver Creek Road intersection was identified in the 2013 TSP as a high collision intersection. The intersection was in the top 5% of the ODOT Safety Priority Index System (SPIS) List for the years

2012-2014. The SPIS List is maintained by ODOT and updated each year with the latest available year of crash records and traffic volumes. 2012-2014 is the most current SPIS list. The intersection also has a crash rate that exceeds the Critical Crash Rate meaning that it exceeds the crash rate of other comparable intersections.

As shown in the final report, the most predominant crash type at the OR213/Beaver Creek Road intersection is rear-end crashes. Beaver Creek Road is the first at-grade intersection on OR213 for over two miles south of Redland Road, in a corridor that generally feels rural. A lack of driver expectation of southbound queues from the signal may contribute to the high number of reported rear-end crashes at the intersection. The reported fatality occurred in 2011, and was an angle crash in which the driver ran a red light under dark and rainy conditions. The 2010-2014 crash rate of 1.20 is already lower than the crash rate of 2.05 identified in the 2013 TSP, indicating that safety and/or driver attentiveness have improved in recent years. Lengthening the dual eastbound left-turn lanes to provide additional storage (Project D27; funded) and an advanced queue warning system on southbound 213 will further improve safety at the intersection.

As shown in Tables 11 and 12, the planned TSP and proposed improvements will reduce the number of expected annual crashes at the OR213/Beaver Creek Road and OR213/Redland Road intersections. The potential financially feasible improvements at OR213/Beaver Creek Road are predicted to reduce crashes

at the intersection by almost 5%, and planned improvements at OR213/Redland Road are predicted to reduce crashes by more than 10%.

**Goal 12.6 Capacity**

**Develop and maintain a transportation system that has enough capacity to meet users' needs.**

*Policy 12.6.1 - Provide a transportation system that serves existing and projected travel demand.*

*Policy 12.6.2 - Identify transportation system improvements that mitigate existing and projected areas of congestion.*

*Policy 12.6.3 - Ensure the adequacy of travel mode options and travel routes (parallel systems) in areas of congestion.*

*Policy 12.6.4 - Identify and prioritize improved connectivity throughout the city street system.*

RESPONSE: The analysis in Tables 13 and 14 shows that, without improvements, the OR213/Beavercreek Road and OR213/Redland Road intersections will exceed current mobility targets in 2040 (shown in red). With potentially financially feasible improvements in place (i.e. a westbound right-turn merge lane at OR213/Beavercreek), the intersections will still exceed the existing mobility targets under 30<sup>th</sup> highest hour traffic conditions. Therefore, it is recommended that alternative mobility targets be based on average annual conditions, allowing the v/c ratio to exceed 0.99 for one hour per day at the OR213/Beavercreek Road intersection (upper limit of 1.0) and three hours per day at the OR213/Redland Road intersection (upper limit of 1.1).

**Goal 12.8 Implementation/Funding**

**Identify and implement needed transportation system improvements using available funding.**

*Policy 12.8.1 - Maximize the efficiency of the Oregon City transportation system, thus minimizing the required financial investment in transportation improvements, without adversely impacting neighboring jurisdictions and facilities.*

RESPONSE: The cost of adding an additional northbound and southbound through lane at OR213/Redland Road, consistent with TSP project D79, was recently estimated by OBEC to be almost \$10 million.

The cost of the westbound right-turn merge lane at OR213/Beavercreek Road is estimated to be approximately \$2.7 million based on the design shown in Figure 2. This estimate does not include right-of-way acquisition.

The KAI and OBEC cost estimates, as well as exhibits of the proposed financially feasible improvements at OR213/Beavercreek Road can be found in Appendix "G".

**CONSISTENCY WITH STATEWIDE PLANNING GOALS**

**STATEWIDE PLANNING GOAL 1:**

*To develop a citizen involvement program that insures the opportunity for citizens to be involved in all phases of the planning process.*

See responses above.

**STATEWIDE PLANNING GOAL 5:**

To protect natural resources and conserve scenic and historic areas and open spaces.

RESPONSE: No scenic, historic areas, or open spaces are identified in the project area. Natural resources include Newell Creek. The proposed changes avoid creek and wetland impacts.

**STATEWIDE PLANNING GOAL 6:**

*To maintain and improve the quality of the air, water and land resources of the state.*

See responses above.

**STATEWIDE PLANNING GOAL 9:**

*To provide adequate opportunities throughout the state for a variety of economic activities vital to the health, welfare, and prosperity of Oregon's citizens.*

RESPONSE: The adoption of these standards will allow the City to approve new development in the area that contributes to economic vitality.

**STATEWIDE PLANNING GOAL 11:**

*To plan and develop a timely, orderly and efficient arrangement of public facilities and services to serve as a framework for urban and rural development.*

RESPONSE: The proposal includes upgrades to public facilities that balances costs, environmental impacts, livability, safety, and traffic congestion.

**STATEWIDE PLANNING GOAL 12:**

*To provide and encourage a safe, convenient and economic transportation system.*

RESPONSE: The proposal will result in fewer crashes and will increase the capacity of the intersection.

**Oregon Transportation Plan (2006)**

*The Oregon Transportation Plan (OTP) is the state's long-range multimodal transportation plan. The OTP is the overarching policy document among a series of plans that together form the state transportation system plan (TSP). A TSP must be consistent with applicable OTP goals and policies. Findings of compatibility will be part of the basis for TSP approval. The most pertinent OTP goals and policies for city transportation system planning are provided below.*

**POLICY 1.2 – Equity, Efficiency and Travel Choices**

*It is the policy of the State of Oregon to promote a transportation system with multiple travel choices that are easy to use, reliable, cost-effective and accessible to all potential users, including the transportation disadvantaged.*

**POLICY 2.1 - Capacity and Operational Efficiency**

It is the policy of the State of Oregon to manage the transportation system to improve its capacity and operational efficiency for the long term benefit of people and goods movement.

**POLICY 2.2 – Management of Assets**

*It is the policy of the State of Oregon to manage transportation assets to extend their life and reduce maintenance costs.*

**POLICY 3.1 – An Integrated and Efficient Freight System**

*It is the policy of the State of Oregon to promote an integrated, efficient and reliable freight system involving air, barges, pipelines, rail, ships and trucks to provide Oregon a competitive advantage by moving goods faster and more reliably to regional, national and international markets.*

**POLICY 3.2 – Moving People to Support Economic Vitality**

*It is the policy of the State of Oregon to develop an integrated system of transportation facilities, services and information so that intrastate, interstate and international travelers can travel easily for business and recreation.*

**POLICY 4.1 - Environmentally Responsible Transportation System**

*It is the policy of the State of Oregon to provide a transportation system that is environmentally responsible and encourages conservation and protection of natural resources.*

**POLICY 5.1 – Safety**

*It is the policy of the State of Oregon to continually improve the safety and security of all modes and transportation facilities for system users including operators, passengers, pedestrians, recipients of goods and services, and property owners.*

**POLICY 7.1 – A Coordinated Transportation System**

*It is the policy of the State of Oregon to work collaboratively with other jurisdictions and agencies with the objective of removing barriers so the transportation system can function as one system.*

**POLICY 7.3 – Public Involvement and Consultation**

*It is the policy of the State of Oregon to involve Oregonians to the fullest practical extent in transportation planning and implementation in order to deliver a transportation system that meets the diverse needs of the state.*

**POLICY 7.4 – Environmental Justice**

*It is the policy of the State of Oregon to provide all Oregonians, regardless of race, culture or income, equal access to transportation decision-making so all Oregonians may fairly share in benefits and burdens and enjoy the same degree of protection from disproportionate adverse impacts.*

RESPONSE: The proposal was developed with Advisory Groups including multiple ODOT staff. The proposal will go before the Oregon Transportation Commission for final approval.

**Oregon Highway Plan**

*The 1999 Oregon Highway Plan (OHP) establishes policies and investment strategies for Oregon’s state highway system over a 20-year period and refines the goals and policies found in the OTP. Policies in the OHP emphasize the efficient management of the highway system to increase safety and to extend highway capacity, partnerships with other agencies and local governments, and the use of new techniques to improve road safety and capacity. These policies also link land use and transportation, set standards for highway performance and access management, and emphasize the relationship between state highways and local road, bicycle, pedestrian, transit, rail, and air systems. The policies applicable to the Oregon City TSP are addressed below.*

**Policy 1A (Highway Classification)** defines the function of state highways to serve different types of traffic that should be incorporated into and specified through IAMPs.

**Policy 1C (State Highway Freight System)** states the need to balance the movement of goods and services with other uses.

**Policy 1B (Land Use and Transportation)** recognizes the need for coordination between state and local jurisdictions.

**Policy 1F (Highway Mobility Standards)** sets mobility standards for ensuring a reliable and acceptable level of mobility on the highway system by identifying necessary improvements that would allow the interchange to function in a manner consistent with OHP mobility standards.

**Policy 1G** (*Major Improvements*) requires maintaining performance and improving safety by improving efficiency and management before adding capacity. ODOT works with regional and local governments to address highway performance and safety.

**Policy 2F** (*Traffic Safety*) improves the safety of the highway system.

RESPONSE: The OHP Policy 1F establishes mobility targets (as defined by motorized vehicle volume-to-capacity ratios) for state facilities that vary by region, facility classification, and whether or not the roadway is located inside an urban growth boundary (UGB). It states, "It is the policy of the State of Oregon to maintain acceptable and reliable levels of mobility on the state highway system, consistent with expectation for each facility type, location and functional objectives. Highway mobility targets will be the initial tool to identify deficiencies and consider solutions for vehicular mobility on the state system.

Specifically, mobility targets shall be used for:

- Identifying state highway mobility performance expectations for planning and plan implementation;
- Evaluating the impacts on state highways of amendments to transportation plans, acknowledged comprehensive plans and land use regulations pursuant to the Transportation Planning Rule (OAR 660-12-0060); and
- Guiding operations decisions such as managing access and traffic control systems to maintain acceptable highway performance."

The OHP Policy 1F allows for development of alternative mobility targets in areas where it is "infeasible or impractical to meet the mobility targets". The policy allows for the use of alternative mobility targets to "balance overall transportation system efficiency with multiple objectives of the area being addressed." It requires that targets "shall be clear and objective and shall provide standardized procedures to ensure consistent application of the selected measure. The alternative mobility target(s) shall be adopted by the Oregon Transportation Commission as an amendment to the OHP." The OHP currently includes alternative mobility targets in many locations throughout the State; however, none have been adopted within the Portland Metro area to date.

#### **OAR 660 Division 12 Transportation Planning Rule (TPR)**

*The purpose of the TPR is "to implement Statewide Planning Goal 12 (Transportation) and promote the development of safe, convenient and economic transportation systems that are designed to reduce reliance on the automobile so that the air pollution, traffic and other livability problems faced by urban areas in other parts of the country might be avoided." A major purpose of the Transportation Planning Rule (TPR) is to promote more careful coordination of land use and transportation planning, to ensure that planned land uses are supported by and consistent with planned transportation facilities and improvements.*

RESPONSE: Mobility targets for state highways, as established in this policy or as otherwise adopted by the Oregon Transportation Commission (OTC) as alternative mobility targets, are considered the highway system performance standards in compliance with the Transportation Planning Rule (TPR) (OAR 660-012), including applicability for actions that fall under Section -0060 of the TPR.

The TPR Section -0060 applies when cities or counties are considering zone changes or plan amendments that would allow for additional development that would significantly impact or worsen the performance of existing or planned transportation facilities. Currently, significant impacts are found to exist when levels of automobile traffic cause roadway facilities to exceed motorized vehicle standards, such as mobility targets. If there is a significant impact, jurisdictions are required to “ensure that allowed land uses are consistent with the identified function, capacity, and performance standards of the facility measured at the end of the planning period identified in the adopted Transportation System Plan.”

**Regional Transportation Plan**

*The Regional Transportation Functional Plan (RTFP) directs how Oregon City should implement the RTP through the TSP and other land use regulations. The RTFP codifies existing and new requirements which local plans must comply with to be consistent with the RTP. If a TSP is consistent with the RTFP, Metro will find it to be consistent with the RTP.*

RESPONSE: The RTP includes a project in the area for Southbound OR 213 Advanced Warning System. This project is retained in the existing proposal.