



**Metro**

600 NE Grand Ave.  
Portland, OR 97232-2736

# Agenda

Meeting: Transportation Policy  
Alternatives Committee (TPAC) and Metro Technical Advisory Committee (MTAC)  
Workshop

Date: Wednesday, October 21, 2020

Time: 10:00 a.m. to noon

Place: Zoom virtual meeting

Click the link to join the meeting:

<https://us02web.zoom.us/j/86175275243?pwd=bitQaXVhcFQrQVEyZ2lDdzF6TitYUT09>

Passcode: 346064

Phone: 877 853 5257 (toll free)

## AGENDA

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<b>10:00 AM</b>	<b>1.</b>	<b>Introductions and Workshop Purpose</b>	<b>Tom Kloster, Chair</b>
<b>10:15 AM</b>	<b>2.</b>	<b>Metro/ODOT Regional Mobility Policy Update</b> <ul style="list-style-type: none"> <li>• Review of project goals, objectives and timeline</li> </ul>	<b>Kim Ellis, Metro</b> <b>Lidwien Rahman, ODOT</b>
<b>10:20 AM</b>	<b>3.</b>	<b>Existing State and Regional Policy Framework</b> <ul style="list-style-type: none"> <li>• Overview of the existing state and regional policy framework, mobility policy terms and definitions and how measures relate/are used and RTP policy priorities (equity, safety, climate and congestion)</li> </ul> <p><b>Discussion:</b></p> <ul style="list-style-type: none"> <li>• What questions do you have about the existing policy framework?</li> </ul>	<b>Kim Ellis, Metro</b> <b>Lidwien Rahman, ODOT</b>
<b>10:40 AM</b>	<b>4.</b>	<b>Research on Examples of Current Approaches in the Portland Region</b> <ul style="list-style-type: none"> <li>• Overview of the examples (location map, research objectives and process)</li> <li>• Report initial findings on how the current volume/capacity ratio measure is being used for system planning, plan amendments and development review</li> <li>• Discuss considerations identified for updating the policy</li> </ul> <p><b>Discussion:</b></p> <ul style="list-style-type: none"> <li>• Do these initial findings resonate with you? Any surprises? Anything missing based on your experience?</li> <li>• Are there other considerations that are important for the team to study?</li> </ul>	<b>Judith Gray, Fehr &amp; Peers</b> <b>Susie Wright, Kittelson Associates</b>
<b>11:10 AM</b>	<b>5.</b>	<b>5 minute break</b>	

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|-----------------|-----------|---|---|
| <b>11:15 AM</b> | <b>6.</b> | <p><b>Potential Elements of the Updated Regional Mobility Policy</b></p> <ul style="list-style-type: none"> <li>• Overview of past stakeholder input on mobility needs and priorities</li> <li>• Definitions of mobility: Where? For whom? When? How?</li> <li>• Other policies related to mobility</li> </ul> <p><b>Discussion:</b></p> <ul style="list-style-type: none"> <li>• Considering the potential mobility policy elements: <ul style="list-style-type: none"> <li>○ Which potential elements are most important?</li> <li>○ Anything missing?</li> </ul> </li> </ul>   | <p><b>Molly Cooney-Mesker,<br/>Metro</b></p> <p><b>Susie Wright,<br/>Kittelson Associates</b></p> |
| <b>11:35 AM</b> | <b>7.</b> | <p><b>Introduction to Draft Evaluation Framework for Selecting and Testing Potential Mobility Performance Measures</b></p> <ul style="list-style-type: none"> <li>• Overview of the draft evaluation framework</li> <li>• Introduce <u>screening criteria</u> to select performance measures for testing</li> <li>• Introduce <u>evaluation criteria</u> to apply to performance measures selected for testing through case studies</li> </ul> <p><b>Discussion:</b></p> <ul style="list-style-type: none"> <li>• For the screening criteria and the evaluation criteria: <ul style="list-style-type: none"> <li>○ Which criteria are most important?</li> <li>○ Anything missing?</li> </ul> </li> </ul> | <p><b>Susie Wright,<br/>Kittelson Associates</b></p>  |
| <b>11:55 AM</b> | <b>8.</b> | <p><b>Next Steps</b></p> <ul style="list-style-type: none"> <li>• Send additional feedback via email to Kim Ellis (Metro) and Lidwien Rahman (ODOT)</li> <li>• TPAC/MTAC workshop (Dec. 16, 10-noon)<br/><i>Draft Agenda:</i><br/>Discuss and provide input on: <ul style="list-style-type: none"> <li>▪ key mobility policy elements to be included</li> <li>▪ performance measures to test</li> <li>▪ evaluation criteria for testing potential measures</li> <li>▪ case study locations</li> </ul> </li> </ul>   | <p><b>Kim Ellis, Metro</b></p> <p><b>Lidwien Rahman,<br/>ODOT</b></p>                             |
| <b>12:00 PM</b> | <b>9.</b> | <p><b>Adjourn</b></p>   | <p><b>Tom Kloster, Chair</b></p>  |

**Next TPAC Meeting: November 6, 2020**  
**Next MTAC Meeting: November 18, 2020**  
**Next TPAC/MTAC Workshop Meeting: December 16, 2020**

To check on meeting cancellation, call 503-797-1766 or email [marie.miller@oregonmetro.gov](mailto:marie.miller@oregonmetro.gov)

**Agenda Item 2**  
Metro/ODOT Regional Mobility Policy Update

# Memo

Date: October 14, 2020

To: Transportation Policy Alternatives Committee (TPAC), Metro Technical Advisory Committee (MTAC) and Interested Parties

From: Kim Ellis, Metro Project Manager  
Lidwien Rahman, ODOT Project Manager

Subject: Metro/ODOT Regional Mobility Policy Update: Status Report

## PURPOSE

This memo provides an update on the timeline and process for updating the regional mobility policy for the Portland metropolitan area.

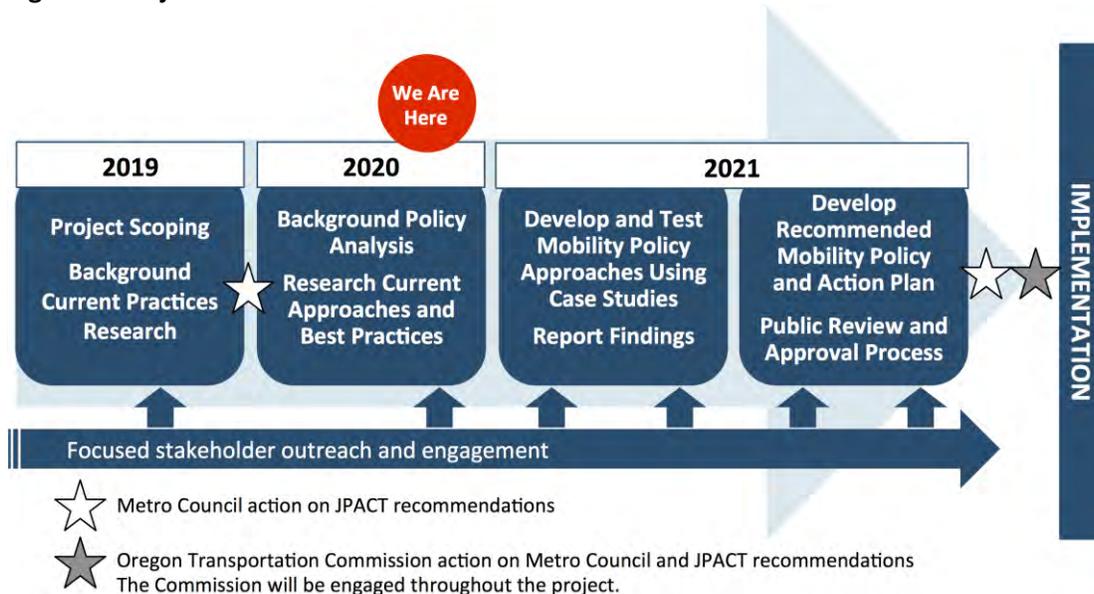
## PROJECT BACKGROUND

Metro and the Oregon Department of Transportation (ODOT) are working together to update the policy on how we define and measure mobility in the Regional Transportation Plan (RTP) and local transportation system plans (TSPs) and during the local comprehensive plan amendment process in the Portland area.

The current “interim” 20-year old mobility policy is contained in both the [Regional Transportation Plan](#) (RTP) and Policy 1F (Highway Mobility Policy) of the [Oregon Highway Plan](#) (OHP). The policy has been used to evaluate current and future performance of the motor vehicle network, using the ratio of motor vehicle volume to motor vehicle capacity (also known as the v/c ratio) of a given roadway during peak travel periods.

The process to update the regional mobility policy began in 2019 and will continue through fall 2021, resulting in policy recommendations to the Joint Policy Advisory Committee on Transportation (JPACT), the Metro Council and the Oregon Transportation Commission (OTC) as shown in **Figure 1**.

**Figure 1. Project Timeline**



JPACT and the Metro Council approved the project work plan and engagement plan for this effort in November and December 2019, respectively. **Attachment 1** contains the project purpose and objectives from the adopted work plan for reference. **Attachment 2** contains a background [factsheet about the project](#).

## 2020 ACTIVITIES AND PRODUCTS

Since January, several activities have been completed or are in progress that will serve as foundational resources that inform the project:

- **Consultant Selection Process.** From January to July, Metro and ODOT finalized an Intergovernmental Agreement (IGA) and completed the consultant selection process. Led by Kittelson and Associates, the selected consultant team also includes land use and transportation planners, engineers, attorneys and engagement specialists from several firms, including Fehr and Peers, Angelo Planning Group, Equitable Cities LLC, Bateman Seidel and JLA Public Involvement.
- **[Portland State University's Synthesis Research on Current Measures and Tools](#).** From late Fall 2019 to June 2020, the Transportation Research and Education Center (TREC)/Portland State University documented current mobility-related performance measures and methods being used in the Portland region, statewide and nationally. The report reviews the existing mobility policy and summarizes current practices in measuring multimodal mobility. Intended to serve as a starting point, key findings from this work include:
  - There is no single definition of mobility throughout the transportation industry. The definition of mobility and the types of measures, methods and thresholds chosen will have significant impacts on the outcomes.
  - A variety of measures and methods are available to consider that are already used locally, regionally and by ODOT; no single measure emerged that could clearly apply to all applications (e.g., system planning, plan amendments, development review, design and management/operations).
  - There is a need to consider measures that can show progress toward multiple RTP goals, including accessibility, system completeness, reliability and vehicle miles traveled.
  - Methods and thresholds should be well-documented and based on substantial evidence (e.g., academic/scientific research).
  - Existing data and tools cannot account for all the things we want to account for – particularly pedestrian travel and transportation demand management. The updated policy, measures and methods will drive future data collection and analysis tool development/refinement.
  - It is important that legal, planning, development review and engineering practitioners be engaged throughout the process and especially around how the policy gets implemented.
- **[ODOT Oregon Highway Plan Mobility Policy White Paper](#).** In August, ODOT prepared a complementary white paper documenting the history and current use of the mobility policy statewide as well as considerations and potential approaches for updating the policy. The white paper includes a summary of stakeholder interviews. A factsheet summarizing [key findings from the white paper](#) is provided in **Attachment 3**.
- **Research on Examples of Current Approaches in the Portland Area.** From late May to mid-July 2020, the project team worked with individual cities and counties and county coordinating committees technical advisory committees (TACs) to identify “real life” examples of how the current mobility policy has been applied in the Portland region – in transportation system plans (TSPs), a corridor plan, several comprehensive plan amendments, local development review proposals with a transportation impact analysis and project design. The selected examples cover a

range of state and regional transportation facilities (e.g., throughways<sup>1</sup> and state- and locally-owned arterials, including state and regional freight routes and enhanced transit corridors), 2040 land use contexts, geographies and availability of travel options. The research identifies strengths and weaknesses of the current v/c measure and policy to be addressed with the updated mobility policy for the Portland area. The findings will be documented in a technical memo and series of factsheets that will be published on the [project website](#) when available. The examples will provide a starting point for selecting 4 to 6 case studies to test potential measures and updated policy approaches next year.

*At the Oct. 21 TPAC/MTAC workshop, the project team will present and seek feedback on the initial findings and considerations for updating the policy and three sample factsheets. The information presented will be further refined and updated to address feedback received in advance of the December workshop.*

- **Additional Research on State and Regional Policy Framework, Past Stakeholder Input on Mobility, Evaluation Criteria and Potential Policy Approaches.** In August, the project team started reviewing existing state and regional policy documents and past stakeholder input from the 2018 Regional Transportation Plan update, development of the Get Moving 2020 funding measure and the [Scoping Engagement Process](#) for this effort. This work will further inform and help guide potential policy approaches and measures to test next year. The project team also began developing an evaluation framework that includes draft screening criteria for selecting performance measures to test and draft evaluation criteria for evaluating the performance measures selected for testing through case studies.

*At the Oct. 21 TPAC/MTAC workshop, the project team will present an overview of the policy framework and past stakeholder input related to mobility needs and priorities, and seek feedback on potential mobility elements and policy approaches to included in the update mobility policy and the draft evaluation framework. The information presented will be further refined and updated to address feedback received in advance of the December workshop.*

## NEXT STEPS

**Attachment 4** provides a high-level schedule of tasks and engagement calendar for reference. A more detailed schedule will be developed this fall.

Anticipated next steps include:

- **Fall 2020** – Findings from the background research will be reported to the Transportation Policy Alternatives Committee (TPAC) and Metro Technical Advisory Committee (MTAC) at two joint workshops scheduled for October 21 and December 16. The workshops will seek input on: (1) findings and considerations from the examples of current approaches, (2) what policy elements and desired outcomes should be included in an updated mobility policy, (3) how mobility performance measures should be selected for testing and (4) considerations and potential measures and approaches for updating the policy.
- **Winter 2021** – Policymakers and stakeholders identified in the [project engagement plan](#) will have opportunities to discuss the research findings and weigh-in on the definition of mobility, measures that should be considered and potential policy approaches and measures to test through case studies.
- **Winter to Spring 2021** – The project team will test potential measures and policy approaches through case studies and report findings.
- **Spring to Summer 2021** – The project team will work with policymakers and stakeholders to draft an updated mobility policy and implementation plan for further review and refinement.

<sup>1</sup> Throughways are designated in the 2018 RTP and generally correspond to Expressways designated in the OHP.

- **Summer to Fall 2021** – Public review and refinement of draft updated mobility policy and implementation plan.

Final policy recommendations will go to JPACT, the Metro Council and the OTC. The updated regional policy will be applied and incorporated in the next update to the Regional Transportation Plan, due in 2023, and incorporated in the highway mobility policy (Policy 1F) in the Oregon Highway Plan, pending approval by JPACT, the Metro Council and the OTC.

/attachments

1. Project Purpose and Objectives
2. Project Factsheet
3. ODOT Oregon Highway Plan Mobility Policy White Paper Key Findings Factsheet
4. Project Schedule of Tasks and Engagement Calendar



## Metro/ODOT Regional Mobility Policy Update

### Project purpose and objectives

*(as identified in work plan approved by JPACT and the Metro Council in 2019)*

July 24, 2020

#### Project purpose

The purpose of this project is to:

- Update the regional transportation policy on how the Portland area defines and measures mobility for people and goods to better align how performance and adequacy of the transportation system is measured with broader local, regional and state goals and policies.
- Recommend amendments to the Regional Transportation Plan and Policy 1F of the Oregon Highway Plan (Table 7 and related policies for the state-owned facilities in the Portland metropolitan planning area boundary).

The updated policy will be considered for approval by the Joint Policy Advisory Committee on Transportation (JPACT) and the Metro Council as an amendment to the Regional Transportation Plan (RTP) as part of the next RTP update (due in 2023). The updated policy for state owned facilities will be considered for approval by the Oregon Transportation Commission (OTC) as an amendment to Policy 1F of the Oregon Highway Plan.

The updated policy will be applied within the Portland area metropolitan planning area boundary and guide the development of regional and local transportation system plans and the evaluation of the potential impacts of plan amendments and zoning changes on the transportation system as required by Section 0060 of the Transportation Planning Rule (TPR). In addition, the updated policy will provide a foundation for recommending future implementation actions needed to align local, regional and state codes, standards, guidelines and best practices with the new policy, particularly as it relates to mitigating development impacts and managing, operating and designing roads.

#### Project objectives

The 2018 RTP is built around four key priorities of advancing equity, mitigating climate change, improving safety and managing congestion. The plan recognizes that our growing and changing region needs an updated mobility policy to better align how we measure the performance and adequacy of the transportation system for both people and goods. The comprehensive set of shared regional values, goals and related desired outcomes identified in the 2018 RTP and 2040 Growth Concept, as well as local and state goals will provide overall guidance to this work.

The following project objectives will direct the development of the updated mobility policy that meets these broad desired outcomes for the Portland metropolitan region.

The project will amend the RTP and Policy 1F of the OHP to:

1. Advance the region's desired outcomes and local, regional and state efforts to implement the 2040 Growth Concept and 2018 RTP policy goals for advancing equity, mitigating climate change, improving safety and managing congestion.
2. Support implementation of the region's Climate Smart Strategy, the Statewide Transportation Strategy for Reducing Greenhouse Gas Emissions and related policies.

3. Provide a clear policy basis for management of and investment in the throughway<sup>1</sup> and arterial system to better manage growing motor vehicle congestion in the region in order to maintain interstate and statewide mobility on the throughway system while providing for intra-regional mobility and access by transit, freight and other modes of travel on the arterial roadway system and other modal networks.
4. Develop a holistic alternative mobility policy and associated measures, targets, and methods for the Portland region that focuses on system completeness for all modes and system and demand management activities to serve planned land uses. The updated policy will:
  - a. Clearly and transparently define and communicate mobility expectations for multiple modes, users and time periods, and provide clear targets for local, regional and state decision-making.
  - b. Provide mobility equitably and help eliminate disparities historically marginalized communities<sup>2</sup> face in meeting their travel needs.
  - c. Address all modes of transportation in the context of planned land uses.
  - d. Be innovative and advance state of the art practices related to measuring multimodal mobility.
  - e. Use transportation system and demand management to support meeting mobility needs.
  - f. Help decision-makers make decisions that advance multiple policy objectives.
  - g. Address the diverse mobility needs of both people and goods movement.
  - h. Balance mobility objectives with other adopted state, regional and community policy objectives, especially policy objectives for land use, affordable housing, safety, equity, climate change and economic prosperity.<sup>3</sup>
  - i. Distinguish between throughway and arterial performance and take into account both state and regional functional classifications for all modes and planned land uses.
  - j. Evaluate system completeness and facility performance for all modes to serve planned land uses as well as potential financial, environmental, greenhouse gas and community impacts of the policy, including impacts of the policy on traditionally underserved communities and public health.
  - k. Recognize that mobility into and through the Portland region affects both residents across the region and users across the state, from freight and economic perspectives, as well as access to health care, universities, entertainment and other destinations of regional and statewide importance.
  - l. Be financially achievable.
  - m. Be broadly understood and supported by federal, state, regional and local governments, practitioners and other stakeholders and decision-makers, including JPACT, the Metro Council and the Oregon Transportation Commission.
  - n. Be legally defensible for implementing jurisdictions.
  - o. Be applicable and useful at the system plan, mobility corridor and plan amendment scales.

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<sup>1</sup> Throughways are designated in the 2018 RTP and generally correspond to Expressways designated in the OHP.

<sup>2</sup> Historically marginalized communities are defined as people of color, people who do not speak English well, low income people, youth, older adults and people living with disabilities.

<sup>3</sup> Including the Oregon Transportation Plan, state modal and topic plans including OHP Policy 1G (Major Improvements), Oregon Transportation Planning Rule, Metro 2040 Growth Concept, Metro Regional Transportation Plan, Metro Regional Transportation Functional Plan and the Metro Congestion Management Process.

### Project requirements and considerations

The project will address these requirements and considerations:

1. Comply with federal, state and regional planning and public involvement requirements, including Oregon's Statewide Planning Goals, ORS 197.180, the process set forth in OHP Policy 1F3 and associated Operational Notice PB-02.
2. Consider implications for development review and project design.
3. Consider implications for the region's federally-mandated [congestion management process](#) and related performance-based planning and monitoring activities.
4. Coordinate with and support other relevant state and regional initiatives, including planned [updates to the Oregon Transportation Plan and Oregon Highway Plan](#), the ODOT Region 1 Congestion Bottleneck and Operations Study II (CBOS II), the [ODOT I-205 Tolling Project](#), the [ODOT I-5 Tolling Project](#), [Metro Regional Congestion Pricing Study](#), the Metro [Regional Transportation System Management and Operations \(TSMO\) Strategy](#) update and the [Metro jurisdictional transfer framework](#) effort.
5. Document data, tools and methodologies for measuring mobility.
6. Provide guidance to jurisdictions on how to balance multiple policy objectives and document adequacy, i.e. consistency with the RTP and OHP, in both transportation system plans (TSPs) and plan amendments, when there are multiple measures and targets in place.
7. Recommend considerations for future local, regional and state actions outside the scope of this project to implement the new policy and to reconcile differences between the new system plan and plan amendment measures and targets and those used in development review and project design.



## Regional mobility policy update

*This joint effort between Metro and the Oregon Department of Transportation will update the way the region defines mobility and measures success.*

### **Project overview**

The purpose of this project is to update the policy defining how the region defines mobility and measures success. The updated policy will guide development of regional and local transportation plans and studies, and the evaluation of potential impacts of plan amendments and zoning changes on the transportation system.

### **What is the regional mobility policy?**

The region's mobility policy is centered on vehicle-based thresholds adopted in the Regional Transportation Plan (RTP) and Oregon Highway Plan (OHP). These thresholds are referred to as the volume-to-capacity ratio (v/c ratio).

As the primary way of measuring vehicle congestion on roads and at intersections, the current policy measures the number of motor vehicles relative to the motor vehicle capacity of a given roadway during peak weekday travel times (currently defined as being from 4 to 6 p.m.).

This measure of mobility was originally developed and used to guide the sizing and location of the Interstate System in the 1960s. Over time, the measure has been applied to all roads for different purposes.

### **Why update the policy now?**

We are a region on the move – and a region that is rapidly growing. More than a million people need to get to work, school, doctor's appointments, shopping, parks and home again each day. With a half-million more people expected to live in the Portland area by 2040, it's vital to our future to have a variety of safe, affordable and reliable options for people to get where they need to go – whether they're driving, riding a bus or train, biking, walking or moving goods.



## Key terms

**Policy:** a statement of intent and direction for achieving desired outcomes at the regional and system level.

**Measure:** a metric that is used to set targets and standards and to assess progress toward achieving the policy. The current measure for mobility is defined as a ratio of vehicle volume-to-capacity (v/c ratio).

**Target:** a specific level of performance that is desired to be achieved within a specified time period. The RTP defines v/c-based targets to implement the current mobility policy.

**Standard:** a performance threshold that is less flexible than a target. ODOT and local governments use the v/c ratio to regulate plan amendments, mitigate development impacts and determine road design requirements at a local or project level.

This project to update the Regional Transportation Plan's 20-year old "interim" mobility policy was identified in the 2018 Regional Transportation Plan (RTP) as necessary to better align the mobility policy with the comprehensive set of shared regional values, goals and desired outcomes identified in the RTP and 2040 Growth Concept, as well as with local and state goals.

There are several reasons why the time is right to begin an update to the regional mobility policy now:

- The current policy focuses solely on vehicles and does not measure mobility for people riding a bus or train, biking, walking or moving goods.
- The current policy does not reflect the fiscal capacity of ODOT and local governments to construct transportation projects necessary to meet the mobility policy. This is especially true in planned growth areas including urban growth boundary expansion areas.
- Projects that are built to the regional mobility standard may have undesirable land use, housing, air quality and environmental impacts.
- The 2018 RTP failed to meet the current policy, particularly for the region's throughway system, triggering the need to consider alternative approaches for measuring mobility and success under state law.
- ODOT will be updating the Oregon Transportation Plan and Oregon Highway Plan during the next couple of years – this project provides an opportunity for coordination and for the region to help inform those efforts.

## What are our expected outcomes?

The project's primary outcome is to recommend an updated mobility policy and associated measures and performance targets for the greater Portland region that clearly define mobility expectations for people and goods for all modes to guide local, regional and state-decision-making.

The updated policy will be applied in the next update to the RTP (due in 2023) and incorporated in the highway mobility policy (Policy 1F) in the OHP, pending approval by the Joint Policy Advisory committee on Transportation (JPACT), the Metro Council and the Oregon Transportation Commission (OTC).

The updated policy will guide development of regional and local transportation plans and studies, and the evaluation of potential impacts of plan amendments and zoning changes subject to the Transportation Planning Rule during development review.

# Current uses of the volume-to-capacity ratio



\* focus of this update

## Planning for the future

**Who:** Metro, ODOT, cities, counties and consultants.

**What:** Evaluate traffic performance of roads and intersections given current and projected population and jobs.

**When:** Updates to transportation system plans (TSPs) and development of corridor or area plans, including concept plans, using thresholds defined in the RTP, OHP and local transportation plans.

**Why:** Diagnose the extent of vehicle congestion to identify deficiencies and projects to address them, and determine consistency of the RTP with the OHP for state-owned facilities.

## Regulating plan amendments

**Who:** Cities, counties and consultants, in coordination with ODOT.

**What:** Evaluate the potential impacts of land use zoning changes on roads and intersections, including state-owned roads as required by the TPR during development review.

**When:** Amendments to land use zoning designations using thresholds defined in the OHP.

**Why:** Identify mitigation measures to address transportation impacts anticipated from a new or changed land use designation.

## Mitigating development impacts

**Who:** Cities, counties and developers.

**What:** Collect fees based on the development of or use of land or identify needed transportation project(s) in-lieu of fees.

Projects typically include expanding capacity to add new travel lanes, turn lanes and/or signals.

**When:** Development approval process using thresholds defined in local transportation plans and the OHP.

**Why:** Mitigate traffic impacts from new development.

## Managing and designing roads

**Who:** Cities, counties, ODOT and consultants.

**What:** Calculate anticipated volume-to-capacity ratio of project area using thresholds defined in the 2012 Oregon Highway Design manual.

**When:** Operations and project design, including preliminary engineering.

**What:** Inform the design of roads and intersections, such as the number of travel lanes and turn lanes, and signal operations.

## Potential new measures to be explored

The volume-to-capacity ratio has been the primary way to measure the region's mobility. Other ways to measure the health and success of the transportation system that will be explored, include:

- People and goods movement capacity and throughput
- Vehicle miles traveled
- Travel time and reliability (motor vehicles, including freight and transit)
- Transit service coverage and frequency
- Bike and pedestrian network completion
- Mode share
- Network connectivity
- Access to destinations by a variety of modes.

To sign up for project updates and learn more, visit [oregonmetro.gov/mobility](https://oregonmetro.gov/mobility)

### Project contacts:

#### Kim Ellis

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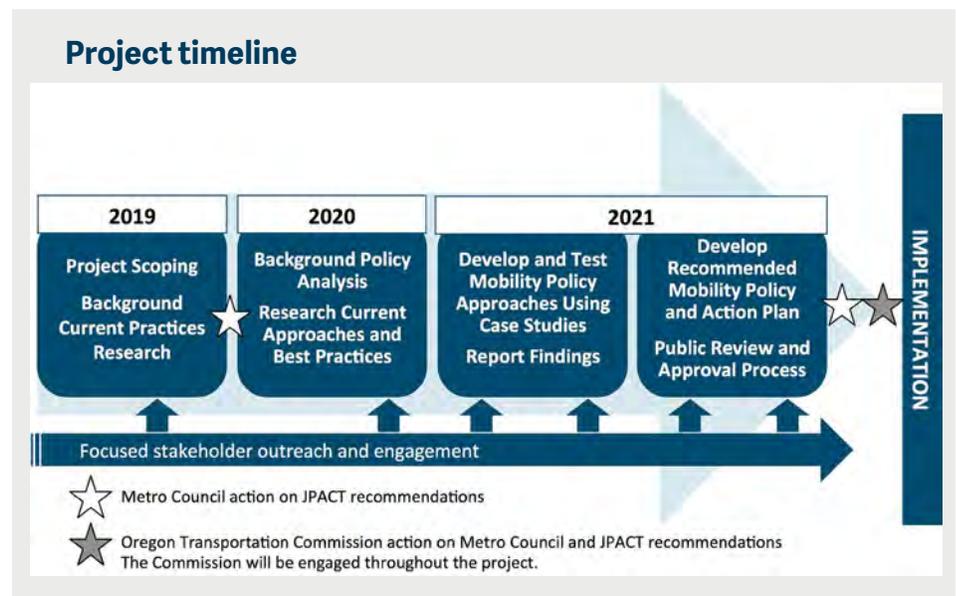
#### Lidwien Rahman

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## Where are we now? (Updated October 2020)

Metro and ODOT selected a consultant team to support the project. The Transportation Research and Education Center (TREC)/ Portland State University completed the [Regional Mobility Policy Background Report](#). The report reviews the existing mobility policy and summarizes best practices in measuring multimodal mobility. Currently, the project team is working with local partners to illustrate how the current mobility policy has been applied in the Portland region. ODOT completed a complementary [Oregon Highway Plan Mobility Policy white paper](#) documenting the history and current use of the mobility policy statewide.

The process to update the regional mobility policy started in 2019 and will continue through fall 2021.



## Next steps

### Fall 2020 - Winter 2021

Report on examples of current approaches

Identify and apply criteria to select potential mobility measures to test

### Winter 2020 - Spring 2021

Test measures with case studies and report findings

### Spring - Summer 2021

Draft policy and implementation plan

### Summer - Fall 2021

Public review and refinement

Final policy recommendations go to JPACT, the Metro Council and the Oregon Transportation Commission.

## Engagement activities

- Metro Council and JPACT briefings
- Coordinating committees' briefings
- TPAC/MTAC workshops
- Community leader forums
- Policy maker forums
- Practitioner forums
- Public comment period

## KEY FINDINGS BRIEF

# OREGON HIGHWAY PLAN MOBILITY POLICY WHITE PAPER

OREGON DEPARTMENT OF TRANSPORTATION | AUGUST 2020



## 1 OREGON'S MOBILITY POLICY

“It is the policy of the State of Oregon to maintain acceptable and reliable levels of mobility on the state highway system, consistent with the expectations 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.” —1999 Oregon Highway Plan (OHP) mobility policy

The Oregon Mobility Policy is intended to maintain acceptable and reliable levels of mobility on the state highway system, as reliable and continuous mobility is a key engine of economic opportunity and connectivity throughout the state. However, throughout the history of the mobility policy and continuing today, there have been situations where the highway mobility targets within the mobility policy have unintended outcomes. The policy states that mobility is to be measured with a vehicular volume-to-capacity ratio. This has led to stakeholder frustrations that focusing on the mobility of trucks and cars, rather than people and other modes, does not adequately reflect the current and future needs of the transportation system and surrounding community.

Over time ODOT has adapted the policy to make it more accommodating. Changes have includ-

ed clarifying that the measures are targets not standards, allowing for land use contexts where they do not apply, and providing a clearer path towards alternate targets when needed. However, it is likely that further clarity and flexibility will be needed in the future.

The purpose of this paper is to understand the history and current use of the mobility policy and develop considerations, options, and potential approaches for updating the mobility policy as part of the next OHP and Oregon Transportation Plan (OTP) updates. Such an update could define what “acceptable and reliable levels of mobility” entail and explore different measures that more holistically reflect that definition. This will help the new OHP better provide for outstanding mobility options for all people throughout the state.

# 2 | CONSIDERATIONS FOR UPDATING THE POLICY



- Stakeholder desire for a more multimodal, network-focused policy
- Best practices from other states
- ODOT's more current planning documents and other mode plans
- Comprehensive plan amendments and the TPR
- Land use context and functional classification

## SATISFYING ALL APPLICATIONS

Oregon is unique in that the current OHP mobility targets are used in a variety of applications. These include Transportation Planning Rule (TPR) compliance, development review, long-range transportation planning, and project delivery. Some of these applications are direct outcomes of legal mandates, while others are more flexible. Any changes to the policy must be able to be similarly applied to these processes and to be effective in a variety of applications.

## STAKEHOLDER FEEDBACK

Local jurisdictions, stakeholders, and community members acknowledge that the OHP mobility targets are easy to use, measure, and understand. They have also expressed concern that interaction between the TPR and OHP highway mobility targets are having unintended and undesirable consequences in their communities, such as making it difficult to increase the planned land use densities in their comprehensive plans. They are concerned that the requirements to meet v/c standards give vehicle mobility precedence over other local objectives, such as active

transportation operations and safety, compact land use planning, and economic development.

## BEST PRACTICES FROM OTHER STATES AND OTHER ODOT DOCUMENTS

Many transportation agencies around the country are using performance measures to evaluate various dimensions of mobility, focusing less on eliminating peak-hour congestion and more on improving mobility as a whole. When mobility is defined as a more robust measure than simply the absence of congestion, the strategies employed to provide the best mobility possible to all users expand, and can better be tailored to roadway function and land use context.

The Oregon Transportation Commission's Strategic Investment Plan, *A Strategic Investment in Transportation*<sup>1</sup> (2017), also helps illustrate ODOT's current goals for state highway investment. Statewide mode and topic plans are adopted as a part of the OTP and include statewide policy, requirements, and guidance related to transportation system planning. These documents help clarify mobility goals for the various modes.

<sup>1</sup> Oregon Transportation Commission. A Strategic Investment in Transportation. 2017.

# 3 | APPROACHES FOR UPDATING THE POLICY

There are a range of potential options to consider for updating, revising, or replacing the state mobility policy.

These include better reflecting multiple aspects of mobility (such as peak-hour performance, network reliability, accessibility, etc.), land use context, and a variety of modes. The descriptions below discuss benefits and drawbacks to various options but do not recommend any option over the others. For each mobility policy option shown

below, the white paper includes potential approaches to updating the mobility performance measures.

## POTENTIAL MOBILITY POLICY UPDATE OPTIONS

Mobility Policy Option	Description
<b>#1</b> No Change	Keep the mobility policy and v/c-based measures in place with no updates. ODOT could, however, recommend the targets for long-range planning only and make the process of adopting alternative mobility targets easier.
<b>#2</b> Define Mobility in the OHP Mobility Policy	Better define mobility within the OHP mobility policy. This definition could be mode-neutral or include a separate definition for each mode. The definition could also describe the different mobility needs inherent to different land use contexts and/or highway classifications.
<b>#3</b> Define Mobility in the OTP	Better define mobility within the OTP. This definition could be mode-neutral or include a separate definition for each mode. The definition could also describe the different mobility needs inherent to different land use contexts and/or highway classifications.
<b>#4</b> Define Mobility Within Various Modal Plans	Better define mobility within the various modal plans. These definitions would be tailored to the individual modes described within each plan. The definitions could also describe the different mobility needs inherent to different land use contexts and/or highway classifications.
<b>#5</b> Amend the TPR	Amend the TPR so that it no longer relies on the mobility policy to determine if a land use decision causes a significant transportation impact. Note that this would not be an ODOT action, but rather would be under Department of Land Conservation and Development purview.



## 4 | NEXT STEPS

The current OHP mobility policy does not define what “acceptable and reliable levels of mobility” entails other than stating that it is to be measured through the mobility measures housed within the policy. Applications of these measures have led to the stakeholder frustrations described and difficulty balancing mobility with other needs and goals, such as economic development, housing, and urbanization. The flexibility that has been added to the policy over time remains largely vehicle centric, is time and cost intensive, and is focused on tolerating increased congestion rather than about defining desired mobility for the land use context and highway classification.

The OHP is scheduled to be updated in the next few years and the mobility policy will be one aspect of the plan that will be reviewed and considered for an update. An updated policy should address desired mobility outcomes and define acceptable and reliable levels of mobility for the Oregon highway system more robustly and explicitly. There are several potential directions ODOT could take to update the mobility policy. The options proposed are just some of the potential approaches to create a more broad-based mobility policy. These, in turn, can lead to reconsidering the way highway mobility is measured and the factors that are considered in setting the standards.

By considering the best practices described from other agencies and heeding Oregon's unique history, land use planning approach, and uses of mobility targets, a new policy can better balance multiple needs and goals while working towards improved mobility across the state. The following are a few key questions to consider during the OHP update.

### QUESTIONS FOR THE OTP/OHP ADVISORY COMMITTEES

- How should mobility be defined for the Oregon highway system?
- What policy changes may be needed to achieve the desired mobility outcomes?
- Should additional land use context be considered in the mobility policy and if so, what are our expectations about mobility based on land use context?
- Should highway classification continue to be a factor in how we set mobility expectations for a facility and do the highway classifications need updating?
- What other factors should be considered in the mobility policy to better align the policy with our expectations about mobility?
- What mobility performance measures should be considered to better inform transportation decisions and investments from a mobility perspective?



## REGIONAL MOBILITY POLICY UPDATE



## ENGAGEMENT AND COMMUNICATIONS CALENDAR | 2020-21

Dates are subject to change; Detailed 2021 schedule to be developed in late 2020.

## 2020

Month	When	Who	What
January	1/10	TPAC	Introduce UPWP amendment (Res. No. 20-5062)
	1/16	JPACT	
February	2/7	TPAC	Recommendation to JPACT on UPWP amendment (Res. No. 20-5062)
	2/20	JPACT	Action on UPWP amendment (Res. No. 20-5062, by consent)
	2/27	Metro Council	
April	4/15	TPAC/MTAC	Report back on PSU/TREC background research
May to June	Various dates	County-level coordinating committee TACs and City of Portland staff	Seek “real life” examples that illustrate how the current policy is applied in the region
October	10/21	TPAC/MTAC	Report on RTP policies and past engagement on defining mobility,
November	11/19	JPACT	Project update
December	12/8 <i>tentative</i>	Metro Council	Project update
	12/16	TPAC/MTAC Workshop	Discuss and provide input on working definition(s) of mobility, evaluation criteria for selecting measures to test and potential mobility measures/policy approaches to test on recommended case study locations

## 2021

Month	What
January to February	Engage community leaders and other stakeholders to review and provide feedback on outcomes from TPAC and MTAC workshops in advance of policymaker briefing(s), including: practitioners’ panel/forum, community leaders’ forum and briefings to county-level coordinating committee (technical and policy-level)
	Briefings to Metro Council, Oregon Transportation Commission, JPACT, R1ACT and MPAC to discuss stakeholder feedback and recommendations on potential measures/policy approaches to test through case studies
February to April	Conduct case study analysis
April to August	Report back and discuss findings from case study analysis to: <ul style="list-style-type: none"> <li>Develop a recommended mobility policy for the RTP and proposed amendments to Policy 1F of the Oregon Highway Plan (OHP)</li> <li>Develop local, regional and state action plan to implement recommended mobility policy</li> </ul> Stakeholder engagement to include: TPAC/MTAC workshops, practitioners’/expert panel/forum, community leaders’ forum, policymaker forum, briefings to Metro Council, OTC, R1ACT, OMSC modeling subcommittee, county-level coordinating committees (technical and policy-level) and regional technical and policy committees, and participation in local and state planning conferences

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over

**2021 (continued)**

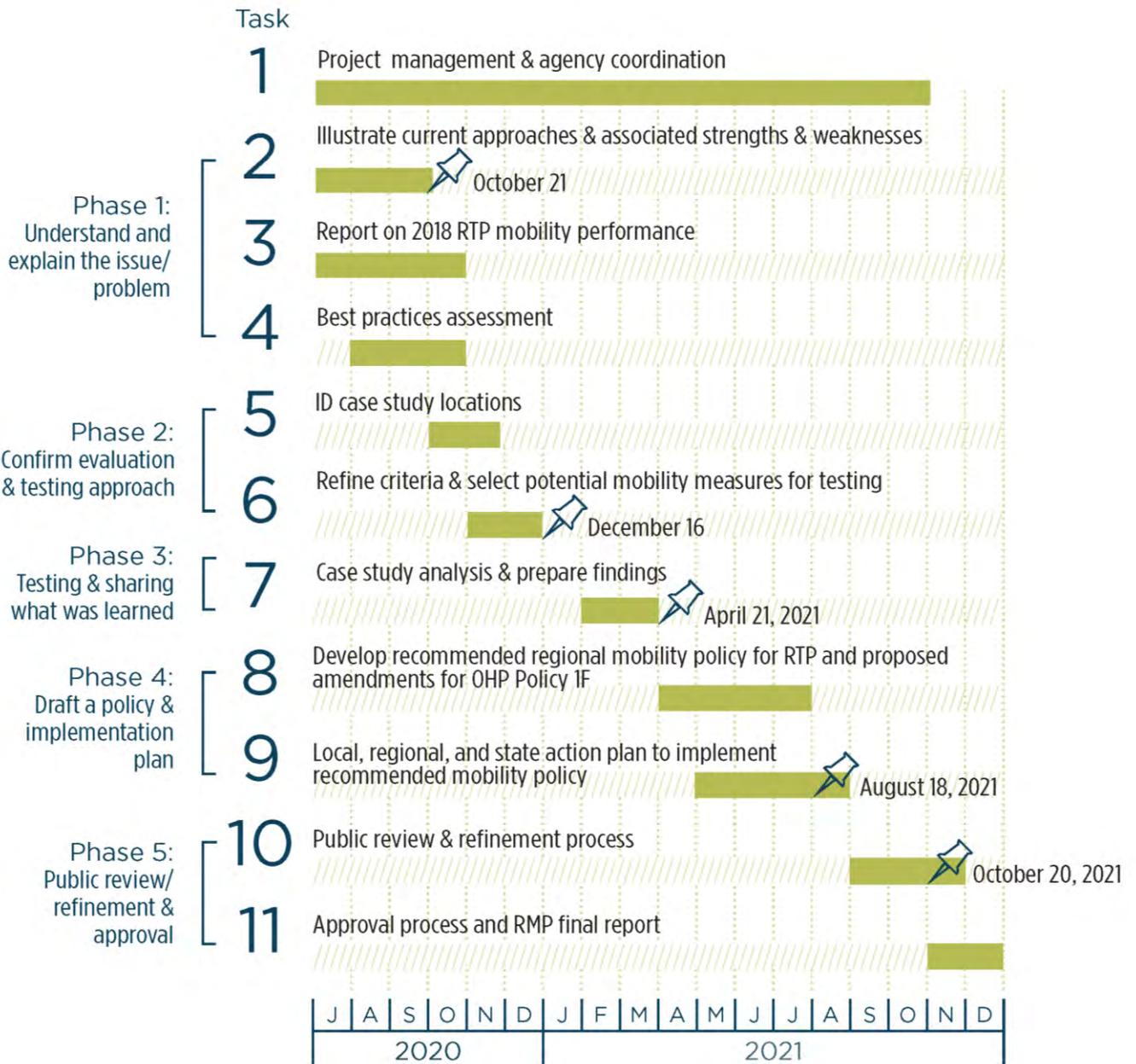
<b>Month</b>	<b>What</b>
<b>September to November</b>	Conduct public review, refinement and preliminary approval process, including: online public comment tool, public hearing(s) and briefings to Metro Council, OTC, R1ACT, county-level coordinating committees (technical and policy-level), city/county commissions and councils and regional technical and policy committees, and participation in local and state planning conferences
<b>November to December</b>	Initiate 2023 RTP update (scoping) Forward proposed amendments to Policy 1F of the Oregon Highway Plan (OHP) to the Oregon Transportation Commission for consideration



METRO/ODOT REGIONAL MOBILITY POLICY UPDATE

**Project Task Schedule**

Note: "Pins" are scheduled and potential joint MTAC/TPAC workshops. Schedule subject to refinement.



**Agenda Item 3**

Existing State and Regional Policy Framework

Supplemental handout to be provided following  
the workshop.

**Agenda Item 4**

Research on Examples of Current Approaches  
in the Portland Region

# Memo



Date: October 13, 2020

To: Kim Ellis, Metro, and Lidwien Rahman, ODOT

From: Susan Wright, Kittelson & Associates, Inc.  
 Judith Gray and Kara Hall, Fehr & Peers  
 Darci Rudzinski, Angelo Planning

Subject: Regional Mobility Policy Update, Examples of Current Applications Executive Summary

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## PURPOSE

Metro and the Oregon Department of Transportation (ODOT) are working together to update the policy on how we define and measure mobility in the Regional Transportation Plan (RTP) and local transportation system plans (TSPs) and during the local comprehensive plan amendment process in the Portland area. The current “interim” 20-year old mobility policy is contained in both the Regional Transportation Plan(RTP) and Policy 1F (Highway Mobility Policy) of the Oregon Highway Plan(OHP). The current policy is vehicle-focused and measures congestion levels using the ratio of motor vehicle volume to motor vehicle capacity (also known as the v/c ratio) during peak travel periods. Policy 1F of the OHP includes language clarifying and supporting a more comprehensive approach for to the mobility policy.

This memorandum describes the current application of the Regional Mobility Policy (RMP) based on examples from throughout the Portland region. The examples were selected to reflect different types of planning activities, and a range of land use and transportation characteristics.

This work is intended to build a shared understanding of how the v/c measure is currently applied across different planning applications in the Portland region, whether it was used to identify

needs/deficiencies, solutions, impacts, mitigation measures, or project designs as well as across different land use and transportation contexts. The research will be used to identify strengths and weaknesses of how the current v/c measure and policy are applied and considerations to be addressed with the updated regional mobility policy. The examples will provide a starting point for selecting four to six case studies to test potential measures and updated policy approaches next year.

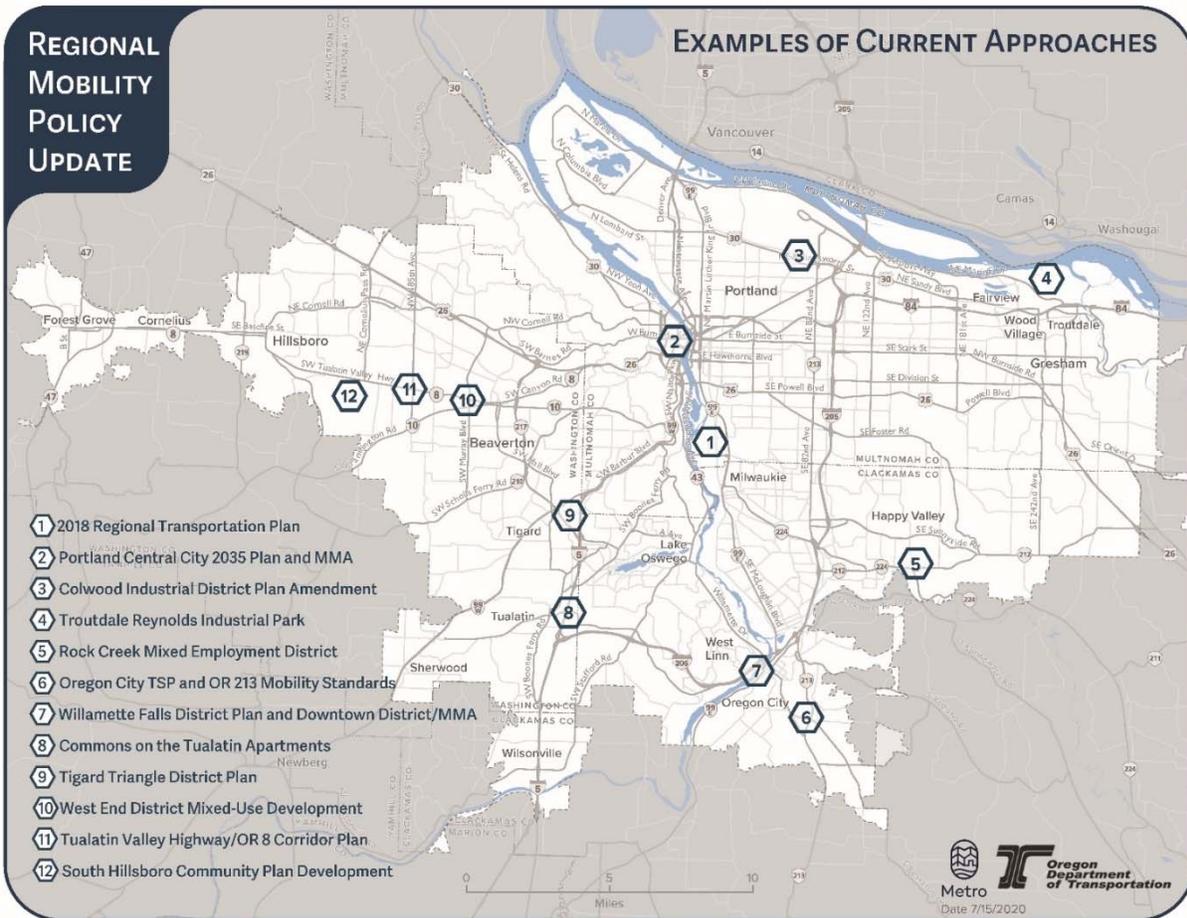
## APPROACH

From late May to mid-July 2020, the ODOT and Metro project team worked with individual cities and counties and county coordinating committee technical advisory committees (TACs) to identify an appropriate mix of examples to include in the evaluation of how the current mobility policy has been applied in the Portland region. They selected twelve examples that included transportation system plans (TSPs), a corridor plan, plan amendments subject the Section 0060 of the Oregon Transportation Planning Rule (TPR), local development review proposals that required a transportation impact analysis and project design. . In order to capture a range of project types and surrounding conditions, they identified examples in each of the three counties that covered a range of state and regional transportation facilities (e.g., throughways and state- and locally-owned arterials that also serve as state and regional freight routes and enhanced transit corridors), 2040 Growth Concept land use contexts, geographies and availability of travel options.

The examples are summarized in Table 1 and Figure 1. The evaluation included a review of materials including traffic studies, planning documents, staff reports, ordinances, and other related documents. The reviews focused on determining how the v/c measure was applied, what assumptions and thresholds were used, what methodology was followed, what other measures were considered, and what the outcomes were (including final decisions and mitigations). The research also looked to provide clarity on the policy guidance that dictated the use of the RMP or related policy, such as the Oregon Highway Plan (OHP) Policy 1F. The review of documents provided a foundation for interviews with staff from local agencies and ODOT.

Interviews with agency staff helped to clarify some of the evaluation of methodologies, metrics, standards, as well as broader project context and outcomes. The interviews also provided an opportunity to seek input on what worked well with the current RMP, what the current measure and methods do not allow us to address consistently in terms of advancing state, regional and local mobility objectives, whether the current policy has led to unintended or undesirable outcomes and to identify opportunities for improvement in an updated mobility policy. Attachment A provides an overview of how the Regional Mobility Policy and the ODOT Mobility Policy are applied system plans, plan amendments, development review and project design; the guiding policy on the application of the mobility policies; and the tools available when the mobility policy cannot be met.

Figure 1: Locations of Examples Evaluated



**Table 1: Examples of Current Approaches Summary**

			Planning Application			
Examples of Current Approaches	Location		System Plan	Plan	Development Review	Project Design
1	2018 Regional Transportation Plan	Region-wide	X			
2	Portland Central City 2035 Plan and MMA	Portland		L		
3	Colwood Industrial District Plan Amendment	Portland		Q		
4	Troutdale Reynolds Industrial Park	Troutdale/Port of Portland			X	
5	Rock Creek Mixed Employment District	Happy Valley		L		
6	Oregon City TSP and OR 213 Mobility Standards	Oregon City	X	L		
7	Willamette Falls District Plan and Downtown District/MMA	Oregon City		Q		
8	Commons on the Tualatin Apartments	Tualatin			X	
9	Tigard Triangle District Plan	Tigard		L		
10	West End District Mixed-Use Development	Beaverton			X	
11	Tualatin Valley Highway/OR 8 Corridor Plan	Beaverton to Hillsboro	X			
12	South Hillsboro Community Plan Development	Hillsboro		L	X	X
	X	Identifies type of planning action				
	L	Legislative Plan Amendment				
	Q	Quasi-judicial Plan Amendment				

## EXECUTIVE SUMMARY

The following summarizes the common themes related to how the RTP Regional Mobility Policy (RMP) and the Oregon Highway Plan (OHP) Mobility Policy (Policy 1F) are working for different planning applications and identifies considerations for updating the policy.

For system planning, the mobility policy measures are being used in conjunction with metrics, including safety and multimodal measures. Both the RTP and OHP include policies that identify other system performance measures and that prioritize other types of improvements above capacity increasing projects.

For plan amendments, the OHP mobility policy measures are applied as standards; however, the Transportation Planning Rule on plan amendments (TPR Section -0060) provides a variety of tools that can be applied if the mobility policy standards cannot be met. Both ODOT and local agency staff expressed a need for a broader set of measures that can be applied to plan amendments and development review. While plan amendments rely upon the projects adopted in the Regional Transportation Plan (RTP) Financially Constrained project list, these projects are not likely to be constructed at the time of development. This can be a barrier to development when there are not funding mechanisms in place for development to help pay a proportionate share towards planned improvements.

ODOT does not have jurisdiction over development decisions for permitted land uses, i.e. when there is no plan amendment in play. ODOT is typically limited to a commenting role during development review unless an access permit is required. Local agencies typically invite comment from ODOT if a development is expected to generate traffic impacting a state highway. ODOT's comments are frequently based upon the ability for the development to meet the mobility targets in the OHP and some jurisdictions apply these as development requirements whether specified in their development code or not.

Tables 2, 3, and 4 summarize common themes for System Planning, Plan Amendments, and Development Review/Project Design, respectively. These were revealed from the evaluation of current practice, including review of plan documents, guiding policies, and interviews with agency staff. These are followed by more details regarding the policies and policy guidance for each type of planning activity.

**Table 2. System Planning – Themes and Considerations for Updating the Mobility Policy**

Current Practice	Key Takeaways
<ul style="list-style-type: none"> <li>• The volume/capacity ratio measure adopted in the mobility policy is being used in conjunction with other measures without clear guidance for how to balance and integrate these complementary policies.</li> <li>• The RTP RMP and Table 7 of the OHP Policy 1F are used as “targets” in coordination with other multi-modal performance measures to identify needs and diagnose issues.</li> <li>• The RTP applies the regional mobility policy on roadway links only; however, ODOT applies the OHP Table 7 v/c targets at the intersection level in planning and in reviewing plan amendments.</li> <li>• Other considerations are often taking precedence over adopted mobility policies during project prioritization and when developing the financially constrained RTP project list.</li> <li>• Projects on ODOT facilities or financed with state and regional funding are not consistently reflected in local TSPs.</li> <li>• Unlike the Regional Transportation Plan, local TSPs are not required to include a financially constrained project list though some jurisdictions choose to do so.</li> </ul>	<ul style="list-style-type: none"> <li>• Neither ODOT nor Metro have adopted definitions of mobility to date. The definition of mobility and the measures by which we evaluate it should be addressed in the updated policy.</li> <li>• V/C as the only measure of mobility is not consistent with current view of mobility being about people and goods, not just cars and trucks. A more holistic set of mobility measures is needed to reflect the many aspects of mobility and the broader regional mobility corridor concept policy in the RTP.</li> <li>• Need flexibility to apply different approaches in different areas based on land use context and transportation function and context.</li> <li>• Establishing mobility targets in system plans that can reasonably be achieved will reduce frustrations with the policy as it is applied to plan amendments.</li> <li>• The current policy does not reflect the fiscal capacity of ODOT, Metro and local governments to construct transportation projects necessary to meet the mobility policy. This is especially true in planned growth areas including urban growth boundary expansion areas</li> <li>• The implementation plan for the updated policy should provide guidance for consistency in how local jurisdiction TSPs include projects on ODOT facilities in their TSPs and what level of state and regional funding they should assume in their financially constrained plan.</li> </ul>

**Table 3. Plan Amendments** – Themes and Considerations for Updating the Mobility Policy

Current Practice	Key Takeaways
<ul style="list-style-type: none"> <li>• OHP Policy 1F Table 7 is being used as a “standard” in plan amendments per TPR 0060. This ensures ODOT is able to participate in decision making but gives the v/c ratio more importance in plan amendments than during system planning</li> <li>• Ambitious policies adopted during system planning that are not met in many locations in financially constrained plan. This makes it difficult for subsequent plan amendments to meet the adopted mobility standard.</li> <li>• There are policy options available (provided in TPR 0060) to help meet the mobility policy when the mobility standard cannot be met but the process of agreeing on methods and assumptions in pursuing these options can be time consuming and challenging.</li> <li>• There is consistent agency support for a broader set of measures that can be applied to plan amendments.</li> </ul>	<ul style="list-style-type: none"> <li>• May need different measures for plan amendments than transportation system plans. The system plan establishes the planned mobility for an area and a plan amendment should look at consistency with that plan, not consistency with the mobility policy as the primary evaluation method.</li> <li>• Need a mechanism to allow plan amendment applicants to make contributions towards planned improvements, not only on locally-owned streets but also on state highways.</li> <li>• Need clear guidance on methodologies and assumptions to be used in transportation impact analyses. This may require changing local development codes and the ODOT Analysis Procedures Manual.</li> </ul>

**Table 4. Development Review – Themes and Considerations for Updating the Mobility Policy**

Current Practice	Key Takeaways
<ul style="list-style-type: none"> <li>• OHP Policy 1F Table 7 is applied to development review by ODOT when ODOT has permitting authority for a site access and to provide comments to local jurisdictions on the proposed development. The comments on needed improvements are handled differently by each jurisdiction.</li> <li>• Some local jurisdictions apply OHP Table 7 as standards but they are not required to.</li> <li>• Local jurisdictions would like to apply multi-modal standards to help obtain off-site multi-modal improvements from development consistent with their TSPs.</li> <li>• Transportation projects identified in the financially constrained RTP are not always in place at time of development. Local agencies need mechanisms for developers to contribute a proportionate share toward these planned projects.</li> <li>• There is consistent agency support for a broader set of measures that can be applied to development review.</li> </ul>	<ul style="list-style-type: none"> <li>• The implementation plan for the updated policy should clarify local application of OHP Table 7 to development review.</li> <li>• Local jurisdictions need to establish multi-modal targets and standards in their plans and implementing regulations consistent with the updated RMP and OHP Table 7 and their transportation system plan. The updated RMP and OHP Table 7 could serve as a model for them with some flexibility to set their own standards for development review..</li> <li>• The updated measures and their associated targets and standards should support a proportionality evaluation.</li> </ul>

## APPLICATION OF CURRENT POLICY

Additional details on the policy guidance for each of the plan types are described below. Attachment A provides a summary of the guiding policy for each type of planning activity, along with a summary of tools that can be used when the mobility policy is not met and/or to achieve different or additional goals.

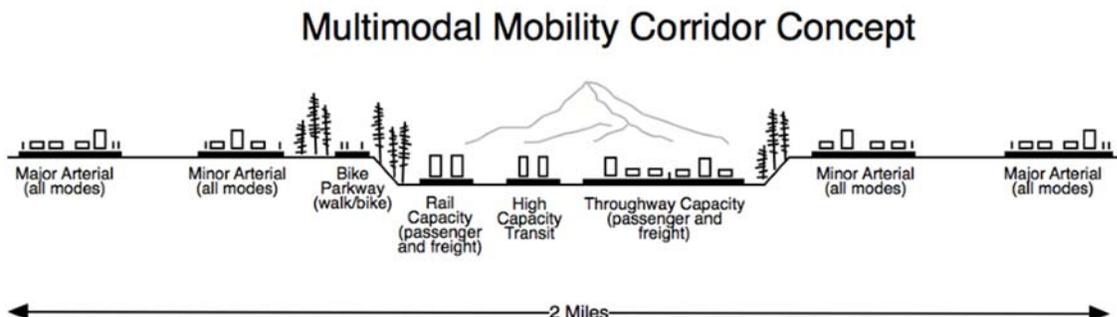
### SYSTEM PLANNING

The RTP defines goals, objectives, performance targets, policies and investments priorities for the following components: Climate Smart Strategy, Transportation System Management and Operations Strategy, Regional Transit Strategy, Regional Freight Strategy, Regional Active Transportation Plan, Regional Travel Options Strategy, Regional Transportation Safety Strategy and Regional Emerging Technology Strategy. The RTP also establishes the region's federally-required congestion management process and related policies. Chapter 2 of the RTP defines eleven goals and more than 40 objectives that guide the region's transportation planning and decision-making.

Goal 4 (Reliability and Efficiency) states "The transportation system is managed and optimized to ease congestion, and people and businesses are able to safely, reliably and efficiently reach their destinations by a variety of travel options." Objective 4.1 (Regional Mobility) states: "Maintain reasonable person-trip and freight mobility and reliable travel times for all modes in the region's mobility corridors, consistent with the designated modal functions of each facility and planned transit service within the corridor." The RMP is one of five key performance measures used to evaluate system performance and progress toward achieving Goal 4 for throughways, arterials and the regional freight network. Other measures are: freight delay, transit productivity, multimodal travel and multimodal travel times.

Chapter 3 of the RTP defines a network vision, concept and supporting policies for each component of the regional transportation system. The network visions, concepts and policies define a seamless and well-connected system of regional throughways and arterial streets, freight networks, transit networks and services and bicycle and pedestrian facilities – that is reflected in the Regional Mobility Corridor Concept shown in Figure 2.

**Figure 2. RTP Regional Mobility Corridor Concept**



Note: Idealized concept for illustrative purposes showing recommended range of system analysis for the evaluation, monitoring, management and phasing of investments to throughways, arterial streets and transit service in the broader corridor. The illustration is modeled after the Banfield corridor that links the Portland central city to the Gateway regional center.

Shown in Figure 2, the regional mobility corridor concept integrates throughways, high capacity transit, arterial streets, frequent bus routes, freight/passenger rail and bicycle parkways into subareas of the region that work together to provide for regional, statewide and interstate travel. The RTP states that “The function of this system of integrated transportation corridors is metropolitan mobility – moving people and goods between different parts of the region and, in some corridors, connecting the region with the rest of the state and beyond. These transportation corridors also have a significant influence on the development and function of the land uses they serve and are defined by the major centers set forth in the Region 2040 Growth Concept. The regional mobility corridor concept calls for consideration of multiple facilities, modes and land uses when identifying needs and most effective mix of land use and transportation solutions to improve mobility within a specific corridor area.”

Also in Chapter 3, Policy 3.5.3 Interim Regional Mobility Policy states that the v/c ratios listed in Table 3.16 of the 2018 RTP (as well as Table 7 of the OHP) are intended as a tool “to evaluate the quality of the auto network” using the v/c ratio to “diagnose the extent of auto congestion...in order to identify deficient roadway facilities and services.” While the v/c ratios can apply to any part or all of the roadway system within the region, it is especially applicable to all state-owned facilities, as these v/c ratios mirror Table 7 in Policy 1F of the Oregon Highway Plan, which sets performance targets for state highways within the Portland region urban growth boundary. The policy also acknowledges that the region cannot achieve the mobility policy v/c ratios within current funding levels.

Further system planning direction and guidance are provided in the following:

- The state Transportation Planning Rule (TPR) provides statewide guidance for coordinating land use and transportation planning. TPR Section 030 directs that regional plans rely on adopted state plans; and that local plans rely on adopted state plans and adopted regional plans.

- The Oregon Highway Plan Policy 1F: Highway Mobility Policy includes Table 7 listing the v/c ratio targets for the Portland Metro area. Footnote A to Table 7: states that “...the mobility targets in Tables 7 are considered standards for the purposes of determining compliance with OAR 660-012,” the TPR.
- The Regional Transportation Functional Plan (RTFP), Titles 1, 2, 3, and 5, gives guidance on strategies for developing the overall system plan, and to help achieve the v/c targets and move toward non-single occupant vehicle (non-SOV) modal targets. The RTFP specifies that local TSPs must include measures for safety, vehicle miles traveled per capita, freight reliability, congestion, and mode shares. However, these are not included under the Regional Mobility Policy title.

To better understand how these policies are applied in practice, three system plan examples were reviewed. These include the Regional Transportation Plan (RTP); the Tualatin Valley Highway Corridor Plan (TVCP) in Washington County; and, the Oregon City Transportation System Plan (TSP) in Clackamas County and its subsequent Alternative Mobility Target project for OR 213/Beavercreek Road. Project overview factsheets will be produced for each of these examples that include additional information about each example. Attachment B includes three examples.

## PLAN AMENDMENTS

The OHP Policy 1F states that while the v/c ratios listed in Table 7 (and replicated in the RMP) are targets for the purpose of System Plans, they are *standards* for the purpose of plan amendments.

The TPR Section 060 (TPR 060) requires that proposed plan and land use regulation amendments be consistent with the identified function and capacity of existing and planned transportation facilities. TPR 060 includes criteria for identifying significant effects of plan or land use regulation amendments on transportation facilities; actions to be taken when a significant effect is identified; identification of planned facilities; and coordination with transportation facility providers. A substantial part of the determination of “significant effect” is evaluation of forecast v/c ratios and the potential to “degrade performance” relative to adopted standards.

Significant amendments to the TPR in 2012 introduced the concept of Multimodal Mixed-use Areas (MMA) (TPR-060(10)), wherein jurisdictions would not have to apply performance standards related to motor vehicle traffic congestion, delay, or travel time in areas that have been planned for higher density, multi-modal development. Adopting an MMA was part of the local decision in the Portland Central City 2035 Plan and Oregon City’s Willamette Falls Master Plan.

Another of the 2012 amendments (TPR 060(2e)) allowed local agencies to consider mitigations to alternative modes or alternative locations, if mitigation of a significant affect is considered cost prohibitive. The City of Portland employed this section when it approved the Colwood Industrial District Plan as a quasi-judicial amendment. The City was able to consider the plan amendment with respect to employment goals in balance with transportation goals and, with support of major stakeholders and concurrence of ODOT, approved the plan amendment conditioned on a specific safety improvement at an interchange ramp intersection, even though the interchange would not meet the v/c ratio standard.

Another change allows jurisdictions to accept partial mitigation where it can be shown that the economic benefits, including specific categories of employment, outweigh the negative effects on impacted transportation facilities. This is allowed even on state facilities if ODOT officially concurs that the benefits outweigh the impacts. This TPR provision was considered, but ultimately not pursued in the City of Portland’s approval of the Colwood Industrial District Plan.

Regional guidance on plan amendments is in the RTFP. Section 3.08.220.A requires that cities and counties consider the following strategies, “in the order listed,” to meet the transportation needs:

- TSMO strategies, including localized TDM, safety, operational and access management improvements,
- Transit, bicycle and pedestrian system improvements,
- Traffic-calming designs and devices,
- Land use strategies (as in OAR 660-012-0035(2)) such as increased commercial and residential density, or other changes to “provide better balance between jobs and housing” to help achieve mode split and v/c targets,
- Connectivity improvements to provide parallel arterials, collectors or local streets that include pedestrian and bicycle facilities,
- Motor vehicle capacity improvements, consistent with the RTP Arterial and Throughway Design and Network Concepts in the RTP, “only upon a demonstration that other strategies in this subsection are not appropriate or cannot adequately address identified transportation needs.”

The RTFP guidance for plan amendments requires local agencies to coordinate with the owner of affected facilities (e.g., ODOT is the owner of state highways and interchanges) and acknowledges that facility design is subject to the approval of the facility owner.

### *Types of Plan Amendments*

Plan amendments may be legislative or quasi-judicial. A legislative action adopts laws or policies generally applicable to all persons within the jurisdiction or to a broad class of persons. Legislative Plan Amendments (which are land use ordinances) are amendments to the Comprehensive Plan text or map of a generalized nature initiated by the local government that affects a large number of parcels or all parcels of land similarly designated or that establishes or modifies policy or procedure. The amendments include additions or deletions of text or land use map categories. The governing body has broad discretion in making legislative decisions. A quasi-judicial action is narrower in scope than a legislative action, as it applies specific rules or policies to a particular situation. Quasi-judicial plan amendments usually involve requests to amend the land use map designation of one or a limited number of specific properties. They typically are initiated by an applicant, like a private property owner, and are reviewed with specific approval criteria in the zoning code.

Legislative plan amendments provide direction and the policy basis for future growth; quasi-judicial amendments are more specifically tied to development. For this reason, estimating future trip generation for a legislative action typically has more unknowns and the evaluation can have more uncertainty, not only regarding land uses but also related to the evolution of the surrounding transportation system.

Of the six plan amendment examples explored for this report, four were adopted through a legislative process: Tigard Triangle District Plan, South Hillsboro Community Plan, Rock Creek Mixed Employment District, and Portland Central City 2035 Plan and Mixed-use Multimodal Area. , For two examples – Colwood Industrial District Plan and the Willamette Falls Master Plan – the local government body applied specific criteria to a single, factual situation through a quasi-judicial process. The adoption process (legislative or quasi-judicial) for all six examples did not appear to be a determining factor in how the RMP was applied or considered. The strategies identified in the course of this review include the following:

**Mitigation or funding for planned mitigations.** Because legislative plan amendments are initiated by the public agency there is considerably greater opportunity to finance improvements as part of a long-term planning process, whereas approval of a quasi-judicial plan amendment may require advance funding or contribution of funding towards the planned mitigation.

**Land use designations,** consistent with Title 5 of the RTFP and or TPR 060 (6), to support reduced trip generation estimates.

**Alternative mobility targets,** as provided in the Oregon Highway Plan, Policy 1F allow for planned land uses to be consistent with the (revised) mobility expectations on the State system.

**Trip caps and/or development phasing** can be used, in order to limit growth potential or to coordinate the pace of growth with infrastructure financing and implementation.

**TPR –0060.** The 2012 amendments to the Plan and Land Use Regulations Amendments section of the TPR have provided flexibility for some local actions. The examples in this review relied upon (or considered) the following sections:

**TPR 060(2e)** - if a local government determines that there is a significant effect from a proposed plan amendment, this section provides flexibility by allowing improvements that would benefit other modes, other facilities, or in other locations to remedy the impact. This provision requires written agreement between the owner of the affected facility, the owner of the improved facility (if different); and the local jurisdiction where the facilities are located.

**TPR 060(10)** Multimodal Mixed-Use Area (MMA) was added to ensure that the TPR does not interfere with compact urban development in appropriate locations. Local governments can designate an MMA with a range of existing and planned uses and transportation facilities and would no longer need to consider traffic congestion (v/c ratios) when evaluating plan amendments in the area. Within near proximity of a freeway interchange, the local government and ODOT must reach agreement on how any potential for backups on the off-ramps would be addressed.

**TPR 060(11)** was added to enable greater flexibility when rezoning land to facilitate economic development. Under this provision, local governments can approve zone amendments with only partial mitigation of traffic provided the change will create or retain direct benefits in terms of industrial or traded-sector jobs

In addition to the OR 213 Mobility Standards described in the previous section, this report includes a review of amendments adopted in Happy Valley, Tigard, Hillsboro, and Portland, and Oregon City. The summary of these examples focuses on the objectives of the plan amendment, and the methods and strategies used for plan approval and adoption, along with an assessment of the RMP for the plan amendment process and suggestions for improvement from interviews with agency staff.

## DEVELOPMENT REVIEW

The OHP Policy 1F identifies three distinct ways that the highway mobility targets are used. These are 1) System Planning, 2) Plan Amendments and Development Review, and, 3) Operations. While the targets identified in the RMP and OHP Table 7 apply to all state highways in the region, ODOT does not have decision authority for development applications, except when there is direct access to a state roadway (where an access permit would be required) or a project is in the immediate vicinity of an interchange area. As such, ODOT is typically limited to a commenting role. Local agencies typically invite comment from ODOT if a development is expected to generate traffic impacting a state highway. The Mobility Policy does not apply to highway design. Separate design mobility standards are contained in ODOT's Highway Design Manual (HDM).

Three development projects were reviewed with respect to the application of the RMP and Table 1F of the OHP: The Commons on the Tualatin, Troutdale Reynolds Industrial Park, and the West End District Mixed Use Development.

ATTACHMENT A. RMP APPLICATIONS AND TOOLS

Plan Type/Application	Regional Mobility Policy/OHP Mobility Policy Application	Guiding policy on application of mobility policy	Tools for when Mobility Policy Not Met (or to reflect different goals: town center and corridor designations)
<b>System Plans</b> <ul style="list-style-type: none"> <li>TSPs</li> <li>Modal Plans</li> <li>Corridor/Area Plans</li> <li>Facility Plans</li> </ul>	<ul style="list-style-type: none"> <li>Use RMP/OHP mobility targets and other measures to identify deficiencies, evaluate and prioritize projects and programs (“on balance” with other goals and measures)</li> </ul>	<ul style="list-style-type: none"> <li>TPR – 020: Provides guidance and direction on how to design local transportation systems and develop TSPs in Oregon. States infrastructure capacity shall be adequate to meet the needs of planned land uses consistent with adopted state and regional performance standards which includes the Oregon Highway Plan and the Metro Regional Mobility Policy.</li> <li>OHP Policy 1F</li> <li>RTFP – Title 1, 2 and 3, 5: Provides guidance and direction on how to design local transportation system and develop a TSP in Metro region to help achieve the targets in RMP and Non-SOV modal targets</li> </ul>	<ul style="list-style-type: none"> <li>Identify projects in the financially constrained plan</li> <li>Identify need for alternative mobility target (must be in place for future plan amendments)</li> <li>Designate Mixed-use Multi-Modal Area (MMA) - 660-0012-060 (10)</li> </ul>
<b>Plan Amendments (Land Use)</b> <ul style="list-style-type: none"> <li>Legislative (agency initiated)</li> <li>Quasi-judicial (owner or developer initiated)</li> </ul>	<ul style="list-style-type: none"> <li>ODOT facilities – use OHP mobility targets (Table 7) (mirrors RMP for ODOT facilities) to identify impacts, evaluate mitigation projects required to meet mobility target or do no further degradation</li> <li>Regional Motor Vehicle Network – use RMP deficiency thresholds and operating standards to identify deficiencies and evaluate improvements</li> </ul>	<ul style="list-style-type: none"> <li>TPR – 060</li> <li>RTFP – Title 5</li> <li>UGMFP – Title 6</li> </ul>	<ul style="list-style-type: none"> <li>Provide mitigation or funding or partial funding for mitigation</li> <li>Designate Mixed-use Multi-Modal Area (MMA) - 660-0012-060 (10), only for large scale legislative plan amendments</li> <li>TPR 0060-2e - allows agencies to accept a different mitigation if it is found to have systemwide benefit -aka “on balance.”</li> <li>TPR allows reducing estimated trips based on enforceable TDM measures</li> <li>Trip caps</li> <li>Alternative Mobility Target (Typically legislative only)</li> <li>Title 5 - Employ TSMO strategies, multi-modal improvements, land use strategies, connectivity improvements, and adopt complete/green street designs when exceeding capacity</li> <li>UGMFP title 6: reduce “reasonable worst case” trip generation estimates by 30% in mixed use areas</li> </ul>
<b>Development Review</b>	<ul style="list-style-type: none"> <li>ODOT – uses OHP mobility targets to identify capacity deficiencies on ODOT facilities and request mitigations for certain land use decisions such as conditional uses, can require mitigations for grant of access</li> <li>Local agencies – use their own adopted mobility standards to identify deficiencies. Some agencies use OHP mobility targets as standards for ODOT facilities in their development code, or may apply their own higher or lower mobility standards or other measures. Require frontage improvements, charge transportation SDCs.</li> </ul>	<ul style="list-style-type: none"> <li>Local agency Development Code (local agencies sometimes identify standards for ODOT facilities either ODOT’s standard or their own but are not required to adopt standards for facilities they do not own)</li> <li>OARs on Access Spacing (reference OHP access spacing standards)</li> </ul>	<ul style="list-style-type: none"> <li>Provide mitigation or funding or partial funding for mitigation</li> </ul>
<b>Designing Roads</b>	<ul style="list-style-type: none"> <li>RMP does not directly apply to roadway project; however some roadway projects trigger the application of a Highway Design Manual (HDM) v/c ratio, which is more strict than the RMP/OHP</li> </ul>	<ul style="list-style-type: none"> <li>RTFP – Title 1 Street Design (Section 3.08110) requires city and county street design regulations to allow implementation of Metro Designing Livable Streets and Trails Guide</li> </ul>	<ul style="list-style-type: none"> <li>Metro Designing Livable Streets and Trails Guide<sup>1</sup></li> <li>ODOT Blueprint for Urban Design</li> </ul>

<sup>1</sup> Agencies developing transportation projects funded by Metro use the guidelines to plan, design and construct their projects.

## ATTACHMENT B. EXAMPLES OF CURRENT APPROACHES – OVERVIEW FACTSHEETS (SAMPLES ONLY)

# Regional Mobility Policy Update

Examples of Current Applications | System Plan



[oregonmetro.gov/mobility](http://oregonmetro.gov/mobility)

Example

## 01 Regional Transportation Plan, Metro Region

**DRAFT** October 2020

### Overview

The RTP provides a long-range blueprint for all forms of transportation in the Portland metropolitan region within a 20-year time horizon. It serves as Metro's regional transportation system plan (TSP), consistent with Statewide Planning Goals and the Oregon Transportation Planning Rule (TPR).

The RTP guides transportation planning and investment priorities in the region consistent with the federal, state and regional land use and modal transportation policies. The RTP defines goals, objectives, performance targets, policies and investment priorities for the following components: Climate Smart Strategy, Transportation System Management and Operations Strategy, Regional Transit Strategy, Regional Freight Strategy, Regional Active Transportation Plan, Regional Travel Options Strategy, Regional Transportation Safety Strategy and Regional Emerging Technology Strategy. Each of the Strategies is accompanied by a map that shows the functional classifications or designations of the regional facilities and services that comprise the regional system relevant to that mode or topic. The RTP also establishes the region's federally-required congestion management process and related policies.

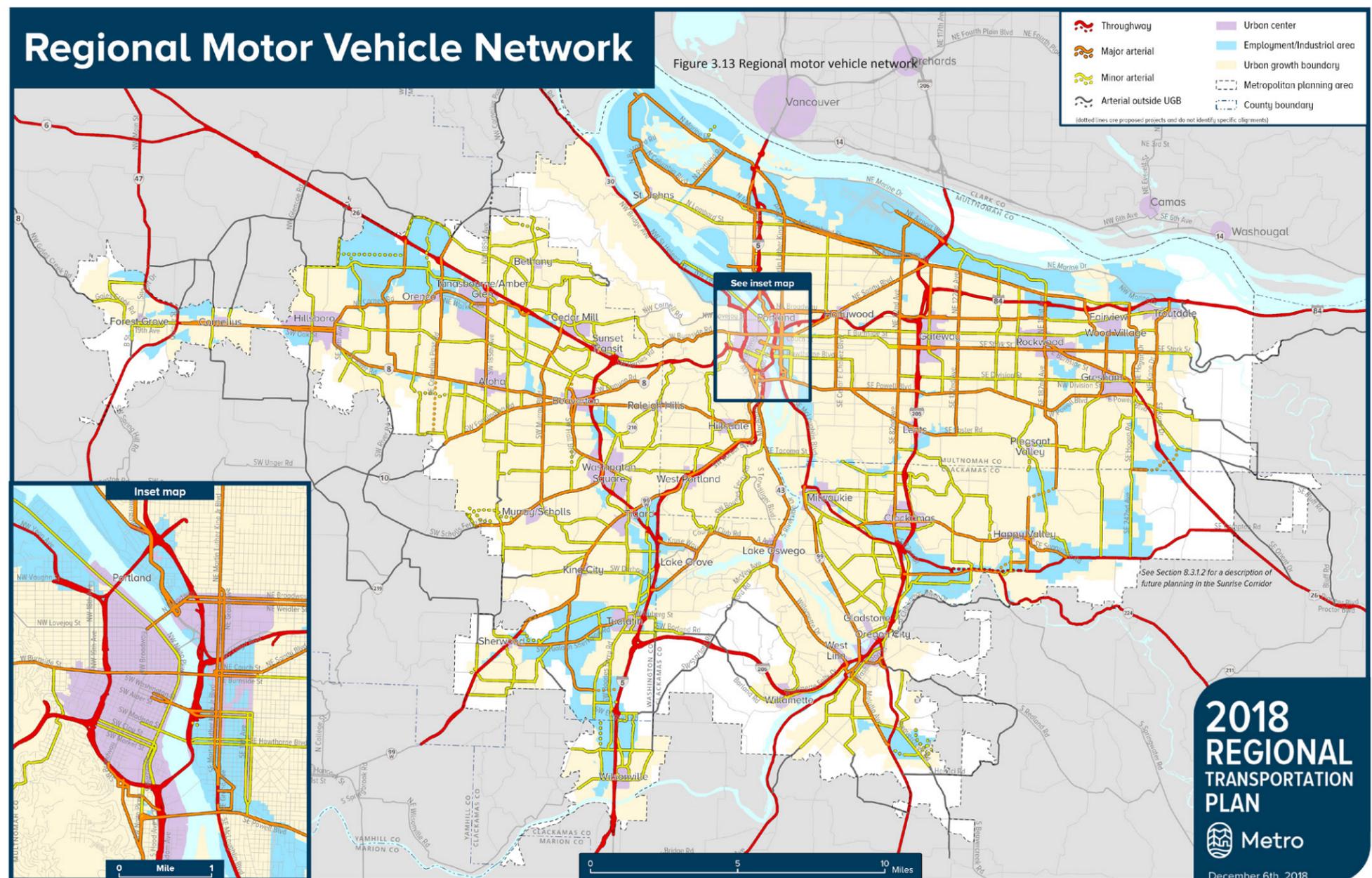


**Location:**  
Metro Region

**Plan Type:**  
Regional Transportation System Plan for the Portland metropolitan area

### How was the RMP a factor?

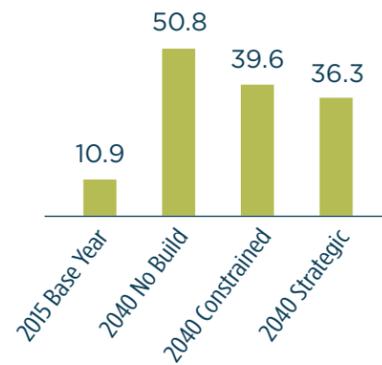
Chapter 2 of the RTP defines eleven goals and more than 40 objectives that guide the region's transportation planning and decision-making. Goal 4 (Reliability and Efficiency) states "The transportation system is managed and optimized to ease congestion, and people and businesses are able to safely, reliably and efficiently reach their destinations by a variety of travel options." Objective 4.1 (Regional Mobility) states: "Maintain reasonable person-trip and freight mobility and reliable travel times for all modes in the region's mobility corridors, consistent with the designated modal functions of each facility and planned transit service within the corridor." The



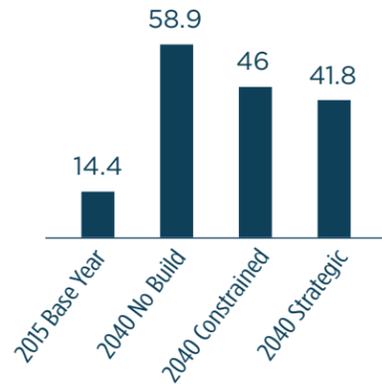
strategies to be considered to move closer to the RMP v/c ratios, through prioritized strategies aimed at efficient operations, land use, active transportation, and other strategies. The RTP includes a wide range of measures that are not specifically listed under the Interim RMP, many of which address mobility related performance outcomes.

Recognition of the RMP's lack of definition of mobility for modes beyond the single-occupancy vehicle led to the development of a holistic set of topic and modal plans that form amendments to the RTP and help improve mobility for all modes. The RTP also includes a diverse set of policies that help manage current and future travel demand on the system.

**Throughway Network Miles Not Meeting the RMP between 4:00-6:00 PM**



**Arterial network miles not meeting the RMP between 4:00-6:00 PM**



## Methodologies and Measures

- The interim RMP sets minimum motor vehicle performance targets (v/c ratio). This target helps to identify the extent of motor vehicle congestion on throughways and arterials during different times of the day and to determine adequacy in meeting the region's needs. The RMP text states that these standards were amended in the OHP in 2002 and that they indicate a level of performance "deemed acceptable at the time of its adoption."
- The Interim RMP language also states that "the system analysis described in Chapter 7 finds that the region cannot achieve the mobility policy listed in Table 3.6 within current funding levels or with the mix of investments included in the analysis." In practice, the Interim RMP standards listed in Table 3.6 are used to diagnose areas with significant congestion to inform strategies to improve operations.
- Other parts of the RTP provide direction on strategies to be considered to move closer to the RMP v/c ratios when the system is built out or to better manage congestion. The Congestion Management Process provides a wide range of strategies focused on community design, incentives, system management/operations, congestion pricing, active transportation, transit, and street/throughway capacity.
- The 2018 RTP was based on multiple system performance measures (for identifying gaps and deficiencies) and regional performance targets (for tracking progress) to support the region's transportation planning and decision-making. Chapter 2 of the RTP identifies key system performance measures. These are listed in the table on the right.

## Strengths & Weaknesses of Current Policy/ Approach

- While the RMP is focused solely on measuring vehicle congestion, the RTP is not limited to these considerations nor is it bound to achieve the v/c ratios listed in the policy. As such, it does not limit or constrain the RTP to evaluation of the motor vehicle system.
- The current RMP does not measure mobility for people using transit, biking, or walking. It does, however, measure other aspects of mobility, such as system completeness for active transportation, non-SOV mode share, vehicle miles traveled per capita, transit ridership and access to jobs, community places and ports/industry
- The 2018 RTP failed to show the roadway system can meet RMP and OHP Table 7 within the 20-year planning period.
- The current policy does not reflect the fiscal capacity of ODOT, Metro and local governments to construct transportation projects necessary to meet the mobility policy. This is especially true in planned growth areas including urban growth boundary expansion areas. Projects that are built to the current mobility policy may not be consistent with state and regional climate, equity, safety, VMT and air quality goals, among others.

- The RTP performance targets are tied directly to outcomes-based goals across nine categories, ensuring that both the region and the collection of local jurisdictions have policy guidance for holistically and equitably improving transportation system performance. These provide more guidance to the RTP's development than the RMP.

## Opportunities for Improvement

- The RTP does not specifically define desired mobility outcomes. The definition of mobility and the measures by which we evaluate it should be addressed in an updated policy.
- The narrow focus of the volume/capacity ratio measure of "mobility" in the Regional Mobility Policy does not adequately reflect the broader mobility corridor concept policy.
- The 2018 RTP is an outcomes-based plan that includes specific goals, objectives and performance targets to help measure progress toward the plan's goals and objectives. The RTP reports findings on how well the RTP performs across many outcomes-based goals and objectives relative to the plan's performance targets. These outcomes-based goals and objectives (and associated measures) can be used to help design an updated RMP that holistically addresses more elements of mobility beyond solely vehicle congestion consistent with the full set of transportation goals in the RTP.

## Key System Performance Measures

<b>1</b>	<b>VIBRANT COMMUNITIES</b> <ul style="list-style-type: none"> <li>Access to transit</li> <li>Access to community</li> </ul>	<b>6</b>	<b>HEALTHY ENVIRONMENT</b> <ul style="list-style-type: none"> <li>Potential habitat impact</li> <li>Potential historical resources impact</li> <li>Potential tribal lands impact</li> </ul>
<b>2</b>	<b>SHARED PROSPERITY</b> <ul style="list-style-type: none"> <li>Access to jobs</li> <li>Access to industry and freight facilities</li> <li>Multimodal travel</li> <li>Affordability</li> <li>Access to bicycle and pedestrian parkways</li> </ul>	<b>7</b>	<b>HEALTHY PEOPLE</b> <ul style="list-style-type: none"> <li>Public health</li> <li>Clean air</li> </ul>
<b>3</b>	<b>TRANSPORTATION CHOICES</b> <ul style="list-style-type: none"> <li>Modal share</li> <li>System completeness</li> <li>Access to transit</li> <li>Access to bicycle and pedestrian parkways</li> </ul>	<b>8</b>	<b>CLIMATE LEADERSHIP</b> <ul style="list-style-type: none"> <li>Climate change</li> <li>Vehicle miles traveled</li> <li>Climate smart implementation</li> </ul>
<b>4</b>	<b>RELIABILITY &amp; EFFICIENCY</b> <ul style="list-style-type: none"> <li>Multimodal travel</li> <li>Multimodal travel times</li> <li>Congestion</li> <li>Freight delay</li> <li>Transit productivity</li> </ul>	<b>9</b>	<b>EQUITABLE TRANSPORTATION</b> <ul style="list-style-type: none"> <li>Access to transit</li> <li>Access to jobs</li> <li>Access to community places</li> <li>System completion</li> <li>Affordability</li> </ul>
<b>5</b>	<b>SAFETY &amp; SECURITY</b> <ul style="list-style-type: none"> <li>Safety</li> </ul>	<b>10</b>	<b>FISCAL STEWARDSHIP</b> <ul style="list-style-type: none"> <li>Infrastructure condition</li> <li>Sustainable funding</li> </ul>
		<b>11</b>	<b>TRANSPARENCY AND ACCOUNTABILITY</b> <ul style="list-style-type: none"> <li>Meaningful engagement</li> <li>Performance based planning</li> </ul>

The Regional Mobility Plan is a joint effort between Metro and ODOT. Additional information is available at [oregonmetro.gov/mobility](http://oregonmetro.gov/mobility).

# Regional Mobility Policy Update

Examples of Current Applications | Development Project



Metro



[oregonmetro.gov/mobility](http://oregonmetro.gov/mobility)

Example

## 07 Willamette Falls District Plan and Downtown District/MMA Development Project

**DRAFT** October 2020



### Overview

The City of Oregon City enacted the Willamette Falls Legacy Project by adopting the Willamette Falls Riverwalk Master Plan in 2014. The Riverwalk will occupy the 22-acre former Blue Heron Paper Mill site. It will bring visitors close to North America's second most powerful waterfall, long obscured by industrial buildings.

The Willamette Falls Riverwalk Master Plan included a zone change and comprehensive plan map and text amendments for the site.

The City's action included designating the site a Multimodal Mixed-Use Area (MMA) to allow more intensive use without the need to complete a mobility impact analysis. The MMA covers the area in downtown Oregon City on either side of Main Street, south from

11th Street through downtown and into the proposed Willamette Falls Downtown District.

As a result of the MMA status, this project evaluated existing and future travel conditions related to walking, biking, driving and transit infrastructure, as well as freight, rail, and waters. From this, a list of projects were identified for their potential to improve access and safety.

The MMA supports planned growth on McLoughlin Blvd/OR 99E and is consistent with the Special Transportation Area (STA) designation adopted in 2004 by Oregon Transportation Commission for McLoughlin Boulevard from the railroad underpass north to 14th Street. The STA allows the need for local access to take priority over highway mobility.



**Location:**  
Clackamas County  
Oregon City, OR

**Plan Type:**  
Plan Amendment  
Quasi-judicial

### How was the RMP a factor?

The TPR Section 060 (TPR 060) requires that proposed plan and land use regulation amendments be consistent with the identified function and capacity of existing and planned transportation facilities. TPR 060 includes criteria for identifying significant effects of plan or land use regulation amendments on transportation facilities.

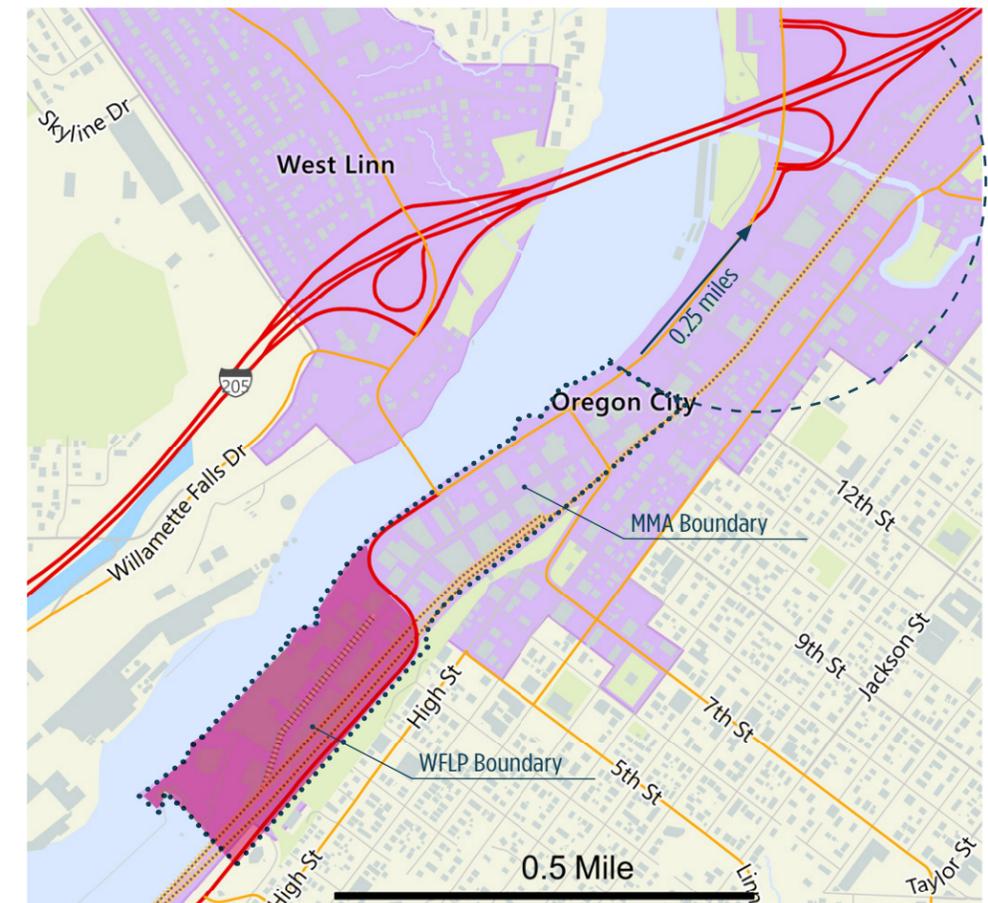
Amendments to the TPR in 2012 introduced the concept of Multimodal Mixed-use Areas (MMA) (TPR-060(10)), wherein jurisdictions would not have to apply performance standards related to motor vehicle traffic congestion, delay, or travel time in areas that have been planned for higher density, multi-modal development.

The MMA designation was used in the Oregon City's Willamette Falls Master Plan.

### Outcome

The City of Oregon City adopted the Willamette Falls Riverwalk Master Plan in 2014. The City and Oregon Department of Transportation (ODOT) adopted an intergovernmental agreement (IGA) consistent with the master plan's conditions of approval.

This effort, combined with Oregon City TSP goals, served as a catalyst for the commissioning of transportation demand management (TDM) plan for the City of Oregon City (2017).



- Rail transit station
- Bus stop
- Bus route
- High capacity transit
- Proposed high capacity transit
- Established bikeway
- Proposed bikeway
- Throughway
- Arterial
- Arterial outside UGB
- Proposed throughway
- Proposed arterial
- Proposed arterial outside UGB
- Branchline freight rail
- Mainline freight rail
- Employment area
- Industrial area
- Station communities
- Urban centers
- Parks and or natural Areas
- City boundaries
- Urban growth boundary
- County line



## Methodologies and Measures

- While congestion impacts considered through mobility performance measures will not be part of the approval criteria for future plans or land use regulation amendments, ODOT and the City still have a responsibility for addressing safety and operation of all their facilities. For this reason, the transportation infrastructure in the study area was evaluated with a variety of measures in order to document the existing deficiencies of the transportation system. Information reviewed included safety of the roadways and intersections and motor vehicle operational performance.
- MMA boundary is more than a quarter mile away from any of the interchange ramp terminal intersections in the vicinity. ODOT written concurrence was not required
- Traffic analysis used regional v/c targets for streets in the study area, which require that during the highest one-hour period of the day a maximum v/c ratio of 1.10 must be maintained at all intersections. Transportation analysis found:
  - Traffic analysis estimated the 95th percentile vehicle queues at the study intersections to identify potential mitigation solutions.
  - In conditions of approval for the master plan and echoed in the IGA, the City and ODOT agreed on three key transportation improvements along OR 99E to maintain safety and improve site accessibility:
    - » An intelligent transportation system (ITS) for traffic approaching the tunnel
    - » Prohibiting left turns northbound from OR 99E to Main Street and modification of the right turn geometry from 99E to Railroad Avenue
    - » Pork chop (or raised median) at the Water Avenue/OR 99E intersection to prevent unsafe movements and reinforce right-in, right-out access there.
  - » Future OR 99E improvements and a safety audit will be triggered by peak hour trip thresholds

## Strengths & Weaknesses of Current Policy/ Approach

- Adopting the MMA allowed for development envisioned in the Master Plan. The MMA allows flexibility in the operation of the state facility. It meets applicant and city's objectives, enabling the zoning that achieves the urban densities envisioned in the downtown and the Willamette Falls site, which are in turn consistent with Metro 2040 Regional objectives.
- Through the MMA designation, the City was able to focus on multimodal and safety improvements in the planning area, rather than OR 99E mobility.
- Like the 99E Special Transportation Area, which was a designation that enabled modifications to roadway width standards, the MMA recognizes that roadway standards are not compatible with the needs of downtown or a Regional Center.
- The MMA zone change was a catalyst for a TDM plan to encourage biking, walking and transit use as well as improved general information.
- The City's adopted IGA with ODOT identifies needed OR 99E improvements and is being executed, resulting in built projects consistent with the state and local financial commitments identified in the agreement.
- Vehicular trip demand (thresholds) drive the construction timing of several planned OR 99E safety improvements, ensuring that

needed improvements are done at the time of development.

- Pursuant to conditions of approval, a trip threshold is the trigger that allows the City and ODOT to require a safety audit as part of development plan review to address issues unforeseen by the long-range planning process.
- The MMA addresses safety on OR 99E but not any needed interchange improvements or impacts on I-205.

## Opportunities for Improvement

- The MMA addresses safety but does not obligate future capacity improvements on the local or state system.
- The City is interested in taking advantage of any opportunities that grant exceptions to the state and regional mobility requirements. City considers the possibility that with the Blueprint for Urban Design there wouldn't need to be an STA or MMA on McLoughlin.

PHOTO

PHOTO

## Local Partner

Working together to help update how the region defines mobility and measures success in the greater Portland region.



The Regional Mobility Plan is a joint effort between Metro and ODOT. Additional information is available at [oregonmetro.gov/mobility](http://oregonmetro.gov/mobility).

# Regional Mobility Policy Update

Examples of Current Applications | Development Project



Metro



[oregonmetro.gov/mobility](http://oregonmetro.gov/mobility)

Example

## 08 Commons on the Tualatin, Tualatin, OR

**DRAFT** October 2020



Source: Wikimedia Commons, by M.O. Stevens

### Overview

The Commons on Tualatin is a five-building apartment complex that would redevelop an existing recreational vehicle (RV) home park located at 6645 SW Nyberg Lane in Tualatin. The project is located four blocks east of the SW Nyberg Street/I-5 Interchange and is immediately south of the Tualatin River. It is adjacent to the Tualatin Town Center identified in Metro's 2040 Growth Concept and the Tigard to Wilsonville 2040 Mobility Corridor (Mobility Corridor 3). The project is also located in an Equity Focus Area identified in Metro's 2018 Regional Transportation Plan.

The project was allowed by right under the site's current zoning designation (High Density

Residential (RH)), subject to review by the City Engineer and Architectural Review Board. A Transportation Impact Study (TIS) was conducted in 2018 and included in the project's development application. Since the project is close to a freeway interchange, ODOT staff was given an opportunity to review the TIS scope of work and analysis and provided comments prior to the project decision.



**Location:**  
Washington County  
Tualatin, OR

**Plan Type:**  
Development Review

### How was the RMP a factor?

This development was allowed outright based on current zoning, and access was onto local roads. Therefore, ODOT did not have jurisdiction. However, the City requested comment from ODOT's development review staff. ODOT's review of the freeway ramp intersections was based on RMP / OHP 1F mobility targets. These targets are more stringent than the targets developed by both the City of Tualatin and Washington County.

### Outcome

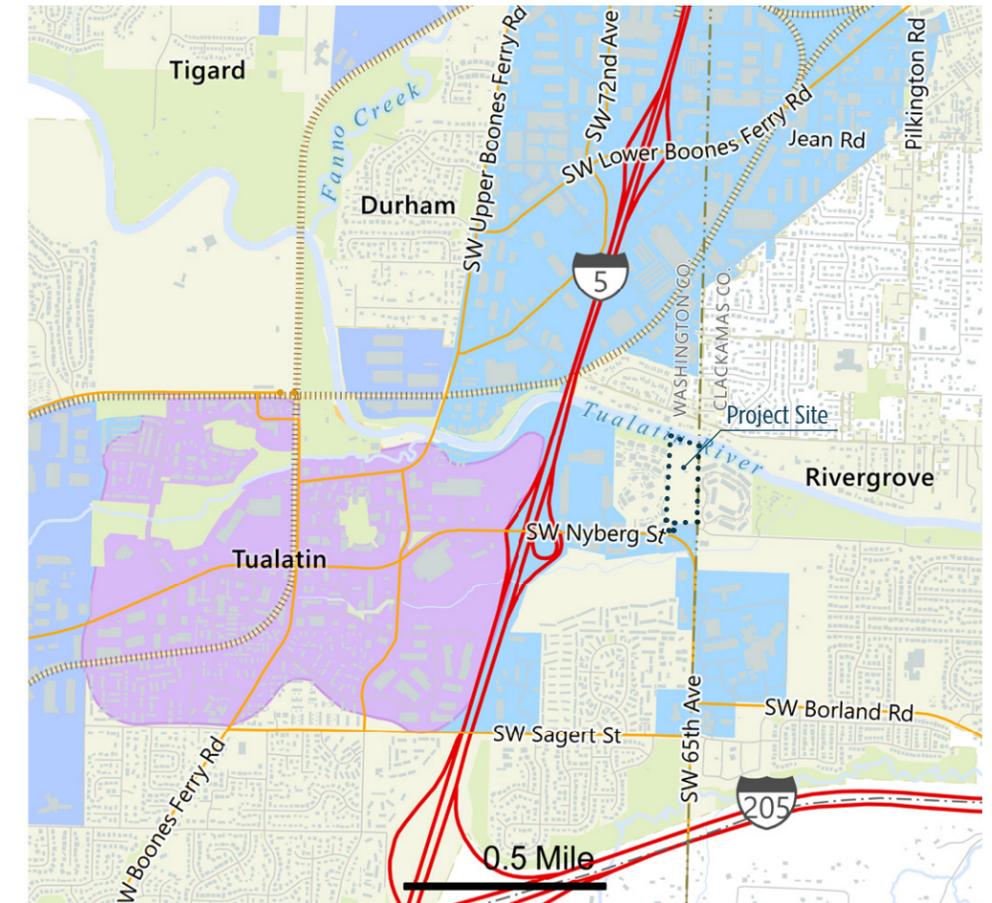
This project was approved but has not been constructed. The approval requires the developer to pay Washington County's Transportation Development Tax and make frontage and access improvements required by the City.

### Methodologies and Measures

The City identifies LOS E as the standard at intersections and Washington County sets the target for v/c at 0.90. Oregon Highway Plan Policy 1F sets a target v/c ratio of 0.85 or less at freeway ramp intersections, or 0.90 or less if analysis can demonstrate that queuing does not spill back onto the freeway's main line. The Traffic Impact Study (TIS) completed in 2018 applied the following approach:

- Traffic operations, including v/c ratios and LOS, were analyzed for weekday a.m. and p.m. peak hours at five study intersections, including the I-5 ramps and SW Nyberg Street
- Crash history and sight distance at the site access driveway were evaluated for the safety assessment

This evaluation found that the Southbound I-5/SW Nyberg Street would operate with a v/c ratio of 0.91, exceeding ODOT's target, with and without the addition of project trips. ODOT requested that the development contribute to



- Rail transit station
- Bus stop
- Bus route
- High capacity transit
- Proposed high capacity transit
- Established bikeway
- Proposed bikeway
- Throughway
- Arterial
- Arterial outside UGB
- Proposed throughway
- Proposed arterial
- Proposed arterial outside UGB
- Branchline freight rail
- Mainline freight rail
- Employment area
- Industrial area
- Station communities
- Urban centers
- Parks and or natural Areas
- City boundaries
- Urban growth boundary
- County line

PHOTO AND/OR MAP SPACE

PHOTO

PHOTO

improvements at the interchange since the project would add trips exceeding the interchange's capacity. However, neither ODOT nor the City's TSP had identified specific improvements and associated costs to add capacity at this location. Further, the proposed development added relatively few trips to the intersection at the interchange ramp. As a result, the City of Tualatin was not able to calculate the development's fair share contribution to interchange improvements and did not pursue mitigations.

Frontage improvements were required, along with ADA improvements at the nearest interchange. The project was also required to provide an easement for and construct the portion of the Tualatin River Greenway connecting through the north end of the site. No off-site mitigations were required.

### Strengths & Weaknesses of Current Policy/ Approach

- While ODOT staff were invited to review and comment on the development application, there was no mechanism for the development to contribute to improvements at the I-5 Southbound/Nyberg Street intersection.
- City of Tualatin staff noted that they were unable to require any contribution to interchange improvements from the developer, since those improvements had not been defined and costs for them had not been identified.

### Opportunities for Improvement

Staff at ODOT and City of Tualatin identified two opportunities to improve how the RMP affects the local development review process:

- 1 Creating funding tools to enable developer contributions to improvements (projects) that maintain regional mobility
- 2 Broadening the definition of mobility and including elements such as active transportation and TDM

### Local Partner

Working together to help update how the region defines mobility and measures success in the greater Portland region.



The Regional Mobility Plan is a joint effort between Metro and ODOT. Additional information is available at [oregonmetro.gov/mobility](http://oregonmetro.gov/mobility).

**Agenda Item 6**  
Potential Elements of the Updated  
Regional Mobility Policy

# Memo



Date: October 13, 2020  
To: Kim Ellis, Metro and Lidwien Rahman, ODOT  
From: Susie Wright, PE, and Bryan Graveline, Kittelson & Associates, Inc.  
Project: Regional Mobility Policy Update  
Subject: Potential Mobility Policy Elements - DRAFT

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## INTRODUCTION

There is no single accepted definition of mobility throughout the transportation industry. When using the word mobility, some may be referring to how quickly vehicles can travel on a road, others may be referring to how effectively a person can reach goods, services, and opportunities, and others may be referring to the reliability of travel times on a facility or system. While neither ODOT nor Metro have adopted definitions of mobility to date, much can be understood about the way they view mobility by understanding the way they measure mobility. ODOT's mobility policy is to provide "acceptable and reliable" levels of mobility but it and Metro's associated mobility performance measures include volume-to-capacity ratio (v/c ratio) only which is a measure of vehicle congestion. It considers but does not measure how well the transportation system works for people riding a bus or train, biking or walking, or moving freight and goods around the region. In using only one metric, the volume-to-capacity ratio, the measures do not account for the many ways people get around.

Metro's interim regional mobility policy performance measures and targets are shown in Table 2.4 of the Metro Regional Transportation Plan (RTP)<sup>1</sup> and are mirrored from Table 7 of the Oregon Highway Plan (OHP)<sup>2</sup>. These measures and targets define the level of motor vehicle performance in the Portland metropolitan region deemed acceptable by the Joint Policy Advisory Committee on Transportation (JPACT), the Metro Council, and the Oregon Transportation Commission (OTC). The policy is used to evaluate current and future performance of the motor vehicle network.

This project to update the Regional Transportation Plan's interim mobility policy and ODOT's mobility policy for the Portland Metro Region was identified in the 2018 Regional Transportation Plan (RTP) as necessary to better align the mobility policy with the comprehensive set of shared regional values, goals and desired outcomes identified in the RTP and 2040 Growth Concept, as well as with local and state goals. ODOT has also identified the need to update their mobility policy to better define expectations about mobility for different travel modes based on land use context and functional classification(s) of roads. An updated policy should describe the region's desired mobility

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<sup>1</sup> Metro. 2018 Regional Transportation Plan. December 2018.

<sup>2</sup> Oregon Department of Transportation. Oregon Highway Plan. Amended May 2015.

outcomes and more robustly and explicitly define acceptable and reliable levels of mobility for people and goods using the region's transportation system. This can in turn lead to reconsidering the way mobility is measured and the factors that are considered in setting the mobility targets and standards.

The following describes key questions that must be answered as part of updating the regional mobility policy and its performance measures:

- How should mobility be defined for the region's transportation system?
  - Should the definition and measures consider where, when, how, and for whom we are defining mobility and measuring mobility?
- Which of the RTP's desired transportation outcomes should we include as elements of the mobility policy?
- How are our expectations about mobility for different travel modes impacted by land use context and functional classification(s) of roads?
  - How do our expectations for throughway performance differ from expectations for arterials?
- How do we ensure that the mobility policy serves the transportation needs of traditionally underserved communities and underrepresented communities?
- How do we ensure that the mobility policy advances RTP priorities for equity, safety, climate, and congestion?

This memorandum identifies potential elements of mobility and outcomes related to mobility that could be reflected in an updated mobility policy and identifies illustrative performance measures that could help implement those elements of a mobility policy. The following list of potential mobility policy elements and their supporting performance measures was informed by reviewing best practices from jurisdictions around the country including review of Portland State University's synthesis research report on the subject.<sup>3</sup>

## POTENTIAL MOBILITY POLICY ELEMENTS AND RELATED RTP GOALS

The interim mobility policy currently addresses the performance of the roadway network and does not account for other things that people in the greater Portland area have said are most important to them. Community members in the Portland region want better access to buses, trains, trails and biking, walking and driving routes that safely, efficiently, reliably and affordably get them to the places they need to go. They want transportation options that address climate change and don't pollute the air and water. And they want to see these investments address racial, social and economic disparities that have resulted from past transportation decisions and have harmed communities.

An update to the mobility policy provides the opportunity to better address expectations for multi-modal network performance and support other goals related to the Portland metropolitan area's

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<sup>3</sup> Regional Mobility Policy Background Report: Policy Analysis and Best Practices, Transportation Research and Education Center (TREC) Portland State University, June 8, 2020

transportation system such as those listed below. Potential mobility policy elements consistent with RTP and OHP goals and policies are summarized below.

## **Land Use**

This potential mobility policy element calls for a transportation system that supports a compact, urban form and efficient use of land as adopted in the Metro 2040 Growth Concept and local comprehensive plans. This concept calls for integrating land use and transportation by directing growth and transportation investment in designated land use design types: Portland Central City, Regional and Town Centers, Corridors, Main Streets, and Employment and Industrial Areas. This reflects Goal #1 of the RTP, which aims to make the Portland region a great and affordable place to live, work, and play where people can easily and safely access opportunities.

A mobility policy that leads to progress toward this policy element would seek to provide multimodal transportation options that supports growth and increased density throughout the region, especially in designated 2040 Growth Concept centers and near transit. It would lead to an increase in the share of households in walkable, mixed-use areas and limit the costs of transportation on households and communities. This policy element complements other policies related to reducing VMT and GHG emissions while also increasing travel choices, efficient vehicle trips and accessibility. Improved accessibility makes it convenient for people to reach the goods, services, and activities they need. Improvements in accessibility can result when housing, jobs, schools, shopping and services are closer together (also known as location efficiency) and when biking, walking and riding transit are safe and convenient. Together, these factors contribute to reduced trip length, reduced vehicle trips per capita and increased biking, walking and transit mode share.

## **Access to Opportunities, People, and Goods**

This potential mobility policy element calls for an increase in access to opportunities, people, and goods for all people. This reflects Goal #2 of the RTP, which aims for a more connected region where people and businesses are provided access through an efficient and integrated system of thoroughways, arterial streets, transit services, bicycle and pedestrian facilities.

A mobility policy that leads to progress toward this policy element may seek to enhance completeness of all modal networks, provide improved connectivity between modes and between where people live and their essential destinations to achieve meaningful access to transportation (that's accessible, safe, and reasonably reliable and efficient) for people of all incomes and abilities.

## **Travel Choices**

This potential mobility policy element calls for an increase in the access to travel choices beyond personal vehicles for people throughout the region, including walking, biking, and transit options. This reflects Goal #3 of the RTP, which aims for people throughout the region to have safe, convenient, healthy, and affordable travel options.

A mobility policy that leads to progress toward this policy element may seek to increase the proportion of trips made by walking, bicycling, and transit, increase transit frequency and reliability, complete gaps in bicycle and pedestrian networks and reduce vehicle miles travelled (VMT) and VMT per capita.

### **Reliable and Efficient Vehicle Mobility**

This potential mobility policy element calls for the management and optimization of traffic flow on the regional transportation system. This reflects Goal #4 of the RTP, which aims to ease congestion and maintain reasonable personal and freight mobility and reliable travel times throughout the region, including transit.

A mobility policy that leads to progress toward this policy element may seek to reduce vehicle/freight congestion and improve auto, freight truck and transit travel time reliability on throughways and on arterials on the regional motor vehicle network, the regional freight network and the regional transit network<sup>4</sup>. However, this objective will need to be balanced with other potential mobility policy elements like minimizing the effects of climate change through reduced vehicle miles traveled and increased walking, biking and transit mode share, supporting regional land use policies and improving safety outcomes such as through pricing and other strategies that prioritize capacity for high-value trips.

### **Safety**

This potential mobility policy element calls for an elimination of fatal and serious injury crashes. This reflects Goal #5 of the RTP, which aims to save lives, avoid crashes, and ensure that people and goods are safe and secure when traveling in the region.

A mobility policy that leads to progress toward this policy element would seek to reduce fatal and serious injury crashes which it could do in part with a focus on VMT reduction.

### **Climate Change and Air Quality**

This potential mobility policy element calls for a reduction in greenhouse gas (GHG) emissions and other vehicular emissions throughout the region based on their effects on local air quality and their contribution to climate change. The Climate Smart Strategy for the Portland metropolitan region is the region's strategy for reducing greenhouse gas emissions from cars and small trucks. Among the policy recommendations included in this strategy are to coordinate land use and transportation; make transit convenient, frequent, accessible, and affordable; make biking and walking safe and convenient; and manage parking and travel demand. This reflects Goal #8 of the RTP which is based upon the Climate Smart Strategy.

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<sup>4</sup> As defined in the RTP.

A mobility policy that leads to progress toward this policy element may seek to reduce greenhouse gas emissions per person-vehicle mile traveled, transition Oregon to cleaner fuels and vehicles, and promote green infrastructure.

This policy element potentially shifts the focus of future transportation investments depending on if and how policy elements are prioritized. For example, adding roadway capacity to improve travel time reliability on thruways will result in more VMT and GHG emissions. Higher speeds on suburban arterials will result in more serious and injury crashes. The RTP and HP include strategies that should be considered before new roadway capacity is added which indicates that mobility policy elements may also need prioritization. For example, noting that while it is a policy element to improve travel time reliability or access to opportunity, it must not degrade progress toward GHG emissions reductions.

### **Transportation Equity**

This potential mobility policy element calls for the reduction or elimination of transportation-related disparities and barriers experienced by underserved and underrepresented communities, particularly communities of color. This reflects Goal #9 of the RTP, which aims to eliminate disparities related to access, safety, affordability, health outcomes, and eliminate barriers to meeting travel needs.

A mobility policy that leads to progress toward this policy element may seek to evaluate other demographic-based measures used in the RTP to identify and address disparities throughout the region, such as access to transit, low-stress walking and biking facilities, (including trip planning education programs), and shared electric vehicles (for areas and users that can't use these other modes); system completeness; pedestrian crashes; and affordability.

### **Fiscal Stewardship**

This potential mobility policy element calls for a regional transportation system that Metro and ODOT can afford to construct and maintain. This reflects Goal #10 of the RTP, which aims for regional transportation planning and investment decisions to provide the best return on public investments.

A mobility policy that leads to progress toward this policy element would seek to minimize project construction and maintenance costs; prioritize maintenance and operation over expansion or modification of the transportation network until a state of good repair is achieved and sustained; plan, build, and maintain assets to maximize their useful life; and lead to a preference for lower-cost transportation solutions, such as demand and system management or those that support walking and biking as well as overall reduction in lane miles per capita.

## **APPROACHES TO POTENTIAL MOBILITY POLICY ELEMENTS**

The following describes illustrative approaches to potential policy elements to help describe how including different policy elements in the mobility policy could address multiple RTP goals. It also

identifies potential performance measures that could be used to support the policy elements. These will be further expanded upon in the Best Practices Memorandum once key elements to add to the mobility policy are identified. The updated policy should describe the region’s desired mobility outcomes and more robustly and explicitly define acceptable and reliable levels of mobility for people and goods using the region’s transportation system. The approaches described could be implemented alone or in combination. The approaches include:

- Approach #1: Current Mobility Policy
- Approach #2: Current Mobility Policy with Reliability Element
- Approach #3: Multi-modal Mobility Policy
- Approach #4: Add System Completion Element
- Approach #5: Add Accessibility Element
- Approach #6: Add VMT Element
- Approach #7: Add Safety Element
- Approach #8: Add Infrastructure Condition Element

**Approach #1: Current Mobility Policy**

The current mobility policy is to maintain acceptable and reliable mobility on the state highway system and regional roadway network, with mobility defined by peak hour intersection vehicle demand-to-capacity ratio targets. Although the Oregon Highway Plan (OHP) policy references reliable mobility, its performance measures do not address actual traffic operations related to travel time or travel time reliability. Table 1 describes the RTP goals addressed by the current mobility policy.

**Table 1. RTP Goals Addressed by the Current Mobility Policy (Approach #1)**

Goal	Land Use (RTP Goal #1)	Access to Opportunities, People and Goods (Goal #2)	Travel Choices (Goal #3)	Reliable and Efficient Vehicle Mobility (Goal #4)	Safety (Goal #5)	Climate Change and Air Quality (Goal #8)	Transportation Equity (Goal #9)	Fiscal Stewardship (Goal #10)
Addressed?	○	◐	○	◐	◐	○	○	○

**Approach #2: Current Mobility Policy with Reliability Element**

This mobility policy approach would be to maintain acceptable and reliable mobility on the regional roadway network, with mobility defined both by a measure of congestion (or hours of congestion) and by travel time reliability targets. Many jurisdictions are moving away from peak hour v/c ratios as the congestion measure. Potential performance measures to support this policy approach with a different congestion measures include:

- Hours of congestion (as defined by hourly vehicular v/c ratios)
- Peak hour travel time reliability
- Throughway travel time reliability
- Freight travel time reliability
- Transit travel time reliability and on-time performance
- Percent system unreliable for given time periods or thresholds

Numerous state and local agencies have employed travel time reliability as a performance measure. Among these are ODOT through its key performance measures, Florida Department of Transportation (FDOT) through its Source Book<sup>5</sup>, Maryland Department of Transportation (MDOT) through its State Highway Mobility Report<sup>6</sup>, and the District Department of Transportation (DDOT) through its District Mobility Project<sup>7</sup>. FHWA also requires the analysis of a travel time reliability metric under MAP-21 and the FAST Act. Table 2 describes the RTP goals addressed by this policy approach.

**Table 2. RTP Goals Addressed by the Current Mobility Policy with Reliability Element (Approach #2)**

Goal	Land Use (RTP Goal #1)	Access to Opportunities, People and Goods (Goal #2)	Travel Choices (Goal #3)	Reliable and Efficient Vehicle Mobility (Goal #4)	Safety (Goal #5)	Climate Change and Air Quality (Goal #8)	Transportation Equity (Goal #9)	Fiscal Stewardship (Goal #10)
Addressed?	○	◐	○	●	◐	○	○	○

<sup>5</sup> Florida Department of Transportation. *The FDOT Source Book*. February 2019.

<sup>6</sup> Maryland Department of Transportation. *Maryland State Highway Mobility Report*. 2018.

<sup>7</sup> District Department of Transportation. *District Mobility Project*. Ongoing.

### Approach #3: Multimodal Mobility Policy

This mobility policy approach would be to maintain acceptable and reliable mobility on the regional roadway network, with mobility defined by vehicle, bicycle, pedestrian, and transit levels of service. Potential performance measures to support this approach include:

- Hours of congestion (as defined by hourly vehicular v/c ratios)
- Peak hour travel time reliability (cars, freight trucks, transit)
- Multimodal level of service (Vehicle LOS, Transit LOS, Bike LOS, Ped LOS, TDM LOS and TSMO LOS)
- Transit availability, frequency, on-time performance, and average wait time
- System completeness (by mode)

Jurisdictions that employ multimodal level of service as a performance measure include the City of Bellevue through its comprehensive plan<sup>8</sup>, Central Oregon jurisdictions through the TRIP97 Partnership<sup>9</sup>, City of Charlotte through its Urban Street Design Guidelines<sup>10</sup>, and DDOT through the District Mobility Project. Table 3 describes the RTP goals addressed by this policy approach.

**Table 3. RTP Goals Addressed by Multimodal Mobility Policy (Approach #3)**

Goal	Land Use (RTP Goal #1)	Access to Opportunities, People and Goods (Goal #2)	Travel Choices (Goal #3)	Reliable and Efficient Vehicle Mobility (Goal #4)	Safety (Goal #5)	Climate Change and Air Quality (Goal #8)	Transportation Equity (Goal #9)	Fiscal Stewardship (Goal #10)
Addressed?	⊙	●	●	⊙	⊙	⊙	●	○

### Approach #4: System Completion Element

This mobility policy approach element would be to pursue a complete transportation system by eliminating gaps in modal and transportation management networks; including but not limited to sidewalk gaps, crosswalk gaps, bicycle lane gaps, transit gaps, and vehicle network gaps. Potential performance measures to support this element include:

- Sidewalk gaps per adopted plans
- Crosswalk gaps per adopted plans

<sup>8</sup> City of Bellevue. *Comprehensive Plan*. 2015.

<sup>9</sup> Various Jurisdictions. *Transportation Reinvestment Innovation and Planning for US 97 in Central Oregon*. 2013.

<sup>10</sup> City of Charlotte. *Urban Street Design Guidelines*. Adopted October 2007.

- Bicycle infrastructure gaps per adopted plans
- Vehicle network gaps per adopted plans and RTP connectivity policies
- Percent planned networks meeting MMLOS standards
- Transit availability, frequency, on-time performance, and average wait time
- System Management & Operations infrastructure and services gaps per adopted plans
- Demand Management Services availability gaps per to be adopted plans

Jurisdictions that employ system completeness performance measures such as these include ODOT through its key performance measures, MnDOT through its Minnesota GO vision<sup>11</sup>, DDOT through its District Mobility Project, the cities of Kirkland, Kenmore, Redmond, Bellingham, Bellevue (adoption pending), Olympia (adoption pending) in Washington State, and FDOT through its Source Book. Table 4 describes the RTP goals addressed by this policy element.

**Table 4. RTP Goals Addressed by System Completion Mobility Policy Element (Approach #4)**

Goal	Land Use (RTP Goal #1)	Access to Opportunities, People and Goods (Goal #2)	Travel Choices (Goal #3)	Reliable and Efficient Vehicle Mobility (Goal #4)	Safety (Goal #5)	Climate Change and Air Quality (Goal #8)	Transportation Equity (Goal #9)	Fiscal Stewardship (Goal #10)
Addressed?	⊙	●	●	⊙	⊙	●	●	⊙

**Approach #5: Accessibility Element**

This mobility policy element would be to provide the Portland metropolitan region with adequate access to jobs, services, opportunities, and connections through a robust multimodal transportation system. Potential performance measures to support this element include:

- Number of jobs within a
  - 30-min. drive,
  - 45-min transit ride (including wait times)
  - 30-min. bike ride
  - 20-min walk
- Number of community places within a
  - 20-min. drive

<sup>11</sup> Minnesota Department of Transportation. *Statewide Multimodal Transportation Plan*. 2017.

- 30-min transit ride
- 20-min. bike ride
- 20-min walk
- Percent planned networks meeting MMLoS standards
- Freight market access/ Access to industrial and intermodal facilities

Jurisdictions that employ accessibility performance measures such as these include MnDOT through its Minnesota GO vision and FDOT through its Source Book. Table 5 describes the RTP goals addressed by this policy element.

**Table 5. RTP Goals Addressed by an Access Focused Mobility Policy Element (Approach #5)**

Goal	Land Use (RTP Goal #1)	Access to Opportunities, People and Goods (Goal #2)	Travel Choices (Goal #3)	Reliable and Efficient Vehicle Mobility (Goal #4)	Safety (Goal #5)	Climate Change and Air Quality (Goal #8)	Transportation Equity (Goal #9)	Fiscal Stewardship (Goal #10)
Addressed?	○	●	○	○	○	○	●	○

### Approach #6: VMT Element

This mobility policy approach element would seek to meet RTP goals by reducing vehicle travel per capita in the Portland metropolitan region. Potential performance measures to support this approach include:

- VMT per capita by geography
- Regional VMT per person miles traveled (PMT)

Jurisdictions that use VMT performance measures include ODOT through its Traffic Performance Report, Metro through its RTP Monitoring, and California through Senate Bill 743<sup>12</sup> and the California Environmental Quality Act (CEQA). The Los Angeles Mobility Plan 2035<sup>13</sup> cites both VMT and vehicle hours traveled (VHT) reduction as a desirable outcome. Table 6 below describes the RTP goals addressed by this policy element.

<sup>12</sup> California Senate. *Senate Bill 743*. 2013.

<sup>13</sup> City of Los Angeles. *Mobility Plan 2035*. Adopted September 2016.

**Table 6. RTP Goals Addressed by a VMT Focused Mobility Policy Element (Approach #6)**

Goal	Land Use (RTP Goal #1)	Access to Opportunities, People and Goods (Goal #2)	Travel Choices (Goal #3)	Reliable and Efficient Vehicle Mobility (Goal #4)	Safety (Goal #5)	Climate Change and Air Quality (Goal #8)	Transportation Equity (Goal #9)	Fiscal Stewardship (Goal #10)
Addressed?	●	○	⦿	⦿	⦿	●	⦿	●

**Approach #7: Safety Element**

This mobility policy element would be to reduce eliminate serious injury and fatal crashes on the roadway network. Potential performance measures include:

- Vehicle Miles Traveled
- Serious injury crashes and crash rates
- Fatal traffic crashes and crash rates
- Vehicle-pedestrian and vehicle-bicycle crashes and crash rates

Measures related to reduction in VMT on local and regional roads and reducing modal conflicts could be surrogates for incorporating safety into the mobility policy. The RTP designates high injury corridors that are typically arterials with higher occurrences of fatal and serious injury crashes. These are the priority corridors for safety related investments. Many of them are located in RTP designated equity focus areas (areas with greater concentrations of people of color, people with low-income and people who speak limited English).

Jurisdictions that employ safety performance measures such as these include ODOT through its key performance measures, Metro through its RTP and Regional Transportation Safety Strategy, MnDOT through its Minnesota GO vision, and FDOT through its Source Book, among many others. Table 7 below shows the RTP goals addressed by this policy element:

**Table 7. RTP Goals Addressed by a Safety Focused Mobility Policy Element (Option #7)**

Goal	Land Use (RTP Goal #1)	Access to Opportunities, People and Goods (Goal #2)	Travel Choices (Goal #3)	Reliable and Efficient Vehicle Mobility (Goal #4)	Safety (Goal #5)	Climate Change and Air Quality (Goal #8)	Transportation Equity (Goal #9)	Fiscal Stewardship (Goal #10)
Addressed?	●	⦿	⦿	○	●	●	○	●

**Approach #8: Infrastructure Condition Element**

This mobility policy element would be to preserve the affordability of the construction, operation and maintenance of the transportation system. ODOT tracks some of these as key performance measures already and the FAST Act/MAP-21 direct Metro and ODOT to track pavement and bridge condition for the National Highway System. Potential performance measures include:

- Percent of network in state of good repair
- Lane miles per capita
- Pavement condition rating
- Bridge condition rating
- Sidewalk condition rating

Table 8 below shows the RTP goals addressed by this mobility policy element.

**Table 8. RTP Goals Addressed by an Infrastructure Condition Mobility Policy Element (Option #8)**

Goal	Land Use (RTP Goal #1)	Access to Opportunities, People and Goods (Goal #2)	Travel Choices (Goal #3)	Reliable and Efficient Vehicle Mobility (Goal #4)	Safety (Goal #5)	Climate Change and Air Quality (Goal #8)	Transportation Equity (Goal #9)	Fiscal Stewardship (Goal #10)
Addressed?	⊙	○	⊙	○	⊙	⊙	⊙	●

**POLICY APPROACHES SUMMARY**

Table 9 summarizes the RTP goals that each potential policy approach would address. The “Score” column rates each policy element by assigning one point for every RTP goal it addresses and half a point for every RTP goal it partially addresses. As shown, the Multimodal Mobility Policy, System Completion Element, Access Element, VMT Element, and Safety Element received the highest scores under this methodology. This information can be used to consider different types of elements to consider in the updated mobility policy.

**Table 9. RTP Goals Addressed by Each Mobility Policy Element**

Mobility Policy Element Options	Land Use (RTP Goal #1) Land Use	Access to Opportunities, People and Goods (Goal #2)	Travel Choices (Goal #3)	Reliable and Efficient Vehicle Mobility (Goal #4)	Safety (Goal #5) Safety	Climate Change and Air Quality (Goal #8) Climate	Transportation Equity (Goal #9)	Fiscal Stewardship (Goal #10)	Score
Current Mobility Policy	○	⊙	○	⊙	⊙	○	○	○	1.5
Current Mobility Policy with Reliability Element	⊙	⊙	○	●	⊙	○	○	○	2.5
Multimodal Mobility	○	●	●	⊙	⊙	⊙	●	○	4.5
System Completion Element	⊙	●	●	⊙	⊙	●	●	⊙	6
Accessibility Element	⊙	●	⊙	⊙	⊙	⊙	●	⊙	5
VMT Element	●	○	⊙	⊙	⊙	●	⊙	●	5
Safety Element	●	⊙	⊙	○	●	●	○	●	5

● = Yes ○ = No ⊙ = Partially

**NEXT STEPS**

The potential mobility related policy elements described in this memo that could be incorporated into the region’s mobility policy will be reviewed with project stakeholders, revised, and narrowed down for testing based on input received. The refined set of potential draft policy elements and associated measures will be tested on illustrative case studies to demonstrate how different potential mobility policies could impact transportation outcomes and the planning process.

This process will need to address the following questions:

- How will we define mobility for the region’s transportation system?
- What mobility performance measures would better inform land use and transportation decisions and investments from a mobility perspective?
- What policy changes are needed to achieve the desired mobility outcomes?
- What are our expectations about mobility for different travel modes based on land use context and functional classification(s) of roads?
- What other factors should be considered in the mobility policy to better align the policy with our expectations about mobility?

**Agenda Item 7**

Introduction to Draft Evaluation Framework for  
Selecting and Testing Potential  
Mobility Performance Measures

# Memo



Date: October 13, 2020  
To: Kim Ellis, Metro, and Lidwien Rahman, ODOT  
From: Susan Wright, PE, and Bryan Graveline, Kittelson & Associates, Inc.  
Project: Regional Mobility Policy Update  
Subject: Performance Measure Screening and Evaluation Criteria - DRAFT

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## OVERVIEW

*The Regional Transportation Plan (RTP) includes a vision that acknowledges transportation has a role in the economy and people’s quality of life. The vision is for everyone to have access to an affordable transportation system with travel options.*

## RTP VISION

***In 2040, everyone in the Portland metropolitan region will share in a prosperous, equitable economy and exceptional quality of life sustained by a safe, reliable, healthy, and affordable transportation system with travel options.***

*Vision approved by the Metro Policy Advisory Committee, Joint Policy Advisory Committee on Transportation and the Metro Council in May 2017.*

The RTP identifies four policy priorities and defines transportation goals, objectives, and performance measures that provide an outcomes-based framework to guide transportation planning and decision making in the region. As part of the last RTP update, these goals, objectives, and performance measures were used to identify recommended investments and are now being used to monitor how the transportation system is performing between RTP updates. *Attachment A includes RTP goals and objectives. Attachment B includes the nine system performance measures that have aspirational targets and provide a basis for measuring expected performance of the RTP<sup>1</sup>.* The RTP also addresses state-mandated targets for reducing per capita vehicle miles travel

## RTP POLICY PRIORITIES



<sup>1</sup> As part of this project, a memorandum will be prepared documenting performance of the existing RTP.

per capita greenhouse gas emissions and reliance on single-occupant vehicles (SOV) by including non-SOV mode split targets.

While the RTP’s overall policy and decision-making framework is multi-modal, the RTP’s mobility policy is vehicle-based and the measure used is the volume-to-capacity ratio (v/c ratio<sup>2</sup>). Originally adopted by the Joint Policy Advisory Committee on Transportation (JPACT) and the Metro Council in 2000 and amended into the Oregon Highway Plan (OHP) by the Oregon Transportation Commission (OTC) in 2002, the interim regional mobility policy reflects a level of motor vehicle performance in the region that JPACT, the Metro Council and the OTC deemed acceptable at the time of its adoption. At the time, policymakers recognized the policy as an incremental step toward a more comprehensive set of measures that consider system performance for all modes, as well as financial, social equity, environmental and community impacts.

The interim mobility policy broke from the historic practice of "one size fits all" congestion standards for roads and freeways to a more tailored approach that coordinates the region’s land use goals with the role of major streets, focuses auto and freight mobility expectations on the freeway system and emphasizes the role of transportation choices in moving people throughout the region. The policy allows for more congestion during the peak period in locations that have good travel options available, such as high capacity transit, while aiming to protect the off-peak period for freight mobility. This new emphasis on a tailored mobility policy and multimodal solutions was also incorporated into the Oregon Transportation Plan (OTP) in 2006, the policy document that frames and organizes all of the state’s modal plans for transportation, including the OHP.

Subsequent updates to the RTP, and development of supporting topical and modal plans, continued that

## RTP DESIRED OUTCOMES

**Six desired outcomes for the greater Portland region**

**Equity**  
The benefits and burdens of growth and change are distributed equitably.

**Vibrant communities**  
People live, work and play in vibrant communities where their everyday needs are easily accessible.

**Economic prosperity**  
Current and future residents benefit from the region’s sustained economic competitiveness and prosperity.

**Safe and reliable transportation**  
People have safe and reliable transportation choices that enhance their quality of life.

**Clean air and water**  
Current and future generations enjoy clean air, clean water and healthy ecosystems.

**Climate leadership**  
The region is a leader in minimizing contributions to global warming.

– Adopted by Metro Policy Advisory Committee and the Metro Council in 2008.

<sup>2</sup> V/C is the primary way of measuring vehicle congestion on roads and at intersections. The current policy measures the number of motor vehicles relative to the motor vehicle capacity of a given roadway during peak weekday travel times (currently defined as being from 4 to 6 p.m.).

evolution and defined a broader set of performance measures that can provide a more comprehensive assessment of transportation system performance as reflected in the performance measures identified for each RTP goal and the regional performance targets, including the interim regional mobility policy, contained in Chapter 2 and Chapter 3 of the RTP and Table 7 of the Oregon Highway Plan. Recognizing the limitations of the current vehicle-focused mobility policy, the region has committed to updating the interim regional mobility policy to better align with the comprehensive set of goals and desired outcomes identified in the RTP. The purpose of this project is to update and replace the interim mobility policy adopted in the RTP and the OHP Policy IF3 (Highway Mobility Policy).

### MOBILITY POLICY UPDATE PROCESS

Updating the mobility policy and its associated performance measures will be a multi-step process that starts with identifying the desired key elements of the updated mobility policy (e.g. What are the key policy elements and desired outcomes that should be reflected in the updated mobility policy for the Portland region?). Performance measures to support the mobility policy will be developed through a multi-step process that includes selecting mobility performance measures to test, testing the performance measures on case studies, and then selecting the preferred measures to implement the updated mobility policy. This memorandum presents draft screening criteria for selecting performance measures to test and draft evaluation criteria for evaluating the performance measures during the case studies.

### SCREENING AND EVALUATION CRITERIA

The draft screening criteria are focused on the extent to which the performance measures accomplish the potential mobility policy elements and desired RTP outcomes and will need revision once the policy's key elements are identified.

The draft evaluation criteria are focused on attributes for the mobility performance measures to have; however the screening criteria will also be applied in more depth during the evaluation phase to assess the effectiveness of the current interim mobility policy performance measure and evaluate the potential new performance measures.

The draft screening and evaluation criteria were developed based on:

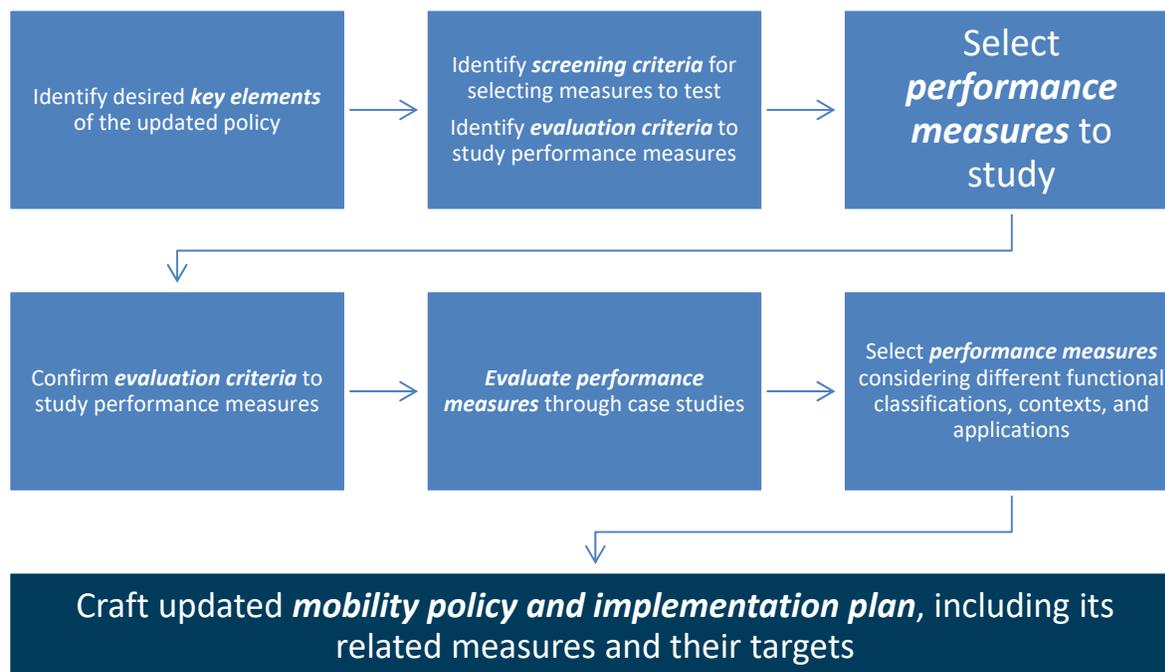
- the goals and outcomes in the 2018 RTP;
- State transportation and land use goals and policies;
- themes from past stakeholder engagement;
- background research provided by Portland State University;
- ODOT's Oregon Highway Plan (OHP) Mobility Policy White Paper<sup>3</sup>;

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<sup>3</sup> [https://www.oregon.gov/odot/Planning/Documents/OHP\\_Mobility\\_White\\_Paper.pdf](https://www.oregon.gov/odot/Planning/Documents/OHP_Mobility_White_Paper.pdf)

- best practices from other long-range planning projects; and,
- the Metro/ODOT Regional Mobility Policy (RMP) Update project objectives<sup>4</sup>.

## MOBILITY POLICY UPDATE PROCESS



### Screening Criteria

The following describes the proposed screening criteria for selecting performance measures for testing. The final screening criteria will be dependent in part upon which mobility-related policy elements are desired to be incorporated into the updated mobility policy. Potential performance measures will not need to address each of the criterion to be selected for testing but the set of measures for testing will need to be able to address each of the mobility policy elements collectively.

#### Screening Criteria #1: Addresses Multiple Desired Outcomes

##### Description:

- Does the measure help evaluate progress toward achieving desired outcomes across the entire Portland region?
- If so, which ones?
- Directly or indirectly?

<sup>4</sup> <https://www.oregonmetro.gov/sites/default/files/2020/08/05/Regional-mobility-policy-fact-sheet-summer2020.pdf>

## Screening Criterion #2: Access to Opportunities, Social Connections, and Goods

### Description

- Does the measure help evaluate increased access to opportunities, social connections, and goods for all people?
- Does it evaluate access for people and/or for goods at the statewide, regional, and local levels?
- Does it measure if a transportation system provides meaningful<sup>5</sup> access to travel choices for all people?

## Screening Criterion #3: Travel Choices

### Description:

- Does the measure help evaluate the availability, awareness and viability of modal choices for people where they live, where they work, and to other essential destinations and community places?
- Does the measure help evaluate the availability and viability of modal choices for goods?

## Screening Criterion #4: Reliable and Efficient Mobility

### Description:

- Does the measure help evaluate efficient use of the transportation infrastructure and related services and programs?
- Does the measure the efficient movement of people and/or goods at the statewide, regional, and local levels?

## Screening Criterion #5: Equity

### Description:

- Does the measure help evaluate changes in the transportation-related disparities and barriers experienced by historically marginalized communities? *(Note that most criteria could have an equity lens applied by comparing the outcome for historically marginalized communities (HMC) vs. Non-HMC as defined in the 2018 RTP).*

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<sup>5</sup> Meaningful access means for all people means that it is provided across the full socioeconomic range. “Meaningful” requires definition but includes facilities that are safe and accessible, affordable, reasonably frequent for transit, and could also include access to charging infrastructure in the future.

## Screening Criterion #6: Climate Change and Air Quality

### *Description*

- Does the measure help evaluate changes in single-occupancy vehicle travel and vehicle miles traveled?
- Does the measure other changes that result in lower greenhouse gas emissions?

## Screening Criterion #7: Safety

### *Description:*

- Does the measure help evaluate changes in crashes, especially fatal and serious injury crashes?<sup>6</sup>

## Screening Criterion #8: Land Use

### *Description:*

- Does the measure help evaluate support for compact, urban form and planned land uses (including industrial areas and other jobs centers) as envisioned in the 2040 Growth Concept and implemented in local comprehensive plans?
- Can it be used to assess supportiveness to planned land uses and reduction of barriers to implementation of planned land uses?
- Does it evaluate consistency with Statewide Planning Goals and Oregon Transportation Plan goals and policies?

## Screening Criterion #9: Fiscal Stewardship

### *Description:*

- Does the measure help evaluate impact to the transportation infrastructure system and related services and programs that ODOT, Metro, cities, counties and transit providers can afford to build, operate and maintain?

## Screening Criterion #10: Flexibility Based on Geographical and Roadway Functional Context

### *Description:*

- Is it focused on people, goods, or both?
- Does it distinguish throughway and arterial performance and consider land use and roadway functional context?

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<sup>6</sup> A reduction of VMT generally leads to a reduction in crashes. Compared to other regions, the Portland Metro Region has a very low crash rate per capita which can be attributed to land use decisions and lower VMT per capita compared to the rest of the state and many other parts of the country. Regions with crash rates comparable to the Portland Metro Region include New York, Minneapolis, Boston, Chicago and Seattle, all of which have robust transit and dense land use development.

- Does it apply to urban and suburban context or consider unique needs of suburban areas at the edge of the growth boundary?

## Evaluation Criteria

The following describes the proposed evaluation criteria for evaluating the performance measures during the case studies. Some apply to an individual measure and some apply to a potential collective set of measures. The relevant screening criteria will also be applied in more depth during the evaluation phase to assess the effectiveness of the current interim mobility policy performance measure and evaluate the potential new performance measures.

### Evaluation Criterion #1: Technical Feasibility and Clarity

#### *Description:*

- Are the performance measures reasonably simple to analyze?
- Are they easy for both the public and practitioners to understand?
- Do they rely on readily available data and a proven analysis process?
- Is the measure already in use by ODOT and/or Metro?

### Evaluation Criterion #2: Appropriateness for Intended Applications and Different Scales

#### *Description:*

- Can the measures be used for one or all intended applications (system planning, plan amendments, and development review)?
- What scales can it be applied to (system level impact or project/location level impact)?

### Evaluation Criterion #3: Legal Defensibility

#### *Description:*

- Are the measures legally defensible with respect to legal mandates from the State of Oregon over the past 20 years?
- Can they document incremental changes or impacts and be compared to a standard?

### Evaluation Criterion #4: Emerging Best Practice

#### *Description:*

- Is the measure(s) in use by other states, MPOs and/or jurisdictions<sup>8</sup>?

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<sup>8</sup> There are advantages of having a community of practitioners and researchers to collaborate with who are advancing the state of the practice for the data and modeling tools.

### **Evaluation Criterion #5: Ability for ODOT, Metro and Local Agencies (Alone or Working Together) Able to Impact Outcome/ Show Progress**

*Description:*

- Does the measure provide a link between the mobility policy and the outcomes demonstrated by the performance measures?
- Are ODOT, Metro and local agencies (alone or working collectively toward the regional goals) able to impact these outcomes?

### **Evaluation Criterion #6: Comparison Between Alternatives**

*Description:*

- Do the measures allow for meaningful comparison between system-level or project/plan amendment level alternatives?

## **NEXT STEPS**

The draft screening criteria and evaluation criteria will be reviewed with project stakeholders and will be revised based on input received. The revisions will need to consider the mobility-related policy elements recommended by stakeholders for including in the updated mobility policy.

After additional work is completed including the Examples of Current Approaches documenting how the policy is working today, an RTP Performance Assessment, and the Performance Measures Best Practices Memo, the screening criteria and evaluation criteria will be further refined prior to being applied to evaluate the performance measures on sample case studies.

## ATTACHMENT A: RTP GOALS AND OBJECTIVES

**Figure 2.3 RTP goals and objectives – At-A-Glance**

<p><b>Goal 1. Vibrant Communities</b> Objective 1.1 2040 Growth Concept Implementation Objective 1.2 Walkable Communities Objective 1.3 Affordable Location-Efficient Housing Choices Objective 1.4 Access to Community Places</p> <p><b>Goal 2. Shared Prosperity</b> Objective 2.1 Connected Region Objective 2.2 Access to Industry and Freight Intermodal Facilities Objective 2.3 Access to Jobs and Talent Objective 2.4 Transportation and Housing Affordability</p> <p><b>Goal 3. Transportation Choices</b> Objective 3.1 Travel Choices Objective 3.2 Active Transportation System Completion Objective 3.3 Access to Transit Objective 3.4 Access to Active Travel Options</p> <p><b>Goal 4. Reliability and Efficiency</b> Objective 4.1 Regional Mobility Objective 4.2 Travel Management Objective 4.3 Travel Information Objective 4.4 Incident Management Objective 4.5 Demand Management Objective 4.6 Pricing Objective 4.7 Parking Management</p> <p><b>Goal 5. Safety and Security</b> Objective 5.1 Transportation Safety Objective 5.2 Transportation Security Objective 5.3 Preparedness and Resiliency</p>	<p><b>Goal 6. Healthy Environment</b> Objective 6.1 Biological and Water Resources Objective 6.2 Historic and Cultural Resources Objective 6.3 Green Infrastructure Objective 6.4 Light pollution Objective 6.5 Habitat Connectivity</p> <p><b>Goal 7. Healthy People</b> Objective 7.1 Active Living Objective 7.2 Clean Air Objective 7.3 Other Pollution Impacts</p> <p><b>Goal 8. Climate Leadership</b> Objective 8.1 Climate Smart Strategy Implementation Objective 8.2 Greenhouse Gas Emissions Reduction Objective 8.3 Vehicle Miles Traveled Objective 8.4 Low and Zero Emissions Vehicles Objective 8.5 Energy Conservation Objective 8.6 Green Infrastructure</p> <p><b>Goal 9. Equitable Transportation</b> Objective 9.1 Transportation Equity Objective 9.2 Barrier Free Transportation</p> <p><b>Goal 10. Fiscal Stewardship</b> Objective 10.1 Infrastructure Condition Objective 10.2 Sustainable Funding</p> <p><b>Goal 11. Transparency and Accountability</b> Objective 11.1 Meaningful Public and Stakeholder Engagement Objective 11.2 Performance-Based Planning Objective 11.3 Coordination and Cooperation</p>
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## ATTACHMENT B: RTP PERFORMANCE MEASURES AND TARGETS

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**1 AFFORDABILITY** Reduce the combined housing and transportation expenditure for lower-income households by 25%, compared to 2015
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**2 SAFETY** Eliminate transportation fatalities and serious injuries for all users by 2035, with a 50% reduction by 2025 and a 16% reduction by 2020, compared to 2015
- 

**3 MULTIMODAL TRAVEL** Reduce vehicle miles traveled per person by 10%, compared to 2015
- 

**4 MODE SHARE** Triple walking, biking and transit mode shares, compared to 2015
- 

**5 SYSTEM COMPLETION** Complete 100% of the regional network of sidewalks, bikeways and trails
- 

**6 CONGESTION** Meet the Interim Regional Mobility Policy for throughways, arterials and the regional freight network
- 

**7 FREIGHT DELAY** Reduce vehicle hours of delay per truck trip by 10%, compared to 2040 No Build
- 

**8 CLIMATE CHANGE** Reduce per capita greenhouse gas emissions from cars and small trucks by 20% by 2035 and 25% by 2040, compared to 2005
- 

**9 CLEAN AIR** Maintain or reduce air pollution from mobile sources, compared to 2015