

# Memo



Date: January 20, 2022  
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Project: Regional Mobility Policy Update  
Subject: Task 8.1: “Discussion Draft” Mobility Policy Report

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## Introduction

Metro and the Oregon Department of Transportation (ODOT) are working together to update the regional mobility policy and related mobility measures for the Portland metropolitan area. The mobility policy guides the 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. The goal of this update is to better align the policy and measures with shared regional values, goals, and desired outcomes identified in Metro’s Regional Transportation Plan (RTP) and 2040 Growth Concept as well as with local and state goals, and define expectations about mobility by travel mode, land use context, and roadway functional classification. The updated policy will describe the region’s desired mobility outcomes and more robustly and explicitly define mobility for transportation system users in the Portland area.

This document builds upon the draft mobility definition and foundational elements integral to achieving the region’s desired mobility outcomes, and presents a “Discussion Draft” mobility policy with options and recommendations for policymakers and stakeholders related to how the performance measure case study findings should influence the policy. The performance measure case studies are documented in Case Study Analysis Memorandum and summarized in the attached document which should be referenced when considering the policy options.

## Goal

The following draft policies are intended to help achieve a vision of mobility where *people and businesses can safely, affordably, and efficiently reach the goods, services, places, and opportunities they need to thrive by a variety of seamless and well-connected travel options and services that are welcoming, convenient, comfortable, and reliable.*

## Desired Outcomes

The following mobility outcomes were identified by stakeholders as critical to how we plan for, manage, and operate our transportation system. They were crafted to achieve the above mobility goal in alignment with ODOT and Metro strategic goals and priorities.

- **Equity** – Black, Indigenous and people of color (BIPOC) community members and people with low incomes, youth, older adults, people living with disabilities and other historically marginalized and underserved communities experience equitable mobility.
- **Access** – People and businesses can conveniently and affordably reach the goods, services, places, and opportunities they need to thrive.

- **Efficiency** – Land use and transportation decisions and investments contribute to more efficient use of the transportation system meaning that trips are shorter and can be completed by more travel modes, reducing space and resources dedicated to transportation.
- **Reliability** – People and businesses can count on the transportation system to travel where they need to go reliably and in a reasonable amount of time.
- **Safety** – People are able to travel safely and comfortably, and feel welcome.
- **Options** – People and businesses can choose from a variety of seamless and well-connected travel modes and services that easily get them where they need to go.

## Discussion Draft Regional Mobility Policy

The following includes the proposed policies along with options and recommendations for how they could be implemented. The basis for these recommendations is included in the Case Study Analysis Memorandum.

### **Policy 1      Ensure that the public’s investment in the transportation system enhances efficiency in how people and goods travel to where they need to go.**

Efficiency in this context means that transportation requires less space and resources. Efficiency can be improved by shortening travel distances between destinations. Shorter travel distances to destinations enhances the viability of using other and more efficient modes of transportation than the automobile and preserves roadway capacity for transit, freight and goods movement by truck and longer trips. Efficiently using land, and planning for key destinations in proximity to the end users, contributes to shorter trip lengths.

**Recommended Measure:**

-VMT/Capita

As demonstrated in the case studies, the transportation efficiency of existing and proposed land use patterns and transportation systems can be measured by looking at “vehicle miles traveled (VMT) per capita” of an area.

The following describes how these could be implemented in the policy. The options could be considered individually or in combination.

#### *Measurement Options*

- **Option A1:** Incorporate vmt/capita reduction targets into the policy to ensure that land use decisions and transportation system plans<sup>1</sup> support efficient transportation systems and reduced travel demand.
  - A1.1: Apply to comprehensive plans and TSPs at the regional and local jurisdiction level. (Feasible per case studies)
  - A1.2: Apply to sub-area plans (larger-scale comprehensive plan amendments). (Feasible per case studies)

<sup>1</sup> TSPs and comprehensive plans collectively can achieve reduced vmt/capita; however, the contributions of individual projects are challenging to measure and when considered individually or in a localized area may increase vmt/capita.

- A1.3: Apply to all plan amendments (including smaller-scale or individual property amendments) (Case studies indicate the need to use this measure with caution at smaller scales as the proposed land use change could result in higher vmt/capita for the parcel while still contributing lower vmt/capita for the jurisdiction if it’s below the jurisdiction’s average indicating it would provide for increased development in an area that is more efficient than other areas. In addition, the measure is not sensitive to small transportation changes and will show increased vmt/capita if trying to isolate individual capacity increasing projects that may be needed to support efficient development.)

**Policy 2 Provide people and businesses a variety of seamless and well-connected travel modes and services that increase connectivity, increase choices and access to low carbon transportation options so that people and businesses can conveniently and affordably reach the goods, services, places and opportunities they need to thrive.**

Viability of trips made by modes other than automobile can be increased by investing in a connected, multimodal transportation system. Multimodal systems serve all people, not just those that have access to vehicles or the ability to drive them, and provide more route choices, increase safety and efficiency, and reduce congestion.

**Potential Measures:**

- Access to Destinations
- System Completeness  
*(recommended)*

Closing gaps in networks, particularly pedestrian and bicycle networks, can change land use and travel preferences, reducing vmt/capita. Progress towards well connected, multimodal networks can be measured by mode with the “system completeness” or “access to destinations” measures.

“Access to destinations” is useful for identifying areas where there are disparities in access to destinations between different modes due to gaps and deficiencies in the transportation network as well as where increases in different types of land uses would increase people’s access to destinations. It can also be compared for Equity Focus Areas and non-Equity Focus Areas.

The following describes how these measures could be implemented in the policy. The options could be considered individually or in combination.

*Measurement Options*

- **Option 2A:** Incorporate “system completeness” targets into the policy to identify needs and ensure that the planned transportation system is increasing in connectivity and safety of the multimodal network. The definition of complete will vary based on the modal functional classification and design classification and can be refined by facility in system plans. (Case studies support system completeness for all levels of planning)
- **Option 2B:** Incorporate “access to destinations” metrics into the policy to identify disparities in access to destinations across modes and identify transportation and land use strategies to increase access to destinations. (Case studies indicate this is challenging other than at the system planning level)
  - 2B. 1: Apply at the regional level. (Feasible per case studies)

- 2B.2: Apply to local jurisdiction and sub-area plans (TSPs and larger-scale comprehensive plan amendments). (Challenging per case studies based on available tools and level of staff time required)
- 2B.3: Apply to small plan amendments (individual property amendments) (Challenging to apply to a small zone change as it’s dependent upon the specific land use which can be uncertain during the zone change)

**Policy 3      Create a reliable transportation system, one that people and businesses can count on to reach destinations in a predictable and reasonable amount of time.**

In a reliable transportation system, all users, including people in automobiles and using transit, can reasonably predict travel time to their destinations. Reliability is impacted by travel conditions, safety, street connectivity, congestion and availability of travel options. Investments in safety, street connectivity, transit, operations management, and demand management could yield the greatest benefits reducing congestion and increasing reliability for vehicle modes.

For Throughways, the essential function is throughput and mobility for motor vehicle travel. Throughways serve interregional and interstate trips and travel times are an important factor in people and businesses being able to make long-distance trips to and through the region and access destinations of statewide significance in a reasonable and reliable amount of time.

For most Arterials, depending upon the design classification and freight network classification, the essential function is transit, bicycle and pedestrian travel and access or permeability while balancing motor-vehicle travel and the many other functions of intensely developed areas. On Arterials, reducing congestion through additional roadway capacity should not come at the expense of non-motorized modes and achieving system completeness consistent with modal or design classification or achieving the VMT/capita target for the jurisdiction.

Congestion can be measured in many ways. The measures evaluation process resulted in the case studies focusing on “v/c ratio” and “travel speed” to measure congestion and also looked at “hours of congestion” as a potential metric.

The following describes how these measures could be implemented in the policy. The options could be considered individually or in combination.

*Measurement options*

- **Option 3A:** Incorporate congestion targets into the mobility policy for throughways. Note all options for throughways would include a target for off-ramp queues to minimize queue spillback into through lanes.
  - 3A.1: Base the congestion targets on link v/c ratio (current metric)
  - 3A.2: Base the congestion targets on travel speed (supported by the case studies) (Shows very similar locations and levels of congestion depending on the threshold compared to v/c, but is more relatable to the public for policy discussions, is

**Potential Measures:**

- V/C Ratio
- Travel Speed  
*(recommended)*
- Off-Ramp Queues  
*(recommended)*
- Hours of Congestion  
*(potential component)*

consistent with how systems are managed, and switches to a target that cannot be inappropriately applied at the intersection level.)

- 3A.3: Base the congestion targets on hours of congestion (needs to be based on either v/c ratio or travel speed) (case studies indicate HOC can be applied effectively with either v/c or travel speed and can be used to look at the severity of congested areas and help prioritize bottleneck improvements and could be part of the target but it would only be sensitive to change at the system planning level or major changes in roadway pricing or capacity)
- **Option 3B:** Include link level congestion targets in the mobility policy for all arterials to identify mobility needs and inform decisions on the number of lanes that will be considered complete for the vehicle mode. Targets would vary based on modal classifications and land use context.
  - 3B.1: Base the congestion targets on link v/c ratio (supported by the case studies)
  - 3B.2: Base the congestion targets on travel speed (supported by the case studies) (Note arterials need lower targets than throughways as a percentage of posted or free flow speed given the presence of traffic signals and signal delay even in uncongested time periods results in average speeds below posted or free flow speed))
  - 3B.3: Base the congestion targets on hours of congestion (needs to be based on either v/c ratio or travel speed) (See 3a.3 case study findings)
- **Option 3C:** Include link level congestion targets in the mobility policy for arterials outside of 2040 centers, station communities and main streets to identify mobility needs and inform decisions on the number of lanes that will be considered complete for the vehicle mode. Targets would vary based on modal classifications and land use context.
  - 3C.1: Base the congestion targets on link v/c ratio (supported by the case studies)
  - 3C.2: Base the congestion targets on travel speed (supported by the case studies)
  - 3C.3: Base the congestion targets on hours of congestion (needs to be based on either v/c ratio or travel speed) (See 3a.3 case study findings)
- **Option 3D:** Do not include congestion targets in the mobility policy for arterials (congestion metrics can be used as diagnostic tools to support system planning). Could make exceptions for enhanced transit or high-capacity transit corridors and regional freight network routes.

**Policy 4     Prioritize the safety and comfort of travelers in all modes when planning and implementing mobility solutions.**

Unsafe travel ways can result in injury and loss of life, and place a strain on emergency responders. Both unsafe conditions and perceived unsafe conditions can impact travel behavior, causing users to choose different routes or modes. Prioritizing investments that reduce the likelihood of future crashes and that improve safety and comfort for all users will increase mode choices and improve reliability. System completeness, queuing, pedestrian crossing index, and bicycle level of traffic stress measures are all metric that are useful in identifying needs and investments that could enhance safety and comfort.

The following describes how these measures could be implemented in the policy. The options could be considered individually or in combination.

*Measurement options*

- **Option 4A:** Incorporate “system completeness” target into the mobility policy to ensure safety and comfort for all modes. (Metric can be used to identify needs but the definition of “complete” would also be defined through system planning to define the future number of through lanes, policy on turn lanes, type of bicycle facility, target pedestrian crossing spacing, and TSMO/TDM plan elements)
- **Option 4B:** Incorporate “queuing” target into the mobility policy for Throughway ramp terminals to minimize queues spilling onto the Throughway creating safety issues.
- **Option 4C:** Incorporate “pedestrian crossing index” metric into the mobility policy to identify needs and inform facility level planning. (Setting target through the RMP not recommended but recommended that system and facility plans establish targets for each facility based on Livable Streets Guide and adjusting for local context.)
- **Option 4D:** Incorporate “bicycle level of traffic stress” metric into the mobility policy to identify needs and inform facility level planning. (Setting target not recommended but recommended that system plans identify the future low-stress bicycle networks and that be incorporated into the system completeness metric)

**Potential Measures:**

- System Completeness  
*(recommended)*
- Queuing  
*(recommended)*
- Pedestrian Crossing Index
- Bicycle Level of Traffic Stress

**Policy 5**     **Prioritize investments that ensure that Black, Indigenous and people of color (BIPOC) community members and people with low incomes, youth, older adults, people living with disabilities and other historically marginalized and underserved communities experience equitable mobility.**

BIPOC and other marginalized communities have often experienced disproportionately negative impacts from transportation infrastructure as well as disparities in access to safe multimodal travel options. Addressing these disparities is a priority.

The regional transportation system should support access to opportunities for everyone, not just people in motor vehicles. Equity can be enhanced through providing strong multimodal networks with priority provided to historically marginalized and underserved communities.

The following describes how this could be implemented in the policy.

*Measurement options*

<p><b>Potential Measures:</b></p> <p>Compare EFA vs. Non-EFA Areas</p> <p>-Access to Destinations <i>(recommended if included in the policy)</i></p> <p>-System Completeness <i>(recommended if included in the policy)</i></p>
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- **Option 5A:** Include targets for reducing disparities between “Equity Focus Areas” and “Non-Equity Focus Areas”. This would result in identification of needed investments to address disparities and prioritization of these investments.

## Measurement Options Summary

The measurement options included above identify where the performance measures tested through the case studies could be incorporated into the policy and identifies preliminary recommendations for further policymaker and stakeholder discussion. In summary, three measures are recommended to be incorporated into the policy to encompass overall system efficiency, equitable and complete multi-modal networks of safe and comfortable facilities, and reliability as summarized below in Table 1.

**Table 1: Preliminary Mobility Policy Performance Measure Recommendations**

Measure	Scale for Application	Purpose
VMT/Capita	Plan Area	<p>Measured for the plan area to ensure that land use and transportation plan changes are working in tandem to achieve VMT/capita reduction targets and resulting in:</p> <ul style="list-style-type: none"> <li>• reduced need to drive</li> <li>• improved viability of using other and more efficient modes of transportation than the automobile and</li> <li>• preserving roadway capacity for transit, freight and goods movement.</li> </ul>
System Completeness	Plan Area and Equity Focus Areas	<p>Used to identify needs. Definition of “complete” would be defined through system planning to define network connectivity, the future number of through lanes, policy on turn lanes, type of bicycle facility, target pedestrian crossing spacing, and TSMO/TDM elements.</p>
Travel Speed	Facility level for throughways and arterials (could exclude 2040 centers or all urban area)	<p>To assess vehicle congestion as one of the major factors impacting travel reliability.</p> <p>On Arterials, reducing motor vehicle congestion through additional roadway capacity should follow the region’s congestion management process and OHP Policy 1G on ODOT roadways but should not come at the expense of non-motorized modes and achieving system completeness consistent with regional modal or design classifications or achieving the VMT/capita target for the jurisdiction</p>