REGIONAL MOBILITY POLICY UPDATE

AUGUST 2022 MTAC/TPAC WORKSHOP SUMMARY

Project Introduction

Metro and Oregon Department of Transportation (ODOT) are working together to update the existing Regional Mobility Policy and how it defines and measures mobility for the Portland area transportation system. The project will recommend amendments to the Regional Transportation Plan (RTP) and the Oregon Highway Plan Policy 1F for the Portland area.

Workshop Overview

On August 17, 2022 from 9:00 AM to 12:00 PM, Metro and ODOT participated in the Metro Technical Advisory Committee (MTAC) and Transportation Policy Alternatives Committee (TPAC) Workshop. The project team presented and conducted a group discussion on the regional mobility policy update from 9:15 to 11:15 AM.

The project team provided an update on the project purpose, process, and discussions that have taken place over the last two years. They also clarified the purpose of the workshop discussion, which was to get input on the revised draft mobility policy, specifically the measures and targets focusing on the applications in system planning and plan amendments. The project team reviewed the major changes and discussion items that have been considered since speaking with the group in June 2022.

A copy of the full agenda for the workshop can be found in **Appendix A**. A list of participants is provided in **Appendix B**. The full PowerPoint presentation can be found in **Appendix C**. Materials provided to participants in advance of the workshop are provided in **Appendix D**. Additional Feedback submitted by agency partners following the 8/17/22 MTAC TPAC Workshop is provided in **Appendix E**.

Key Themes

A number of key themes arose during the discussions at the workshop, including the following which are organized by topic.

VMT per capita

- Clarifications requested around the VMT/capita data and models used.
- Clarifications needed around using OAR 660 Division 44 (GHG Reduction rule) for threshold-setting.

- Clarifications needed to describe that not all areas are expected to have the same VMT/capita or same reduction in VMT/capita, but that the baseline for a subarea's performance will be set based on what's achieved for the subarea in the final regional scenario that meets the reduction target.
- Further work requested for the system planning process and flow chart to understand when the different measures are used and inform each other.
- Do not want to add barriers to adding density or land uses that help reduce VMT/capita.

Travel speed

- It is important to note for travel speed that the region is not going to meet any threshold at all times for all segments. The team wants to use data to determine thresholds and hours per day meeting the thresholds that are realistic based on our existing conditions.
- Clarification needed on operationalizing travel speed as a target or standard, particularly in terms of OHP Policy 1G, the RTP Congestion management process (CMP), and the statement of not being "at the expense of completing the system for non-vehicle modes".
- Suggestions to not use summer or pandemic INRIX data for continued work setting travel speed thresholds.

System completeness

- Further work requested to define calculations of proportional share.
- Further work needed around TDM or clarifying when that work will occur in the process.

Plan amendment process

- Still need further clarity for this to become an actionable policy.
- Further work needed to bring forth the ideas around closing gaps in disparity and ensuring prioritization of safety.
- Clarity around implementing system completeness is needed. Define what level of the TSP is considered the complete system: unconstrained or constrained.

Participation

Including project staff, a total of 98 people attended the workshop. Most participants were city, county, Metro, state, or transit agency staff, 15 were consultants or employees of a private firm, and 3 had no affiliation.

Discussion summary

As the project team presented the workshop materials, a large group discussion was facilitated to understand attendee questions. Below is a summary of the presentation information and questions/comments raised by the committee members. Responses to the questions and comments are included as well.

VMT per capita

Key themes:

- Clarifications requested around the VMT/capita data and models used.
- Clarifications needed around using OAR 660 Division 44 (Metropolitan Greenhouse Gas (GHG) Emissions Reduction rule) for threshold-setting.
- Clarifications needed to describe that not all areas are expected to have the same VMT/capita or the same reduction in VMT/capita, but that the baseline for a subarea's performance will be set based on what's achieved for the subarea in the final regional scenario that meets the reduction target.
- Further work requested for the system planning process and flow chart to understand when the different measures are used and inform each other.
- Do not want to add barriers to adding density or land uses that help reduce VMT/capita.

Group Discussion Summary:

Below are the questions raised, followed by responses from the project team.

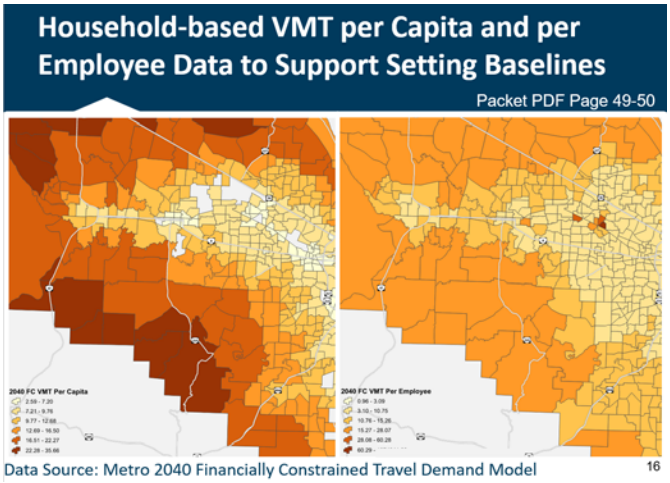
- Which is the "next major RTP"? In 2027 or 2023?
    - The project team confirmed that the updated RMP will apply to the "2023 RTP" and will make that correction. Anything that needs additional work beyond the 2023 RTP timeline will be identified through that update as future work in Chapter 8 of the 2023 RTP. Metro will use this RMP update to set the baseline for the 2023 RTP, which will also address the Climate-Friendly and Equitable Communities rules (OAR 660 Division 44 and OAR 660 Division 12).
- Were the maps (slide 16) created with the 2040 population/employment data within Transportation Analysis Zones (TAZs)? Can this process be done by local jurisdictions?
    - This is based on the 2040 financially constrained network adopted in the 2018 RTP. Metro will use an updated growth forecast to the year 2045 as part of 2023 RTP update. The 2045 growth forecast went through an extensive regional review process with local governments,

the Metro Technical Advisory Committee and the Metro Policy Advisory Committee in 2017 prior to adoption by the Metro Council in 2021. This includes all model assumptions we already have in the travel demand model, such as multimodal transportation investments adopted in the RTP, parking, TDM assumptions, etc.

- Local jurisdictions could do some VMT/capita calculations, but Metro is prohibited by law from providing employment by TAZ. One of the policy's implementation steps is to produce a spreadsheet tool for smaller plan amendments to determine if the land use change will result in increased VMT/capita. This tool would be developed for local jurisdictions to use.
- Some examples and information around sketch-level tools provided by other agencies include:
  - University of Utah VMT spreadsheet tool background info: https://static1.squarespace.com/static/57719e085016e1776170a81c/t/57719e8e890b2719732dac81/1379542553096/MXDTripGenApp.pdf
  - University of Utah spreadsheet tool for district level travel: https://alex-steinberger-zhkx.squarespace.com/s/ET_MXD_Travel_App_Standalone_v320.xlsm
  - Site level model with documentation on the EPA website: https://www.epa.gov/smartgrowth/mixed-use-trip-generation-model
  - Manual from California that shows the math for a giant range of development related items and the effects on GHG: https://www.airquality.org/residents/climate-change/ghg-handbook-caleemod

- There are many layers of information and data interacting in the VMT/capita maps shown. What is the granularity of the data and how we respond and solve the problem?

- These two maps tell two stories of the data: where people are working and where are they living. There are areas with a regional draw for work and primarily residential areas. Some centers show complete communities with both, where people don't have to drive as far.



- Portland has the lowest VMT/capita due to a rich transit service and other factors, with lots of professionals coming in from the rest of the region. This is not the case throughout the region. Is this methodology going to economically hurt the region? Need to test drive this approach to figure out the details. It's the right toolbox but we need to be careful of the tools.
- Is the VMT for employment a per day measurement from home and back?
    - The model is for average weekdays, such as in April and October, of the model year. These are home-based trips (one end is at home) and don't capture service vehicles/delivery or other driving that people might do as part of work, only commute trips. This is how the Metro travel demand model works. If the model was more activity-based (which is where the industry is heading), then it would capture more types of trips.
- Figure 1 in the draft policy should better relate with the process being verbally described. Suggest calculating demand before needs. We need to understand what the VMT/capita will be, then that will drive the need to be outlined in the TSP.
    - We have two parallel processes that will inform one another to look at the VMT/capita and system completeness.
    - The project team will work to further address this.
- The maps make sense and reinforce the region's effort to focus growth in mixed-use centers served by transit per the 2040 Growth Concept. However, reality hasn't matched the original vision. What if we move forward with a new plan amendment and it fails VMT/capita targets? Does it all fail? Pass/fail? Don't want the tool to hamper us in building/selecting helpful projects or desired development that supports 2040 implementation.
    - Correct, this is not a new vision.

    - For each plan amendment, the first question is "Do we have a VMT/capita increase?" Then the next step is what do we do to mitigate it, getting back to how the local agency has defined the complete transportation system for that area and getting to proportional share?
    - We agree that we do not want to add barriers to reducing VMT/capita. We are trying to update the policy to help agencies move forward with beneficial land use changes that support the 2040 Growth Concept and community, regional and state goals.
- We need to provide viable alternatives, but local governments don't control transit. That makes it hard to grow the regional centers.

Travel speed

Key themes:

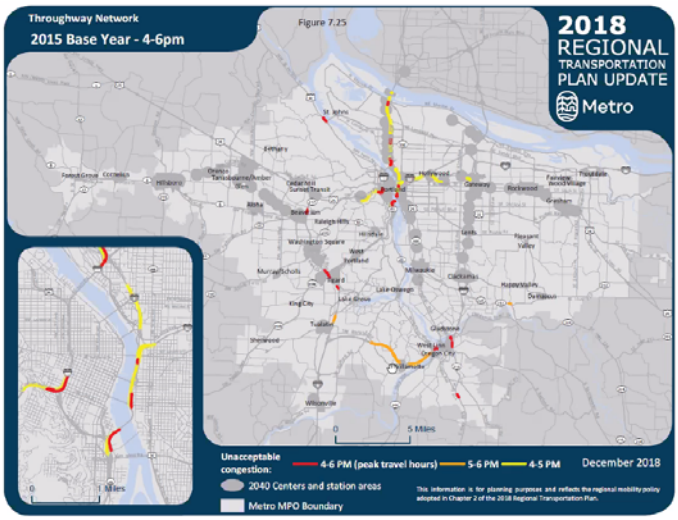
- It is important to note for travel speed that the region is not going to meet any threshold at all times of day for all segments. The team wants to use data to determine thresholds and hours per day meeting the thresholds that are realistic based on our existing conditions.
- Clarification needed on operationalizing travel speed as a target or standard, particularly in terms of OHP Policy 1G, the CMP, and the statement of not being "at the expense of completing the system for non-vehicle modes".
- Suggestions to not use summer or pandemic INRIX data for continued work setting travel speed thresholds.

Group Discussion Summary:

Below are the questions raised, followed by responses from the project team.

- The time of day for travel has heavily impacts the direction that is congested. This is a good chart but how will it be used?
    - These charts and data can help with setting targets, knowing that there are some bottlenecks that the region can't or doesn't have the money to address. The goal is not to have zero miles of congestion on all throughways in the region but to reduce the miles that are not meeting the target following the region's adopted congestion management process and OHP Policy 1G.

- Appreciate the note about latent demand; there is a lot of diversion that is happening. One of the challenges is that the regional travel demand model is a great tool for what it does, but it has limitations. The current congestion issues aren't shown in the model [image to the right was shown as an example].



    - Response highlighted that this map example is not direct output from the regional travel model. The map shows where we are not meeting the current adopted mobility policy, which allows more congestion in certain places, including v/c thresholds of .99 and greater than 1.0 for a two-hour period.
- Please clarify how the speed measure would be operationalized as a target or standard, particularly the "not at the expense of completing system for non-vehicle modes…" phrase and how this will intersect with OHP Policy 1G, RTP Congestion Management Process and System completeness measure. That is a keen interest for agencies since they don't want conflicts with what has been developed already.
    - This is something the project team will continue to work on. It's not a straightforward issue.
- Please make sure it's clear what the modal prioritization is and what the implications are. Can you measure travel time variability instead of speed? Travel time variability is more important for travel choices.
    - Part of the graph does show variability throughout the day, based on real-time data. The threshold of meeting a reasonable travel speed at least "X" number of hours in a day gets at that variability. The number one thing most impacting travel time variability is congestion, which is why we moved toward travel speed for a facility-based measure.
- Concerned about using data from July during the pandemic. Recommend using pre-pandemic data from during the school year.

System completeness

Key themes:

- Further work requested to define calculations of proportional share.
- Further work needed around TDM or clarifying when development of TDM guidance will occur in the process.

Group Discussion Summary:

Below are the questions raised, followed by responses from the project team.

- For the plan amendment section of the draft policy, Action 4 discusses system completeness assessment and proportional share. How will "proportional share" be calculated? By dollar amount or for specific projects? Would the projects need to be constructed before the amendment is approved?
    - Only plan amendments that are increasing VMT/capita would look at system completeness. You would then go through the process of identifying the gaps in the complete system based on the local TSP. The process includes defining an impact area, identifying the gaps within that area, determining the additional generated trips, and then how the plan amendment changes the number of trips on that facility. That information would be used to determine a proportional share of those incomplete projects in the impact area that would need to be addressed as part of the plan amendment.
    - If the plan for addressing the system completeness proportional share is adopted in the local code, then the local government can approve the plan amendment. You don't need to have the project built to approve the amendment.
- When will "forthcoming" TDM guidance be provided? As part of this effort or later?
    - The RTP policies define what constitutes a complete system and influence local TSPs. The Regional Transportation Functional Plan (RTFP) and Transportation Planning Rule (TPR) direct how local TSPs define what is included.
    - The ODOT/DLCD TGM Program developed some guidance intended to help local jurisdictions who are considering expanding their TDM efforts to incorporate programmatic TDM measures into the land use permit process that may also be helpful.[1]

[1] https://www.oregon.gov/lcd/Publications/TDMPlans_for_Development_2013.pdf

- The project team will have additional information and guidance to bring into the policy and implementation action plan this fall, but there will be further work needed from the Metro Regional Travel Options Program team that is anticipated to begin in early 2023. Also, the recently adopted CFEC rules will trigger updates to a lot of state guidance and tools (the Analysis Procedures Manual, TSP Guidelines, etc.) that informs how transportation analysis and TSPs are done and identifies data needed to support the analysis. In addition, ODOT is considering contributing to some of this data such as developing a statewide multimodal inventory, for example.

Plan amendment process

Key themes:

- Still need further clarity for this to become an actionable policy.
- Further work needed to bring forth the ideas around closing gaps in disparity and ensuring prioritization of safety.
- Clarity around implementing system completeness is needed. Define what level of the TSP is considered the complete system, unconstrained or constrained.

Group Discussion Summary:

Below are the questions raised, followed by responses from the project team.

- The project team finished the presentation by discussing the plan amendment process. The project team reminded the group that the RMP applies to throughways and arterials designated in the RTP, for system planning and for plan amendments . Local jurisdiction standards will still apply for other facilities (e.g. collectors) if their standards are unchanged. We anticipate that many local agencies will move away from v/c as the mobility standard to have the same or similar measures used for all roads for the plan amendment process. That will be the case for the Portland central city and regional and town centers at a minimum due to the TPR rule amendments adopted in July 2022.
- This will be challenging to translate into policy before TPAC will be asked to make a recommendation to JPACT. Appreciate that step 6 includes the intention of reducing equity disparities while improving safety. Let's prioritize the completeness to advance the outcomes. How do we define investment policies?

- For footnote 7 of Table 3, is this related to the ECO rule update? How do we develop a policy with a financially constrained plan that says we want this level of system completeness?
    - Yes, a policy that says we want the completeness outlined in the RTP/RTFP is needed. We need to think through whether the policy is based on the financially constrained plan or unconstrained plan. Currently the policy is based on the financially constrained plan, consistent with TPR Section -0060.
- There is more detail in what is being presented compared to the table in the draft policy. The challenge for local governments is the implications to our system without further clarification. It's hard to understand how "travel speed" and "system completeness" will be applied because this part of the policy has not been significantly updated since June. This seems to be the most underdeveloped piece of the policy (compared to VMT/capita reduction). Encourage the team to make a linkage to system completeness outcomes.
- The greater the number of trips, the further the impact of the proposed development. If there is a small change, there will be a smaller effect on the transportation system. It is unclear if the mobility policy as proposed deals with distance of impact or if it has a set radius – e.g. an impact area.
- System completeness is often tied to sidewalks and bike facilities. We know that Washington County has transit deficiencies. Does the policy define what a complete transit system is? There are implementation issues for developing a complete system by the end of the planning period. When we have green fields, a lot of development is required for implementation. We partner with developers to do infill if the market can't do it on its own, so we want to allow flexibility for local jurisdictions to address these gaps in completeness.
    - The definition of the complete system will be in the RTP and TSPs; there is already guidance in the RTFP and other documents for what TSPs need to include. The policy itself will not define the complete system but establishes the process to review system completeness as part of the plan amendment process.
    - Further work is needed to define if the complete system is the TSP's financially constrained project list or the unconstrained project list. As noted earlier, currently the policy is based on the financially constrained plan, consistent with TPR Section -0060.
- Concern about using pandemic data to set thresholds and curious if the thresholds that will be included in the policy will be there indefinitely or updated with a future RTP update.

- Agreement that data to inform setting thresholds for the RTP should be pre-pandemic.
- We wouldn't want to revisit the thresholds for every RTP but we do start each RTP update with an existing conditions analysis. It will be difficult to update the thresholds frequently since this policy will likely be in the Oregon Highway Plan (OHP).

APPENDIX A WORKSHOP AGENDA

Agenda

Metro
600 NE Grand Ave.
Portland, OR 97232-2736

Meeting:	Metro Technical Advisory Committee (MTAC) and Transportation Policy Alternatives Committee (TPAC) Workshop
Date:	Wednesday August 17, 2022
Time:	9:00 a.m. to 12:00 p.m.
Place:	Virtual meeting held via Zoom
	Connect with Zoom Passcode: 692965 Phone: 877-853-5257 toll free

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9:00 a.m.	**Call meeting to order, introductions, and committee updates** **Comments from the Chair and committee:** • 2023 RTP Schedule of Discussion (Kim Ellis) • 2022 RTP JPACT and Metro Council Workshop Series (Kim Ellis)	Chair Kloster
9:10 a.m.	**Public communications on agenda items**	
9:13 a.m.	**Consideration of MTAC/TPAC workshop summary, June 15, 2022** Edits/corrections sent to Marie Miller marie.miller@oregonmetro.gov	Chair Kloster
9:15 a.m.	**Metro/ODOT Regional Mobility Policy: Draft Recommendations** Purpose: Review key updates to address prior input and share new information on the proposed measures and their application for input.	Kim Ellis, Metro Glen Bolen, ODOT Susie Wright, Kittelson & Associates
11:00 a.m.	**River Terrace 2.0 UGB exchange status update** Purpose: MTAC has an opportunity to provide feedback on preliminary UGB exchange options.	Ted Reid, Metro Tim O'Brien, Metro Clint Chiavarini, Metro
12:00 noon	**Adjournment**	Chair Kloster

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Metro txoj kev ntxub ntxaug daim ntawv ceeb toom

Metro tributes cai. Rau cov lus qhia txog Metro txoj cai kev pab, los yog kom sau ib daim ntawv tsis txaus siab, mus saib www.oregonmetro.gov/civilrights. Yog hais tias koj xav tau lus kev pab, hu rau 503-797-1700 (8 teev sawv ntxov txog 5 teev tsaus ntuj weekdays) 5 hnub ua hauj lwm ua ntej ntawm lub rooj sib tham.

APPENDIX B LIST OF PARTICIPANTS

Meeting: **Metro Technical Advisory Committee (MTAC) and Transportation Policy Alternatives Committee (TPAC) workshop meeting**

Date/time: Wednesday, August 17, 2022 | 9:00 a.m. to noon

Place: Virtual conference meeting held via Zoom

Members, Alternates Attending	Affiliate
Tom Kloster, Chair	Metro
Karen Buehrig	Clackamas County
Steve Williams	Clackamas County
Allison Boyd	Multnomah County
Sarah Paulus	Multnomah County
Chris Deffebach	Washington County
Lynda David	Southwest Washington Reg. Transportation Council
Eric Hesse	City of Portland
Peter Hurley	City of Portland
Jaimie Lorenzini	City of Happy Valley and Cities of Clackamas County
Jay Higgins	City of Gresham and Cities of Multnomah County
Don Odermott	City of Hillsboro and Cities of Washington County
Tara O'Brien	TriMet
Glen Bolen	Oregon Department of Transportation
Karen Williams	Oregon Department of Environmental Quality
Katherine Kelly	City of Vancouver
Carol Chesarek	Multnomah County Citizen
Tom Armstrong	Largest City in the Region: Portland
Colin Cooper	Largest City in Washington County: Hillsboro
Aquilla Hurd-Ravich	Second Largest City in Clackamas County: Oregon City
Jean Senechal Biggs	Second Largest City in Washington County: Beaverton
Laura Terway	Clackamas County: Other Cities, City of Happy Valley
Steve Koper	Washington County: Other Cities, City of Tualatin
Martha Fritzie	Clackamas County
Kevin Cook	Multnomah County
Theresa Cherniak	Washington County
Gary Albrecht	Clark County
Oliver Orjiako	Clark County
Laura Kelly	OR Department of Land Conservation & Development
Kelly Reid	OR Department of Land Conservation & Development
Shelly Parini	Clackamas Water Environment Services
Manuel Contreas, Jr.	Clackamas Water Environment Services
Heather Koch	North Clackamas Park & Recreation District
Nina Carlson	Service Providers: Private Utilities, NW Natural
Tom Bouillion	Service Providers: Port of Portland
Bret Marchant	Greater Portland, Inc.
Brett Morgan	1000 Friends of Oregon
Sara Wright	Oregon Environmental Council
Rachel Loftin	Community Partners for Affordable Housing
Preston Korst	Home Builders Association of Metropolitan Portland
Mike O'Brien	Green Infrastructure, Mayer/Reed, Inc.

Members, Alternates Attending	Affiliate

Craig Sheahan	Green Infrastructure, David Evans & Associates
Brendon Haggerty	Mult. County Public Health & Urban Forum

Guests Attending	**Affiliate**
Andrew Bastasch	Oregon Department of Transportation
Avi Taylor	Oregon Department of Transportation
Barbara Fryer	City of Cornelius
Ben Chaney	Oregon Department of Transportation
Bill Kabeiseman	
Brandy Steffen	
Bryan Pohl	City of Forest Grove
Darci Rudzinski	
Elin M-M	
Francesca Jones	Portland Bureau of Transportation
James Powell	Oregon Department of Environmental Quality
Jessica Pelz	Washington County
Julia Wean	Steer
Katherine Bell	Oregon Department of Transportation
Lidwien Rahman	Oregon Department of Transportation
Lucia Ramirez	Oregon Department of Transportation
Marc Farrar	
Miranda Bateschell	City of Wilsonville
Molly McCormick	Kittelson & Associates
Neelam Dorman	Oregon Department of Transportation
Nick Fortey	Federal Highway
Peter Schuyema	Oregon Department of Transportation
Raymond Chong	
Riley Howard	
Samantha Thomas	Home Builders Association of Portland
Steve Kelly	Washington County
Susie Wright	Kittelson & Associates
Vanessa Vissar	Oregon Department of Transportation
Will Farley	City of Lake Oswego

Metro Staff Attending

Tim Collins, Principal Transportation Planner	Kim Ellis, Senior Transportation Planner
John Mermin, Senior Transportation Planner	Grace Cho, Senior Transportation Planner
Grace Stainback, Assoc. Transportation Planner	Andrea Pastor, Senior Regional Planner
Caleb Winter, Senior Transportation Planner	Thaya Patton, Senior Researcher & Modeler
Ally Holmqvist, Senior Transportation Planner	Marne Duke, Senior Transportation Planner
Bill Stein, Sr. Research & Modeler	Cindy Pederson, Research Manager
Clint Chivarini, Senior GIS Specialist	Eryn Kehe, Policy & Urban Dev. Manager
Kadin Mangalik, Intern	Kate Hawkins, Senior Transportation Planner
Lake McTighe, Senior Transportation Planner	Malu Wilkinson, Program Director
Matthew Flodin, Intern	Miranda Seekins, Intern
Roger Alfred, Metro Legal Counsel	Shirley Craddick, Metro Councilor
Ted Leybold, Resource & Dev. Manager	Ted Reid, Principal Regional Planner
Tim O'Brien, Principal Regional Planner	Marie Miller, TPAC & MTAC Recorder

APPENDIX C PRESENTATION

Regional mobility policy update

TPAC and MTAC Workshop

August 17, 2022

Metro

Oregon Department of Transportation

1

Project purpose

- Update the mobility policy and how we define and measure mobility for the Portland area transportation system
- Recommend amendments to the RTP and Oregon Highway Plan Policy 1F for the Portland area

Visit oregonmetro.gov/mobility

2

2

Looking back: 2020 to today

2020

- Share research on current policy and measure
- Identify mobility policy elements
- Define universe of potential measures
- Seek feedback on criteria for evaluating and selecting measures

2021

- Develop definition of urban mobility
- Seek feedback on mobility policy elements and potential measures for testing in case studies

2022

- Report case study findings
- Seek feedback on draft mobility policies, measures, targets and how/where they could be applied

3

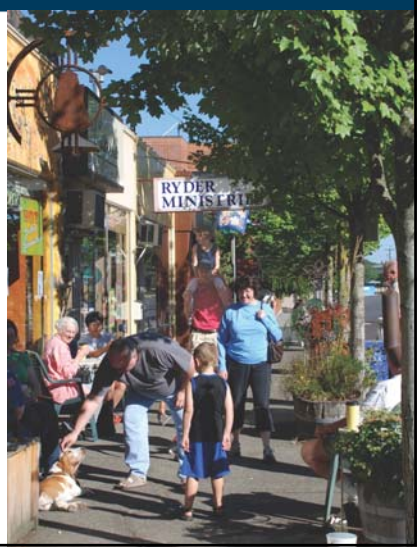
3

Today's purpose

Seek input on the revised draft mobility policy

- Measures and targets
- Applications in system planning and plan amendments

Additional feedback requested by August 23 via email to: kim.ellis@oregonmetro.gov and glen.a.bolen@odot.oregon.gov



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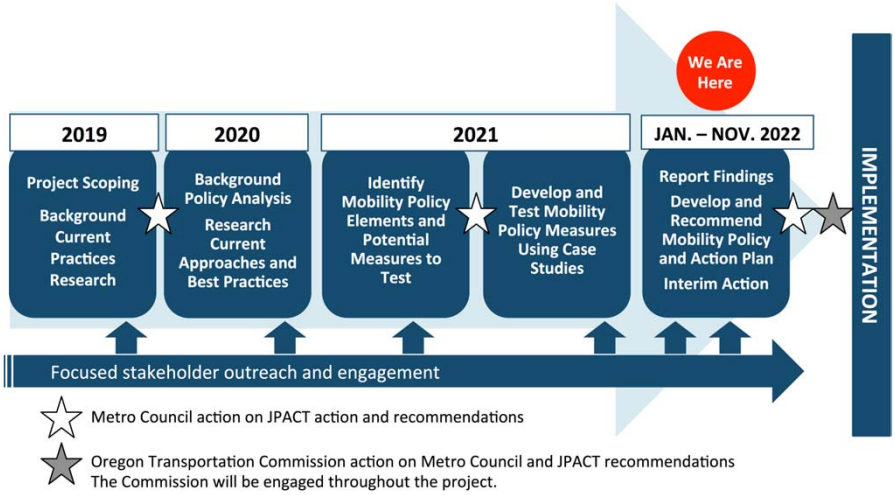
Project timeline



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Major Changes and Discussions Since Mid-June to Address Feedback

- Further clarification about future 2045 baseline VMT/capita metrics being set through the 2023 RTP based on Division 44 targets
- Research and discussions on how “Districts” would be created for VMT/capita metrics
- Travel speed removed for arterials
- Research and discussions around setting throughway travel speed thresholds
- Added definition for TSMO and TDM system completeness based on other ongoing Metro work

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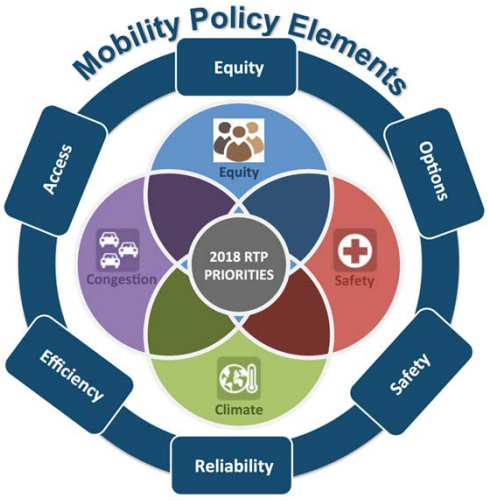
DRAFT Vision for urban mobility for the Portland area:
People and businesses can safely, affordably, and efficiently reach the goods, services, places and opportunities they need to thrive by a variety of seamless and well-connected travel options and services that are welcoming, convenient, comfortable, and reliable.



Mobility **elements**

Equity
Black, Indigenous and people of color (BIPOC) community members and people with low incomes, youth, older adults, people living with disabilities and other 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.

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DRAFT mobility policies for the Portland region

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Mobility Policy 1	Ensure that **the public's land use decisions and investments in the transportation system enhance efficiency in how people and goods travel** to where they need to go.
Mobility 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.
Mobility 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.
Mobility Policy 4	**Prioritize the safety and comfort of travelers in all modes** when planning and implementing mobility solutions.
Mobility 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 **marginalized and underserved populations have equitable access to safe, reliable, affordable, and convenient travel choices** that connect to key destinations.

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Regional Mobility Policy and Oregon Highway Plan Policy 1F

Regional Mobility Policy (Regional Transportation Plan)

- RTP networks, including ODOT highways and city and county arterials
- System planning only

Highway Mobility Standards (OHP Policy 1F)

- ODOT highways only
- System planning, plan amendments
- *Development review requirements where adopted in local development codes; guiding operations decisions such as managing access and traffic control systems (not part of this project)*

Volume to Capacity Ratio Targets for Portland Region (adopted in 2002)

VOLUME TO CAPACITY RATIO TARGETS INSIDE METRO[A, B]		
Locations	**Target**	
	1st hour	**2nd hour**
Central City Regional Centers Town Centers Main Streets Station Communities	1.1	.99
Corridors Industrial Areas Intermodal Facilities Employment Areas Inner Neighborhoods Outer Neighborhoods	.99	.99
I-84 *(from I-5 to I-205)*	1.1	.99
I-5 North *(from Marquam Bridge to Interstate Bridge)*	1.1	.99
OR 99E *(from Lincoln Street to OR 224 Interchange)*	1.1	.99
US 26 *(from I-405 to Sylvan Interchange)*	1.1	.99
I-405[C] *(from I-5 South to I-5 North)*	1.1	.99
Other Principal Arterial Routes I-205[C] I-84 *(east of I-205)* I-5 *(Marquam Bridge to Wilsonville)*[C] OR 217 US 26 *(west of Sylvan)* US 30 OR 8 *(Murray Blvd to Brookwood Avenue)*[C] OR 224 OR 47 OR 213 242nd/US 26 in Gresham OR 99W	.99	.99

Table 7: Volume to Capacity Ratio Targets within Portland Metropolitan Region

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DRAFT mobility policies for the Portland region

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"The policies apply to:

- the **state highway system** within the Portland metropolitan area for
  - identifying state highway mobility performance expectations for **planning and plan implementation**; and
  - evaluating the **impacts on state highways of amendments** to transportation system plans, acknowledged comprehensive plans and land use regulations pursuant to the Transportation Planning Rule (OAR 660-12-0060).
- **throughways and regional arterials** designated in the Regional Transportation Plan, which include state and local jurisdiction facilities, for identifying mobility performance expectations for **planning and plan implementation**. "

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DRAFT mobility policies for the Portland region

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"Under this policy, Oregon Highway Plan **volume-to-capacity ratio targets still guide operations decisions such as managing access and traffic control systems** and can be used to identify intersection improvements that would help reduce delay, improve the corridor average travel speed, and improve safety.

Local jurisdiction standards for their facilities still apply for evaluating impacts of amendments to transportation system plans, acknowledged comprehensive plans and land use regulations pursuant to the Transportation Planning Rule (OAR 660-12-0060) and guiding operations decisions."

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DRAFT Mobility Policy Performance Measures

Packet PDF Page 33

Measure	Expected Mobility Outcomes
VMT/Capita for home-based trips and VMT/Employee for commute trips to/from work	**Land Use Efficiency** Land use patterns that are more efficient to serve because they reduce the need to drive and are supportive of travel options.
System Completeness	**Complete Multi-Modal Networks** Travel options and connectivity allow people to reliably and safely walk, bike, drive, and take transit to get where they need to go.
Average Travel Speed	**Reliability** Safe, efficient and reliable travel speeds for people, goods, and services.

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DRAFT Mobility Policy Performance Measure Targets

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Measure	Application	Target
VMT/Capita for home-based trips **and** **VMT/Employee for commute trips to/from work**	System Planning	OAR 660 Division 44 (GHG Reduction Rule) sets VMT/Capita reduction targets with which the next major RTP update and local TSPs will need to comply. The resulting RTP and TSPs that meet this regional target will establish a future baseline VMT/capita and VMT/employee. All subsequent applications of this policy shall not increase VMT/capita or VMT/employee above the future baseline.
	Plan Amendments[1]	The plan amendment will have equal to or lower forecast VMT/capita for home-based trips and equal to or lower forecast VMT/employee for commute trips to/from work than the District[2].

Table Notes:

1 Plan amendments that meet this target shall be found to not have a significant impact pursuant to the Transportation Planning Rule (OAR 660-12-0060).

2 Metro will establish VMT/Capita "Districts" that identify TAZ groupings (subareas) with similar land use characteristics and forecast VMT/Capita. A spreadsheet or similar tool will be developed to help assess potential changes to VMT/capita and VMT/employee and potential mitigations to minimize the need for application of the regional travel demand model for all plan amendments.

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DRAFT Mobility Policy System Planning Actions

Packet PDF Page 40

- **Division 44 (GHG Reduction) sets VMT/capita reduction target** for the Portland metro area.
  - **RTP process will identify strategies** needed to achieve this target **and result in baseline future 2045 VMT/capita** for the region and each local jurisdiction.
  - **This future baseline shall be used to estimate future VMT/capita** for home-based trips and VMT/employee for commute trips to/from work **at the TAZ level. The TAZ data shall be aggregated to develop "Districts"** with similar land use and VMT characteristics by Metro through the RTP update process.

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DRAFT Mobility Policy System Planning Actions

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- For system planning at the sub-regional, local jurisdiction (TSPs), or subarea levels, **VMT/capita for home-based trips and VMT/employee for commute trips to/from work shall be measured for the plan area** to ensure that land use and transportation plan changes are working in tandem to achieve the region's VMT/capita reduction target...
  - At the first major TSP update after this policy is implemented, system plans shall **demonstrate that the planned transportation system achieves the regional Division 44 target** and that future system plan **updates maintain or reduce aggregate VTM/capita metrics for the TAZs and Districts in the plan area compared to the baseline** set in the RTP.
  - Projections of VMT/capita must incorporate the best available science on latent and induced travel of additional roadway capacity consistent with OAR 660-012-0160.

Year	Regional VMT/Capita Reduction Target *(from 2005 levels)*
2035	20%
2040	25%
2045	30%
2050	35%

Source: Metropolitan Greenhouse Gas Reduction Targets Rule
OAR 660-044-0020(1)

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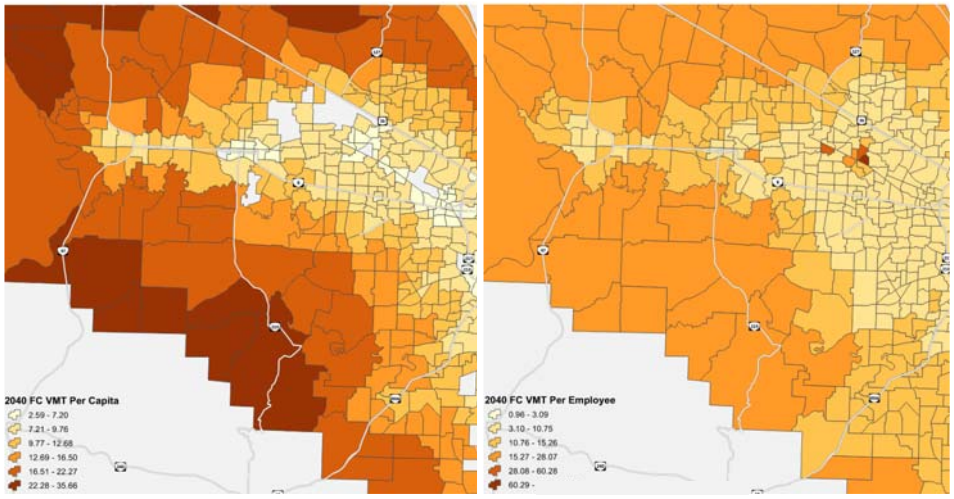
Household-based VMT per Capita and per Employee Data to Support Setting Baselines

Packet PDF Page 49-50



Data Source: Metro 2040 Financially Constrained Travel Demand Model

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DISCUSSION QUESTIONS

Do you have questions or feedback on:

- proposed use of Division 44 VMT reduction targets for the Portland region to set future 2045 household-based VMT baselines?
- how future changes to 2045 baseline vehicle miles traveled per capita and vehicle miles traveled per employee will be used?

We welcome feedback on these and other questions listed in the cover memo by August 23

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DRAFT Mobility Policy Performance Measure Targets

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Measure	Application	Target		
		RTP Motor Vehicle Designation	**Average Travel Speed Target**[5]	**Hours per Day Target**
Average Travel Speed	System Planning[3]	Throughways [4] I-205, I-84 (east of I-205) I-5 (Marquam Bridge to Wilsonville) OR 217 US 26 (west of sylvan) US 30, OR 47, OR 212 OR 224, OR 213	TBD mph – posted speed limit [6]	TBD hours per day
		Throughways [4] I-405 (from I-5 South to I-5 North) I-5 North (Marquam Bride to Interstate Bridge) US 26 (from Sylvan interchange to I-405) I-84 from I-5 to I-205 99E from Lincoln Street to OR 224 interchange	TBD mph – posted speed limit [6]	TBD hours per day
	Plan Amendments	Same as system planning	Same as system planning	Same as system planning

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DRAFT Mobility Policy Performance Measure Targets

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Average Travel Speed

Table Notes:

3 Addressing motor vehicle congestion through additional throughway capacity should follow the RTP system sizing policy, the region's congestion management process and OHP Policy 1G and should not come at the expense of achieving system completeness for non-motorized modes consistent with regional modal or design classifications or achieving the VMT/capita target for the region or jurisdiction.

4 Throughways are designated in the Regional Transportation Plan and generally correspond to Expressways designated in the Oregon Highway Plan.

5 Used to identify areas of poor reliability where due to recurring congestion, average travel speeds drop below TBD mph for TBD hours per day.

6 Targets will need to be revisited after NEPA process is complete for the I-205 Toll Project and Regional Mobility Pricing Project.

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Findings from Travel Speed Data Research to Support Threshold Setting

Reviewed one week of INRIX data from July for I-205 northbound and southbound, I-5 northbound, and US-26 eastbound.

- Comparison of days of the week:
  - Monday and Tuesday experience the least amount of congestion
  - Wednesday and Thursday experience more congestion, at a similar level
  - Friday experiences the most congestion
- Comparison of travel speed thresholds:
  - The number of hours not meeting the travel speed threshold is similar if set at 40 mph versus 45 mph
  - There is a slight reduction if the threshold is set at 35 mph
  - There was a larger difference if using 20 mph. The time periods and distance of "congestion" is reduced, especially in the morning peak.

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I-205 Example Travel Speed Data to Support Threshold Setting

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I-205 Northbound - Hours per day not meeting the speed threshold

Exit/Segment	July 11, 2021 (Monday)				July 12, 2021 (Tuesday)				July 13, 2021 (Wednesday)				July 14, 2021 (Thursday)				July 15, 2021 (Friday)			
Speed Threshold	20	35	40	45	20	35	40	45	20	35	40	45	20	35	40	45	20	35	40	45
Glenn Jackson	0.0	2.4	2.7	2.9	0.0	2.2	2.9	3.0	0.0	1.3	3.0	3.8	0.0	3.0	4.6	5.1	0.0	3.7	4.4	4.9
Bridge	0.0	1.4	1.9	1.9	0.0	1.8	2.3	2.7	0.0	1.7	2.5	3.1	0.0	3.0	4.1	4.6	0.0	3.1	3.9	4.5
Exit 24	0.0	1.1	1.4	1.8	0.0	0.8	1.8	2.3	0.0	0.7	1.8	2.8	0.0	2.1	3.3	4.3	0.0	1.5	3.2	3.8
Airport Wy	0.2	2.0	3.3	4.3	0.0	2.2	3.6	4.2	0.1	2.8	4.5	5.5	0.0	3.8	5.7	6.3	0.1	3.3	5.1	6.3
Exit 23	3.2	4.3	4.3	4.6	2.5	4.2	4.3	4.3	4.0	5.5	5.5	5.6	4.7	6.5	6.6	6.7	4.1	6.4	6.5	6.9
Columbia Blvd	4.1	4.3	4.3	4.3	3.0	4.1	4.2	4.6	4.8	5.5	5.6	5.7	5.6	6.6	6.7	6.8	5.2	6.8	6.9	7.0
Exit 23	4.1	4.3	4.3	4.3	3.5	4.0	4.3	4.4	4.7	5.4	5.6	5.7	5.8	6.6	6.7	6.8	5.6	6.8	6.9	6.9
Sandy Blvd	3.9	4.2	4.2	4.2	3.7	3.8	4.0	4.1	4.8	5.3	5.4	5.4	5.7	6.3	6.4	6.5	5.8	6.5	6.6	6.6
Exit 22	3.4	3.8	3.8	3.8	3.5	3.8	3.8	3.8	4.7	4.8	4.8	4.9	5.3	5.8	5.8	6.1	5.5	6.2	6.3	6.3
I-84/US-30	3.1	3.3	3.3	3.3	2.5	3.2	3.4	3.6	4.3	4.5	4.5	4.5	4.2	5.0	5.1	5.2	4.0	4.3	4.5	5.3
Exit 21	2.8	3.1	3.2	3.2	2.6	3.0	3.0	3.2	4.3	4.4	4.4	4.4	3.7	4.2	4.3	4.3	3.8	3.9	4.3	4.4
I-84/US-30	2.4	2.6	2.7	2.8	1.8	2.6	2.6	2.8	3.9	4.1	4.3	4.3	3.3	3.4	3.4	3.4	3.4	3.6	3.7	3.7
Exit 20	1.9	2.2	2.3	2.4	1.0	1.9	2.3	2.5	3.8	3.9	3.9	4.0	3.2	3.3	3.3	3.3	3.1	3.3	3.3	3.3
Wash. St/Stark St	0.9	1.7	1.8	2.1	0.0	0.4	0.8	1.1	3.1	3.7	3.7	3.8	2.6	3.3	3.3	3.3	2.6	3.0	3.1	3.1
Exit 19	0.4	1.2	1.2	1.3	0.0	0.0	0.0	0.0	3.0	3.4	3.6	3.6	2.3	2.9	2.9	3.0	2.2	2.7	2.8	2.8
Division St	0.0	0.8	0.8	0.9	0.0	0.0	0.0	0.0	2.9	3.3	3.4	3.4	2.1	2.6	2.8	2.9	2.0	2.7	2.7	2.7
Exit 24	0.0	0.2	0.2	0.4	0.0	0.0	0.0	0.1	2.7	3.3	3.3	3.3	1.2	2.4	2.5	2.7	2.1	2.5	2.5	2.6
US-26/Powell Blvd	0.0	0.3	0.6	2.8	0.0	0.1	0.5	3.2	2.1	3.3	3.8	3.6	0.1	1.8	2.4	4.2	1.1	2.9	3.3	6.1
Exit 17	0.0	4.3	4.6	4.9	0.1	4.1	4.8	5.1	2.8	5.9	[illegible]	[illegible]	1.4	5.6	5.8	6.0	2.7	7.3	7.6	7.6
Foster Rd	0.0	3.3	3.8	4.5	0.0	2.4	3.5	3.9	2.5	4.9	[illegible]	[illegible]	0.8	4.6	4.8	5.1	1.9	7.1	7.3	7.3
Exit 16	1.1	2.8	2.9	2.9	0.8	2.3	2.7	2.8	3.5	4.1	4.2	4.5	1.8	3.5	3.8	3.8	4.6	5.4	5.7	5.8
Johnson Cr Blvd	0.5	1.2	1.2	1.7	0.1	1.1	1.3	1.8	2.9	3.8	3.8	3.9	1.1	2.8	2.8	3.1	2.8	4.3	4.6	4.8
Exit 14	0.0	0.3	0.4	0.5	0.0	0.0	0.0	0.0	0.2	2.1	2.5	2.7	0.3	0.8	0.8	0.9	1.0	1.9	2.2	2.2
Sunnybrook Blvd	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.3	0.0	0.3	0.3	0.4	0.0	0.4	0.6	1.2
Exit 13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.0	0.0	0.1	0.2
OR 213/OR 224	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exit 12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OR 212/OR 224	0.0	0.2	0.3	0.8	0.0	0.0	0.0	0.0	0.3	0.5	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2
Exit 11	0.4	1.1	1.1	1.2	0.0	0.0	0.0	0.0	0.0	0.4	0.4	0.7	0.0	0.0	0.0	0.1	0.0	0.3	0.4	0.8
82nd Dr	0.3	0.8	0.8	1.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.4
Exit 10	0.3	0.5	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OR 213	0.2	0.4	0.4	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exit 9	0.1	0.4	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OR 99E	0.1	0.5	0.7	3.0	0.0	0.0	0.1	2.3	0.0	0.0	0.1	2.8	0.0	0.0	0.1	3.3	0.0	0.0	0.1	3.3
Exit 8	0.3	5.3	5.8	6.2	0.5	5.3	5.5	5.7	0.3	6.3	6.5	6.6	0.4	6.8	6.9	6.9	0.3	6.4	6.6	6.8
OR 43	0.3	4.2	4.4	4.8	0.3	3.8	4.5	5.1	0.3	5.3	5.8	5.8	0.7	6.4	6.6	6.7	0.6	5.9	6.1	6.2
Exit 6	3.3	4.5	4.5	4.6	3.4	4.4	4.8	4.8	4.0	5.4	5.7	5.8	4.8	6.5	6.5	6.5	4.3	6.0	6.2	6.2
10th St/6th St	1.6	3.8	4.3	4.3	2.0	3.9	4.0	4.2	3.2	5.0	5.2	5.3	3.8	5.3	5.7	5.8	2.5	5.0	5.6	5.8
	2.7	3.7	4.1	4.1	2.6	3.6	4.0	4.2	3.7	4.9	5.2	5.2	4.0	5.2	5.2	5.3	2.7	4.8	5.2	5.3
Exit 3 Stafford Rd	0.0	0.3	0.3	0.3	0.0	0.0	0.0	0.0	0.5	1.4	1.7	1.8	0.5	0.8	0.8	1.1	0.0	0.0	0.0	0.0
	0.2	2.7	3.2	3.6	0.3	1.5	2.2	2.5	2.7	4.3	4.4	4.7	3.2	4.4	4.5	4.7	0.3	2.3	2.3	2.8

Direction of travel

Data Source: INRIX

24

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I-5 Example Travel Speed Data to Support Threshold Setting

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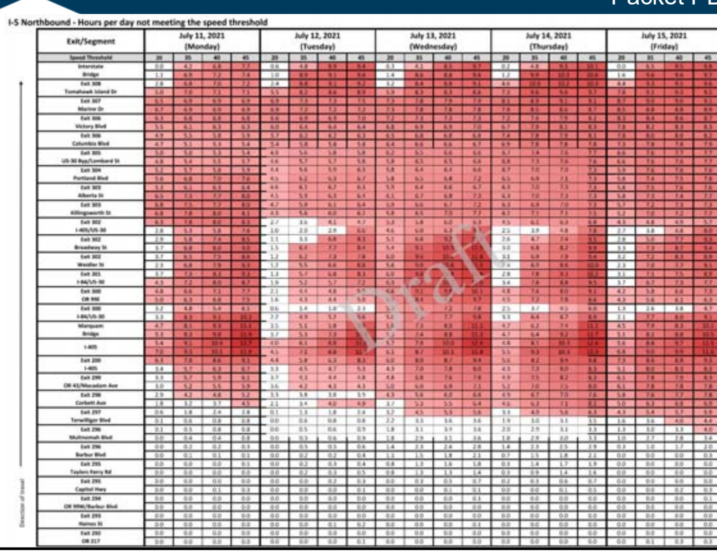

Data Source: INRIX

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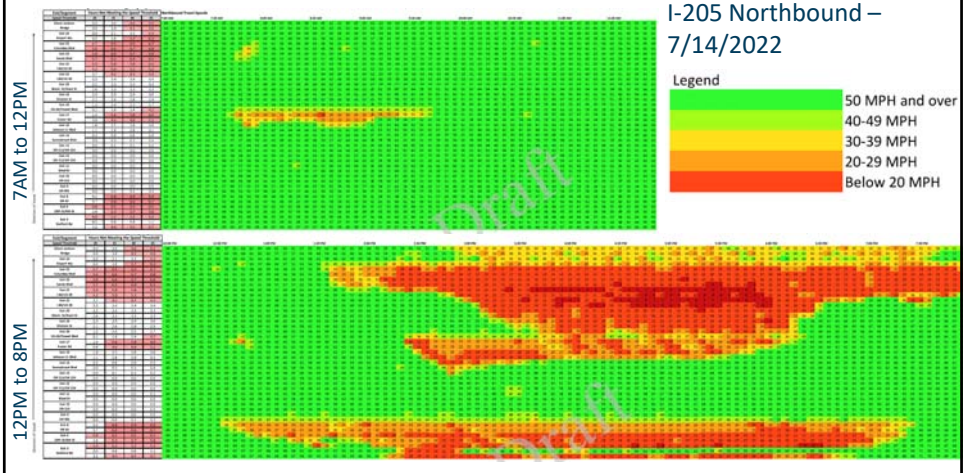
Example Travel Speed Data to Support Reliability Threshold Setting

Packet PDF Page 52-53



Data Source: INRIX

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DRAFT Mobility Policy System Planning Actions

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- Average travel speed targets shall be used to assess performance of throughways within the system planning study area for safe, efficient, and reliable speeds.
  - Targets will include a **target minimum average travel speed that shall be maintained for a specific number of hours per day**, recognizing that the target is not likely to be met during a number of peak hours.
  - These targets shall inform identification of transportation needs and consideration of system and demand management strategies and other strategies but **shall not be used as standards at the expense of non-motorized modes and achieving system completeness for other modes** consistent with regional modal or design classifications or achieving the VMT/capita target for the region or jurisdiction.
  - Analysis segmentation of facilities within the study area will be determined based on the analysis software or modeling tool utilized.
  - Projections of VMT/capita must incorporate the best available science on latent and induced travel of additional roadway capacity.

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DISCUSSION QUESTIONS

Do you have questions or feedback on:

- setting travel-speed based reliability targets for throughways?

We welcome feedback on this and other questions listed in the cover memo by August 23

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DRAFT Mobility Policy Performance Measure Targets

Packet PDF Page 36

Measure	Application	Target
System Completeness	System Planning	Complete networks and systems for walking, biking, transit, vehicles, freight, and implement strategies for managing the transportation system and travel demand (See Table 3 for guidance and Table 4 for completeness elements by facility type). (Planned system, Strategic and Financially Constrained, may not achieve completeness for all modes to target levels but should identify future intent for all facilities given constraints and tradeoffs.)
	Plan Amendments	100% of planned system Or Reduced gaps and deficiencies (See Table 5 for guidance)

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DRAFT System Completion Elements

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Table 4: System Completeness Elements by Facility Type

Facility	System Completeness (Elements)
Throughways	Planned TSMO/ITS[8] infrastructure and programs Planned TDM[9] infrastructure and programs Planned street connectivity Planned bus coverage and service frequency Planned transit priority treatments and other transit supportive infrastructure Planned pricing strategies Planned travel lanes Planned regional trails/multi-use paths
Arterials	Planned TSMO/ITS[10] infrastructure and programs Planned TDM infrastructure and programs Planned street connectivity Planned bus coverage and service frequency (RTP only) Planned transit priority treatments and other transit supportive infrastructure Planned sidewalks and pedestrian crossings Planned bikeways Planned travel lanes

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DRAFT Guidance for Defining the Planned System

Packet PDF Page 38

Mode	System Completeness Element	Supporting guidance
Pedestrian	Plan for complete network	RTFP, DLSTG, BUD
	Plan for adequate crossing spacing	RTFP, DLSTG, BUD
	Plan for adequate crossing treatments, including curb ramps	NCHRP 562
	Plan for a low-stress walking network to transit and other key destinations	RTFP, APM, TriMet Pedestrian Plan
Bicycle	Plan for complete network	RTFP, DLSTG, BUD
	Plan for a low-stress bicycling network to transit and other key destinations	APM
	Plan for adequate bike parking at key destinations	RTFP, TriMet Bicycle Parking Guidelines
Transit	Plan for complete network	Regional Transportation Plan, RTFP
	Plan for transit priority infrastructure (e.g., transit signal priority, queue jumps, semi-exclusive or exclusive bus lanes or transitways)	Regional Transit Strategy
	Plan for adequate bus stop amenities and other transit supportive facilities	TriMet Bus Stop Guidelines
Motor Vehicle	Plan for adequate local, collector and arterial street connectivity	RTP, RTFP
	Plan for number of through lanes within maximum guidance	RTP, RTFP, DLSTG
	Plan/policy for where turn lanes will be permitted/prohibited and maximum number of turn lanes considering safety for all modes and land use context	APM, DLSTG, BUD
TSMO	Plan for infrastructure and programs, and maintain system compatibility	RTFP, Regional ITS Architecture Plan, Regional TSMO Strategy
TDM	Plan for infrastructure and programs	RTFP, ODOT-DLCD TGM guidance for TSPs, (forthcoming) Oregon Metro-specific guidance for TSPs

APM – Analysis Procedures Manual (ODOT)
BUD – Blueprint for Urban Design (ODOT)
DLSTG – Designing Livable Streets and Trails Guide (Metro)
NCHRP – National Cooperative Highway Research Project
RTFP – Regional Transportation Functional Plan (Metro)

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TSMO and TDM System Completeness

Packet PDF Pages 38-39

- Limited system planning guidance available for TSMO and TDM than for other aspects of system completeness
  - Implementation actions include creating more guidance to support local agencies completing system planning: updating the RTFP, updating regional TSMO guidance, creating Metro-specific guidance for TDM based on current federal documents and ODOT-DLCD TGM TDM Planning guidance
- For plan amendments, TSMO and TDM infrastructure-based projects can go through the same process as other modal projects. But programming is more difficult because it will depend on the site build out.
  - To meet system completeness for TDM programming, the property owner or agency proposing the plan amendment will have to agree to fulfill the required programming established in the TSP when the site is built

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DISCUSSION QUESTIONS

Do you have questions or feedback on:

- how system completeness for TSMO and TDM is defined?

We welcome feedback on this and other questions listed in the cover memo by August 23

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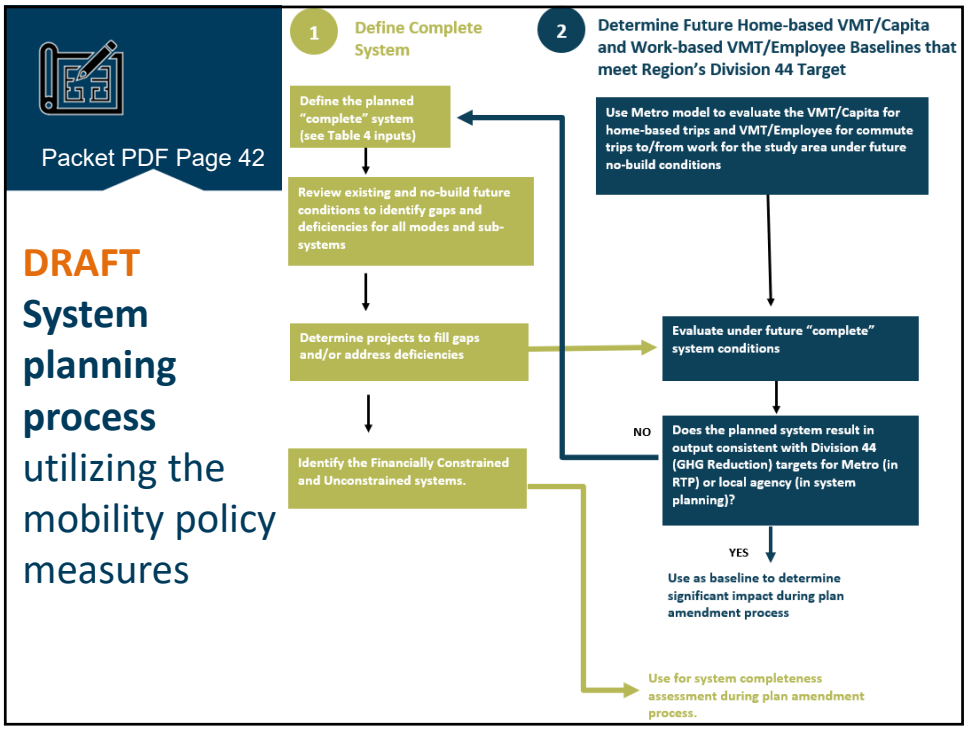
Packet PDF Page 42
DRAFT
System planning process utilizing the mobility policy measures
1
Define Complete System
Define the planned "complete" system (see Table 4 inputs)
Review existing and no-build future conditions to identify gaps and deficiencies for all modes and sub-systems
Determine projects to fill gaps and/or address deficiencies
Identify the Financially Constrained and Unconstrained systems.
2
Determine Future Home-based VMT/Capita and Work-based VMT/Employee Baselines that meet Region's Division 44 Target
Use Metro model to evaluate the VMT/Capita for home-based trips and VMT/Employee for commute trips to/from work for the study area under future no-build conditions
Evaluate under future "complete" system conditions
NO
Does the planned system result in output consistent with Division 44 (GHG Reduction) targets for Metro (in RTP) or local agency (in system planning)?
YES
Use as baseline to determine significant impact during plan amendment process
Use for system completeness assessment during plan amendment process.

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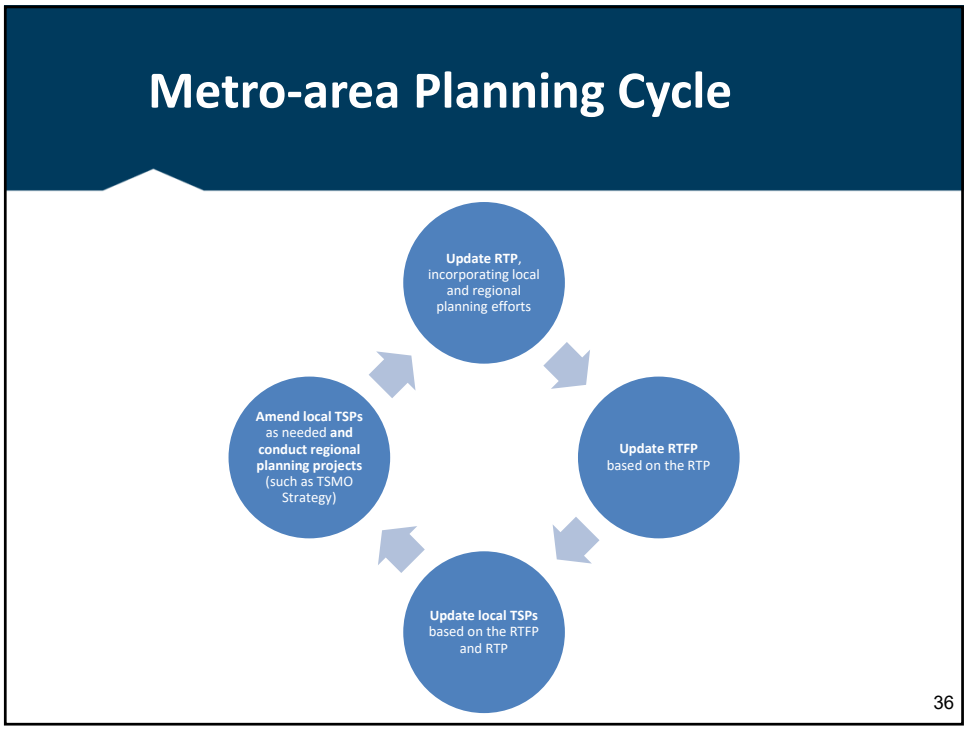
Metro-area Planning Cycle
Update RTP, incorporating local and regional planning efforts
Update RTFP based on the RTP
Update local TSPs based on the RTFP and RTP
Amend local TSPs as needed and conduct regional planning projects (such as TSMO Strategy)
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DRAFT Mobility Policy Actions

Packet PDF Page 43

- Plan Amendment Evaluation Actions (7)
  - Describing how to use each measure in evaluating plan amendments
  - VMT/capita to be used to identify significant impact and if analysis of system completeness and travel speed is needed

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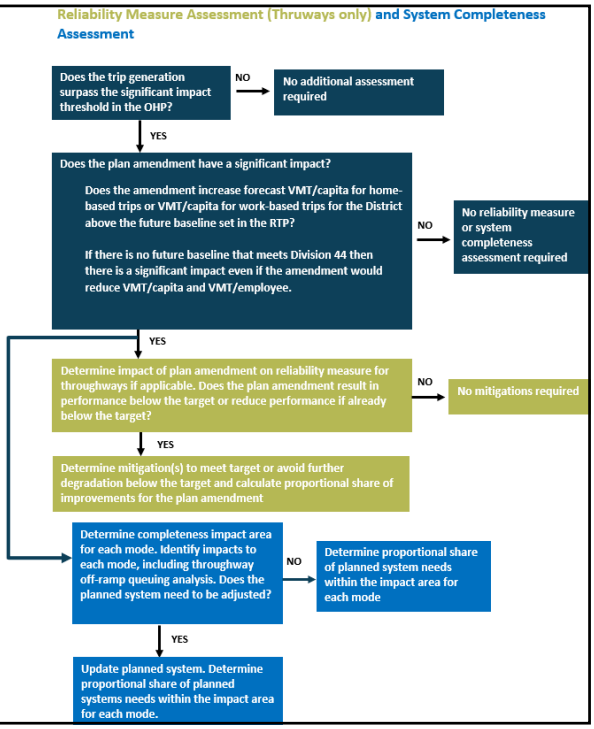
Packet PDF Page 45

DRAFT
Plan amendment process utilizing the mobility policy measures



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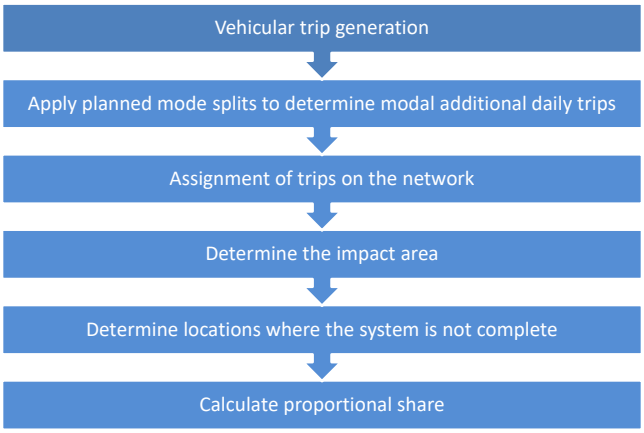
DRAFT Guidance for Assessing Plan Amendment

Packet PDF Page 44



Note: Vehicular trip generation with planned mode splits will be used until or unless mode specific trip generation resources become available.

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DRAFT

Guidance for Assessing Plan Amendment Impacts to System Completeness

Packet PDF Page 46

	Plan Amendment		
	1. Determine study area by selecting the specified distance along existing and planned facilities	2. Determine if the planned system should be updated based on the projected trip generation	3. Determine locations and quantity of gaps in the planned system within the study area
Pedestrian	Along facilities within 1/4-mile routing from site in all directions	n/a	Missing pedestrian crossings
	Along facilities within 1/4-mile routing from site in all directions	Review NCHRP 562	Missing pedestrian crossings by treatment type
	Along facilities within 1/4-mile routing from site in all directions	n/a	Curb-miles of low-stress pedestrian facilities gaps
Bike	Along facilities within 1/4-mile routing from site in all directions	n/a	Curb-miles of low-stress bicycle facilities gaps
	Along facilities within 1/4-mile routing from site in all directions	n/a	Missing bicycle crossings
	Along facilities within 1/4-mile routing from site in all directions	Review TriMet Bicycle Parking Guidelines	Missing bike parking
Transit	Along facilities within 1/4-mile routing from site in all directions	Review TriMet Bus Stop Guidelines	Missing Bus stops amenities by amenity type
	Along facilities within 1/4-mile routing from site in all directions	n/a	Missing transit priority treatments (e.g., transit signal priority, queue jumps, bus-only lanes)
	Along facilities within 1/4-mile routing from site in all directions	n/a	Missing transit supportive infrastructure
Motor Vehicle	Along facilities within 1/2-mile routing from site in all directions	n/a	Centerline-miles of roadway gaps
	Along facilities within 1/2-mile routing from site in all directions	Review travel speeds, off-ramp queuing	Lane-miles of throughway lane gaps
TSMO	Along facilities within 1/2-mile routing from site in all directions	n/a	Gaps in ITS infrastructure along TSMO 'Key Corridors' (defined by TSMO Strategy and RTP); Missing ITS projects (per TSP)
TDM – Infrastructure	Along facilities within 1/4-mile routing from site in all directions	n/a	Missing TDM projects (per TSP)
TDM - Programming	Site-based/within site boundaries	n/a	Agreement to fulfill required programming (per TSP)

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DRAFT Implementation Action Plan

Packet PDF Pages 47-48

- Policy Implementation Actions
- Near-term Data and Guidance Actions
- Long-term Data and Analysis Tool Actions

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DRAFT Policy Implementation Actions

Packet PDF Page 47

- Fully integrate the Regional Mobility Policy in the 2023 Regional Transportation Plan
- Fully integrate the Regional Mobility Policy for the Portland metropolitan area in the updated Oregon Highway Plan
- Update Regional Transportation Functional Plan Title 3, Transportation Project Development, to reflect the Regional Mobility Policy
- Work with local jurisdictions to update policies that adopt the Regional Mobility Policy as their standards for RTP arterials

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DRAFT Near-term Data and Guidance Actions

Packet PDF Page 48

- **Develop Districts within the regional modeling tools** that establish baseline VMT/capita for home-based trips and VMT/employee for commute trips to/from work
- **Refine TAZ boundaries or establish additional TAZs** to better align with jurisdictional and urban growth boundary
- **Develop of spreadsheet or similar tool to assess potential changes in VMT/capita and VMT/employee** for commute trips to minimize need to run regional model
- **Develop guidance on calculating travel speed** based on the model used:
  - If using output from the regional travel demand model, ensure a consistent approach to segment lengths, model hour(s) reviewed, and any calibration needed

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DRAFT Near-term Data and Guidance Actions Continued

Packet PDF Page 48

- Update RTFP to require **TSPs to evaluate and mitigate disparities between EFAs and non-EFAs**
- Further **define and map TSMO "Key Corridors"** consistent with the 2021 Regional TSMO Strategy Update for inclusion in 2023 RTP
- Develop **Metro-specific TDM guidance** for system planning
- Update **RTFP to encompass additional relevant TSMO and TDM guidance**
- Consider how **in-lieu process could support citywide initiatives from TSPs** (ITS plans, wayfinding programs, etc.)

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DRAFT Long-term Data and Analysis Tool Actions

- **Expand the region's Dynamic Traffic Assignment model(s)** to calculate travel speeds and other reliability measure output within a capacity constrained model
  - Develop guidance to consistently calculate travel speed using DTA model
  - Determine if thresholds should be adjusted if analysis is adjusted to use the DTA model
- **Establish a consistent process for TDM planning or create a regional TDM plan.** A regional TDM plan can be referenced when determining the "planned system" for system completeness purposes.
- **Modify or create new regional modeling tools** in coordination with the Oregon Modeling Statewide Collaborative (OMSC) to better account for light-duty commercial travel in support of implementation of this policy and OAR 660-012 and OAR-012-044

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RE-CAP AND OVERALL REFLECTIONS

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Focus of Today's Discussion

Do you support or have specific concerns about:

- the draft mobility policy measures or targets:
  - VMT/capita
  - average travel speed on throughways
  - system completeness
- when/where the measures apply?

We welcome feedback on these and other questions listed in the cover memo by August 23

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Looking ahead: next 4 months

August	Continue developing draft policy, measures, targets and action plan
Fall	Recommend policy, measures and action plan to apply in 2023 RTP update and forward to the OTC for consideration

See Attachment 4 for schedule of upcoming discussions

Learn more at:
oregonmetro.gov/mobility

Metro

Oregon Department of Transportation

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Thank you!

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Glen Bolen, ODOT
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APPENDIX D ADVANCED MEETING PACKET

oregonmetro.gov/mobility

Memo

Date: August 10, 2022

To: Metro Technical Advisory Committee (MTAC), Transportation Policy Alternatives Committee (TPAC) and interested parties

From: Kim Ellis, Metro Project Manager
Lidwien Rahman, ODOT Project Manager
Glen Bolen, ODOT Region 1

Subject: Regional Mobility Policy Update: Revised Draft Policy, Measures and Action Plan

PURPOSE

The purpose of this memo is to present the revised discussion draft regional mobility policy (including performance measures and implementation action plan) is provided in Attachment 1. New and updated information is provided in to help inform a discussion on:

- future 2045 baseline vehicle miles traveled (VMT) per capita and per employee baselines being set through the 2023 Regional Transportation Plan (RTP) based on Division 44 targets and how the future 2045 baselines will be used to evaluate further system planning and evaluating plan amendments (Attachment 1, pages 4, 7, 11, 13-14 and 16, and Attachment 2);
- setting travel-speed based reliability targets for throughways in the Portland area (Attachment 1, pages 4, 7, 12, 14, 17, and Attachment 3); and
- defining system completeness for transportation system management and operations (TSMO) and transportation demand management (TDM) (Attachment 1 only, pages 9 to 11 and 17) .

ACTION REQUESTED

While all feedback on Attachment 1 is welcome, for the August 17 workshop, staff seeks discussion and feedback on the questions listed below.

DISCUSSION QUESTIONS FOR AUGUST 17

- Do you have questions or feedback on:
    - proposed use of Division 44 VMT reduction targets for the Portland region to set future 2045 household-based VMT baselines (Attachment 1 and Attachment 2)?
    - how future changes to 2045 baseline vehicle miles traveled per capita and vehicle miles traveled per employee will be used (Attachment 1 and Attachment 2)?
    - setting travel-speed based reliability targets for throughways (Attachment 1 and Attachment 3)?
    - how system completeness for TSMO and TDM is defined (Attachment 1 only)?

Additional feedback on these questions and the revised draft policy, measures and implementation plan following the workshop is requested **by August 23, 2022.** Please send to kim.ellis@oregonmetro.gov and glen.a.bolen@odot.oregon.gov.

BACKGROUND

Metro and the Oregon Department of Transportation (ODOT) are working together since 2019 to update the policy on how we define and measure mobility in the Portland region.

The current mobility policy, last updated more than 20 years ago, is contained in both the 2018 Regional Transportation Plan (RTP) and Policy 1F (Highway Mobility Policy) of the Oregon Highway Plan (OHP). The policy relies on a vehicle-based measure of mobility (and thresholds) to evaluate current and future performance of the motor vehicle network during peak travel periods. The measure, also known as the v/c ratio, is the ratio of motor vehicle volume to motor vehicle capacity of a given roadway. [1]

The 2018 RTP failed to meet state requirements for demonstrating consistency with the OHP Highway Mobility Policy (Policy 1F) under the current mobility targets for state-owned facilities in the region. As a result, ODOT and Metro agreed to work together to update the mobility policy for the Portland area in both the 2018 RTP and OHP Policy 1F.

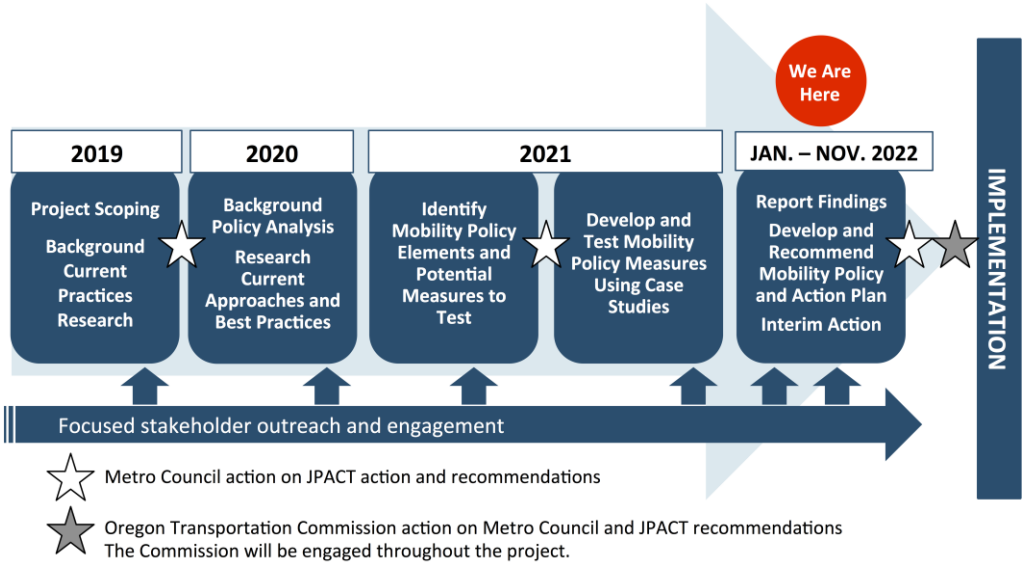
The mobility policy update was defined and adopted unanimously in Chapter 8 of the 2018 RTP. At that time, JPACT and the Metro Council recognized this work was important to better align how we measure mobility and adequacy of the transportation system for people and goods with the RTP policy goals for addressing equity, climate, safety, and congestion.

JPACT and the Metro Council also recognized the updated policy must support other state, regional and local policy objectives, including implementation of the 2040 Growth Concept and the region's Climate Smart Strategy. This comprehensive set of shared regional values, goals and related desired outcomes identified in the RTP and 2040 Growth Concept, as well as local and state goals continue to guide the policy update.

Project timeline

Shown in **Figure 1**, the Regional Mobility Policy update began in 2019 and will be completed in Fall 2022 for use in the 2023 Regional Transportation Plan update.

Figure 1. Project Timeline



[1] For example, when the v/c ratio of a roadway equals 0.90, 90 percent of the roadway's vehicle capacity is being used. At 1.0, the vehicle capacity of the roadway is fully used.

Overview of How We Got Here

An overview of the process used to identify the mobility policy elements and develop the draft policy and proposed performance measures follows.

From 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 Portland State University's Synthesis Research on Current Measures and Tools reviews the existing mobility policy and summarizes current practices in measuring multimodal mobility.

In 2020, the project team reviewed previous input from historically marginalized and underserved communities and other stakeholders from the 2018 Regional Transportation Plan update, development of the 2020 transportation funding measure and the Scoping Engagement Process for this effort. Based on this review and additional feedback received through two workshops with the TPAC and MTAC in fall 2020, six key transportation outcomes were identified as integral to how we view mobility in the Portland region.

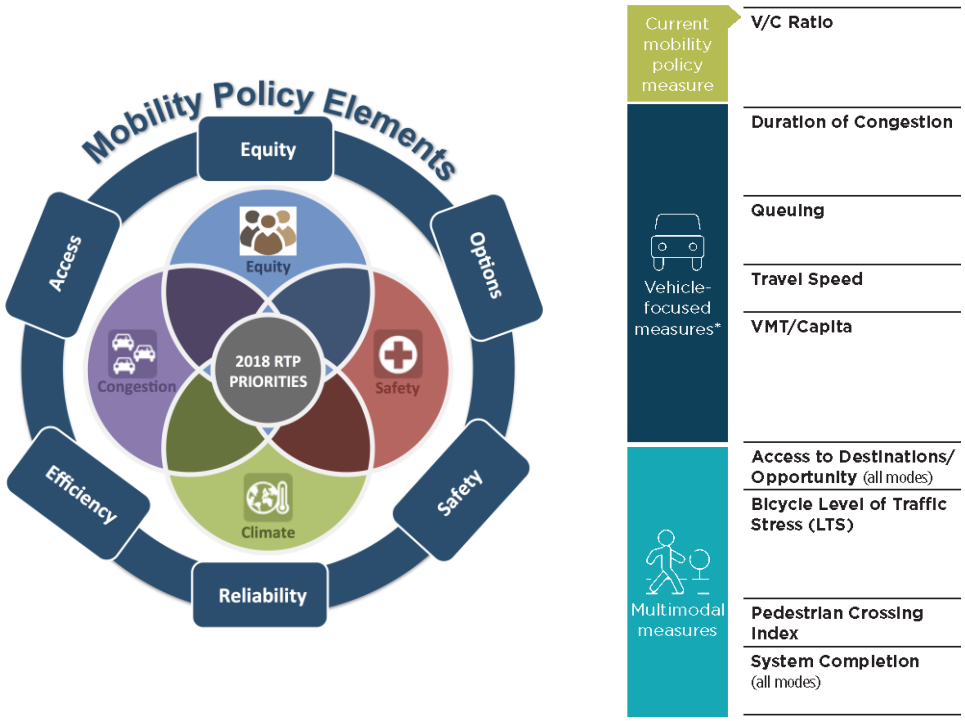
In Fall 2020, TPAC and MTAC also provided feedback on criteria to be used to screen and select potential mobility performance measures for testing that address one or more mobility policy elements. In Winter 2021, the Consultant team applied the screening criteria through a multi-step process to narrow a list of 38 potential mobility measures to 12 potential mobility measures that appeared most promising for testing and further evaluation through case studies. A technical memo and supporting documents describing the screening process is available on the project website.

In spring 2021, the project team engaged policymakers, practitioners, community leaders and other stakeholders to review and provide feedback on the draft mobility policy elements and potential measures to include in the updated policy. Throughout May and June 2021, the project team engaged stakeholders through online forums, briefings and committee meetings. The four online forums included two forums for planning, modeling and engineering practitioners, a forum for goods and freight professionals, and a forum for community leaders. A total of about 130 people participated in the forums. Project staff also presented and received feedback at County Coordinating Committees (staff and policy), MTAC, TPAC, the Metro Policy Advisory Committee (MPAC), JPACT and the Metro Council – representing more than 350 individual points of input.

A Stakeholder Engagement Report and supporting Appendices documenting the Spring 2021 engagement process and input received is available on the project website.

In June 2021, JPACT and Metro Council recommended the mobility policy elements and measures in **Figure 2** be further evaluated and tested. The recommendation was informed by past research and input, the technical screening process and subsequent stakeholder input.

Figure 2: Regional Mobility Policy Elements and Measures Evaluated



Throughout Fall 2021 and early 2022, the project team evaluated a series of case studies. The case studies research focused on learning more about each of the potential new mobility measures and potential ways in which the measures could be applied across different land use and transportation contexts and for different planning applications – focusing on system planning and plan amendments. A memo providing an overview of the preliminary case study evaluation work and a report summarizing the case study analysis and findings are available on the project website.

From February to May 2022, the project team engaged TPAC, MTAC and other practitioners through three workshops, an online questionnaire, briefings to staff-level county coordinating committees and a third practitioners forum. The team reported the case study findings and preliminary mobility policy recommendations from the research.

The discussions and questionnaire resulted in additional input on the draft policies, the individual measures being proposed for the updated mobility policy and ideas for how the measures could be applied during system planning and when evaluating the transportation impacts of plan amendments. The TPAC and MTAC workshop materials and meeting summaries are available on the Metro website. A report summarizing feedback from the April 2022 practitioners forum is available on the project website.

From May to August 2022, the project team used the previous input received to further develop the draft regional mobility policy and proposed performance measures and presented the policy and measures to TPAC and MTAC at the June 17 joint workshop. Staff from the City of Portland and Multnomah Council submitted additional written feedback following the workshop, and the project team had two follow-up meetings with the city of Portland in July and August as requested at the workshop. The Metro Council discussed the draft policy and proposed performance measures at a July work session and expressed support for the overall direction of the work, including the draft policies and proposed measures, recognizing more details on application of the

policy and measures, including thresholds would continue to be developed with TPAC and MTAC through the summer.

In August, the project team continued to refine the draft policy, which includes five individual policy statements, and four proposed performance measures to address feedback received. Major changes made since the June draft include:

- Provided additional clarification on use of VMT per capita and setting baseline through the 2023 RTP. See Attachment 2 for maps of VMT per capita and VMT per employee. The maps were prepared using data from the 2018 RTP.
- Removed travel speed for arterials from the draft policy.
- Removed proposed throughway travel speed thresholds pending further TPAC and MTAC discussion of additional travel speed analysis prepared by the Consultant team. See Attachment 3 for sample throughway travel speed data.
- Added information on TSMO and TDM system completeness that reflects ongoing Metro work through the Regional TSMO and Regional Travel Options programs.
- Made refinements to the process for applying the policy and to the implementation action plan.

NEXT STEPS

A summary of the project timeline and remaining steps in the process is provided in **Attachment 4**.

T**he project team requests that any specific recommended changes to the revised draft regional mobility policy, targets and implementation action plan** be sent as a follow-up to the workshop **by Tuesday, August 23**, including:

- What specific changes would you like to see to improve the draft mobility policy language?
- What specific changes would you like to see to improve the draft measures and targets and when/where they apply in system planning and plan amendments?
- What specific changes would you like to see to improve the draft implementation action plan?
- Do you have other feedback or suggestions for the project team to consider?

Please send your comments and suggestions to Kim Ellis at kim.ellis@oregonmetro.gov and Glen Bolen at glen.a.bolen@odot.oregon.gov.

Staff will consider this feedback and continue to refine the draft regional mobility policy, targets and implementation action plan. Staff will then prepare a recommended draft policy, measures, targets and implementation plan for consideration by TPAC, MTAC, MPAC, JPACT and the Metro Council in Fall 2022.

/Attachments

Attachment 1. Updated Discussion Draft Regional Mobility Policy (8/10/22)

Attachment 2. Maps of 2040 Household-based VMT per Capita and VMT per Employee (data from adopted growth forecast used in 2018 RTP)

Attachment 3. Sample Throughway Travel Speed Data (data from Inrix)

Attachment 4. Project Timeline and 2022 Engagement Activities

Memo

Oregon Department of Transportation

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Date: August 10, 2022

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

From: Susan Wright, PE, Kittelson & Associates, Inc.
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Project: Regional Mobility Policy Update

Subject: Task 8.1: Updated "Discussion Draft" Mobility Policy (8/10/22)

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 function(s). 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 previously agreed upon draft mobility definition and foundational elements integral to achieving the region's desired mobility outcomes, and presents a "Discussion Draft" mobility policy based on input received from policymakers and stakeholders on the draft policies, measures, and case study applications documented in the Case Study Analysis Memorandum and shared through workshops and forums throughout Winter and Spring 2022.

Background

The determination that alternative mobility targets are necessary for the Portland metropolitan region was made through the 2018 Regional Transportation Plan (RTP) planning process. This determination was based on inability to implement the transportation projects needed to meet current targets given anticipated funding and estimated costs, and in some cases because the physical impacts of potential projects or the impacts on other modes were not acceptable considering other transportation policies and land use and environmental conditions in the affected locations. The adopted RTP Section 3.5, Regional Motor Vehicle Network Vision and Policies, includes the Interim Regional Mobility Policy; mobility targets therein correspond with the Oregon Highway Plan's Policy 1F, Highway Mobility Policy, Table 7. With this project, regional mobility policy will take its place in the overarching System Policies in the RTP, alongside safety, equity, climate leadership, and emerging technologies currently in Chapter 3, Section 3.2. Mobility policies are intended to apply to arterials and throughways within the Metro's planning area. Policies and associated measures will also be forwarded to the Oregon Transportation Commission for consideration of amending Oregon Highway Plan Policy 1F, and if adopted would apply to state facilities within the Portland metropolitan area.

The draft mobility policy is intended to achieve the following mobility outcomes which are in alignment with ODOT and Metro strategic goals and priorities. They were identified by policymakers and stakeholders as critical to how we plan for, manage, and operate our transportation system.

Equity

- ***Black, Indigenous and people of color (BIPOC) community members and people with low incomes, youth, older adults, people living with disabilities and other 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 for ODOT and Metro.

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 improvements benefitting historically marginalized and underserved communities.

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.***

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 enhance 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 for longer trips. Efficiently using land, and planning for key destinations in proximity to the where people live and work, contributes to shorter trip lengths.

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" for home-based trips[1] or "VMT per employee" for commute trips to/from work of an area.

Access and Options

- ***People and businesses can conveniently and affordably reach the goods, services, places, and opportunities they need to thrive.***
- ***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.***

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

Closing gaps in networks, particularly pedestrian and bicycle networks, can change travel preferences, reducing VMT/capita. Progress towards well connected, multimodal networks can be measured by mode with "system completeness".

[1] 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.

Safety

- ***People are able to travel safely and comfortably, and feel welcome.***

Unsafe transportation facilities 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 by travel mode is useful in identifying needs and investments that could enhance safety and comfort.

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.***

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 significant benefits for managing congestion and increasing reliability for vehicle modes. System completeness can be used as a measure of the availability of reliable travel options, including walking and biking. Average travel speed can be used as a measure to forecast areas of congestion that will impact reliability for vehicle modes, including transit.

For Throughways, the essential function is throughput and mobility for motor vehicle travel, including transit and freight vehicles, to maximize movement of people and goods. 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 regional and statewide significance in a reasonable and reliable amount of time.

For most Arterials, depending upon the street design classification and freight network classification, the essential functions are transit, bicycle and pedestrian travel and access, while balancing motor-vehicle travel and the many other functions of arterials in intensely developed areas. Improving automobile reliability through additional roadway capacity should follow the region's congestion management process and 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 region or the jurisdiction.

Performance Measures

Regional mobility within the Portland metropolitan area is multi-faceted and requires more than one performance measure to assess adequacy and needs , and to monitor progress toward desired mobility outcomes. Through a process of research, case studies, applying evaluation criteria and soliciting stakeholder and practitioner input, an extensive list of potential measures was narrowed down to four measures. These measures, applied at different scales and to different facilities, are needed to assess overall system performance and whether the system of multi-modal networks are equitable, complete, safe, comfortable , and reliable.

Table 1: "Discussion Draft" Mobility Policy Performance Measures

Measure	Scale for Application	How it Would be Used	Expected Mobility Outcomes
VMT/Capita for home-based trips **and** **VMT/Employee for commute trips to/from work**	Plan Area (RTP, TSP, Plan Amendment)	Measured for the plan area to ensure that land use and transportation plan changes are working in tandem to achieve OAR 660 Division 44 (GHG Reduction rule) VMT/capita reduction targets and resulting in: • reduced need to drive • improved viability of using other and more efficient modes of transportation than the automobile and • preserving roadway capacity for transit, freight and movement for goods and services.	**Land Use Efficiency** Land use patterns that are more efficient to serve because they reduce the need to drive and are supportive of travel options.
System Completeness	Facility Level for Throughways and Regional Arterials in Plan Area (RTP, TSP, Plan Amendment)	Used to identify needs and define the complete multimodal system in regional and local TSPs, facility plans, corridor plans, and area plans. The "complete system" would be defined through system planning and include local, collector and arterial network connectivity, the future number of through lanes, , type of bicycle facility, pedestrian crossings at designated spacing, transit service, transit priority treatments and other transit supportive infrastructure, and TSMO/TDM elements.	**Complete Multi-Modal Networks** Travel options and connectivity allow people to reliably and safely walk, bike, drive, and take transit to get where they need to go.
Average Travel Speed	Facility Level for Throughways (RTP, TSP, Plan Amendment)	Used to identify areas of poor reliability where due to recurring congestion, average travel speeds drop below approximately TBD mph during TBD specified hours of the day on throughways designated in the RTP. On freeways, reliable traffic flow maximum vehicle capacity is consistent between 40 and 65 mph.[2] Addressing motor vehicle congestion through additional throughway capacity should follow the RTP system sizing policy and congestion management process and OHP Policy 1G[3] and should not come at the expense of achieving system completeness for non-motorized modes consistent with RTP modal or design classifications or achieving the VMT/capita target for the jurisdiction.	**Reliability** Safe, efficient and reliable travel speeds for people, goods and services.

[2] On throughways, similar maximum vehicle capacity occurs between 40 and 65mph. When vehicle demand causes traffic speeds to drop below 35 mph, traffic flows become unstable (more stop and go) and the facility capacity drops and the facility is able to move fewer cars per lane. Above 35 mph, traffic flows are more likely to be stable and capacity remains fairly consistent even as the speeds increase and greater distances are needed between vehicles.

[3] Policy 1G (Major Improvements) has the purpose of maintaining highway performance and improving highway safety by improving system efficiency and management before adding capacity.

Discussion Draft Regional Mobility Policy

Within the Portland metropolitan area, the State of Oregon and Metro have a shared goal of providing mobility such that 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.

To achieve these outcomes, it is the policy of the State of Oregon and Metro to:

Mobility Policy 1	Ensure that the public's land use decisions and investments in the transportation system enhance efficiency in how people and goods travel to where they need to go.
Mobility 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.
Mobility 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.
Mobility Policy 4	Prioritize the safety and comfort of travelers in all modes when planning and implementing mobility solutions.
Mobility 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 marginalized and underserved populations have equitable access to safe, reliable, affordable and convenient travel choices that connect to to key destinations.

These policies apply to:

- the state highway system within the Portland metropolitan area for
  - identifying state highway mobility performance expectations for planning and plan implementation; and
  - evaluating the impacts on state highways of amendments to transportation system plans, acknowledged comprehensive plans and land use regulations pursuant to the Transportation Planning Rule (OAR 660-12-0060).
- throughways and regional arterials designated in the Regional Transportation Plan, which include state and local jurisdiction facilities, for identifying mobility performance expectations for planning and plan implementation.

Regional Mobility Policy Reminder:

This policy is not meant for use during development review of outright zoned development but does apply to plan amendments per the TPR.

Under this policy, Oregon Highway Plan volume-to-capacity ratio targets still guide operations decisions such as managing access and traffic control systems and can be used to identify intersection improvements that would help reduce delay, improve the corridor average travel speed, and improve safety. Local jurisdiction standards for their facilities still apply for evaluating impacts of amendments to transportation system plans, acknowledged comprehensive plans and land use regulations pursuant to the Transportation Planning Rule (OAR 660-12-0060) and guiding operations decisions.

Four performance measures as described in Table 2 will be used to assess the adequacy of mobility in the Portland metropolitan area for the regional networks based on the expectations for each facility type, location, and function. These measures will be the initial tools to identify mobility gaps and deficiencies (needs) and consider solutions to address identified mobility needs. The subsequent actions describe how to apply these measures for system planning and assessing plan amendment consistency with OAR 66-012-0060.

Table 2: Draft Mobility Policy Performance Measure Targets

Measure	Application	Target		
VMT/Capita for home-based trips **and** **VMT/Employee for commute trips to/from work**	System Planning	OAR 660 Division 44 (GHG Reduction Rule) sets VMT/Capita reduction targets with which the next major RTP update and local TSPs will need to comply. The resulting RTP and TSPs that meet this regional target will establish a future baseline VMT/capita and VMT/employee. All subsequent applications of this policy shall not increase VMT/capita or VMT/employee above the future baseline.		
	Plan Amendments[1]	The plan amendment will have equal to or lower forecast VMT/capita for home-based trips and equal to or lower forecast VMT/employee for commute trips to/from work than the District[2].		
System Completeness	System Planning	Complete networks and systems for walking, biking, transit, vehicles, freight, and implement strategies for managing the transportation system and travel demand (See Table 3 for guidance and Table 4 for completeness elements by facility type). (Planned system, Strategic and Financially Constrained, may not achieve completeness for all modes to target levels but should identify future intent for all facilities given constraints and tradeoffs.)		
	Plan Amendments	100% of planned system Or Reduced gaps and deficiencies (See Table 5 for guidance)		
Average Travel Speed		**RTP Motor Vehicle Designation**	**Average Travel Speed Target[5]**	**Hours per Day Target**
	System Planning[3]	Throughways [4] I-205, I-84 (east of I-205) I-5 (Marquam Bridge to Wilsonville) OR 217 US 26 (west of sylvan) US 30, OR 47, OR 212 OR 224, OR 213	TBD mph – posted speed limit [6]	TBD hours per day
		Throughways [4] I-405 (from I-5 South to I-5 North) I-5 North (Marquam Bride to Interstate Bridge) US 26 (from Sylvan interchange to I-405) I-84 from I-5 to I-205 99E from Lincoln Street to OR 224 interchange	TBD mph – posted speed limit [6]	TBD hours per day
	Plan Amendments	Same as system planning	Same as system planning	Same as system planning

Table Notes:

[1] Plan amendments that meet this target shall be found to not have a significant impact pursuant to the Transportation Planning Rule (OAR 660-12-0060).

[2] Metro will establish VMT/Capita "Districts" that identify TAZ groupings (subareas) with similar land use characteristics and forecast VMT/Capita. A spreadsheet or similar tool will be developed to help assess potential changes to VMT/capita and VMT/employee and potential mitigations to minimize the need for application of the regional travel demand model for all plan amendments.

[3] Addressing motor vehicle congestion through additional throughway capacity should follow the RTP system sizing policy, the region's congestion management process and OHP Policy 1G and should not come at the expense of achieving system completeness for non-motorized modes consistent with regional modal or design classifications or achieving the VMT/capita target for the region or jurisdiction.

[4] Throughways are designated in the Regional Transportation Plan and generally correspond to Expressways designated in the Oregon Highway Plan.

[5] Used to identify areas of poor reliability where due to recurring congestion, average travel speeds drop below TBD mph for TBD hours per day.

[6] Targets will need to be revisited after NEPA process is complete for the I-205 Toll Project and Regional Mobility Pricing Project.

Table 3: Guidance for Defining the Complete Planned System

Mode	System Completeness Element	Supporting guidance
Pedestrian	Plan for complete network	RTFP, DLSTG, BUD
	Plan for adequate crossing spacing	RTFP, DLSTG, BUD
	Plan for adequate crossing treatments, including curb ramps	NCHRP 562
	Plan for a low-stress walking network to transit and other key destinations[4]	RTFP, APM, TriMet Pedestrian Plan
Bicycle	Plan for complete network	RTFP, DLSTG, BUD
	Plan for a low-stress bicycling network to transit and other key destinations	APM
	Plan for adequate bike parking at key destinations	RTFP, TriMet Bicycle Parking Guidelines
Transit	Plan for complete network	Regional Transportation Plan RTFP
	Plan for transit priority infrastructure (e.g., transit signal priority, queue jumps, semi-exclusive or exclusive bus lanes or transitways)	Regional Transit Strategy
	Plan for adequate bus stop amenities and other transit supportive facilities[5]	TriMet Bus Stop Guidelines
Motor Vehicle	Plan for adequate local, collector and arterial street connectivity	RTP, RTFP
	Plan for number of through lanes within maximum guidance	RTP, RTFP, DLSTG
	Plan/policy for where turn lanes will be permitted/prohibited and maximum number of turn lanes considering safety for all modes and land use context	APM, DLSTG, BUD
TSMO	Plan for infrastructure and programs, and maintain system compatibility	RTFP[6] Regional ITS Architecture Plan Regional TSMO Strategy
TDM	Plan for infrastructure and programs	RTFP (forthcoming) Oregon Metro-specific guidance for TSPs[7]

[4] Key destinations include but are not limited to: 2040 centers and main streets; major employers; transit stops and stations; grocery stores and farmers markets; childcare facilities, schools and colleges; medical or dental clinics and hospitals; government offices and other civic destinations; parks, recreation centers, trails, and open spaces; major sports or performance venues; and gyms and health clubs.

[5] Transit supportive facilities includes stations, hubs, stops, shelters, signs, and ancillary features.

[6] The implementation action plan includes updates to the RTFP to further include TSMO and TDM considerations.

[7] This document will outline how jurisdictions may incorporate TDM into their planning processes, providing guidance for supporting or requiring TDM delivery at site level, setting targets and objectives, and monitoring success. The document will be based on FHWA-HOP-12-035 national guidance, adapted to align with state and regional context including the updated ECO Rules, CFEC Rulemaking, and regional goals.

AMP – Analysis Procedures Manual (ODOT)
BUD – Blueprint for Urban Design (ODOT)
DLSTG – Designing Livable Streets and Trails Guide (Metro)
NCHRP – National Cooperative Highway Research Project
RTFP – Regional Transportation Functional Plan (Metro)

Table 4: System Completeness Elements by Facility Type

Facility	System Completeness (Elements)
Throughways	Planned TSMO/ITS[8] infrastructure and programs Planned TDM[9] infrastructure and programs Planned street connectivity Planned bus coverage and service frequency Planned transit priority treatments and other transit supportive infrastructure Planned pricing strategies Planned travel lanes Planned regional trails/multi-use paths
Arterials	Planned TSMO/ITS[10] infrastructure and programs Planned TDM infrastructure and programs Planned street connectivity Planned bus coverage and service frequency (RTP only) Planned transit priority treatments and other transit supportive infrastructure Planned sidewalks and pedestrian crossings Planned bikeways Planned travel lanes

[8] Transportation System Management measures for throughways means techniques for increasing the efficiency, safety, capacity, or level of service of a transportation facility without increasing its size. Examples include, but are not limited to, access management, ramp metering, and restriping of high occupancy vehicle (HOV) lanes.

[9] Demand management means actions which are designed to change travel behavior in order to improve performance of transportation facilities and to reduce need for additional road capacity. Methods may include, but are not limited to, the use of non-driving modes, individualized marketing programs, commuter programs, trip reduction strategy for large employers, ride-sharing and vanpool programs, trip-reduction ordinances, shifting to off-peak periods, and parking management, including reduced, times or paid parking.

[10] Transportation System Management and Operations measures for arterials means techniques for increasing the efficiency, safety, capacity, or level of service of a transportation facility without increasing its size. Examples include, but are not limited to, traffic signal improvements, traffic control devices including installing medians and parking removal, channelization, access management, and restriping of high occupancy vehicle (HOV) lanes, including bus only lanes.

System Planning Actions

All three of the mobility policy measures are applied to system planning which includes updates to long-range transportation plans, including the Regional Transportation Plan and locally adopted transportation system plans. System planning also includes planning for the transportation system in smaller geographies through facility plans, corridor refinement plans as defined in the RTP and OAR 660-012-, and area plans, including concept plans for designated urban reserve areas. The following actions describe how each of the performance targets shall be used in tandem in system planning, which is supported by the flow chart in Figure 1.

1. Division 44 (GHG Reduction) sets VMT/capita reduction target for the Portland metropolitan area[11]. The RTP process will identify the strategies needed to achieve this target and result in baseline future VMT/capita for the region and each local jurisdiction. This future baseline shall be used to estimate future VMT capita for home-based trips and VMT/employee for commute trips to/from work at the TAZ level. The TAZ data shall be aggregated to develop "Districts" [12] with similar land use and VMT characteristics by Metro through the RTP update process..

2. For system planning at the sub-regional, local jurisdiction (TSPs), or subarea levels, VMT/capita for home-based trips and VMT/employee for commute trips to/from work shall be measured for the plan area to ensure that land use and transportation plan changes are working in tandem to achieve the region's VMT/capita reduction target, resulting in reduced need to drive, improved viability of using other and more efficient modes of transportation than the automobile, and preserving roadway capacity for transit, freight and movement of goods and services. At the first major TSP update after this policy is implemented, system plans shall demonstrate that the planned transportation system achieves of the regional Division 44 target and that future system plan updates maintain or reduce aggregate VMT/capita for home-based trips and VMT/employee for commute trips to/from work for the TAZs and Districts in the plan area compared to the baseline set in the RTP. Projections of vehicle miles traveled per capita must incorporate the best available science on latent and induced travel of additional roadway capacity consistent with OAR 660-012-0160.

3. System Completeness targets shall be used to identify needs and ensure that the planned transportation system is increasing connectivity and improving safety of the multimodal network. The definition of complete shall be established in local transportation system plans consistent with the RTP and RTFP for each facility and will vary based on the modal functional classification and design classification . Table 3 provides guidance for defining the complete system and Table 4 identifies the elements that must be identified for each facility or service type.

[11] The Division 44 targets cannot currently be measured using Metro's Regional Travel Demand Model (RTDM); however, baselines for VMT/capita for home-based trips and VMT/employee for commute trips to/from work can be established from the RTDM for the RTP scenario that meet the Division 44 targets as measured via a different tool.

[12] VMT/Capita "Districts" will be established that identify TAZ groupings (subareas) with similar forecast VMT/Capita, considering use of RTP mobility corridor geographies as a starting point.

4. Average travel speed targets shall be used to assess performance of throughway facilities within the system planning study area for safe, efficient and reliable speeds. Targets will include a target minimum average travel speed that shall be maintained for a specific number of hours per day, recognizing that the target is not likely to be met during a number of peak hours, as described in Table 2. These targets shall inform identification of transportation needs and consideration of system and demand management strategies and other strategies[13] but shall not be used as standards at the expense of non-motorized modes and achieving system completeness for other modes consistent with regional modal or design classifications or achieving the VMT/capita target for the region or jurisdiction. Analysis segmentation of facilities within the study area will be determined based on the analysis software or modeling tool utilized.[14] Projections of vehicle miles traveled per capita must incorporate the best available science on latent and induced travel of additional roadway capacity.

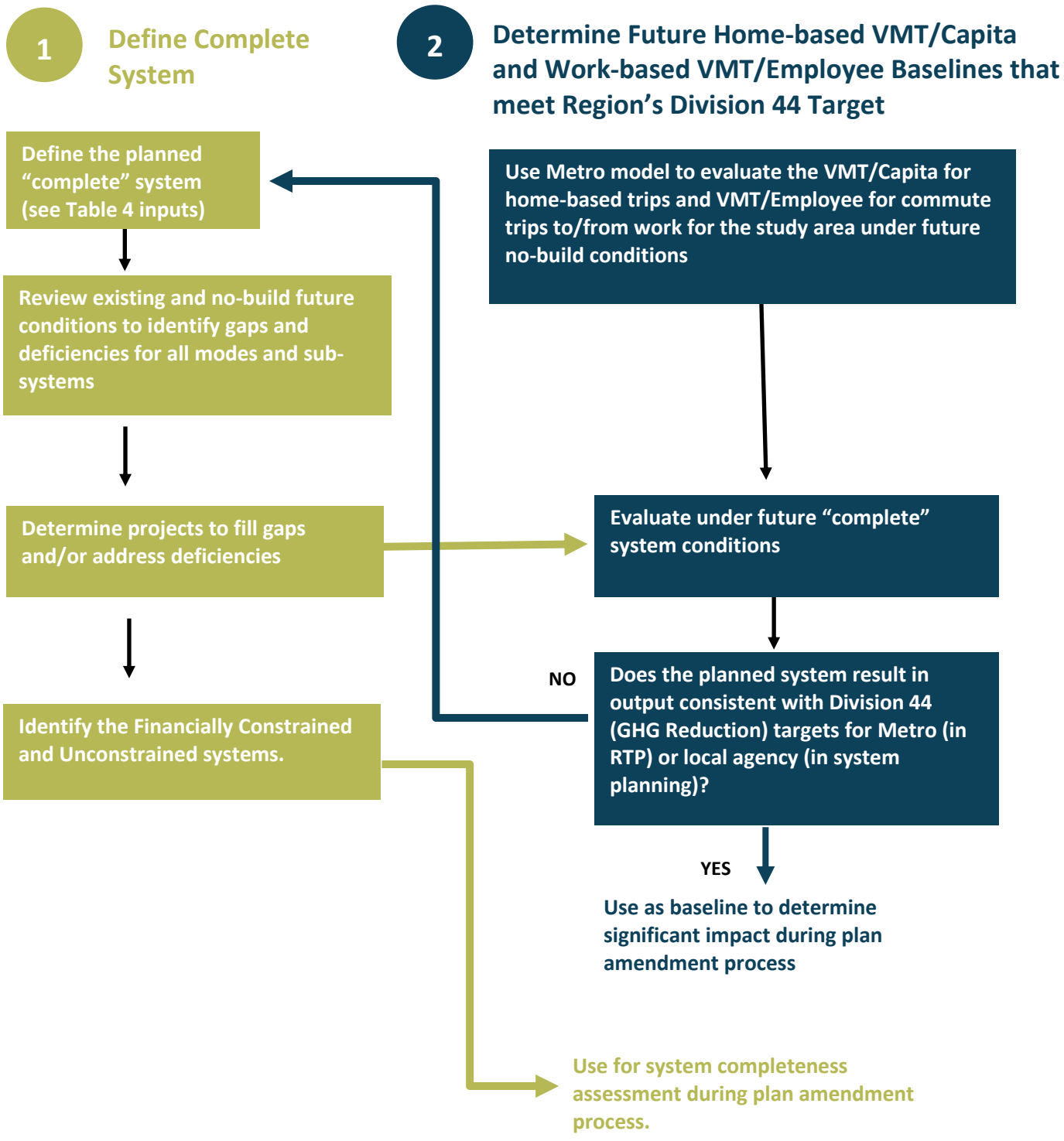
5. Interchanges shall be managed to maintain safe, efficient and reliable operation of the mainline for longer trips of regional or statewide purpose through the interchange area. The main objective is to avoid the formation of traffic queues on off-ramps which back up into the portions of the ramps needed for safe deceleration from mainline speeds or onto the mainline itself. This is a significant traffic safety and operational concern as queues impact mainline operations and crashes affecting reliability. Deceleration space for vehicles exiting throughway mainlines can be improved by managing throughways for longer trips resulting in reducing off-ramp traffic volumes and by increasing capacity at the off-ramp terminal. Thruway off-ramp terminal intersection and deceleration needs shall be evaluated through system plans such as Interchange Area Management Plans, Corridor Plans, and Sub-area Plans.

6. In system plans, when identifying transportation needs and prioritizing investments and strategies, projects that create greater equity and reduce disparities between "Equity Focus Areas" and "Non-Equity Focus Areas" shall be prioritized. This action aims to improve equitable outcomes by burdening underserved populations less than and benefiting underserved populations as much or more as the study area population as a whole. Because the Equity Focus Areas as defined by the RTP are based on a regional average comparison, local governments shall conduct a more specific equity analysis at the local TSP scale consistent with OAR 660-012-0135.

[13] The RTP system sizing policies, regional congestion management process and OHP Policy 1F will be followed to determine mitigations that support meeting the travel speed threshold.

[14] Supporting documentation will be needed as part of implementation of the policy to define the segmentation methodologies based on analysis options.

Figure 1: System Planning Process Utilizing the Four Mobility Policy Measures



Plan Amendment Evaluation Actions

All three of the mobility policy measures are applied to the evaluation of plan amendments. The following actions describe how each of the performance targets shall be used in tandem in evaluating plan amendments consistent with the Transportation Planning Rule (OAR 660-12-0060) and is supported by the flowchart in Figure 3.

1. Comprehensive plan amendments that do not surpass the trip generation thresholds in the Oregon Highway Plan Policy 1F will be found to have no significant impact and are not required to further evaluate travel speed or system completeness.

2. In a jurisdiction with a TSP that has demonstrated compliance with achieving the region's Division 44 GHG reduction targets, comprehensive plan amendments that are forecast to maintain or lower VMT/capita for home-based trips and VMT/employee for commute trips to/from work comparted to their future baseline that achieve Division 44 targets, shall be found to have no significant impact consistent with the Transportation Planning Rule (OAR 660-12-0060)

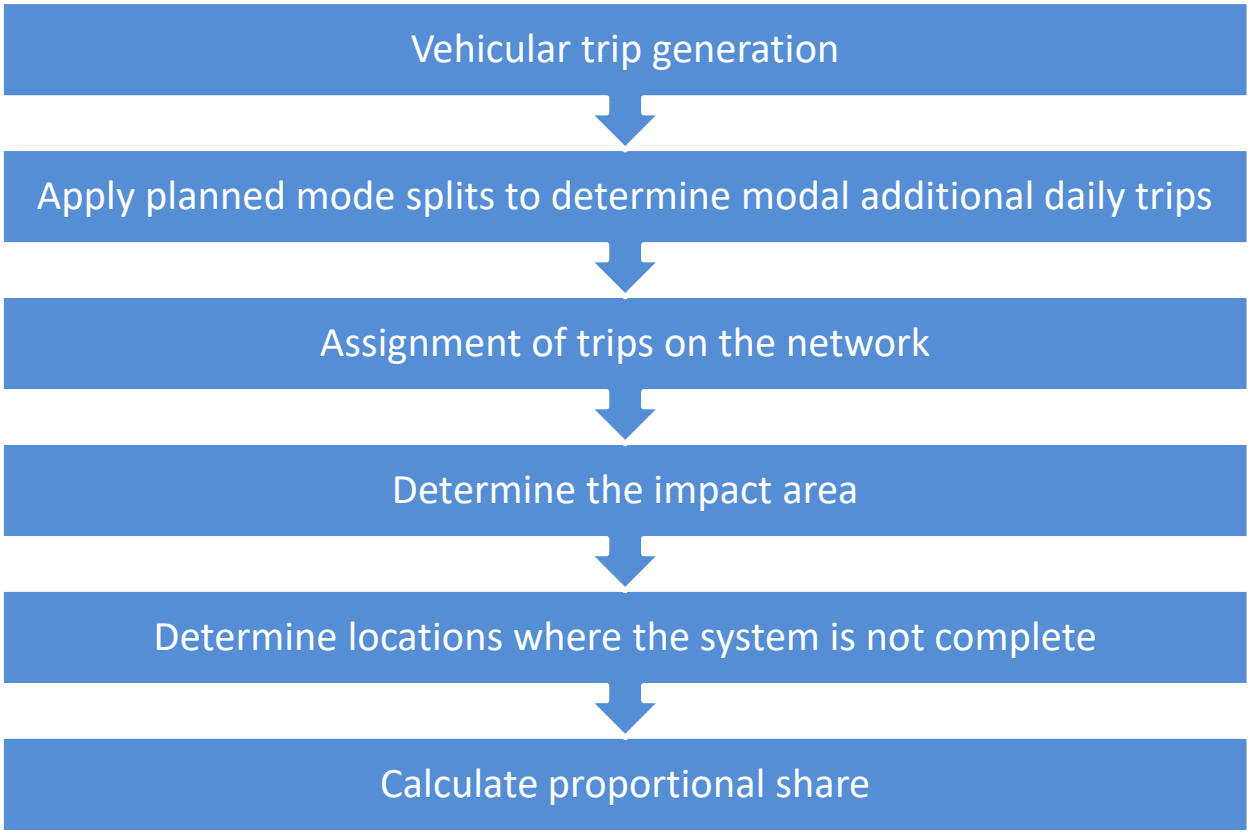
3. Comprehensive plan amendments that have a significant impact because they a) increase VMT/capita for home-based trips or VMT/employee for commute trips to/from work or b) the jurisdiction has not demonstrated compliance with Division 44 shall evaluate impacts of the plan amendment on the system completeness, throughway travel speeds, and off-ramp queuing where applicable.

4. System Completeness assessment of comprehensive plan amendments shall identify the needs to meet the planned system for each mode, as established in regional and/or local system plans. For each mode, the completeness impact area will be defined based on routing from the comprehensive plan amendment site for the specified distances in Table 5. Table 5 provides guidance for identifying the needs within each modal completeness impact area. For the comprehensive plan amendment, a proportional share of the identified needs will be established based on additional daily trips for the plan amendment, as described in Figure 2.

5. Comprehensive plan amendments that demonstrate either of the following for analysis segments within the vehicular impact area shall be found to require mitigation, and a proportional share of the identified needs will be established for the comprehensive plan amendment based on additional daily trips
    a) Degrades the average travel speed of an existing or planned transportation facility such that it would not meet the performance target identified Table 2; or
    b) Degrades the travel speed performance of an existing or planned transportation facility that is otherwise projected to not meet the performance standards identified in Table 2.

6. Interchanges within the vehicular impact area shall be assessed for off-ramp queuing to maintain safe, efficient and reliable operation of the mainline for longer trips of regional or statewide purpose through the interchange area under the forecast comprehensive plan amendment.

Figure 2: Guidance for Assessing Plan Amendment Impacts



Note: Vehicular trip generation with planned mode splits will be used until or unless mode specific trip generation resources become available.

Figure 3: Plan Amendment Process Utilizing the Four Mobility Policy Measures

Reliability Measure Assessment (Thruways only) and System Completeness Assessment

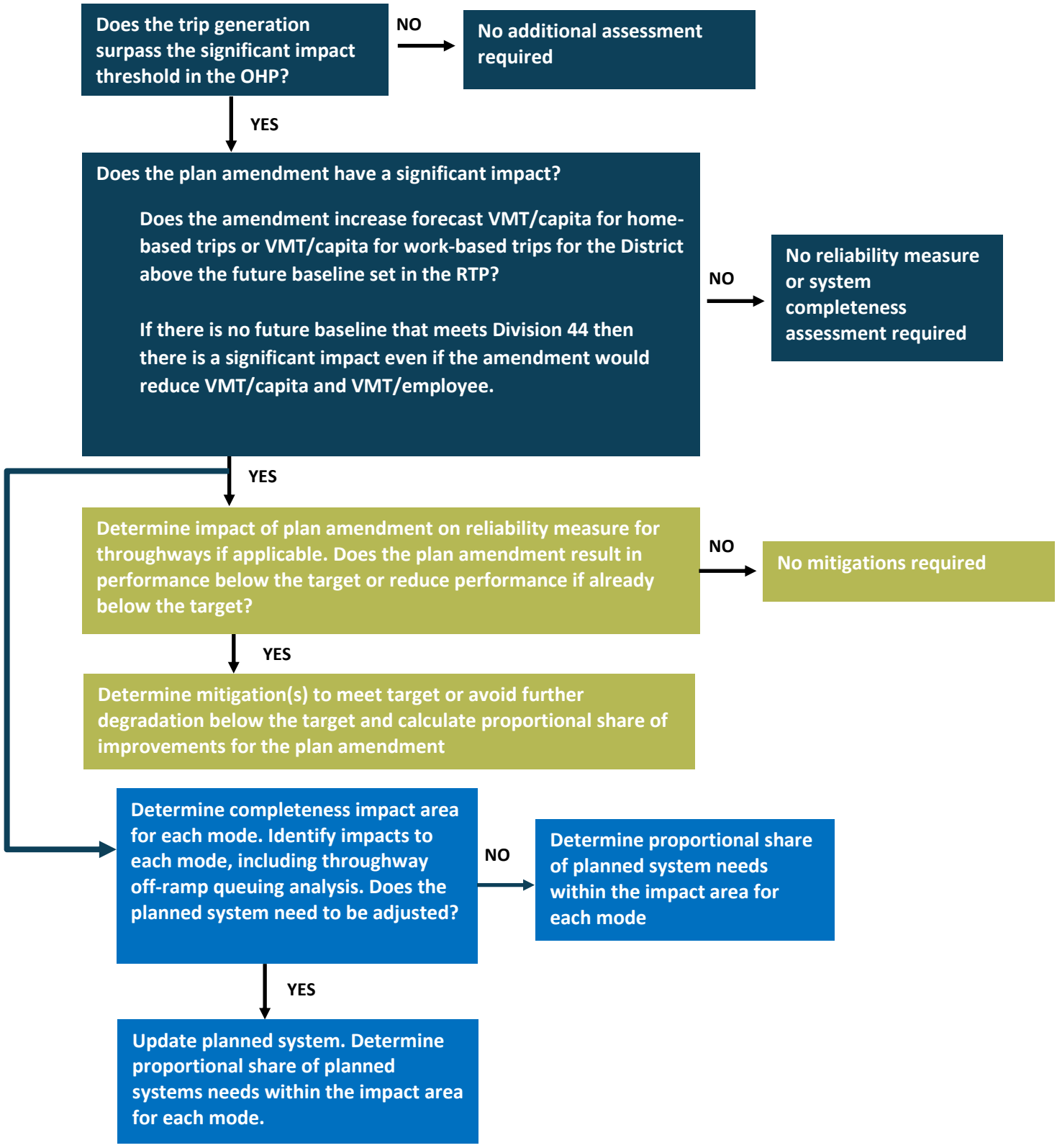


Table 5: Guidance for Assessing Plan Amendment Impacts to System Completeness

	Plan Amendment		
	1. Determine study area by selecting the specified distance along existing and planned facilities	**2. Determine if the planned system should be updated based on the projected trip generation**	**3. Determine locations and quantity of gaps in the planned system within the study area**
Pedestrian	Along facilities within 1/4-mile routing from site in all directions	n/a	Missing pedestrian crossings
	Along facilities within 1/4-mile routing from site in all directions	Review NCHRP 562	Missing pedestrian crossings by treatment type
	Along facilities within 1/4-mile routing from site in all directions	n/a	Curb-miles of low-stress pedestrian facilities gaps
Bike	Along facilities within 1/4-mile routing from site in all directions	n/a	Curb-miles of low-stress bicycle facilities gaps
	Along facilities within 1/4-mile routing from site in all directions	n/a	Missing bicycle crossings
	Along facilities within 1/4-mile routing from site in all directions	Review TriMet Bicycle Parking Guidelines	Missing bike parking
Transit	Along facilities within 1/4-mile routing from site in all directions	Review TriMet Bus Stop Guidelines	Missing Bus stops amenities by amenity type
			Missing transit priority treatments (e.g., transit signal priority, queue jumps, bus-only lanes)
			Missing transit supportive infrastructure
Motor Vehicle	Along facilities within 1/2-mile routing from site in all directions	n/a	Centerline-miles of roadway gaps
	Along facilities within 1/2-mile routing from site in all directions	Review travel speeds, off-ramp queuing	Lane-miles of throughway lane gaps
TSMO	Along facilities within 1/2-mile routing from site in all directions	n/a	Gaps in ITS infrastructure along TSMO 'Key Corridors' (defined by TSMO Strategy and RTP); Missing ITS projects (per TSP)
TDM – Infrastructure	Along facilities within 1/4-mile routing from site in all directions	n/a	Missing TDM projects (per TSP)
TDM - Programming	Site-based/within site boundaries	n/a	Agreement to fulfill required programming (per TSP)

Implementation Action Plan

The following describes actions necessary to implement the proposed policy including steps to incorporate the policy into existing policy documents and guidance and tools needed for practitioners to implement the policy.

Policy Implementation Actions

- **Adopt the updated Regional Mobility Policy in the 2023 Regional Transportation Plan and subsequent RTFP updates**. The 2018 RTP Section 3.5, Regional Motor Vehicle Network Vision and Policies, includes the Interim Regional Mobility Policy; mobility targets therein correspond with the Oregon Highway Plan's Policy 1F, Highway Mobility Policy, Table 7. With this project, regional mobility policy will take its place in the Overarching System Policies in the RTP, alongside safety, equity, climate leadership, and emerging technologies currently in Chapter 3, Section 3.2. To be consistent with the format of the RTP, develop explanatory text for each of the five policy statements and specify the actions to implement each.

- **Request amendment of the Regional Mobility Policy for the Portland metropolitan area in the updated Oregon Highway Plan**. An update of the Oregon Highway Plan is planned for 2022-23, following the adoption of the new Oregon Transportation Plan. The updated Regional Mobility Policy is anticipated to replace Table 7 in OHP Policy 1F. Integrate explanatory text, Performance Measure Targets, and other state guidance for transportation system planning for state highways in the Portland metropolitan area, consistent with the updated policy n. Remove the recommendation in the Oregon Highway Plan for local agencies to adopt ODOT mobility standards for development review purposes.

- **Update Regional Transportation Functional Plan Title 3, Transportation Project Development, to reflect the Regional Mobility Policy**. Title 3 includes current mobility targets in Table 3.08-2; Section 3.08.230 Performance Targets and Standards requires Oregon Transportation Commission approval for local adoption of mobility standards for state highways that differ from those in Table 3.08-2. Establish a reporting requirement that an agency has to go through if trying to expand past the lane maximums. This process will verify that the congestion management process was used and that other options were analyzed first before capacity-adding projects.

- **Work with local jurisdictions to update policies that adopt the Regional Mobility Policy as their standards for RTP arterials**. Local adoption will clarify that the updated regional performance targets apply in plan amendment decisions to ensure that the proposed changes are consistent with the planned function, capacity, and performance standards of state and regional facilities. Many local jurisdictions have adopted ODOT's OHP V/C targets as standards in their development codes, with the result that projects can be denied based on the inability to meet or mitigate to the applicable standards; the new Regional Mobility Policy provides a balanced, multi-modal approach to approving development that is consistent with planned growth and state and regional climate, equity, safety and mobility goals.

Near-term Data and Guidance Actions

- Develop Districts within the regional modeling tools that establish baseline VMT/capita for home-based trips and VMT/employee for commute trips to/from work, considering the RTP mobility corridors geographies as a starting point.

- Refine TAZ boundaries or establish additional TAZs to better align with jurisdictional and urban growth boundaries.

- Develop a spreadsheet or similar tool to help assess potential changes to VMT/capita and VMT/employee for commute trips and potential mitigations to minimize the need for application of the regional travel demand model for all plan amendments.

- Develop guidance on calculating travel speed on throughways based on the model used.
    - If using output from the regional travel demand model, ensure a consistent approach to segment lengths, model hour(s) reviewed, and any calibration needed.

- Update RTFP to require TSPs to evaluate and mitigate disparities between "Equity Focus Areas" and "Non-Equity Focus Areas". Further define and map TSMO "Key Corridors" consistent with the 2021 Regional TSMO Strategy Update for inclusion in 2023 RTP Update
- Develop TDM guidance for system planning, based on FHWA guidance, specific to the Metro region
- Update RTFP to encompass additional relevant TSMO and TDM guidance
- Consider how the in-lieu process could support citywide initiatives identified in TSPs such as ITS plans, wayfinding programs, etc.

Long-term Data and Analysis Tool Actions

- Expand the region's Dynamic Traffic Assignment model(s) to calculate travel speeds for all throughways and other reliability measure output within a capacity constrained model.
    - Develop guidance to consistently calculate travel speed using DTA model.
    - Determine if thresholds should be adjusted if analysis is adjusted to use the DTA model.

- Establish a consistent process for TDM planning or create a regional TDM plan. A regional TDM plan can be referenced when determining the "planned system" for system completeness purposes.

- Modify or create new regional modeling tools in coordination with the Oregon Modeling Statewide Collaborative (OMSC) to better account for light-duty commercial travel in support of implementation of this policy and OAR 660-012 and OAR-012-044.

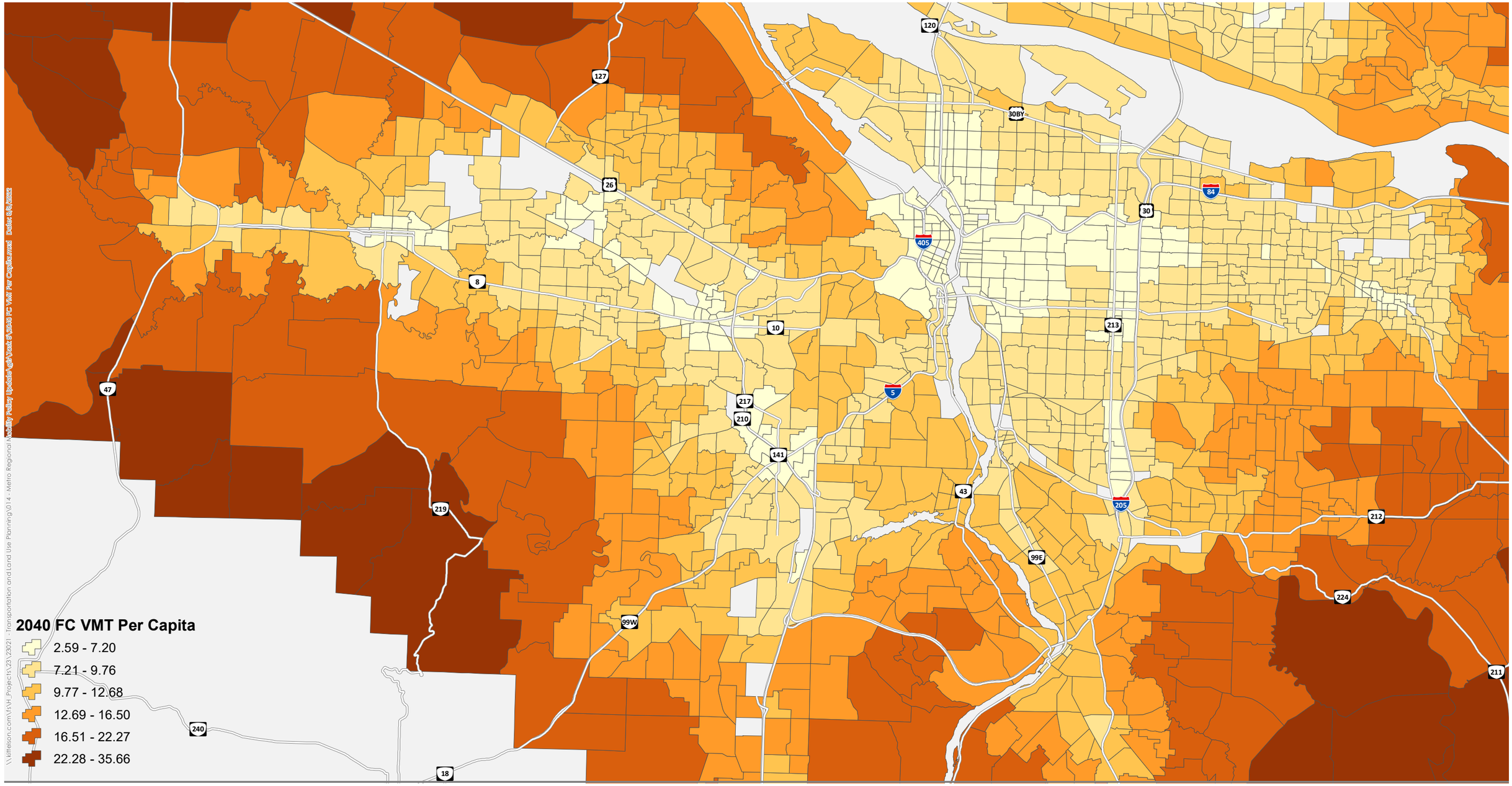


Figure 1

2040 FC VMT Per Capita
Portland Metro Area

KITTELSON & ASSOCIATES

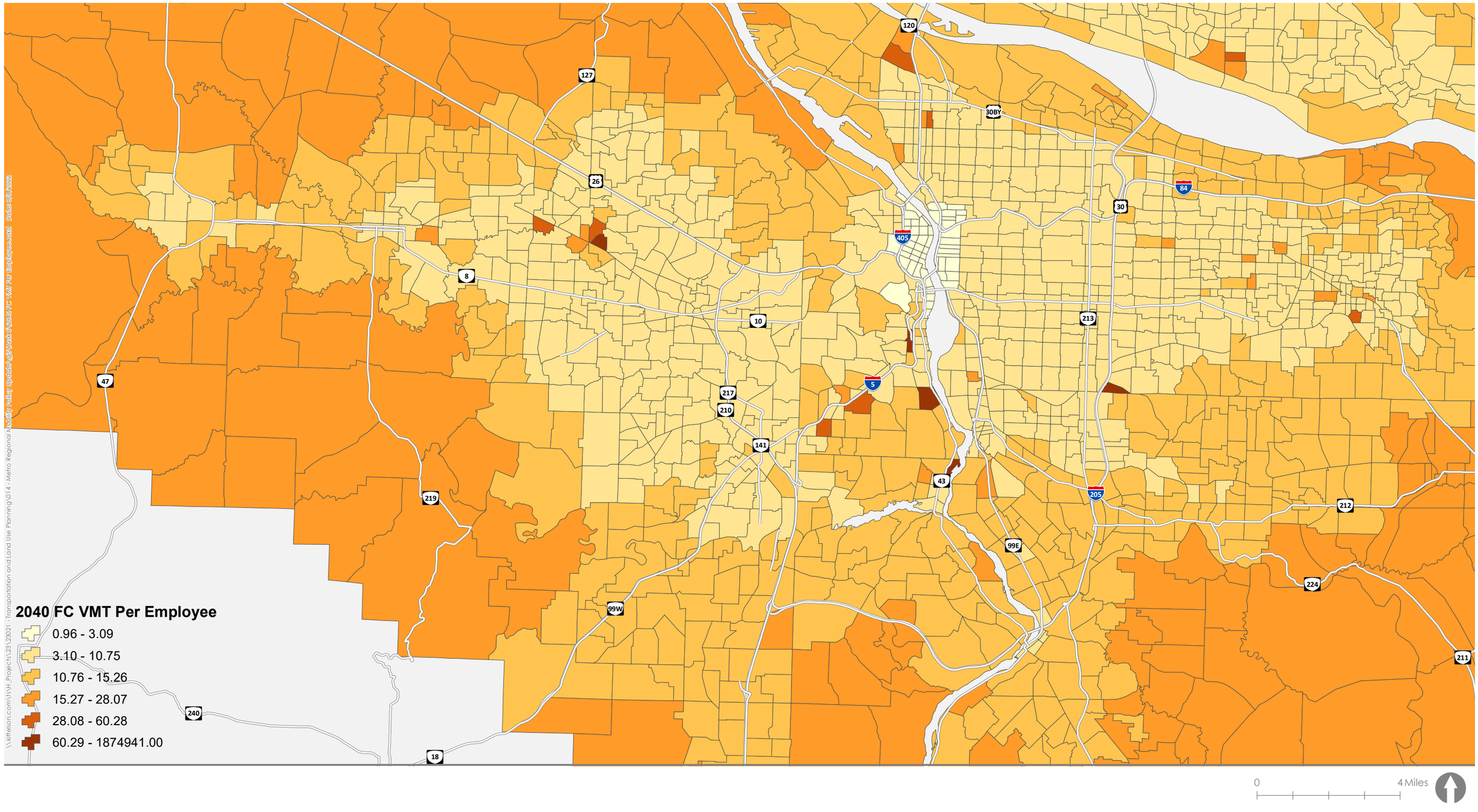


Figure 2

2040 FC VMT Per Employee
Portland Metro Area

KITTELSON & ASSOCIATES

I-205 Northbound - Hours per day not meeting the speed threshold

Exit/Segment	July 11, 2021 (Monday)				July 12, 2021 (Tuesday)				July 13, 2021 (Wednesday)				July 14, 2021 (Thursday)				July 15, 2021 (Friday)			
Speed Threshold	20	35	40	45	20	35	40	45	20	35	40	45	20	35	40	45	20	35	40	45
Glenn Jackson Bridge	0.0	2.4	2.7	2.9	0.0	2.2	2.9	3.0	0.0	1.3	3.0	3.8	0.0	3.0	4.6	5.1	0.0	3.7	4.4	4.9
	0.0	1.4	1.9	1.9	0.0	1.8	2.3	2.7	0.0	1.7	2.5	3.1	0.0	3.0	4.1	4.6	0.0	3.1	3.9	4.5
Exit 24 Airport Wy	0.0	1.1	1.4	1.8	0.0	0.8	1.8	2.3	0.0	0.7	1.8	2.8	0.0	2.1	3.3	4.3	0.0	1.5	3.2	3.8
	0.2	2.0	3.3	4.3	0.0	2.2	3.6	4.2	0.1	2.8	4.5	5.5	0.0	3.8	5.7	6.3	0.1	3.3	5.1	6.3
Exit 23 Columbia Blvd	3.2	4.3	4.3	4.6	2.5	4.2	4.3	4.3	4.0	5.5	5.5	5.6	4.7	6.5	6.6	6.7	4.1	6.4	6.5	6.9
	4.1	4.3	4.3	4.3	3.0	4.1	4.2	4.6	4.8	5.5	5.6	5.7	5.6	6.6	6.7	6.8	5.2	6.8	6.9	7.0
Exit 23 Sandy Blvd	4.1	4.3	4.3	4.3	3.5	4.0	4.3	4.4	4.7	5.4	5.6	5.7	5.8	6.6	6.7	6.8	5.6	6.8	6.9	6.9
	3.9	4.2	4.2	4.2	3.7	3.8	4.0	4.1	4.8	5.3	5.4	5.4	5.7	6.3	6.4	6.5	5.8	6.5	6.6	6.6
Exit 22 I-84/US-30	3.4	3.8	3.8	3.8	3.5	3.8	3.8	3.8	4.7	4.8	4.8	4.9	5.3	5.8	5.8	6.1	5.5	6.2	6.3	6.3
	3.1	3.3	3.3	3.3	2.5	3.2	3.4	3.6	4.3	4.5	4.5	4.5	4.2	5.0	5.1	5.2	4.0	4.3	4.5	5.3
Exit 21 I-84/US-30	2.8	3.1	3.2	3.2	2.6	3.0	3.0	3.2	4.3	4.4	4.4	4.4	3.7	4.2	4.3	4.3	3.8	3.9	4.3	4.4
	2.4	2.6	2.7	2.8	1.8	2.6	2.6	2.8	3.9	4.1	4.3	4.3	3.3	3.4	3.4	3.4	3.4	3.6	3.7	3.7
Exit 20 Wash. St/Stark St	1.9	2.2	2.3	2.4	1.0	1.9	2.3	2.5	3.8	3.9	3.9	4.0	3.2	3.3	3.3	3.3	3.1	3.3	3.3	3.3
	0.9	1.7	1.8	2.1	0.0	0.4	0.8	1.1	3.1	3.7	3.7	3.8	2.6	3.3	3.3	3.3	2.6	3.0	3.1	3.1
Exit 19 Division St	0.4	1.2	1.2	1.3	0.0	0.0	0.0	0.0	3.0	3.4	3.6	3.6	2.3	2.9	2.9	3.0	2.2	2.7	2.8	2.8
	0.0	0.8	0.8	0.9	0.0	0.0	0.0	0.0	2.9	3.3	3.4	3.4	2.1	2.6	2.8	2.9	2.0	2.7	2.7	2.7
Exit 24 US-26/Powell Blvd	0.0	0.2	0.2	0.4	0.0	0.0	0.0	0.1	2.7	3.3	3.3	3.3	1.2	2.4	2.5	2.7	2.1	2.5	2.5	2.6
	0.0	0.3	0.6	2.8	0.0	0.1	0.5	3.2	2.1	3.3	3.8	5.6	0.1	1.8	2.4	4.2	1.1	2.9	3.3	6.1
Exit 17 Foster Rd	0.0	4.3	4.6	4.9	0.1	4.1	4.8	5.1	2.8	5.9	6.2	6.3	1.4	5.6	5.8	6.0	2.7	7.3	7.6	7.6
	0.0	3.3	3.8	4.5	0.0	2.4	3.5	3.9	2.5	4.9	4.9	5.3	0.8	4.6	4.8	5.1	1.9	7.1	7.3	7.3
Exit 16 Johnson Cr Blvd	1.1	2.8	2.9	2.9	0.8	2.3	2.7	2.8	3.5	4.1	4.2	4.5	1.8	3.5	3.8	3.8	4.6	5.4	5.7	5.8
	0.5	1.2	1.2	1.7	0.1	1.1	1.3	1.8	2.9	3.8	3.8	3.9	1.1	2.8	2.8	3.1	2.8	4.3	4.6	4.8
Exit 14 Sunnybrook Blvd	0.0	0.3	0.4	0.5	0.0	0.0	0.0	0.0	0.2	2.1	2.5	2.7	0.3	0.8	0.8	0.9	1.0	1.9	2.2	2.2
	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.3	0.0	0.3	0.3	0.4	0.0	0.4	0.6	1.2
Exit 13 OR 213/OR 224	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.0	0.0	0.1	0.2
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exit 12 OR 212/OR 224	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.2	0.3	0.8	0.0	0.0	0.0	0.0	0.3	0.5	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2
Exit 11 82nd Dr	0.4	1.1	1.1	1.2	0.0	0.0	0.0	0.0	0.0	0.4	0.4	0.7	0.0	0.0	0.0	0.1	0.0	0.3	0.4	0.8
	0.3	0.8	0.8	1.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.4
Exit 10 OR 213	0.3	0.5	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.2	0.4	0.4	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exit 9 OR 99E	0.1	0.4	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.1	0.5	0.7	3.0	0.0	0.0	0.1	2.3	0.0	0.0	0.1	2.8	0.0	0.0	0.1	3.3	0.0	0.0	0.1	3.3
Exit 8 OR 43	0.3	5.3	5.8	6.2	0.5	5.3	5.5	5.7	0.3	6.3	6.5	6.6	0.4	6.8	6.9	6.9	0.3	6.4	6.6	6.8
	0.3	4.2	4.4	4.8	0.3	3.8	4.5	5.1	0.3	5.3	5.8	5.8	0.7	6.4	6.6	6.7	0.6	5.9	6.1	6.2
Exit 6 10th St/6th St	3.3	4.5	4.5	4.6	3.4	4.4	4.8	4.8	4.0	5.4	5.7	5.8	4.8	6.5	6.5	6.5	4.3	6.0	6.2	6.2
	1.6	3.8	4.3	4.3	2.0	3.9	4.0	4.2	3.2	5.0	5.2	5.3	3.8	5.3	5.7	5.8	2.5	5.0	5.6	5.8
Exit 3 Stafford Rd	2.7	3.7	4.1	4.1	2.6	3.6	4.0	4.2	3.7	4.9	5.2	5.2	4.0	5.2	5.2	5.3	2.7	4.8	5.2	5.3
	0.0	0.3	0.3	0.3	0.0	0.0	0.0	0.0	0.5	1.4	1.7	1.8	0.5	0.8	0.8	1.1	0.0	0.0	0.0	0.0
	0.2	2.7	3.2	3.6	0.3	1.5	2.2	2.5	2.7	4.3	4.4	4.7	3.2	4.4	4.5	4.7	0.3	2.3	2.3	2.8

Direction of travel

Data Source: INRIX

KITTELSON & ASSOCIATES

I-205 Northbound Travel Speeds - Thursday, July 14, 2022

Exit/Segment	Hours Not Meeting the Speed Threshold			
Speed Threshold	20	35	40	45
Glenn Jackson Bridge	0.0	3.0	4.6	5.1
	0.0	3.0	4.1	4.6
Exit 24 Airport Wy	0.0	2.1	3.3	4.3
	0.0	3.8	5.7	6.3
Exit 23 Columbia Blvd	4.7	6.5	6.6	6.7
	5.6	6.6	6.7	6.8
Exit 23 Sandy Blvd	5.8	6.6	6.7	6.8
	5.7	6.3	6.4	6.5
Exit 22 I-84/US-30	5.3	5.8	5.8	6.1
	4.2	5.0	5.1	5.2
Exit 21 I-84/US-30	3.7	4.2	4.3	4.3
	3.3	3.4	3.4	3.4
Exit 20 Wash. St/Stark St	3.2	3.3	3.3	3.3
	2.6	3.3	3.3	3.3
Exit 19 Division St	2.3	2.9	2.9	3.0
	2.1	2.6	2.8	2.9
Exit 24 US-26/Powell Blvd	1.2	2.4	2.5	2.7
	0.1	1.8	2.4	4.2
Exit 17 Foster Rd	1.4	5.6	5.8	6.0
	0.8	4.6	4.8	5.1
Exit 16 Johnson Cr Blvd	1.8	3.5	3.8	3.8
	1.1	2.8	2.8	3.1
Exit 14 Sunnybrook Blvd	0.3	0.8	0.8	0.9
	0.0	0.3	0.3	0.4
Exit 13 OR 213/OR 224	0.0	0.1	0.1	0.2
	0.0	0.0	0.0	0.0
Exit 12 OR 212/OR 224	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0
Exit 11 82nd Dr	0.0	0.0	0.0	0.1
	0.0	0.0	0.0	0.0
Exit 10 OR 213	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0
Exit 9 OR 99E	0.0	0.0	0.0	0.0
	0.0	0.0	0.1	3.3
Exit 8 OR 43	0.4	6.8	6.9	6.9
	0.7	6.4	6.6	6.7
Exit 6 10th St/6th St	4.8	6.5	6.5	6.5
	3.8	5.3	5.7	5.8
Exit 3 Stafford Rd	4.0	5.2	5.2	5.3
	0.5	0.8	0.8	1.1
	3.2	4.4	4.5	4.7

Northbound Travel Speeds

7:00 AM	7:30 AM	8:00 AM	8:30 AM	9:00 AM	9:30 AM	10:00 AM	10:30 AM	11:00 AM	11:30 AM
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I-205 Northbound Travel Speeds - Thursday, July 14, 2022

Direction of travel ↑ (from Exit 3 toward Glenn Jackson Bridge)

Exit/Segment	Hours Not Meeting the Speed Threshold				12:00 PM						12:30 PM						1:00 PM						1:30 PM					
Speed Threshold	20	35	40	45																								
Glenn Jackson Bridge	0.0	3.0	4.6	5.1	60	62	62	64	64	62	66	57	61	63	61	64	64	61	63	61	57	55	59	61	60	62	62	59
	0.0	3.0	4.1	4.6	59	60	61	57	63	62	65	62	59	60	61	65	62	57	57	57	63	59	60	59	61	61	60	56
Exit 24 Airport Wy	0.0	2.1	3.3	4.3	61	64	64	62	63	64	63	65	63	62	61	64	65	64	62	62	61	60	62	59	60	62	59	59
	0.0	3.8	5.7	6.3	59	60	58	52	52	55	50	57	58	47	55	57	60	62	57	51	53	52	54	45	45	46	45	46
Exit 23 Columbia Blvd	4.7	6.5	6.6	6.7	59	63	60	58	51	53	41	58	62	52	58	60	59	63	58	52	57	52	59	46	33	29	30	38
	5.6	6.6	6.7	6.8	57	63	60	61	60	61	55	61	61	61	57	60	59	60	56	56	63	53	58	58	29	23	23	37
Exit 23 Sandy Blvd	5.8	6.6	6.7	6.8	60	63	61	64	60	62	62	63	61	63	60	61	59	60	58	59	63	55	60	58	39	26	22	30
	5.7	6.3	6.4	6.5	59	62	61	65	60	59	60	60	62	62	61	61	58	57	57	57	62	56	59	58	49	33	20	26
Exit 22 I-84/US-30	5.3	5.8	5.8	6.1	62	65	65	64	62	63	66	64	64	64	60	65	58	57	59	60	62	61	62	63	60	57	40	42
	4.2	5.0	5.1	5.2	55	64	63	59	62	63	68	64	59	58	58	61	53	52	59	58	58	58	57	61	59	60	57	60
Exit 21 I-84/US-30	3.7	4.2	4.3	4.3	59	66	63	63	63	64	67	65	60	62	62	62	55	58	62	61	63	62	60	61	62	61	58	60
	3.3	3.4	3.4	3.4	60	65	62	64	63	62	66	65	62	64	63	62	60	60	61	62	66	65	62	62	63	61	60	62
Exit 20 Wash. St/Stark St	3.2	3.3	3.3	3.3	62	62	60	63	63	62	64	64	61	63	63	61	62	59	58	61	64	65	62	59	62	59	61	62
	2.6	3.3	3.3	3.3	62	62	62	64	63	65	65	65	61	63	63	63	63	59	60	63	64	64	61	61	64	61	62	62
Exit 19 Division St	2.3	2.9	2.9	3.0	63	62	61	61	61	64	63	64	59	63	63	62	63	60	62	65	61	63	62	62	64	62	64	62
	2.1	2.6	2.8	2.9	61	62	58	58	59	62	62	63	58	62	62	60	61	59	60	63	58	62	61	60	63	61	63	61
Exit 24 US-26/Powell Blvd	1.2	2.4	2.5	2.7	62	62	59	57	58	59	56	63	57	58	58	55	59	59	60	61	59	58	61	60	62	59	62	60
	0.1	1.8	2.4	4.2	61	63	60	58	55	60	58	59	50	47	54	54	57	59	60	57	59	53	60	57	62	58	60	60
Exit 17 Foster Rd	1.4	5.6	5.8	6.0	63	64	63	62	61	61	64	55	41	28	44	60	60	63	63	61	63	53	60	60	64	60	62	61
	0.8	4.6	4.8	5.1	63	61	61	64	60	62	64	62	61	51	49	63	59	63	61	62	62	62	60	62	62	63	63	61
Exit 16 Johnson Cr Blvd	1.8	3.5	3.8	3.8	66	66	66	68	64	65	68	65	65	62	60	65	62	65	64	64	65	64	63	65	62	67	65	64
	1.1	2.8	2.8	3.1	63	64	64	66	64	65	65	63	62	61	63	63	62	64	63	63	63	62	62	63	62	66	64	65
Exit 14 Sunnybrook Blvd	0.3	0.8	0.8	0.9	65	63	63	65	63	66	64	61	61	62	63	62	61	62	66	64	62	58	62	62	61	64	63	64
	0.0	0.3	0.3	0.4	60	56	60	59	60	61	60	60	60	59	62	61	58	61	63	64	59	56	61	61	58	62	59	61
Exit 13 OR 213/OR 224	0.0	0.1	0.1	0.2	65	64	63	62	66	66	63	64	63	62	64	61	61	63	64	65	60	61	63	63	65	64	61	62
	0.0	0.0	0.0	0.0	63	62	63	60	64	65	60	62	60	58	64	60	59	62	62	62	59	61	62	62	64	64	59	61
Exit 12 OR 212/OR 224	0.0	0.0	0.0	0.0	62	62	63	63	63	64	62	63	61	60	63	59	60	62	63	62	59	61	63	61	62	65	58	62
	0.0	0.0	0.0	0.0	61	62	60	60	62	61	60	60	61	60	60	57	61	59	60	57	58	60	61	60	61	60	59	61
Exit 11 82nd Dr	0.0	0.0	0.0	0.1	60	64	61	61	63	63	60	61	63	62	63	58	63	61	61	58	60	62	60	59	61	62	61	59
	0.0	0.0	0.0	0.0	59	63	61	60	61	61	58	59	62	62	64	58	60	58	63	58	60	60	60	59	58	63	59	56
Exit 10 OR 213	0.0	0.0	0.0	0.0	63	64	63	65	64	64	60	62	63	63	65	61	62	63	63	60	61	63	61	62	59	62	60	61
	0.0	0.0	0.0	0.0	59	62	63	64	61	62	59	60	60	59	60	60	61	60	60	54	59	58	58	55	56	58	56	57
Exit 9 OR 99E	0.0	0.0	0.0	0.0	55	57	61	60	58	58	57	56	53	53	54	52	54	54	54	49	53	51	53	47	51	51	51	54
	0.0	0.0	0.1	3.3	53	57	59	55	54	53	58	48	43	47	45	45	47	44	44	42	44	44	48	40	44	43	47	43
Exit 8 OR 43	0.4	6.8	6.9	6.9	55	59	60	59	55	53	56	36	33	29	27	24	24	21	28	23	25	24	22	26	30	25	31	24
	0.7	6.4	6.6	6.7	60	62	64	64	63	61	59	55	47	36	28	27	28	27	23	26	27	24	29	26	30	33	26	26
Exit 6 10th St/6th St	4.8	6.5	6.5	6.5	64	65	68	64	65	66	64	62	64	62	47	29	30	26	23	15	27	24	25	22	19	23	23	20
	3.8	5.3	5.7	5.8	65	67	67	65	67	65	63	63	64	61	62	63	58	48	53	39	28	30	39	50	50	41	40	37
Exit 3 Stafford Rd	4.0	5.2	5.2	5.3	65	68	66	66	66	62	64	63	64	62	65	63	66	61	66	57	62	42	17	26	46	58	60	63
	0.5	0.8	0.8	1.1	68	71	67	67	67	68	68	66	67	67	67	67	68	66	68	68	65	65	67	67	67	65	65	65
	3.2	4.4	4.5	4.7	66	70	68	67	66	66	67	67	66	64	67	64	66	64	68	67	64	63	55	52	65	64	63	66

Exit/Segment	2:00 PM						2:30 PM						3:00 PM						3:30 PM					
Glenn Jackson Bridge	60	59	59	57	58	55	51	51	55	49	40	38	32	30	33	34	38	37	39	35	34	34	35	34
	54	54	59	50	51	47	45	56	51	50	51	45	39	35	27	36	29	38	35	35	36	34	33	26
Exit 24 Airport Wy	58	56	59	55	49	52	48	57	53	53	52	49	46	52	34	29	33	35	35	36	40	38	32	34
	40	41	42	38	35	36	36	38	41	37	36	34	33	37	34	22	36	29	29	31	33	30	28	30
Exit 23 Columbia Blvd	27	29	24	23	19	18	18	21	24	19	22	17	16	18	20	17	17	19	16	17	18	17	18	17
	23	28	21	20	19	15	14	16	17	14	17	16	17	17	19	15	13	17	15	15	15	13	14	14
Exit 23 Sandy Blvd	31	33	19	16	19	15	13	16	16	13	17	16	17	16	17	14	12	15	14	14	14	12	14	13
	38	35	22	15	17	13	12	16	17	14	16	14	16	19	18	15	12	14	14	12	13	13	13	12
Exit 22 I-84/US-30	49	52	42	23	20	19	21	22	24	17	13	11	12	14	12	11	10	9	14	12	8	9	9	9
	60	59	56	54	51	54	57	55	55	47	30	18	16	15	14	15	17	13	14	15	15	12	11	11
Exit 21 I-84/US-30	61	59	57	59	57	62	62	60	56	54	53	48	23	19	13	12	12	12	10	9	10	12	10	9
	61	62	60	59	58	59	65	61	59	55	60	63	54	48	15	16	13	15	15	11	14	17	10	9
Exit 20 Wash. St/Stark St	62	62	60	58	60	61	65	62	59	56	60	62	60	59	25	16	13	14	15	13	14	17	14	12
	62	63	61	60	59	62	66	64	56	59	62	60	59	58	42	28	15	16	19	21	20	17	18	14
Exit 19 Division St	60	62	62	59	59	61	66	62	54	59	61	60	57	55	54	47	41	25	26	29	23	18	20	14
	59	62	60	59	57	59	65	57	50	58	60	59	55	53	53	52	51	40	35	43	30	21	21	16
Exit 24 US-26/Powell Blvd	59	58	55	60	55	57	63	53	47	54	56	55	52	50	49	52	54	51	48	51	44	26	24	19
	58	56	56	58	51	41	36	38	39	44	45	44	42	42	42	44	45	44	45	47	46	36	34	30
Exit 17 Foster Rd	62	59	60	61	57	18	12	17	23	22	20	23	22	20	23	20	22	21	19	22	24	30	26	24
	61	60	57	60	54	40	14	14	26	25	23	22	22	23	24	22	21	23	22	22	23	27	33	32
Exit 16 Johnson Cr Blvd	62	64	60	62	61	57	31	10	11	21	20	21	16	14	16	17	17	17	18	15	15	20	20	27
	62	63	61	63	61	60	54	22	12	15	21	19	16	14	14	16	16	16	18	19	18	19	20	23
Exit 14 Sunnybrook Blvd	62	62	59	62	59	60	59	59	43	15	19	19	20	18	21	22	31	27	39	49	50	48	50	53
	59	61	55	61	49	57	60	58	57	44	24	30	34	43	48	57	62	60	57	50	54	51	58	61
Exit 13 OR 213/OR 224	63	63	64	64	57	63	62	61	61	53	24	42	57	63	61	63	63	65	63	58	60	60	65	66
	61	62	62	62	60	61	61	60	59	58	57	60	61	64	60	62	62	63	64	52	56	61	63	64
Exit 12 OR 212/OR 224	62	61	62	62	60	61	62	60	60	60	60	60	60	64	59	61	59	61	63	55	59	62	63	62
	58	59	61	60	57	58	59	59	56	58	55	59	57	61	60	61	53	48	45	54	58	61	61	58
Exit 11 82nd Dr	59	60	62	59	57	61	60	60	57	58	57	61	59	60	61	60	56	47	43	57	56	59	60	58
	57	57	59	60	58	58	60	61	56	58	57	61	58	59	59	59	57	59	53	55	55	58	60	57
Exit 10 OR 213	61	60	62	63	59	62	61	62	57	60	60	61	59	59	61	63	58	61	60	60	60	61	62	60
	60	58	60	58	56	56	59	59	55	56	55	56	57	57	58	59	55	56	54	55	55	56	59	57
Exit 9 OR 99E	53	51	55	54	50	47	51	52	51	49	48	50	53	50	53	52	50	49	47	49	48	50	56	51
	41	43	47	42	43	42	43	44	44	41	41	43	45	42	43	41	42	42	42	40	39	41	48	42
Exit 8 OR 43	19	23	23	29	24	23	24	22	22	23	19	23	24	23	24	22	23	21	21	25	25	25	25	23
	22	25	24	26	27	25	26	24	22	22	23	18	20	30	29	22	22	21	21	21	22	27	25	21
Exit 6 10th St/6th St	19	20	19	18	20	17	17	19	15	17	16	18	11	10	23	23	15	16	14	14	14	15	17	17
	29	27	30	28	26	26	23	23	26	19	15	17	21	18	15	20	35	26	18	18	17	13	15	19
Exit 3 Stafford Rd	58	26	21	28	24	23	20	17	14	18	16	11	14	20	16	11	11	23	26	11	11	12	10	11
	66	67	64	54	31	14	14	12	10	11	13	20	57	57	44	65	66	50	43	56	57	63	63	60
	63	61	41	27	23	18	19	15	15	15	19	14	15	12	15	19	15	17	19	26	23	25	23	18

Exit/Segment	4:00 PM						4:30 PM						5:00 PM						5:30 PM					
Glenn Jackson Bridge	36	34	39	36	32	34	32	37	35	35	38	34	34	34	30	30	31	27	36	40	44	33	30	34
	42	36	29	34	30	34	27	35	34	30	44	34	33	23	34	23	30	27	30	32	29	45	29	31
Exit 24 Airport Wy	37	41	34	36	37	28	40	31	35	29	41	47	36	31	37	34	24	37	29	33	32	41	44	36
	27	34	28	33	34	23	34	21	30	22	27	37	34	24	24	35	23	28	21	23	28	32	32	26
Exit 23 Columbia Blvd	17	17	17	17	18	17	15	15	14	16	12	20	21	18	12	16	16	13	16	13	14	15	17	15
	15	15	14	12	13	13	11	13	12	15	10	15	18	17	10	12	12	10	14	12	11	13	12	17
Exit 23 Sandy Blvd	13	13	14	11	12	13	10	12	11	12	11	12	18	18	9	10	12	11	12	11	10	11	11	16
	13	13	12	10	11	12	9	11	10	10	12	10	14	17	10	10	10	9	9	10	10	10	9	15
Exit 22 I-84/US-30	8	9	9	9	9	12	10	9	9	7	8	7	8	9	7	8	7	8	7	7	8	9	8	10
	11	10	11	11	10	9	10	10	10	9	8	11	9	9	11	10	8	8	8	8	10	9	9	9
Exit 21 I-84/US-30	8	9	10	10	11	10	9	8	7	9	7	7	7	7	7	8	7	7	7	7	8	8	7	7
	11	15	14	9	9	19	12	12	9	8	9	9	8	9	12	8	7	8	7	10	12	14	15	8
Exit 20 Wash. St/Stark St	12	20	12	11	12	18	13	12	10	10	17	13	12	13	15	10	7	11	11	11	13	12	13	12
	17	21	14	12	17	18	16	12	12	11	18	14	16	13	13	13	13	14	14	11	12	14	12	22
Exit 19 Division St	19	18	18	14	16	25	17	14	18	17	15	15	17	14	11	15	14	14	12	17	17	15	16	19
	19	17	19	14	18	24	19	16	19	21	14	18	18	18	12	18	13	13	13	17	19	13	16	20
Exit 24 US-26/Powell Blvd	17	20	18	17	19	36	44	32	24	22	19	18	18	21	24	18	22	19	15	21	18	19	16	28
	22	19	25	20	28	40	44	43	42	30	26	21	32	33	37	29	34	36	32	22	22	28	21	22
Exit 17 Foster Rd	17	18	22	22	17	12	17	20	20	30	23	16	16	22	22	21	14	20	24	22	16	19	25	16
	20	18	18	26	25	14	13	23	27	24	28	23	18	17	33	33	26	18	26	28	25	25	31	33
Exit 16 Johnson Cr Blvd	26	13	21	14	26	24	10	11	23	18	17	26	15	12	13	24	28	18	16	22	27	36	35	60
	34	31	23	22	21	29	26	22	22	28	27	38	41	32	22	22	27	33	41	40	55	63	61	62
Exit 14 Sunnybrook Blvd	58	62	61	62	60	62	63	62	60	60	61	57	62	61	64	61	59	63	63	61	64	63	62	62
	57	57	58	59	52	58	60	60	62	60	56	58	59	59	60	60	59	63	57	60	62	60	58	61
Exit 13 OR 213/OR 224	61	61	62	62	61	62	61	64	65	65	61	60	62	61	65	64	63	64	60	63	64	62	62	62
	58	64	63	60	62	59	60	64	64	64	58	60	61	58	65	63	64	62	59	61	63	62	60	62
Exit 12 OR 212/OR 224	62	61	64	61	63	59	59	64	63	62	57	59	59	57	63	63	64	61	61	64	62	61	59	63
	58	62	63	59	57	57	57	63	57	59	58	59	58	57	62	60	62	58	58	65	63	61	58	62
Exit 11 82nd Dr	58	62	59	59	56	57	58	61	55	59	57	57	59	60	62	61	61	62	61	66	64	62	61	65
	58	62	59	58	55	57	59	59	60	61	57	59	58	59	60	60	61	59	58	65	63	63	60	63
Exit 10 OR 213	60	62	63	61	59	59	60	63	62	62	60	62	60	59	63	61	64	61	60	65	62	63	60	63
	55	57	58	55	55	55	59	62	61	57	58	57	58	58	58	56	59	58	60	61	56	57	58	58
Exit 9 OR 99E	46	50	52	52	51	48	54	55	54	52	53	49	52	53	53	53	55	55	56	56	51	51	54	53
	42	43	43	42	46	42	46	46	46	45	45	45	45	48	44	45	49	47	47	46	42	45	48	46
Exit 8 OR 43	21	24	23	20	24	21	21	21	23	21	21	20	24	23	24	23	23	22	23	22	20	21	19	18
	21	22	22	24	22	25	23	22	22	23	25	23	24	21	20	22	22	21	21	23	24	22	21	18
Exit 6 10th St/6th St	13	14	14	13	16	12	15	14	12	13	13	17	12	18	14	11	15	17	12	13	14	15	13	15
	21	17	16	16	18	17	16	15	15	14	13	15	17	20	17	17	15	15	19	14	17	17	17	16
Exit 3 Stafford Rd	14	20	12	12	12	14	15	11	9	11	10	9	11	12	14	10	10	12	9	12	14	15	14	10
	38	40	31	50	63	60	52	46	64	63	60	62	56	60	63	63	69	54	48	59	59	59	60	68
	19	17	20	16	18	19	14	17	15	16	21	21	16	12	16	21	16	13	13	15	19	19	18	16

Exit/Segment	6:00 PM						6:30 PM						7:00 PM						7:30 PM					
Glenn Jackson Bridge	39	40	39	35	33	31	31	32	37	29	30	31	30	33	33	27	29	31	31	31	38	44	41	48
	30	37	46	40	42	30	33	26	40	39	31	25	34	25	30	30	23	27	35	36	46	57	57	55
Exit 24 Airport Wy	38	45	50	44	44	38	33	40	34	40	45	31	34	32	40	33	27	30	32	49	57	54	56	54
	32	39	38	37	37	36	31	37	31	31	31	34	24	27	34	36	23	29	29	34	39	40	38	37
Exit 23 Columbia Blvd	16	18	22	22	20	18	19	16	17	15	15	21	18	19	18	21	15	14	19	16	17	19	19	21
	14	14	18	19	16	16	16	15	12	13	14	17	23	15	19	14	15	13	16	14	15	17	15	15
Exit 23 Sandy Blvd	11	11	14	17	14	16	14	15	12	11	12	17	23	14	17	16	16	13	17	14	15	17	15	14
	16	12	15	21	14	15	14	14	12	12	12	14	22	14	14	13	14	12	15	12	14	15	13	13
Exit 22 I-84/US-30	10	12	15	18	18	17	14	16	12	11	10	10	15	14	11	10	11	14	14	13	12	10	14	14
	11	14	15	14	23	21	16	15	14	12	12	15	19	28	23	18	21	36	31	32	26	19	26	42
Exit 21 I-84/US-30	7	10	10	12	11	14	18	20	29	30	29	39	53	66	62	60	36	18	14	20	50	57	62	62
	7	11	14	16	16	15	31	58	62	61	58	64	66	68	65	64	60	59	48	45	59	62	66	63
Exit 20 Wash. St/Stark St	10	10	12	17	19	17	45	66	64	60	60	67	65	66	64	65	61	63	57	61	65	61	64	63
	11	12	14	22	34	34	65	66	65	63	63	67	66	68	64	66	63	66	63	66	66	66	66	66
Exit 19 Division St	9	12	17	32	51	58	69	67	65	66	63	66	67	68	65	65	64	67	64	67	66	66	67	67
	12	15	16	37	56	61	68	65	63	64	63	66	67	66	64	64	64	67	64	67	64	64	67	67
Exit 24 US-26/Powell Blvd	24	22	22	34	53	61	66	64	60	61	58	66	65	64	61	64	63	66	63	64	63	59	66	65
	39	40	34	39	49	61	64	64	60	62	62	61	64	63	60	63	62	64	60	64	60	64	67	63
Exit 17 Foster Rd	16	27	32	46	58	63	64	64	63	64	64	62	65	64	65	65	65	64	62	66	65	65	68	65
	30	45	65	63	63	64	64	64	61	62	64	63	65	66	65	64	66	63	64	67	65	67	67	64
Exit 16 Johnson Cr Blvd	63	66	68	64	65	67	65	66	65	65	68	68	68	69	68	67	66	65	66	69	66	69	70	68
	62	65	67	64	65	65	65	65	63	63	66	66	68	67	64	65	67	66	66	65	65	67	67	67
Exit 14 Sunnybrook Blvd	62	63	66	64	65	65	64	64	62	64	66	66	67	67	65	66	68	67	66	63	62	66	61	65
	58	62	66	63	64	62	60	58	61	62	61	64	65	63	62	64	64	65	62	59	60	66	62	66
Exit 13 OR 213/OR 224	61	65	65	66	65	69	65	63	64	64	64	67	67	67	67	66	65	65	65	63	62	69	66	69
	61	65	65	66	64	68	63	65	64	61	64	66	65	67	66	65	68	65	63	62	64	69	65	69
Exit 12 OR 212/OR 224	61	65	65	65	64	66	64	63	63	62	63	65	63	66	65	66	67	65	63	60	65	69	65	69
	59	63	61	63	64	63	60	60	58	58	61	60	60	63	63	64	62	63	62	59	66	65	56	67
Exit 11 82nd Dr	62	62	62	63	63	61	61	61	54	59	61	61	64	62	65	65	63	64	62	60	67	63	59	67
	61	59	61	64	62	61	62	59	59	61	61	61	59	57	62	65	62	65	63	62	66	64	61	67
Exit 10 OR 213	63	65	63	65	64	64	63	62	62	62	64	63	60	60	62	65	65	65	64	66	67	65	65	67
	60	65	62	60	63	60	60	56	59	61	61	62	62	58	59	62	61	63	62	63	65	61	66	65
Exit 9 OR 99E	56	62	56	56	57	54	56	53	53	56	55	57	58	53	54	57	56	59	59	60	64	61	66	66
	49	53	48	50	50	46	47	47	48	50	43	49	47	44	47	49	48	51	59	63	62	61	63	65
Exit 8 OR 43	20	22	19	20	27	23	21	23	26	29	25	26	28	24	29	30	33	34	55	65	63	61	64	65
	17	17	18	18	19	21	21	21	18	22	29	31	28	24	30	36	41	54	66	66	65	64	66	66
Exit 6 10th St/6th St	15	12	10	11	11	11	14	14	13	12	15	17	21	21	20	20	30	55	68	69	69	67	68	67
	16	16	15	12	11	10	11	15	18	19	15	15	19	31	37	45	57	68	67	69	69	67	67	65
Exit 3 Stafford Rd	12	11	12	12	9	8	8	10	13	16	21	20	22	46	65	67	68	68	70	71	69	67	64	66
	63	66	64	66	63	68	68	69	69	69	69	72	70	71	69	70	69	69	71	69	70	73	68	69
	17	20	20	28	22	17	18	23	38	42	46	65	69	68	68	68	68	68	71	70	70	69	66	69

Legend
- 50 MPH and over
- 40-49 MPH
- 30-39 MPH
- 20-29 MPH
- Below 20 MPH

I-205 Southbound - Hours per day not meeting the speed threshold

Direction of travel

Exit/Segment	July 11, 2021 (Monday)				July 12, 2021 (Tuesday)				July 13, 2021 (Wednesday)				July 14, 2021 (Thursday)				July 15, 2021 (Friday)			
Speed Threshold	20	35	40	45	20	35	40	45	20	35	40	45	20	35	40	45	20	35	40	45
Glenn Jackson Br.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	1.4	1.5	2.0	3.3	5.0	5.3	5.6
Exit 24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5	0.5	0.7	1.3	3.2	3.2	3.7	4.3	6.3	6.3	6.4
Airport Wy	0.0	0.8	1.2	1.8	0.0	0.1	0.2	0.5	0.1	0.9	1.0	1.3	1.9	4.7	5.3	5.8	4.8	6.4	6.6	6.7
Exit 23	0.0	0.3	0.8	2.3	0.0	0.4	0.6	1.4	0.0	0.1	0.8	1.4	0.3	2.1	3.5	5.2	0.5	4.2	5.7	6.7
Columbia Blvd	0.0	1.4	2.0	2.6	0.0	0.9	1.5	1.9	0.0	0.5	0.9	1.2	0.8	2.6	2.8	3.4	0.5	3.8	4.4	5.3
Exit 23	0.0	1.5	2.5	3.6	0.0	1.4	2.4	3.2	0.0	0.3	1.2	1.7	0.6	2.3	3.5	4.2	0.6	3.5	4.8	6.2
Sandy Blvd	0.0	0.1	1.4	3.0	0.0	0.6	1.5	3.0	0.0	0.0	0.3	1.6	0.3	1.2	2.6	3.9	0.4	1.7	3.8	5.8
Exit 22	0.0	0.0	0.0	0.2	0.0	0.6	0.7	0.8	0.0	0.1	0.3	0.4	0.3	1.4	1.8	2.3	0.6	1.3	1.8	3.0
I-84/US-30	0.0	0.0	0.0	0.0	0.2	0.8	1.0	1.2	0.1	0.4	0.5	0.7	1.7	2.0	2.2	2.4	1.1	1.6	1.8	1.8
Exit 21	0.0	0.0	0.0	0.0	0.1	1.1	1.8	2.1	0.0	0.8	1.3	1.5	1.0	2.7	3.1	3.2	0.9	2.0	2.3	2.3
I-84/US-30	0.0	0.0	0.0	0.1	0.0	1.1	1.5	1.9	0.0	1.4	1.6	1.6	1.5	2.3	2.3	2.4	1.5	1.8	1.8	2.0
Exit 20	0.0	0.2	0.3	0.3	0.5	2.7	2.8	3.1	0.5	2.0	2.1	2.1	2.1	2.6	2.8	2.8	1.7	2.1	2.2	2.3
Wash. St/Stark St	0.0	0.3	0.4	0.7	1.4	3.6	3.7	3.9	1.0	2.3	2.4	2.5	2.4	3.3	3.3	3.7	1.9	2.4	2.6	2.6
Exit 19	0.0	0.3	0.7	0.8	0.5	3.4	3.8	4.0	0.0	2.3	2.6	2.9	0.7	3.4	3.6	3.8	1.3	2.5	2.8	3.1
Division St	0.0	1.0	1.3	1.5	0.7	3.6	4.4	4.7	0.2	2.2	2.9	3.6	0.5	3.4	3.8	3.9	1.1	3.4	4.1	4.6
Exit 24	0.0	0.9	1.7	1.9	0.4	3.2	3.9	4.8	0.1	1.7	2.3	3.3	0.4	2.4	3.4	3.9	0.8	3.4	5.1	5.3
US-26/Powell Blvd	0.0	0.3	0.3	0.8	0.3	2.4	2.7	3.8	0.1	1.1	1.4	2.2	0.3	1.6	2.3	3.4	0.5	2.4	3.2	5.0
Exit 17	0.0	0.1	0.1	0.5	0.0	0.8	1.3	2.4	0.0	0.3	0.8	1.3	0.1	0.8	1.3	1.9	0.0	0.9	1.8	2.6
Foster Rd	0.0	0.2	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.2	0.4	0.8	0.0	0.8	1.2	1.3
Exit 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Johnson Cr Blvd	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exit 14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.0	0.0	0.0	0.0
Sunnybrook Blvd	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.5	0.5	0.4	1.0	1.1	1.6	0.8	2.2	2.5	2.6
Exit 13	0.0	0.1	0.1	0.2	0.0	0.0	0.0	0.0	0.2	0.9	1.0	1.0	1.1	1.9	1.9	2.1	2.0	3.3	3.4	3.4
OR 213/OR 224	0.0	0.3	0.3	0.3	0.0	0.1	0.2	0.3	0.6	1.3	1.3	1.4	1.5	2.2	2.3	2.3	3.3	3.9	4.0	4.1
Exit 12	0.3	0.4	0.4	0.4	0.0	0.3	0.3	0.3	0.1	1.6	1.7	2.0	0.1	2.3	2.4	2.4	1.6	4.2	4.4	4.6
OR 212/OR 224	0.5	0.9	0.9	1.0	0.3	1.2	1.4	1.7	0.4	2.3	2.6	2.8	0.3	2.8	2.8	3.1	1.3	3.9	4.1	4.3
Exit 11	0.7	1.2	1.4	1.4	0.9	1.9	2.1	2.3	0.6	1.6	2.0	2.3	0.6	1.1	1.8	3.3	0.2	2.1	3.6	4.3
82nd Dr	0.6	1.1	1.1	1.7	1.8	2.3	2.3	2.4	1.2	2.3	2.4	2.5	0.8	1.6	1.9	2.1	0.2	0.4	0.7	0.7
Exit 10	0.7	2.0	2.1	2.3	1.4	2.8	2.8	2.8	1.5	2.7	2.8	3.2	1.1	2.3	2.7	2.9	0.3	0.8	0.9	1.2
OR 213	1.5	2.9	3.1	3.4	2.1	3.0	3.2	3.3	2.4	3.5	3.7	3.8	1.6	3.3	3.3	3.3	0.7	1.9	2.1	2.7
Exit 9	0.5	3.4	3.5	3.8	0.8	3.2	3.7	4.1	0.6	3.4	3.8	4.0	0.4	3.8	3.9	4.0	0.5	2.6	3.4	3.8
OR 99E	0.3	2.8	3.2	3.8	0.2	3.2	3.5	3.8	0.0	2.9	3.1	3.3	0.0	3.5	4.1	4.7	0.4	2.6	3.3	3.8
Exit 8	0.1	1.0	1.8	3.5	0.1	1.9	2.8	3.8	0.0	1.2	1.9	3.5	0.0	0.8	1.7	4.3	0.3	0.8	1.8	3.5
OR 43	0.0	1.2	1.6	2.0	0.2	2.3	2.8	3.5	0.0	1.4	1.5	1.8	0.0	0.9	1.2	1.6	0.2	0.8	1.0	1.0
Exit 6	0.0	0.0	0.2	1.2	0.5	0.8	1.8	3.2	0.0	0.0	0.1	1.2	0.0	0.1	0.4	1.3	0.0	0.8	1.0	1.7
10th St/6th St	0.0	0.1	0.1	0.2	0.8	0.9	1.1	1.2	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.4	0.0	0.0	0.0	0.0
Exit 3	0.0	0.1	0.2	0.4	0.8	1.2	1.3	1.4	0.0	0.0	0.0	0.0	0.0	0.4	0.8	1.2	0.0	0.0	0.0	0.0
Stafford Rd	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-5 (South)	0.0	0.0	0.0	0.0	0.4	0.8	0.8	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.5	0.6
	0.0	0.0	0.0	0.0	0.6	0.8	1.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.3

Data Source: INRIX

Attachment 3 - Sample Throughway Travel Speed Data

I-205 Southbound Travel Speeds - Thursday, July 14, 2022

Direction of travel

Exit/Segment	Hours Not Meeting the Speed Threshold			
Speed Threshold	20	35	40	45
Glenn Jackson Br.	0.3	1.4	1.5	2.0
Exit 24	1.3	3.2	3.2	3.7
Airport Wy	1.9	4.7	5.3	5.8
Exit 23	0.3	2.1	3.5	5.2
Columbia Blvd	0.8	2.6	2.8	3.4
Exit 23	0.6	2.3	3.5	4.2
Sandy Blvd	0.3	1.2	2.6	3.9
Exit 22	0.3	1.4	1.8	2.3
I-84/US-30	1.7	2.0	2.2	2.4
Exit 21	1.0	2.7	3.1	3.2
I-84/US-30	1.5	2.3	2.3	2.4
Exit 20	2.1	2.6	2.8	2.8
Wash. St/Stark St	2.4	3.3	3.3	3.7
Exit 19	0.7	3.4	3.6	3.8
Division St	0.5	3.4	3.8	3.9
Exit 24	0.4	2.4	3.4	3.9
US-26/Powell Blvd	0.3	1.6	2.3	3.4
Exit 17	0.1	0.8	1.3	1.9
Foster Rd	0.0	0.2	0.4	0.8
Exit 16	0.0	0.0	0.0	0.1
Johnson Cr Blvd	0.0	0.0	0.0	0.0
Exit 14	0.0	0.1	0.2	0.3
Sunnybrook Blvd	0.4	1.0	1.1	1.6
Exit 13	1.1	1.9	1.9	2.1
OR 213/OR 224	1.5	2.2	2.3	2.3
Exit 12	0.1	2.3	2.4	2.4
OR 212/OR 224	0.3	2.8	2.8	3.1
Exit 11	0.6	1.1	1.8	3.3
82nd Dr	0.8	1.6	1.9	2.1
Exit 10	1.1	2.3	2.7	2.9
OR 213	1.6	3.3	3.3	3.3
Exit 9	0.4	3.8	3.9	4.0
OR 99E	0.0	3.5	4.1	4.7
Exit 8	0.0	0.8	1.7	4.3
OR 43	0.0	0.9	1.2	1.6
Exit 6	0.0	0.1	0.4	1.3
10th St/6th St	0.0	0.2	0.2	0.4
Exit 3	0.0	0.4	0.8	1.2
Stafford Rd	0.0	0.0	0.0	0.0
I-5 (South)	0.0	0.0	0.0	0.0

Southbound Travel Speeds

7:00 AM	7:30 AM	8:00 AM	8:30 AM	9:00 AM	9:30 AM	10:00 AM	10:30 AM	11:00 AM	11:30 AM	12:00 PM	12:30 PM
63 67 63 63 64 62 64 62 57 62 54 62 66 63 64 67 62 63 62 62 62 63 65 66 65 64 65 66 61 56 58 45 49 50 41 46 59 58 63 64 65 62 64 63 65 62 64 63 62 63 62 63 63 63 64 60 59 56 51 43 43 49 53 62 63 67 64 65
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I-205 Southbound Travel Speeds - Thursday, July 14, 2022

Direction of travel ↓

Exit/Segment	Hours Not Meeting the Speed Threshold																					
Speed Threshold	20	35	40	45	1:00 PM						1:30 PM						2:00 PM					
Glenn Jackson Br.	0.3	1.4	1.5	2.0	62	65	65	63	62	62	62	61	61	63	65	58	61	56	47	39	26	21
Exit 24	1.3	3.2	3.2	3.7	61	63	63	61	59	60	57	53	57	58	59	58	54	32	22	24	19	17
Airport Wy	1.9	4.7	5.3	5.8	62	64	59	62	54	54	47	35	40	45	42	57	39	26	19	20	20	18
Exit 23	0.3	2.1	3.5	5.2	58	60	57	59	52	52	47	44	43	44	46	50	43	36	36	38	34	37
Columbia Blvd	0.8	2.6	2.8	3.4	59	59	61	60	59	57	48	54	51	55	58	54	47	41	42	42	34	33
Exit 23	0.6	2.3	3.5	4.2	58	52	58	58	56	55	40	53	50	51	58	47	42	39	33	33	32	35
Sandy Blvd	0.3	1.2	2.6	3.9	58	49	54	58	55	53	41	53	49	52	57	49	43	40	39	38	38	39
Exit 22	0.3	1.4	1.8	2.3	59	52	53	61	56	56	47	54	51	55	57	54	47	47	49	47	46	47
I-84/US-30	1.7	2.0	2.2	2.4	65	61	60	61	62	61	59	61	55	59	62	60	57	53	60	53	54	55
Exit 21	1.0	2.7	3.1	3.2	61	59	60	59	60	61	59	57	57	59	57	57	52	51	56	39	46	56
I-84/US-30	1.5	2.3	2.3	2.4	62	61	60	58	62	57	57	56	56	59	58	59	59	57	56	57	56	62
Exit 20	2.1	2.6	2.8	2.8	62	60	63	61	65	60	61	60	59	61	55	59	49	35	52	54	63	64
Wash. St/Stark St	2.4	3.3	3.3	3.7	63	60	62	61	64	61	60	59	60	60	40	41	24	24	36	42	63	65
Exit 19	0.7	3.4	3.6	3.8	64	61	62	61	64	61	60	60	59	57	42	27	19	29	34	44	58	65
Division St	0.5	3.4	3.8	3.9	63	59	62	61	60	59	54	55	53	41	35	21	23	34	33	34	47	61
Exit 24	0.4	2.4	3.4	3.9	63	59	59	58	57	58	50	47	45	38	28	18	31	38	35	38	41	47
US-26/Powell Blvd	0.3	1.6	2.3	3.4	65	60	60	59	57	57	54	51	50	44	31	22	39	43	42	45	46	39
Exit 17	0.1	0.8	1.3	1.9	64	60	61	62	61	59	58	57	57	48	31	42	48	51	48	54	52	24
Foster Rd	0.0	0.2	0.4	0.8	64	62	60	62	62	58	61	58	58	36	40	54	54	57	54	56	56	58
Exit 16	0.0	0.0	0.0	0.1	64	64	60	61	62	62	61	58	58	49	52	56	58	58	59	58	60	62
Johnson Cr Blvd	0.0	0.0	0.0	0.0	66	66	63	65	64	65	64	63	63	62	61	59	63	62	64	61	64	66
Exit 14	0.0	0.1	0.2	0.3	66	65	62	65	64	67	64	62	64	62	62	62	61	61	62	61	64	64
Sunnybrook Blvd	0.4	1.0	1.1	1.6	66	67	65	65	64	67	65	65	64	65	64	63	63	63	62	61	61	64
Exit 13	1.1	1.9	1.9	2.1	63	66	66	67	61	65	64	65	62	64	62	62	61	61	59	58	60	60
OR 213/OR 224	1.5	2.2	2.3	2.3	63	65	65	65	63	64	61	64	62	63	62	64	61	61	61	59	61	59
Exit 12	0.1	2.3	2.4	2.4	61	63	61	63	58	63	56	64	60	58	62	61	59	59	60	58	58	52
OR 212/OR 224	0.3	2.8	2.8	3.1	61	63	62	64	63	64	60	64	63	59	61	59	58	48	48	61	50	49
Exit 11	0.6	1.1	1.8	3.3	59	61	62	63	62	64	58	58	62	59	58	49	52	36	45	44	40	42
82nd Dr	0.8	1.6	1.9	2.1	65	63	64	63	64	65	64	63	62	65	59	59	46	42	36	34	30	38
Exit 10	1.1	2.3	2.7	2.9	61	61	63	62	63	62	62	61	61	52	35	42	37	26	24	25	28	31
OR 213	1.6	3.3	3.3	3.3	63	63	61	60	61	59	62	58	62	33	28	27	21	22	19	20	18	27
Exit 9	0.4	3.8	3.9	4.0	63	61	55	57	61	59	62	56	50	25	29	28	27	32	26	26	25	28
OR 99E	0.0	3.5	4.1	4.7	58	58	57	54	60	56	59	48	35	26	43	33	32	37	29	29	28	30
Exit 8	0.0	0.8	1.7	4.3	55	56	56	52	56	53	52	43	41	41	44	43	43	34	38	41	39	37
OR 43	0.0	0.9	1.2	1.6	61	60	60	54	62	59	57	52	52	47	41	52	54	48	48	50	49	47
Exit 6	0.0	0.1	0.4	1.3	63	64	64	62	62	63	62	61	49	49	50	56	59	54	43	42	54	54
10th St/6th St	0.0	0.2	0.2	0.4	64	65	65	63	61	63	63	62	60	50	53	45	53	44	29	43	55	47
Exit 3	0.0	0.4	0.8	1.2	65	65	66	66	64	59	55	60	62	51	42	40	30	32	39	38	38	36
Stafford Rd	0.0	0.0	0.0	0.0	62	63	65	65	64	60	56	57	60	63	53	52	54	47	49	55	49	47
I-5 (South)	0.0	0.0	0.0	0.0	65	67	66	68	65	63	68	66	63	61	64	63	62	67	61	62	61	63
	0.0	0.0	0.0	0.0	66	68	67	68	67	67	68	66	67	65	64	66	66	65	62	65	64	65

Exit/Segment	2:30 PM						3:00 PM						3:30 PM						4:00 PM	
Glenn Jackson Br.	18	18	20	20	18	21	22	27	29	25	23	22	26	33	42	53	42	28	44	55
Exit 24	17	19	22	20	20	19	20	21	20	16	18	20	18	21	23	23	11	10	19	26
Airport Wy	17	19	21	18	19	20	19	19	18	15	16	19	20	25	18	13	10	12	17	17
Exit 23	39	37	40	37	33	27	26	22	31	21	32	38	35	27	21	11	10	21	19	20
Columbia Blvd	41	49	41	39	28	26	27	29	29	24	29	38	28	23	19	11	10	18	16	21
Exit 23	36	43	38	36	35	35	36	30	36	33	30	35	30	21	19	12	13	19	18	26
Sandy Blvd	40	44	42	39	40	37	41	38	40	38	36	40	35	21	18	13	17	20	21	30
Exit 22	45	49	48	47	50	44	49	45	48	48	46	46	37	24	17	15	22	21	20	31
I-84/US-30	52	60	56	54	55	50	36	46	42	40	42	24	14	12	10	12	15	14	13	19
Exit 21	52	59	55	50	37	26	29	30	28	27	26	19	17	18	15	18	18	16	20	24
I-84/US-30	56	61	55	23	17	15	24	23	23	26	19	14	13	10	12	17	18	15	19	20
Exit 20	58	56	30	21	15	15	18	19	22	17	16	15	12	9	12	17	16	17	14	13
Wash. St/Stark St	58	27	14	18	10	18	16	19	17	19	16	14	13	15	17	15	16	18	16	14
Exit 19	58	25	13	18	14	24	22	32	25	30	21	15	19	21	21	20	24	27	20	19
Division St	29	16	17	14	17	25	29	29	34	30	25	18	26	26	27	27	31	26	23	27
Exit 24	16	10	21	13	20	28	33	32	40	27	22	19	33	35	37	35	33	30	25	32
US-26/Powell Blvd	13	12	18	15	24	33	40	40	41	29	21	26	42	42	43	42	36	32	28	33
Exit 17	18	26	21	27	35	41	48	52	34	38	28	46	55	55	51	51	48	35	41	46
Foster Rd	57	54	51	50	47	43	49	44	44	32	34	47	50	49	49	52	55	51	45	37
Exit 16	65	60	58	59	55	49	52	54	48	43	50	53	55	52	52	53	59	56	52	47
Johnson Cr Blvd	69	65	62	62	60	59	61	62	63	63	60	61	62	58	60	60	60	57	61	60
Exit 14	67	64	61	63	61	61	60	59	63	62	61	62	62	61	61	60	62	61	61	61
Sunnybrook Blvd	67	65	65	63	66	62	64	61	64	64	62	63	62	63	59	46	41	51	40	37
Exit 13	63	63	65	62	63	61	60	58	62	64	58	63	62	56	43	22	22	22	19	20
OR 213/OR 224	66	64	63	64	61	61	60	57	62	64	59	61	60	38	26	18	22	19	16	15
Exit 12	63	60	61	63	58	57	56	54	61	61	56	50	39	25	24	28	25	25	22	22
OR 212/OR 224	60	63	63	63	61	59	59	57	55	51	52	29	22	18	20	29	22	28	24	21
Exit 11	38	53	61	60	58	58	58	58	56	48	44	40	40	42	43	48	47	47	45	42
82nd Dr	46	41	59	59	61	62	57	55	61	57	52	56	60	61	58	56	55	58	56	52
Exit 10	28	25	35	40	58	60	59	54	59	59	54	58	60	57	59	55	54	56	55	53
OR 213	21	24	21	25	40	54	54	59	57	62	59	61	61	60	61	59	55	59	62	54
Exit 9	24	34	25	25	22	34	39	52	49	58	59	56	56	58	60	56	55	57	60	50
OR 99E	30	35	28	27	25	31	42	37	32	42	58	48	44	54	54	54	57	58	55	47
Exit 8	43	41	42	41	42	46	49	46	42	50	58	52	45	55	53	51	57	57	52	44
OR 43	50	48	52	51	53	54	51	52	53	57	58	58	54	57	57	54	55	56	58	54
Exit 6	56	59	60	55	58	60	57	58	60	59	49	59	56	48	54	61	59	58	61	61
10th St/6th St	46	45	42	26	47	61	61	61	62	61	63	64	64	63	63	65	62	62	62	64
Exit 3	30	29	31	40	42	39	46	48	59	63	66	65	64	65	65	64	66	62	62	66
Stafford Rd	48	51	52	59	60	55	57	55	58	61	65	64	65	63	62	59	65	63	58	64
I-5 (South)	64	64	62	63	66	65	65	63	63	66	65	66	65	68	69	65	67	65	65	64
	65	63	64	67	68	67	65	63	65	67	69	68	69	70	69	67	69	68	67	68

Exit/Segment					4:30 PM						5:00 PM						5:30 PM			
Glenn Jackson Br.	62	63	64	63	61	63	64	67	65	67	69	68	64	64	64	63	65	65	66	66
Exit 24	44	49	57	54	46	44	53	61	60	62	66	65	61	59	61	60	59	63	63	62
Airport Wy	21	22	31	29	20	22	29	38	37	51	64	63	57	44	57	59	64	65	64	64
Exit 23	20	30	22	19	20	23	27	24	33	45	53	56	53	44	51	56	63	61	56	58
Columbia Blvd	26	27	18	18	19	23	18	23	31	30	36	56	58	52	55	58	59	59	57	58
Exit 23	32	21	17	19	21	23	21	34	36	32	43	52	48	45	48	50	46	53	46	52
Sandy Blvd	35	24	18	21	22	25	25	37	40	38	46	50	47	45	49	50	47	52	45	51
Exit 22	35	25	18	21	20	20	25	35	48	47	51	53	50	50	51	52	54	56	52	55
I-84/US-30	18	14	14	15	16	15	20	39	54	59	60	61	62	60	58	52	63	63	63	62
Exit 21	18	14	15	14	16	21	30	28	39	59	58	57	61	60	59	54	61	64	64	62
I-84/US-30	12	11	11	11	12	17	25	18	22	26	29	40	58	61	58	59	61	62	64	65
Exit 20	11	10	10	12	13	19	20	14	17	15	18	27	34	55	48	35	46	49	61	63
Wash. St/Stark St	15	12	14	14	16	19	14	17	15	18	18	24	28	27	24	20	22	23	42	58
Exit 19	20	20	18	20	24	27	22	29	22	26	26	36	31	28	27	27	27	30	32	35
Division St	23	22	19	25	32	29	32	28	29	30	30	35	33	33	28	31	36	36	29	39
Exit 24	29	20	20	29	28	36	34	35	33	26	39	39	43	31	34	40	46	38	40	46
US-26/Powell Blvd	36	20	25	37	30	41	38	37	31	32	44	44	48	39	44	46	49	45	47	51
Exit 17	29	28	37	38	40	39	40	44	41	50	50	54	51	49	57	54	53	54	55	59
Foster Rd	36	52	51	50	51	50	52	54	53	58	53	58	56	60	59	60	58	58	62	62
Exit 16	53	59	56	57	56	55	54	58	54	59	56	60	60	62	62	60	58	59	63	62
Johnson Cr Blvd	64	62	57	61	62	60	58	61	60	63	64	65	62	65	65	64	62	63	66	64
Exit 14	63	60	59	61	59	58	57	42	34	39	50	61	62	63	63	66	62	65	67	65
Sunnybrook Blvd	40	32	27	29	34	24	18	12	14	18	17	20	30	43	48	40	45	44	63	66
Exit 13	19	18	16	19	18	18	15	13	17	20	20	21	20	16	15	16	21	26	44	58
OR 213/OR 224	17	16	16	22	15	15	14	14	18	21	15	22	19	13	12	16	19	20	24	25
Exit 12	22	22	28	26	18	22	21	24	27	20	28	21	25	22	21	29	25	28	20	21
OR 212/OR 224	21	25	27	20	19	26	19	24	26	24	26	26	24	21	25	28	31	26	21	24
Exit 11	42	44	41	35	40	38	41	43	45	50	45	43	34	35	49	48	49	39	39	41
82nd Dr	49	51	53	55	57	55	54	58	59	55	56	57	58	56	57	57	58	55	59	55
Exit 10	52	50	53	55	55	58	55	54	58	55	56	55	57	58	55	60	60	59	59	56
OR 213	58	55	54	58	56	58	59	58	58	60	60	60	61	59	60	61	59	62	62	58
Exit 9	57	57	49	57	55	58	55	56	55	60	58	58	59	58	59	60	55	60	62	55
OR 99E	56	57	55	57	52	56	57	59	58	58	60	58	59	59	57	60	56	60	60	58
Exit 8	50	52	54	54	44	51	55	57	55	55	57	58	56	57	52	59	56	59	59	57
OR 43	53	55	57	57	52	56	57	57	59	58	63	60	57	58	55	59	58	61	58	58
Exit 6	58	60	56	63	63	59	61	59	62	63	63	61	62	63	63	61	60	62	63	61
10th St/6th St	60	64	62	64	65	61	61	61	64	63	63	62	63	65	63	62	63	63	63	65
Exit 3	65	63	65	65	66	66	62	63	68	64	65	65	65	65	63	64	68	66	64	65
Stafford Rd	62	60	63	62	64	65	61	62	66	64	63	64	64	64	64	61	64	63	64	63
I-5 (South)	68	66	63	62	63	64	67	64	65	62	66	66	64	65	65	66	67	69	67	66
	69	67	67	66	64	68	69	67	68	67	68	68	67	67	68	67	68	70	67	67

Exit/Segment			6:00 PM						6:30 PM						7:00 PM						7:30 PM					
Glenn Jackson Br.	65	65	66	65	64	68	67	67	66	65	66	67	67	66	68	69	67	65	67	68	67	70	71	71	70	68
Exit 24	64	59	65	61	62	62	65	66	66	61	61	65	64	64	66	66	63	60	62	67	64	66	67	69	67	65
Airport Wy	65	64	67	64	63	62	65	68	70	66	66	67	67	62	63	65	61	63	63	67	66	65	64	68	67	66
Exit 23	60	61	64	63	63	63	65	63	67	64	62	63	64	63	61	63	59	62	62	63	63	61	61	64	60	63
Columbia Blvd	60	60	63	62	62	62	64	60	66	65	62	60	65	62	62	62	61	63	63	64	66	64	62	64	60	65
Exit 23	56	56	57	56	57	56	58	58	62	63	56	57	61	58	57	60	58	60	61	62	65	62	59	59	60	63
Sandy Blvd	55	56	56	52	53	51	50	54	61	62	56	56	61	59	55	60	57	61	60	63	65	62	58	59	62	63
Exit 22	59	57	56	40	37	40	34	44	60	62	56	58	61	60	60	62	60	61	61	62	66	64	58	63	64	64
I-84/US-30	64	61	59	57	53	58	54	55	62	64	63	61	62	62	64	67	64	63	64	63	67	67	62	64	64	67
Exit 21	64	62	62	62	60	62	61	60	60	61	62	60	62	61	60	64	63	62	61	62	66	65	63	59	64	67
I-84/US-30	64	64	63	62	63	62	63	64	63	62	63	63	64	61	64	63	66	63	63	66	66	65	66	69	65	67
Exit 20	65	65	64	65	63	63	65	65	64	65	62	62	64	63	64	63	66	64	65	68	67	65	65	70	66	69
Wash. St/Stark St	67	65	64	64	64	63	64	65	64	64	63	63	63	62	61	64	67	64	65	68	67	66	66	71	69	67
Exit 19	66	64	63	63	63	64	65	64	63	64	63	63	64	61	59	61	65	64	64	68	68	66	64	69	68	67
Division St	62	66	67	66	67	65	65	64	66	65	65	64	65	63	62	62	64	64	64	68	68	66	67	70	69	66
Exit 24	57	66	64	62	67	65	64	63	66	63	65	63	62	57	59	63	65	65	63	69	69	67	67	70	69	66
US-26/Powell Blvd	59	67	64	62	66	65	64	64	67	63	65	63	62	59	60	64	65	65	63	68	68	68	67	70	69	66
Exit 17	64	69	64	66	67	64	62	63	65	65	63	61	62	60	60	65	64	65	63	64	67	66	67	70	67	67
Foster Rd	63	68	64	64	67	66	66	63	65	67	63	64	62	64	64	64	64	66	65	67	67	66	63	68	70	67
Exit 16	63	67	62	66	64	63	63	64	67	64	61	64	62	62	64	63	64	66	65	67	69	68	64	66	69	68
Johnson Cr Blvd	62	69	65	66	67	66	67	66	67	67	64	66	64	66	67	66	65	68	67	70	70	70	68	70	71	70
Exit 14	63	66	66	67	66	63	67	66	66	66	63	67	64	66	65	65	65	66	65	68	69	69	68	68	68	67
Sunnybrook Blvd	65	66	68	65	65	67	66	67	70	69	65	67	65	66	66	67	67	63	64	67	68	69	68	68	69	65
Exit 13	61	63	64	65	63	65	67	64	68	66	64	67	66	65	62	64	67	63	64	66	68	70	67	67	68	66
OR 213/OR 224	50	62	67	65	66	66	67	67	67	65	68	66	66	63	64	65	66	62	63	65	67	69	67	66	69	67
Exit 12	36	52	67	63	64	63	64	65	65	62	68	66	64	62	64	65	63	61	62	64	67	70	66	65	70	67
OR 212/OR 224	32	37	66	64	65	65	65	66	65	63	70	67	67	63	65	65	64	63	63	64	68	68	68	65	68	68
Exit 11	45	49	57	62	64	64	63	63	65	61	67	66	64	63	63	64	64	62	63	64	69	66	66	63	66	63
82nd Dr	55	57	61	65	65	65	66	64	65	65	67	68	67	66	63	65	66	64	65	65	68	66	69	68	68	65
Exit 10	58	59	59	64	62	64	60	64	63	64	65	67	65	64	62	62	62	62	63	63	67	63	69	64	66	60
OR 213	61	60	62	63	65	64	60	64	63	64	65	65	63	63	64	62	66	63	64	63	67	67	68	65	66	65
Exit 9	57	60	62	62	63	61	58	59	60	63	62	62	60	61	63	61	64	64	65	63	65	67	67	64	66	66
OR 99E	56	61	63	60	63	65	61	58	59	63	63	63	62	58	63	64	63	62	63	61	63	68	68	61	65	66
Exit 8	56	59	62	57	62	59	59	58	58	58	59	61	58	50	62	62	58	63	59	53	62	67	65	58	61	65
OR 43	54	58	63	60	64	63	62	61	63	62	59	60	59	54	63	66	63	63	64	61	63	66	65	61	61	66
Exit 6	51	55	62	63	66	67	64	63	65	63	64	66	63	60	66	66	64	62	63	64	65	68	67	67	68	68
10th St/6th St	64	61	63	64	66	66	66	64	65	65	65	66	68	66	63	66	63	65	65	66	64	69	69	67	67	67
Exit 3	66	64	64	67	67	67	68	67	68	68	66	68	69	68	67	68	68	68	68	70	66	68	69	68	68	68
Stafford Rd	64	65	64	68	66	66	68	68	67	66	66	69	69	68	67	66	69	68	67	69	65	69	69	67	66	68
I-5 (South)	65	65	67	68	67	65	69	69	68	68	65	67	69	68	67	65	69	69	70	69	69	67	69	67	67	67
	68	67	69	70	69	69	70	71	70	69	68	70	71	70	70	67	71	70	70	69	69	69	69	69	71	70

Legend

- 50 MPH and over
- 40-49 MPH
- 30-39 MPH
- 20-29 MPH
- Below 20 MPH

Data Source: INRIX

I-5 Northbound - Hours per day not meeting the speed threshold

Exit/Segment	July 11, 2021 (Monday)				July 12, 2021 (Tuesday)				July 13, 2021 (Wednesday)				July 14, 2021 (Thursday)				July 15, 2021 (Friday)			
Speed Threshold	20	35	40	45	20	35	40	45	20	35	40	45	20	35	40	45	20	35	40	45
Interstate	0.0	4.2	6.8	7.7	0.6	4.8	8.9	9.4	0.3	4.1	8.5	9.7	0.2	4.8	9.3	10.1	0.0	6.5	9.5	9.8
Bridge	1.1	6.9	7.2	7.4	1.0	8.9	9.1	9.6	1.4	8.6	8.8	9.6	1.2	9.9	10.3	10.6	1.6	9.6	9.6	9.7
Exit 308	2.8	6.8	7.0	7.2	2.4	8.8	9.1	9.2	3.2	8.4	8.8	9.1	4.6	10.0	10.2	10.3	4.4	9.3	9.5	9.6
Tomahawk Island Dr	5.0	7.0	7.1	7.1	5.5	8.2	8.6	8.9	5.9	8.3	8.3	8.6	7.3	9.6	9.6	9.7	7.8	9.1	9.3	9.5
Exit 307	6.5	6.9	6.9	6.9	6.9	7.3	7.3	7.5	7.3	7.8	7.9	7.9	8.1	8.9	9.1	9.1	8.7	9.0	9.0	9.1
Marine Dr	6.7	6.9	6.9	6.9	6.9	7.2	7.2	7.2	7.3	7.8	7.8	7.8	7.9	8.5	8.6	8.7	8.5	8.8	8.8	8.9
Exit 306	6.3	6.8	6.8	6.8	6.6	6.9	6.9	7.0	7.2	7.3	7.3	7.3	7.2	7.6	7.9	8.2	8.3	8.4	8.6	8.7
Victory Blvd	5.5	6.1	6.3	6.3	6.0	6.4	6.4	6.4	6.8	6.9	6.9	7.0	6.7	7.9	8.1	8.3	7.8	8.2	8.3	8.3
Exit 306	4.9	5.5	5.8	5.9	5.7	6.2	6.2	6.3	6.5	6.8	6.8	6.8	7.4	7.8	7.9	8.1	7.8	8.0	8.0	8.2
Columbia Blvd	4.7	5.1	5.3	5.4	5.4	5.8	5.8	5.8	6.4	6.6	6.6	6.7	6.9	7.8	7.8	7.8	7.3	7.8	7.8	7.9
Exit 305	5.0	5.0	5.3	5.4	4.9	5.6	5.8	5.8	6.2	6.5	6.6	6.6	6.7	7.4	7.6	7.7	6.6	7.6	7.7	7.7
US-30 Byp/Lombard St	4.8	5.4	5.5	5.7	4.6	5.7	5.7	5.8	5.8	6.5	6.5	6.6	6.8	7.3	7.6	7.6	6.6	7.6	7.6	7.7
Exit 304	5.2	5.7	5.8	5.9	4.4	5.6	5.9	6.3	5.8	6.4	6.4	6.6	6.7	7.0	7.0	7.3	5.9	7.6	7.6	7.6
Portland Blvd	5.6	6.8	7.0	7.6	4.5	6.2	6.3	6.7	5.8	6.5	6.8	7.2	6.5	6.9	7.1	7.3	5.8	7.4	7.5	7.8
Exit 303	5.3	6.1	6.3	6.4	4.6	6.1	6.2	6.3	5.9	6.4	6.6	6.7	6.3	7.0	7.3	7.3	5.8	7.5	7.6	7.6
Alberta St	6.5	7.3	7.7	8.0	4.5	5.9	6.3	6.4	6.1	6.7	6.8	7.3	6.3	7.0	7.3	7.3	5.8	7.3	7.4	7.7
Exit 303	6.8	7.5	7.7	8.0	4.7	5.9	6.1	6.4	5.9	6.6	6.7	7.2	6.3	6.9	7.0	7.3	5.7	7.2	7.3	7.3
Killingsworth St	6.8	7.8	8.0	8.1	4.3	5.6	6.0	6.2	5.8	6.5	7.0	7.2	6.2	7.1	7.1	7.5	5.2	7.0	7.2	7.7
Exit 302	6.3	7.8	8.0	8.3	2.7	3.6	4.1	4.7	5.3	5.8	6.0	6.3	4.5	6.1	6.3	6.8	4.3	4.8	4.9	5.7
I-405/US-30	2.8	5.3	5.8	7.6	1.0	2.0	2.9	6.6	4.6	6.0	6.3	9.3	2.5	3.9	4.8	7.8	2.7	3.8	4.8	8.0
Exit 302	2.9	5.8	7.4	8.5	1.1	3.3	6.8	8.3	5.1	6.8	9.2	10.9	2.6	4.7	7.4	9.5	2.8	5.0	7.7	9.3
Broadway St	3.7	6.8	8.0	9.0	1.5	6.4	7.7	8.4	5.4	9.1	10.5	11.9	3.0	6.8	8.2	9.9	3.3	7.3	8.7	9.4
Exit 302	3.7	6.5	7.5	8.6	1.2	6.2	7.3	7.8	6.0	9.6	10.6	11.8	3.1	6.9	7.9	9.4	3.2	7.2	8.3	8.9
Weidler St	2.3	6.8	7.9	9.3	1.2	5.5	6.6	8.6	5.6	9.0	10.6	11.9	2.4	6.9	8.6	10.0	2.3	7.0	7.7	9.1
Exit 301	3.7	7.3	8.3	9.3	1.3	5.7	6.8	8.3	6.0	9.8	10.8	11.8	2.8	7.8	9.3	10.2	3.1	7.1	7.5	8.9
I-84/US-30	4.3	7.2	8.0	8.7	1.9	5.2	5.7	7.2	6.3	9.7	10.2	11.0	3.4	7.8	8.8	9.5	3.7	6.7	7.3	7.7
Exit 300	4.8	6.6	7.1	7.7	2.1	4.4	4.8	5.9	6.6	9.1	9.8	10.1	4.8	7.6	8.0	9.1	4.2	5.8	6.6	7.3
OR 99E	5.0	6.3	6.8	7.5	1.6	4.3	4.4	5.0	6.9	8.4	8.8	9.7	4.5	7.2	7.8	8.6	4.3	5.6	6.1	6.3
Exit 300	3.2	4.8	5.4	6.1	0.6	1.4	1.8	2.3	5.3	6.5	7.2	7.8	2.5	3.7	4.5	6.0	1.3	2.6	3.8	4.7
I-84/US-30	3.3	8.3	9.1	10.3	2.2	4.9	5.2	6.6	5.0	7.5	7.7	9.8	3.3	6.4	6.7	8.9	2.1	7.7	8.0	9.1
Marquam	4.7	8.1	9.3	11.1	3.5	5.1	5.8	9.3	5.8	7.3	8.0	11.1	4.7	6.2	7.4	11.1	4.5	7.9	8.3	10.1
Bridge	5.3	8.3	9.8	11.9	3.7	5.3	7.3	10.8	5.3	7.4	8.8	11.3	4.7	6.4	9.2	11.7	5.1	8.1	8.8	10.5
I-405	5.4	9.1	10.4	12.7	4.0	6.1	8.8	11.8	5.7	7.8	10.0	12.4	4.8	8.1	10.3	12.4	5.6	8.8	9.7	11.5
	7.0	9.3	10.1	11.9	4.5	7.1	8.8	11.3	6.1	8.7	10.1	11.8	5.5	9.3	10.3	12.3	6.8	9.0	9.9	11.6
Exit 200	6.3	7.8	8.6	9.1	4.4	5.8	6.3	8.3	6.0	8.0	8.7	9.4	5.6	8.2	9.4	9.8	7.3	8.6	8.8	9.3
I-405	3.4	5.7	6.3	6.7	3.3	4.5	4.7	5.3	4.3	7.0	7.8	8.0	4.3	7.3	8.0	8.3	5.1	8.0	8.3	8.3
Exit 299	3.3	5.7	5.9	6.1	3.7	4.3	4.4	4.8	4.8	6.8	7.6	7.8	4.9	7.5	8.2	8.3	6.1	7.8	7.9	8.3
OR 43/Macadam Ave	3.0	5.2	5.5	5.9	3.6	4.2	4.3	4.3	5.0	6.0	6.9	7.1	5.2	7.0	7.5	8.0	6.1	7.8	7.8	7.8
Exit 298	2.9	4.2	4.8	5.2	3.3	3.8	3.8	3.9	4.3	5.6	6.0	6.6	4.9	6.7	7.0	7.6	5.8	7.6	7.7	7.8
Corbett Ave	1.8	3.2	3.7	4.5	2.1	3.4	4.0	4.9	3.7	5.3	5.5	6.4	4.6	6.3	7.1	8.1	5.0	6.3	6.8	6.9
Exit 297	0.6	1.8	2.4	2.8	0.1	1.3	1.8	2.4	3.2	4.5	5.3	5.6	3.3	4.9	5.6	6.3	4.3	5.4	5.7	5.9
Terwilliger Blvd	0.1	0.6	0.8	0.8	0.0	0.6	0.8	0.8	2.2	3.3	3.6	3.6	1.9	3.0	3.1	3.5	1.6	3.6	4.0	4.4
Exit 296	0.1	0.5	0.8	0.8	0.0	0.5	0.6	0.9	1.8	3.1	3.4	3.6	2.0	2.9	3.1	3.3	1.3	3.0	3.3	4.0
Multnomah Blvd	0.0	0.4	0.4	0.8	0.0	0.3	0.6	0.9	1.8	2.9	3.1	3.6	1.8	2.9	3.0	3.3	1.0	2.7	2.8	3.4
Exit 296	0.0	0.2	0.2	0.3	0.0	0.5	0.5	0.6	1.4	2.3	2.4	2.8	1.4	2.3	2.5	2.9	0.3	1.0	1.7	2.0
Barbur Blvd	0.0	0.1	0.1	0.1	0.0	0.2	0.2	0.4	1.1	1.5	1.8	2.1	0.7	1.5	1.8	2.1	0.0	0.0	0.0	0.3
Exit 295	0.0	0.0	0.0	0.1	0.0	0.2	0.3	0.4	0.8	1.3	1.6	1.8	0.3	1.4	1.7	1.9	0.0	0.0	0.0	0.0
Taylors Ferry Rd	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.5	0.8	1.3	1.3	1.4	0.3	0.9	1.4	1.6	0.0	0.0	0.0	0.0
Exit 295	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.0	0.3	0.5	0.7	0.2	0.3	0.6	0.7	0.0	0.0	0.0	0.0
Capitol Hwy	0.0	0.0	0.1	0.3	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.5	0.0	0.0	0.2	0.3
Exit 294	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
OR 99W/Barbur Blvd	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exit 293	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Haines St	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exit 292	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OR 217	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.3

Direction of travel

Data Source: INRIX

I-5 Northbound Travel Speeds - Thursday, July 14, 2022

| Exit/Segment | Hours Not Meeting the Speed Threshold | | | | Northbound Travel Speeds | | | |

Attachment 3 - Sample Throughway Travel Speed Data

I-5 Northbound Travel Speeds - Thursday, July 14, 2022

Direction of travel ↑ (from OR 217 at the bottom of the table to Interstate Bridge at the top)

Exit/Segment	Hours Not Meeting the Speed Threshold																																																																															
Speed Threshold	20	35	40	45	1:30 PM						2:00 PM						2:30 PM						3:00 PM						3:30 PM						4:00 PM						4:30 PM						5:00 PM						5:30 PM						6:00 PM						6:30 PM						7:00 PM						7:30 PM					
Interstate	0.2	4.8	9.3	10.1	34	33	32	3	3	30	33	33	33	31	33	34	37	33	36	37	34	30	33	37	35	35	36	35	37	36	37	35	34	34	38	34	33	38	32	34	34	37	31	37	36	38	33	32	37	32	36	35	37	36	35	37	34	35	35	35	39	46	45	47	47	51	52	46	46	48	48	49	33	36	36	40	38	34	33	33	35	34
Bridge	1.2	9.9	10.3	10.6	26	21	18	2	1	18	22	22	23	19	22	21	26	21	22	24	20	16	16	23	23	28	24	23	24	21	22	24	18	26	28	23	24	28	19	23	20	23	18	26	27	27	20	25	27	20	24	25	27	23	21	26	21	24	25	25	29	29	34	35	32	35	34	26	32	32	35	31	21	25	27	29	30	24	22	22	24	24
Exit 308	4.6	10.0	10.2	10.3	25	19	16	3	2	15	16	17	20	20	19	18	21	19	18	18	23	17	16	19	18	20	18	20	19	18	19	17	14	24	23	18	21	25	16	19	17	22	19	18	22	28	22	20	21	17	20	19	23	21	21	21	19	18	21	21	16	16	17	15	12	15	13	15	18	16	14	12	14	22	25	23	34	23	22	21	19	21
Tomahawk Island Dr	7.3	9.6	9.6	9.7	31	23	32	7	2	5	13	14	17	16	16	14	16	19	14	15	19	16	15	16	17	15	16	14	19	16	15	15	14	17	19	16	14	19	15	16	16	18	19	15	19	21	22	18	16	16	17	15	18	18	18	17	18	18	17	19	21	11	9	8	9	10	9	12	11	8	9	9	10	17	23	21	22	18	19	21	17	22
Exit 307	8.1	8.9	9.1	9.1	54	49	53	19	2	4	10	12	15	14	12	11	13	13	12	11	11	12	11	9	15	11	11	12	12	15	15	14	11	12	14	13	11	10	13	11	12	12	12	10	13	15	16	14	13	13	12	14	11	13	12	12	12	12	12	13	14	8	7	7	7	8	9	9	7	7	9	7	7	11	15	14	16	16	14	15	15	17
Marine Dr	7.9	8.5	8.6	8.7	61	54	60	26	3	3	10	10	13	14	11	10	12	11	10	10	9	12	9	9	13	9	11	10	10	14	13	12	10	11	12	12	10	9	12	9	11	8	10	9	11	11	14	12	12	11	9	11	8	11	11	11	10	12	10	10	11	7	6	7	7	8	8	8	7	7	8	9	7	10	14	11	13	12	12	14	13	13
Exit 306	7.2	7.6	7.9	8.2	58	51	55	40	9	2	4	8	9	11	8	9	9	11	10	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	10	9	8	8	10	9	9	7	8	8	9	9	10	10	9	8	9	9	9	9	9	9	8	9	9	8	9	8	6	6	7	7	6	6	7	6	7	7	6	7	10	12	11	11	11	12	12	11
Victory Blvd	6.7	7.9	8.1	8.3	24	30	27	35	27	5	2	9	9	11	10	9	11	11	11	10	9	9	10	9	10	10	9	9	9	8	9	10	9	10	9	9	9	8	8	9	8	8	7	8	9	8	10	10	9	8	9	7	8	9	10	8	7	9	9	9	8	9	7	6	6	6	6	6	7	7	7	7	7	6	8	11	12	11	12	12	11	10
Exit 306	7.4	7.8	7.9	8.1	13	16	15	23	24	8	2	7	8	11	11	11	11	12	11	10	8	9	10	7	10	9	9	8	9	9	9	9	9	8	9	10	9	8	8	9	8	8	7	9	8	8	9	9	9	9	9	9	9	8	9	9	9	8	11	10	9	10	8	6	6	6	6	6	6	6	8	8	7	7	8	9	12	11	13	14	12	12
Columbia Blvd	6.9	7.8	7.8	7.8	12	11	14	17	22	14	3	5	10	9	11	9	11	12	11	10	8	11	12	10	10	10	11	9	9	11	9	9	10	9	10	10	10	8	8	10	9	8	8	8	9	8	9	10	9	9	8	11	9	9	11	18	17	17	27	28	23	15	11	7	7	7	6	6	7	7	7	9	8	7	8	10	12	12	13	13	12	14
Exit 305	6.7	7.4	7.6	7.7	10	11	13	20	28	19	13	13	12	10	11	10	10	12	11	10	8	10	11	11	9	11	10	8	9	10	9	8	10	10	9	10	9	7	8	9	9	8	9	8	8	8	10	9	9	10	9	10	8	10	10	13	17	15	16	20	20	16	13	8	8	7	6	7	7	7	7	8	7	6	6	10	13	12	14	15	13	15
US-30 Byp/Lombard St	6.8	7.3	7.6	7.6	12	11	13	19	30	24	19	10	17	13	11	10	10	14	12	11	8	9	12	12	11	13	12	11	9	9	9	10	9	11	9	9	9	7	8	9	10	8	11	8	9	8	10	8	11	8	8	11	8	10	8	9	11	10	9	11	11	10	9	8	10	7	7	7	8	7	8	8	8	7	7	10	15	12	14	16	14	16
Exit 304	6.7	7.0	7.0	7.3	11	15	15	18	25	31	11	4	12	19	12	11	11	13	17	12	14	11	12	11	11	10	14	13	9	9	9	9	9	9	7	8	9	9	8	7	11	8	10	8	8	8	8	8	9	7	7	10	9	9	9	9	12	10	9	9	11	11	9	10	9	8	7	7	8	7	8	8	8	7	6	9	13	12	12	13	15	16
Portland Blvd	6.5	6.9	7.1	7.3	12	13	17	18	19	36	38	13	8	11	21	13	11	11	15	13	12	11	11	12	10	10	11	15	15	12	11	9	9	7	7	7	9	12	7	7	7	11	8	8	6	7	7	7	7	9	8	9	10	8	7	7	10	11	9	9	10	10	10	9	9	10	8	7	7	7	7	8	11	9	7	7	12	18	13	13	16	24
Exit 303	6.3	7.0	7.3	7.3	11	17	15	21	28	37	25	8	9	24	15	12	15	14	18	13	15	11	12	10	13	11	11	12	11	9	9	9	9	10	9	8	9	10	7	6	10	10	8	9	9	9	8	8	10	9	8	8	10	9	12	12	11	13	10	9	11	12	10	9	8	9	8	7	7	7	10	8	10	7	7	11	16	13	13	13	17	19
Alberta St	6.3	7.0	7.3	7.3	9	12	16	17	16	29	39	24	11	11	23	15	13	10	12	12	11	13	11	12	12	12	12	14	14	12	12	9	8	7	7	6	9	10	8	8	7	12	8	8	6	6	6	6	8	10	7	9	9	11	10	9	10	12	10	9	9	11	11	12	8	8	9	8	7	9	7	7	8	12	9	7	12	17	13	12	17	39
Exit 303	6.3	6.9	7.0	7.3	12	9	16	17	12	27	40	29	13	11	23	16	13	10	12	13	11	12	10	10	11	11	11	12	13	11	11	11	8	8	8	7	11	11	9	8	7	11	8	8	7	6	6	7	9	11	9	11	9	11	9	9	9	9	11	9	9	11	10	15	9	9	8	8	8	9	8	9	8	11	8	7	12	18	13	14	17	46
Killingsworth St	6.2	7.1	7.1	7.5	12	8	13	14	12	21	41	40	17	9	21	20	17	14	13	19	12	12	11	11	9	9	13	9	10	8	8	8	8	8	9	9	9	9	11	8	8	10	7	8	8	6	9	9	10	9	9	9	9	9	7	7	10	8	11	7	7	12	13	16	11	11	11	10	9	11	9	12	10	9	8	7	11	17	16	18	30	56
Exit 302	4.5	6.1	6.3	6.8	19	11	10	17	21	32	46	54	42	19	17	27	42	35	30	33	24	14	11	9	10	9	9	9	9	10	10	9	7	9	8	8	7	7	7	8	6	7	7	8	9	8	7	7	7	7	9	9	9	9	8	9	9	9	11	11	11	11	13	22	23	23	22	22	21	25	26	22	28	15	11	10	8	11	25	37	46	53
I-405/US-30	2.5	3.9	4.8	7.8	45	32	20	35	41	46	50	54	50	50	36	45	47	50	52	53	51	44	29	16	18	19	14	28	26	25	25	13	13	11	19	14	18	13	15	17	16	10	9	18	30	20	9	11	9	10	11	12	12	16	25	19	17	15	26	31	38	43	44	51	48	49	51	57	49	52	50	48	50	38	32	25	19	15	34	56	57	55
Exit 302	2.6	4.7	7.4	9.5	44	39	18	26	36	44	52	52	47	49	39	49	46	51	52	54	51	49	28	19	21	16	14	22	21	22	21	16	15	11	18	18	15	10	13	19	19	10	8	16	24	11	7	10	10	10	8	9	10	12	25	16	17	13	25	35	43	41	47	51	49	50	52	53	48	51	47	46	45	42	35	22	17	16	38	57	61	55
Broadway St	3.0	6.8	8.2	9.9	45	42	16	21	30	42	53	52	46	50	40	50	46	52	51	57	52	50	30	20	19	13	12	15	17	21	21	19	16	10	17	16	11	8	10	19	19	10	8	12	17	9	7	9	10	9	8	8	8	10	18	12	16	13	21	35	46	42	45	49	49	49	51	52	47	49	43	42	40	43	35	15	15	14	36	58	62	54
Exit 302	3.1	6.9	7.9	9.4	49	48	19	18	28	45	51	51	49	51	43	50	47	52	51	57	51	51	38	24	18	14	10	14	19	24	26	21	15	13	23	17	11	7	9	18	15	9	8	9	13	9	7	7	8	10	9	9	7	8	14	14	16	14	16	40	47	41	43	47	47	45	47	48	44	43	41	40	39	46	33	13	12	13	37	58	62	55
Weidler St	2.4	6.9	8.6	10.0	49	49	36	16	28	43	46	47	48	47	44	46	44	49	51	56	46	48	42	31	20	21	13	15	12	19	27	17	18	21	29	22	15	11	12	21	19	14	8	10	13	13	9	8	9	13	14	12	10	11	20	20	16	15	19	40	36	37	42	42	43	34	33	35	29	25	29	27	36	42	35	20	17	20	36	49	56	52
Exit 301	2.8	7.8	9.3	10.2	47	47	36	15	24	38	51	48	48	48	48	46	42	50	51	51	44	45	37	32	20	22	14	13	11	21	24	18	20	21	24	21	14	8	8	19	18	13	7	9	13	15	8	8	8	11	13	9	7	11	19	21	13	15	22	34	33	32	36	37	37	33	26	21	15	17	24	25	30	37	40	29	19	15	33	39	51	53
I-84/US-30	3.4	7.8	8.8	9.5	47	49	34	21	21	37	52	50	50	51	49	44	43	51	52	51	44	45	35	26	21	21	16	13	16	17	22	20	21	17	15	20	12	7	7	16	18	12	7	7	13	18	10	8	9	11	12	8	7	8	15	21	12	15	18	31	30	26	28	31	31	29	20	14	14	18	20	22	26	33	45	38	21	13	28	36	51	55
Exit 300	4.8	7.6	8.0	9.1	50	50	44	27	19	32	49	49	51	55	47	41	42	50	52	52	45	46	37	28	18	20	17	13	14	11	15	19	19	16	9	18	14	8	7	11	14	11	7	7	11	15	8	7	8	9	9	8	7	8	12	18	12	15	16	36	33	28	25	26	27	23	15	13	14	16	15	18	24	33	48	41	26	15	27	34	50	52
OR 99E	4.5	7.2	7.8	8.6	53	51	50	33	21	31	49	49	51	55	44	39	41	50	52	51	47	48	41	37	14	18	17	10	9	9	12	18	21	21	9	14	14	9	7	9	11	10	7	7	9	11	8	6	6	8	8	8	6	8	10	15	13	16	19	38	38	29	24	23	23	20	12	11	12	12	11	15	20	31	49	44	30	18	25	33	48	48
Exit 300	2.5	3.7	4.5	6.0	58	57	53	52	50	55	56	47	49	55	53	52	48	52	54	56	53	51	47	46	31	39	35	19	18	16	19	35	42	42	30	30	33	23	13	10	10	9	8	7	7	7	9	6	6	7	7	7	7	7	9	13	25	38	42	48	49	45	40	37	34	28	14	9	9	9	10	19	26	40	53	54	46	35	39	44	54	55
I-84/US-30	3.3	6.4	6.7	8.9	44	45	34	27	17	24	25	18	14	18	21	15	13	19	21	24	21	17	16	18	26	21	18	22	12	16	17	24	28	30	22	24	18	16	20	14	14	11	11	11	8	9	16	12	7	8	9	9	15	13	21	24	17	23	15	18	19	23	25	19	21	28	25	15	13	23	14	27	32	28	27	23	29	31	46	49	47	45
Marquam	4.7	6.2	7.4	11.1	39	40	32	19	13	20	18	18	11	15	19	10	9	14	16	18	15	20	15	14	21	19	16	16	14	15	14	20	22	19	17	18	12	11	17	15	11	11	14	14	8	11	13	13	8	7	11	10	15	13	17	18	16	19	12	16	17	18	18	16	21	22	25	18	17	15	13	20	30	26	31	25	25	45	50	51	45	43
Bridge	4.7	6.4	9.2	11.7	36	37	31	12	11	18	18	17	11	13	19	10	9	13	18	17	13	27	18	14	20	20	24	17	16	16	15	19	23	15	16	17	12	11	15	14	9	14	15	13	9	10	11	13	8	9	12	13	13	14	16	16	12	15	12	16	17	18	18	15	22	22	25	22	18	14	13	14	26	27	34	28	22	45	49	51	45	44
I-405	4.8	8.1	10.3	12.4	33	33	30	11	11	17	16	15	12	13	18	12	9	11	15	16	13	27	20	14	18	18	22	17	17	19	18	20	19	12	13	15	10	11	15	13	8	14	15	13	10	9	12	12	8	9	11	14	14	15	17	19	10	13	13	16	16	16	18	15	21	21	23	24	18	16	13	13	20	25	36	27	22	40	47	49	44	43
	5.5	9.3	10.3	12.3	24	26	25	11	11	12	11	10	12	12	11	8	7	9	10	11	12	18	19	11	12	13	16	16	15	15	14	12	10	9	9	10	8	9	11	11	7	10	11	9	9	9	10	9	9	9	9	11	10	14	16	11	8	9	10	11	15	14	16	12	15	18	18	19	12	13	10	11	14	21	25	21	24	41	47	49	44	43
Exit 200	5.6	8.2	9.4	9.8	24	23	27	19	12	10	9	10	10	12	12	9	7	9	10	9	8	15	21	16	10	9	13	19	14	12	12	9	7	7	7	7	7	7	9	8	7	7	7	7	7	9	8	8	9	9	11	11	10	10	9	9	8	8	10	8	10	11	10	9	11	13	16	15	14	12	9	11	14	18	28	29	31	45	53	54	51	51
I-405	4.3	7.3	8.0	8.3	33	25	24	30	20	16	19	16	21	18	13	16	15	15	17	17	14	18	27	22	15	19	17	27	18	16	17	13	10	11	12	9	16	13	19	15	21	17	14	12	15	16	13	15	17	17	21	18	23	21	16	20	17	12	20	10	10	14	10	17	15	11	14	21	25	19	14	15	16	21	23	48	56	58	53	55	60	60
Exit 299	4.9	7.5	8.2	8.3	37	22	19	25	18	12	15	14	22	15	10	12	16	12	16	14	15	15	22	21	15	17	17	26	19	14	15	11	9	10	12	10	15	13	19	13	15	15	11	10	13	13	11	13	13	13	16	15	21	19	16	17	15	12	18	10	11	14	12	16	15	12	15	20	20	20	13	13	16	20	17	56	62	59	55	57	63	62
OR 43/Macadam Ave	5.2	7.0	7.5	8.0	45	26	23	26	17	12	14	11	15	14	10	11	11	11	13	12	16	14	24	23	17	16	16	23	18	13	13	11	9	8	10	10	13	13	13	14	13	12	11	11	12	14	12	13	13	14	14	13	19	19	17	14	12	11	14	8	12	15	13	12	14	14	16	19	19	19	13	14	18	21	21	55	62	60	53	56	63	63
Exit 298	4.9	6.7	7.0	7.6	53	32	30	28	18	15	13	11	14	14	12	14	11	14	14	14	18	14	26	30	18	13	16	24	16	10	11	10	9	8	10	11	12	14	13	13	11	12	12	13	13	12	12	12	13	15	15	16	20	24	16	15	13	9	13	7	11	15	14	11	13	13	16	18	20	20	14	16	17	19	22	57	62	60	58	59	61	61
Corbett Ave	4.6	6.3	7.1	8.1	56	44	34	32	30	17	14	14	12	13	13	16	17	14	16	19	18	20	22	27	30	17	17	20	23	17	15	11	11	10	12	12	12	12	12	11	12	11	12	12	15	14	16	14	14	17	17	16	16	23	20	19	20	13	12	11	11	13	14	15	14	12	14	17	17	17	15	14	13	20	29	60	60	62	63	62	62	62
Exit 297	3.3	4.9	5.6	6.3	56	55	56	51	50	54	40	20	37	19	19	17	27	31	48	57	59	52	46	46	51	43	21	18	19	20	19	14	11	11	10	12	11	9	10	9	9	11	11	10	10	11	15	24	24	18	16	15	14	16	20	31	37	36	24	12	10	10	13	14	12	10	12	12	15	14	17	20	30	46	55	61	58	62	66	62	61	63
Terwilliger Blvd	1.9	3.0	3.1	3.5	56	57	59	60	60	58	54	55	56	56	55	61	56	58	60	64	63	60	59	61	56	58	43	28	28	26	29	20	15	15	12	13	15	10	12	16	15	14	14	12	10	11	35	65	60	60	43	47	49	40	55	60	62	61	51	29	18	16	16	18	17	14	11	13	19	21	22	53	63	65	67	63	58	65	68	66	65	67
Exit 296	2.0	2.9	3.1	3.3	57	57	59	60	61	56	54	56	56	58	55	61	57	58	60	65	63	60	59	61	57	59	44	28	28	28	30	22	15	17	14	15	16	11	13	15	14	14	13	13	11	11	39	65	60	60	49	51	52	51	59	60	63	61	53	35	19	14	15	18	17	15	11	16	20	19	23	58	64	67	66	63	59	63	67	66	66	67
Multnomah Blvd	1.8	2.9	3.0	3.3	58	57	59	60	62	56	56	57	57	59	57	62	59	58	60	66	63	60	59	62	58	59	43	24	27	30	32	26	18	22	15	15	19	15	12	14	12	14	13	12	12	13	43	64	59	60	55	55	54	59	62	62	63	61	55	42	20	14	15	19	16	13	11	19	20	19	29	61	65	69	68	65	60	63	67	67	66	66
Exit 296	1.4	2.3	2.5	2.9	59	62	62	62	62	60	60	61	61	61	60	65	60	61	61	67	65	63	61	62	59	60	46	21	41	38	42	40	33	40	27	21	33	26	18	18	13	15	14	16	12	18	48	64	61	61	61	60	58	62	64	65	63	62	60	53	18	15	15	24	19	15	11	21	19	27	52	63	66	70	69	64	63	63	66	65	65	65
Barbur Blvd	0.7	1.5	1.8	2.1	60	64	63	63	62	62	63	62	63	63	62	65	62	63	63	68	64	65	63	64	60	60	57	27	44	43	47	57	53	55	49	52	54	50	44	32	16	13	15	15	26	46	64	68	66	65	65	64	62	64	66	66	66	63	65	61	32	19	12	27	23	21	11	13	25	37	64	66	68	70	67	64	63	64	67	67	65	67
Exit 295	0.3	1.4	1.7	1.9	59	63	63	64	60	63	62	62	64	64	61	63	61	63	63	67	64	64	63	63	59	60	58	38	31	33	36	57	54	60	52	58	62	56	59	45	24	16	24	27	44	57	65	66	65	65	64	63	62	63	65	65	66	63	64	59	48	37	15	24	25	30	16	15	27	41	67	64	69	69	66	64	62	66	69	65	65	68
Taylors Ferry Rd	0.3	0.9	1.4	1.6	59	62	61	62	61	62	60	58	61	64	60	61	61	63	61	66	64	64	62	63	56	60	56	53	27	25	28	54	60	63	56	57	60	59	61	53	38	26	24	35	52	57	64	65	64	62	63	63	59	62	63	65	64	63	63	59	51	48	14	17	24	38	36	18	19	41	64	66	67	68	64	63	62	65	66	61	62	67
Exit 295	0.2	0.3	0.6	0.7	57	61	61	62	61	61	59	59	61	65	58	60	59	61	62	65	63	62	63	63	58	59	60	56	52	34	38	62	61	64	63	58	59	59	60	57	58	54	49	57	61	60	63	64	65	64	63	62	60	63	63	63	63	61	64	59	57	55	23	18	39	60	63	37	19	44	64	64	65	65	63	60	62	64	63	58	63	66
Capitol Hwy	0.0	0.0	0.1	0.5	51	57	60	58	58	60	58	55	59	61	55	56	55	57	59	62	58	59	59	57	56	57	56	56	57	54	54	61	62	59	59	55	57	56	51	50	59	58	62	60	58	55	62	63	62	60	59	59	57	62	59	60	61	60	61	54	52	54	56	50	59	61	60	56	55	63	64	61	63	62	60	54	58	66	64	58	62	64
Exit 294	0.0	0.0	0.0	0.0	58	62	60	61	63	60	61	59	60	61	59	62	63	63	61	65	60	59	59	60	60	59	59	57	59	58	57	60	63	62	60	61	61	62	60	57	59	59	66	65	63	59	64	64	62	62	62	62	60	64	63	62	64	63	64	58	56	57	62	63	63	64	64	62	64	66	63	63	65	66	64	63	64	66	65	62	63	64
OR 99W/Barbur Blvd	0.0	0.0	0.0	0.0	59	62	59	61	63	59	63	58	62	62	61	61	62	60	62	63	60	57	60	57	60	57	59	57	58	58	58	62	63	63	58	61	58	59	61	60	60	57	61	61	59	58	64	63	62	62	62	62	61	64	61	61	62	61	62	57	55	58	62	64	61	62	63	63	65	66	65	65	66	67	63	63	64	67	64	63	61	63
Exit 293	0.0	0.0	0.0	0.0	58	60	60	61	62	59	61	56	61	60	59	60	60	57	62	61	58	57	60	58	61	54	58	55	57	57	58	62	62	63	58	59	57	58	61	59	58	55	60	60	58	55	62	61	62	61	59	61	60	62	56	60	60	59	60	56	52	57	61	63	62	61	61	63	65	65	62	65	65	66	62	62	65	67	64	62	59	63
Haines St	0.0	0.0	0.0	0.0	57	60	60	61	60	61	61	60	60	61	60	61	63	59	62	58	57	55	61	59	59	54	58	56	57	58	60	60	56	62	59	60	61	59	59	60	59	54	59	60	57	57	62	61	60	60	59	59	60	62	59	62	62	62	61	57	54	58	62	62	60	61	61	64	67	66	63	64	65	64	63	62	65	68	64	60	56	63
Exit 292	0.0	0.0	0.0	0.0	62	62	62	64	61	61	63	62	63	65	62	65	68	64	63	61	59	60	62	60	62	60	60	58	64	65	64	62	61	64	62	62	61	62	62	63	61	61	63	61	59	62	65	64	64	64	64	64	63	66	65	66	64	64	63	62	59	63	63	65	64	64	65	68	69	68	65	63	64	66	65	64	66	67	64	62	62	67
OR 217	0.0	0.0	0.0	0.0	56	58	58	61	59	60	61	59	52	61	61	58	58	61	59	60	56	57	57	54	57	58	50	50	57	57	59	59	55	63	60	57	55	53	58	57	58	57	60	61	58	60	65	63	60	58	60	59	62	63	61	62	58	56	58	58	57	58	60	59	64	62	64	65	65	64	64	64	64	65	63	64	65	63	64	62	66	65

Legend
- 50 MPH and over
- 40-49 MPH
- 30-39 MPH
- 20-29 MPH
- Below 20 MPH

Data Source: INRIX

US-26 Eastbound - Hours per day not meeting the speed threshold

Exit/Segment	July 11, 2021 (Monday)				July 12, 2021 (Tuesday)				July 13, 2021 (Wednesday)				July 14, 2021 (Thursday)				July 15, 2021 (Friday)			
Speed Threshold	20	35	40	45	20	35	40	45	20	35	40	45	20	35	40	45	20	35	40	45
I-405/	0.3	10.1	12.2	12.8	0.9	10.8	12.7	13.1	0.5	12.0	13.8	13.9	0.5	12.3	13.6	13.9	1.3	13.6	14.6	15.2
Market St	1.4	11.8	12.3	12.8	1.9	12.6	12.8	12.8	2.0	13.8	13.9	14.2	2.2	13.3	13.7	13.8	4.2	14.2	14.8	15.1
Exit 73	2.6	11.4	11.8	12.2	3.4	12.3	12.5	12.7	3.1	13.4	13.8	14.0	3.6	13.2	13.5	13.6	6.8	14.1	14.3	14.4
Canyon Rd	0.8	10.4	10.9	11.3	2.3	10.8	11.3	11.6	3.9	11.7	12.5	13.4	3.8	12.8	13.1	13.1	5.0	13.1	13.4	13.9
Exit 72	3.1	8.9	9.1	9.7	3.6	9.7	9.8	10.4	6.7	11.3	11.4	11.6	6.7	12.4	12.8	12.9	6.8	11.3	11.9	12.2
Canyon Rd	2.8	7.5	7.8	8.2	5.5	8.6	8.8	9.3	8.0	10.4	10.7	10.8	7.8	10.9	11.3	11.8	7.9	10.1	10.3	10.8
Exit 71	2.7	5.2	5.3	5.8	6.3	8.3	8.3	8.4	8.8	10.1	10.2	10.3	7.8	9.7	10.1	10.6	7.8	9.7	10.0	10.3
Skyline Blvd	1.8	4.1	4.4	5.0	5.7	8.0	8.2	8.3	8.4	10.0	10.0	10.3	7.3	9.4	9.6	10.0	7.8	9.5	9.7	10.1
OR 8	1.2	2.8	3.3	3.7	3.8	7.4	7.7	8.1	8.2	9.3	9.8	10.1	6.8	8.6	8.8	9.3	7.2	8.3	8.6	9.3
	0.5	1.8	1.9	2.3	2.0	5.5	6.1	6.9	7.1	8.8	9.3	9.4	4.5	7.4	7.8	8.3	5.8	7.6	8.0	8.3
Camelot Ct	0.3	1.4	1.8	2.2	2.1	4.8	5.5	6.3	6.3	8.5	9.0	9.2	4.0	6.8	7.3	7.4	4.9	7.3	7.8	8.4
	0.8	1.6	1.8	1.9	1.1	3.0	3.9	4.5	6.3	8.0	8.2	8.3	4.4	5.8	6.3	6.6	4.0	6.5	7.1	7.8
Exit 69	0.3	0.6	0.6	0.6	0.1	0.7	0.8	0.8	2.3	4.2	4.4	4.8	1.3	2.3	2.3	2.7	0.4	1.3	1.5	1.8
OR 217	0.0	0.0	0.1	0.3	0.0	0.1	0.2	0.2	0.0	1.0	1.5	2.4	0.0	0.0	0.3	0.6	0.0	0.0	0.0	0.3
Exit 68	0.0	0.0	0.3	0.8	0.0	0.2	0.7	1.8	0.1	0.8	1.8	2.8	0.0	0.1	1.0	2.5	0.0	0.3	0.8	1.5
Cedar Hills Blvd	0.0	0.0	0.1	0.3	0.0	0.6	2.2	3.5	0.2	0.9	1.7	2.5	0.0	0.7	1.7	2.7	0.0	0.2	0.7	2.0
Exit 67	0.0	0.2	0.3	0.3	0.3	2.2	2.6	2.8	0.5	1.3	1.4	1.8	0.4	1.7	2.0	2.5	0.0	0.5	0.8	1.3
Murray Blvd	0.0	0.3	0.8	0.9	0.1	0.9	1.6	1.9	0.1	0.4	0.8	1.3	0.0	0.9	1.5	2.1	0.0	0.0	0.4	1.2
Exit 65	0.7	0.9	0.9	0.9	0.8	1.5	1.5	1.7	0.3	0.9	0.9	0.9	0.6	1.5	1.8	2.0	0.0	0.3	0.5	1.1
Cornell Rd	0.6	0.8	0.8	0.8	0.6	1.3	1.3	1.3	0.5	0.8	0.8	0.8	0.8	1.1	1.3	1.5	0.0	0.0	0.0	0.1
Exit 65	0.2	0.7	0.8	0.8	0.3	0.8	0.9	1.0	0.3	0.8	0.8	0.8	0.0	0.8	0.8	1.0	0.0	0.0	0.0	0.0
Bethany Blvd	0.0	0.6	0.6	0.7	0.0	0.5	0.5	0.7	0.0	0.5	0.6	0.6	0.0	0.6	0.7	0.8	0.0	0.0	0.0	0.0
Exit 64	0.1	0.3	0.3	0.4	0.0	0.1	0.2	0.2	0.0	0.1	0.2	0.3	0.0	0.1	0.1	0.3	0.0	0.0	0.0	0.0
185th Ave	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exit 62	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cornelius Pass Rd	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
Exit 61	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Helvetia Rd/Shute Rd	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exit 57	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Glencoe Rd	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Direction of travel

Data Source: INRIX

US-26 Eastbound Travel Speeds - Thursday, July 14, 2022

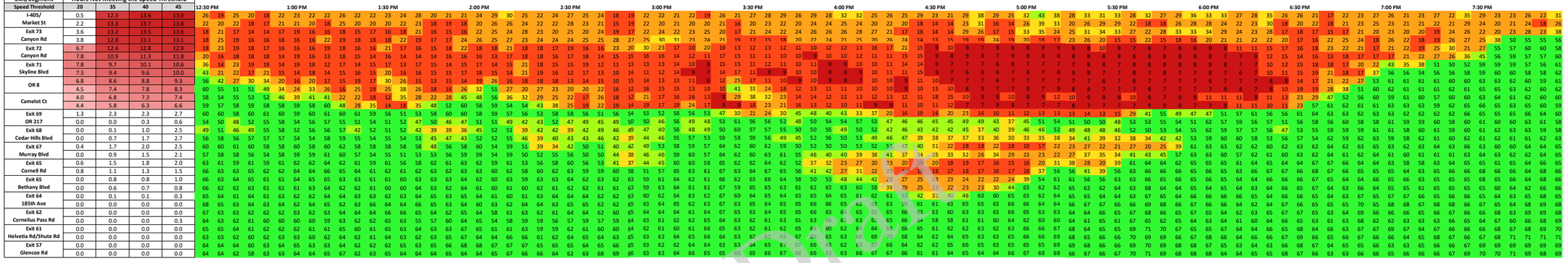
Direction of travel

| Exit/Segment | Hours Not Meeting the Speed Threshold | | | | Eastbound Travel Speeds | | | |

US-26 Eastbound Travel Speeds - Thursday, July 14, 2022

Direction of travel

Exit/Segment	Hours Not Meeting the Speed Threshold			
Speed Threshold	20	35	40	45
I-405/ Market St	0.5	12.3	13.6	13.9
	2.2	13.3	13.7	13.8
Exit 73	3.6	13.2	13.5	13.6
Canyon Rd	3.8	12.8	13.1	13.1
Exit 72 Canyon Rd	6.7	12.4	12.8	12.9
	7.8	10.9	11.3	11.8
Exit 71 Skyline Blvd	7.8	9.7	10.1	10.6
	7.3	9.4	9.6	10.0
OR 8	6.8	8.6	8.8	9.3
	4.5	7.4	7.8	8.3
Camelot Ct	4.0	6.8	7.3	7.4
	4.4	5.8	6.3	6.6
Exit 69	1.3	2.3	2.3	2.7
OR 217	0.0	0.0	0.3	0.6
Exit 68 Cedar Hills Blvd	0.0	0.1	1.0	2.5
	0.0	0.7	1.7	2.7
Exit 67 Murray Blvd	0.4	1.7	2.0	2.5
	0.0	0.9	1.5	2.1
Exit 65 Cornell Rd	0.6	1.5	1.8	2.0
	0.8	1.1	1.3	1.5
Exit 65 Bethany Blvd	0.0	0.8	0.8	1.0
	0.0	0.6	0.7	0.8
Exit 64 185th Ave	0.1	0.1	0.1	0.3
	0.0	0.0	0.0	0.0
Exit 62 Cornelius Pass Rd	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.3
Exit 61 Helvetia Rd/Shute Rd	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0
Exit 57 Glencoe Rd	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0



Legend

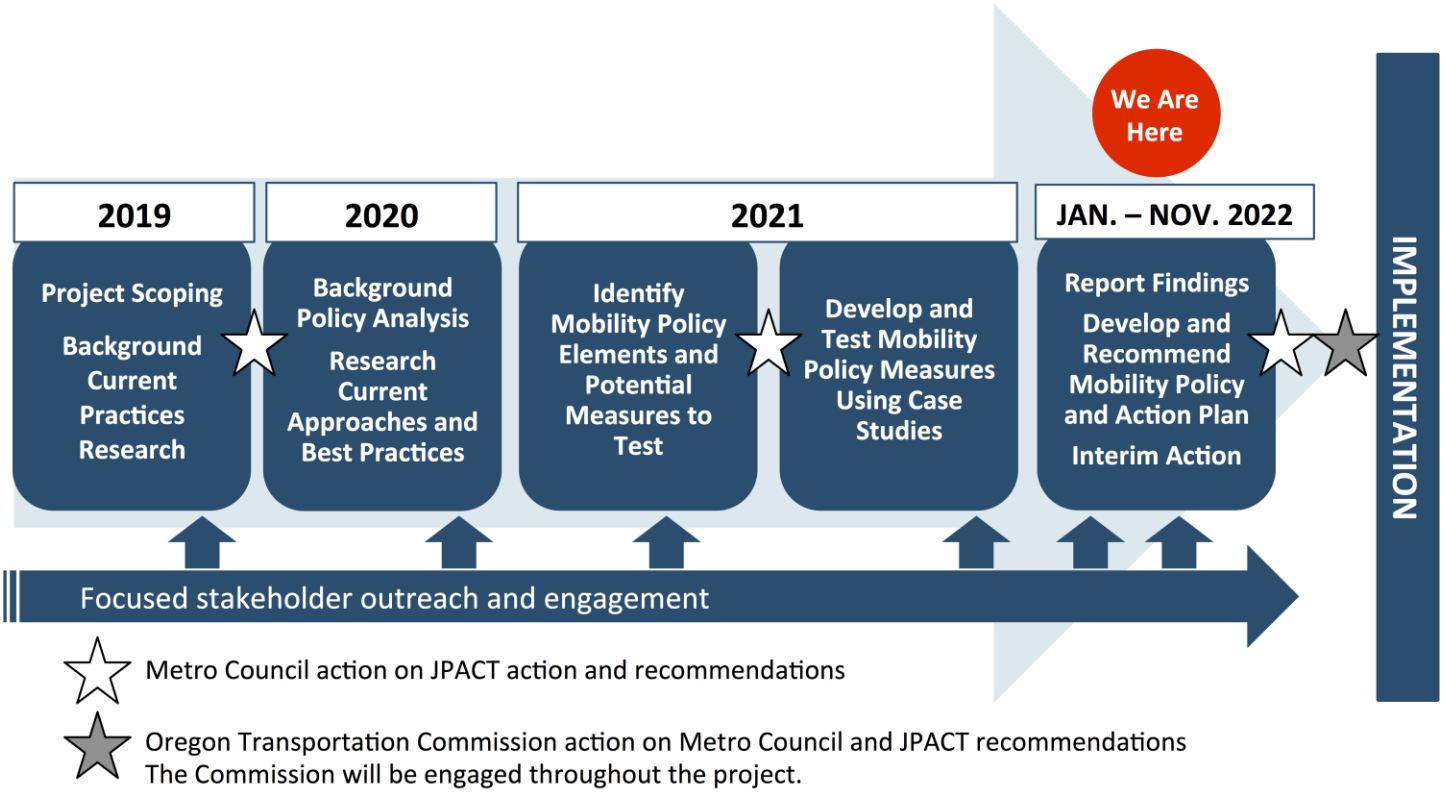
- 50 MPH and over
- 40-49 MPH
- 30-39 MPH
- 20-29 MPH
- Below 20 MPH

Data Source: INRIX

KITTELSON & ASSOCIATES

REGIONAL MOBILITY POLICY UPDATE

PROJECT TIMELINE AND 2022 ENGAGEMENT SCHEDULE



What	Who	Date
January to July 2022 – Develop Draft Mobility Policy and Measures/Targets		
Report case studies analysis and findings Introduce draft mobility policy elements and performance measure recommendations Discuss: - Draft policy framework and applicability - Draft measures, targets and methods - Draft implementation action plan	TPAC/MTAC Workshop	2/16/22
	TPAC Workshop	3/9/22
	Practitioner Forum (with breakouts)	4/7/22
	TPAC/MTAC Workshop	4/20/22
	EMCTC TAC	5/4/22
	EMCTC	5/16/22
	CTAC	6/2/22
	TPAC/MTAC Workshop	6/15/22
	Metro Council	7/26/22

What	Who	Date
August to November 2022 – Recommend Draft Mobility Policy, Measures/Targets and Action Plan		
Recommended Draft for 2023 RTP - Mobility policy (with measures and targets) and applicability - Implementation Action Plan	TPAC/MTAC workshop (with other practitioners)	8/17/22
	TPAC discussion	9/2/22
	MTAC discussion	9/21/22
	MPAC discussion	9/28/22
	Region 1 Area Commission on Transportation	10/3/22 (requested)
	TPAC recommendation to JPACT	10/7/22
	Metro Council discussion	10/18/22
	JPACT discussion	10/20/22
Report study findings and policy recommendations and seek support to incorporate in 2023 RTP	Oregon Transportation Commission	11/17/22 (requested; meeting in Portland area)
Seek support to incorporate in 2023 RTP	JPACT recommendation/interim action	11/17/22
Seek support to incorporate in 2023 RTP	Metro Council recommendation/interim action	12/15/22

County Coordinating Committees

Who	Tentative Date
East Multnomah County Transportation Committee TAC	8/31/22
Clackamas County TAC	9/1/22
Washington County Coordinating Committee TAC	9/1/22
East Multnomah County Transportation Committee (policy)	Sept./Oct.
Washington County Coordinating Committee (policy)	Sept./Oct.
Clackamas County C-4 subcommittee (policy)	Sept./Oct.

APPENDIX E ADDITIONAL FEEDBACK SUBMITTED BY AGENCY PARTNERS FOLLOWING THE 8/17/22 MTAC TPAC WORKSHOP

TO	Kim Ellis, Metro Glen Bolen, ODOT
CC	Jessica Berry, Transportation Planning and Development Manager Jon Henrichsen, Transportation Division Director/County Engineer Sarah Paulus, Transportation Policy Analyst
FROM	Allison Boyd, Senior Planner
DATE	August 18, 2022
RE:	Regional Mobility Policy Update: Revised Draft Policy, Measures and Action Plan

Thank you for the opportunity to comment on this latest draft of the Regional Mobility Policy. This is a complicated policy and we appreciate the time you've spent in refining and answering questions. We have a few additional questions below:

1. Balancing measures when addressing travel speed: As was asked at the workshop on Aug. 16th, we also would like to better understand how the travel speed measure would be implemented without coming "at the expense of achieving system completeness for non-motorized modes consistent with regional modal or design classifications or achieving the VMT/capita target for the region or jurisdiction."

2. Defining "complete system": Table 2 says that "Planned system, Strategic and Financially Constrained, may not achieve completeness for all modes to target levels but should identify future intent for all facilities given constraints and tradeoffs." Can you expand on this? There are components of the completeness elements that may be difficult to meet by the planning agency, such as transit service, or there could be right of way constraints that may need an exception process. For purposes of determining proportional share, would that be based on strategic and financially constrained projects?

3. Equity mitigation: We support the implementation action to require TSPs to evaluate and mitigate disparities between "Equity Focus Area" and "Non-Equity Focus Area". Multnomah County Transportation is working on similar equity policies currently and it would be helpful to

know if you have more information on the expected timeframe when guidance on this will be developed. We're also assuming this would be consistent with CFEC requirements which have forthcoming guidance as well.

Subject: [External sender]Draft regional mobility policy - comments
Date: Tuesday, August 23, 2022 at 9:32:21 PM Pacific Daylight Time
From: Fortey, Nick (FHWA)
To: Kim Ellis, glen.a.bolen@odot.oregon.gov

Kim and Glen,

Thank you for the opportunity to provide comments on the changes to the draft regional mobility policy as presented at the online workshop of August 17, 2022.

You had requested any specific recommended changes to the draft mobility policy, targets and implementation plan.

As you are aware under 23 CFR 450.322, requirements are established for a congestion management process (CMP) for transportation management areas. That process envisions a cooperative and comprehensive process for management and operation of a region's transportation system. Our comments take the CMP as a critical element of the mobility policy efforts and recognize the importance of weaving policy and practice activities through the regional transportation planning process as a continuing, cooperative, and comprehensive approach to mobility. 23 CFR 450.306 (b) also requires the metropolitan planning process to address 10 factors; while one planning factor specifically mentions "increase[ing] accessibility and mobility of people and freight" it can be argued that most of the other planning factors have a bearing upon accessibility and mobility.

These are, are you are aware, broad requirements designed to integrate with and support the entire metropolitan transportation planning process. Accordingly, our comments are not directive but are instead suggestions for consideration as your policy is developed:

Page 2: Relative to the efficiency discussion, while we agree that shorter travel distances create conditions that support the development of more efficient travel modes, shorter distances are not sufficient to ensure the successful development and use of those modes. We would suggest that the discussion include spatial and temporal accessibility of those modes as well as service frequency and service quality.

Page 2: In the second full paragraph discussing "system completeness"

under the Access and Options heading, we would suggest an expanded discussion to include both physical and operational “gaps” (please see final comment below).

Page 3: In the system completeness sentence on safety, the last sentence states “System completeness by travel mode is useful in identifying needs and investments that could enhance safety and comfort.” While not disagreeing that completeness can offer a benefit related to safety outcomes, the benefit seems removed. There are numerous opportunities to address safety and operational improvements that are not directly connected to system completeness. The concern is that the measure appears to be a policy construct to support network completeness from a safety and comfort standpoint, when those outcomes could be more cost effectively achieved absent network completeness.

Page 3: The first paragraph and last sentence in the reliability section specifically mentions system completeness and average travel speeds. We have offered concerns over completeness measure and here want to express concerns with the proposed speed measure. While speeds are a component of mobility measures, travel time seems far more encompassing and robust as it offers a measure that effectively matches actual traveler experience over the totality of the trip, includes access and wait times, allows comparison across modes, and allows assessment of travel reliability. In the use of speed, we would urge a more complete discussion and embrace of speed measures including time mean speed and measures of delay at bottlenecks and intersections. The measures for mobility should consider broad metrics for traveler experience as well as system element performance.

Page 3: In the third paragraph of the reliability section reference is made to the “congestion management process.” The congestion management process presumably refers to the federal requirement as noted in the prefatory remarks. Given the importance of this process and its requirement, it deserves more mention and the regulatory reference should be underscored. This should also be so (directly) identified in Table 1 text on page 4.

Page 9: Table 3 references guidance for defining the complete system. For the pedestrian system we would suggest included Transition Plans as they should identify priority actions to create accessible pedestrian facilities and services.

Page 17: Table 5 establishes guidance for measuring system

completeness. While well aware of physical network limitations, we would urge that the process be more encompassing and broadly consider system completeness and, more pointedly the definition of gaps. Gaps here are characterized as physical when the existence of operational/safety gaps would seem to have significant importance and be amenable to lower cost corrective action thus leading to better identification of and faster/lower cost remediation, e.g., intersection crossing “quality” could be improved through adding exclusive pedestrian phasing, eliminating conflicting left turn maneuvers, or adding leading pedestrian intervals.

Thanks

Nick

Washington County Comments on Regional Mobility Standards from 8/17/2022 version

The project team requests that any specific recommended changes to the revised draft regional mobility policy, targets and implementation action plan be sent as a follow-up to the workshop by Tuesday, August 23, including:

- What specific changes would you like to see to improve the draft mobility policy language?

Mobility Policy 1	Ensure that the public's land use decisions and investments in the transportation system enhance efficiency in how people and goods travel to where they need to go.
Mobility 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.
Mobility Policy 3	Create a reliable transportation system that people and businesses can count on to reach destinations in a predictable and reasonable amount of time.
Mobility Policy 4	Prioritize the safety and comfort of travelers in all modes when planning and implementing mobility solutions.
Mobility 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 marginalized and underserved populations have equitable access to safe, reliable, affordable and convenient travel choices that connect to key destinations.

The mobility policies should include a policy related to the proposed mobility performance measurements. Something like:

Mobility Policy 6	Establish and utilize mobility performance measures and targets for: Vehicle Miles Travelled, travel speed, and system completeness.

- What specific changes would you like to see to improve the draft measures and targets and when/where they apply in system planning and plan amendments?

The measures appear to be useful and informative. More information is necessary before discussion of the targets can advance. Discussion of each measure follows:

VMT per capita / VMT per employee – this looks like the right direction but more information about the change in VMT between scenarios is needed. Thus far only the VMT of the 2045 model with the 2040 financial constrained network has been presented.

The Climate Friendly and Equitable Communities (CFEC) rules requires the region demonstrate a reduction in VMT aligned with division 44 (30% of greenhouse gas emissions from light vehicle travel by 2045). Please note that while OAR 660-044-0005(17) defined VMT consistent with OAR 660-012-0005(59), the definition is revised for estimating Greenhouse Gas Emissions in OAR 660-044-0030(2). The requirement is for a comparison between the 2045 build and a base year scenario. The selection of the base year to apply (30% of what) is CRITICAL.

- Are there locations where the model results indicate there could be difficulties achieving the reductions?
- Do other locations make up for under-performing locations?
- What do we do when the performance target is not being achieved (either overall or by district)?

The results of the measure are necessary to consider the measure further. The results are also needed to consider reasonable targets and what is necessary to achieve them.

Travel Speed – This has been changed to apply to throughways / freeways only. Assessment of existing conditions using INRIX data was provided. However, this measure is intended to inform planning. Planning measures needs to assess and compare scenarios, not monitor existing conditions.

The regional travel demand model is not currently aligned with traffic speeds. If this is an assessment of regional throughway performance carried out every 5-years, that is fine.

If this intended to be used for planning, then more detail about how the forecasting and results is necessary to inform setting targets.

Regional System Assessment Targets:

- The 35 miles per hour or more for ## hours of the day, does appear to be reasonable for a regional target.
- I would suggest we consider a minimum of 16 hours of the day maintain 35 miles per hour or faster. The rational for 16 hours is to allow for a 4-hour AM or mid-day peak and a 4-hour PM peak.
- Report on proportion of the system performing within the travel speed target

System Completeness – This appears to be similar to a staff level draft of a potential update to Washington County's R&O 86-95 that has yet to be considered by the Board.

- Is the proposed system completeness performance measure adequate to address the requirements in OAR 660-012-0215?
    - How is Metro going to establish a system completeness threshold that addresses OAR 660-012-0215(4)?
- The system defined for completeness in the RTP should be related to the regional system definitions. Local streets and other non-regional facilities should NOT be included.
    - To assist with TSP updates (and comply with OAR 660-012-0215 and OAR 660-012-0150) regional system completeness should be mapped and calculated for each jurisdiction.

- The % complete should be recorded for each component of the system separately.
  - Consider a placeholder for ancillary infrastructure completeness to be added in the future (e.g. ADA compliance, embankments, wildlife crossings, drainage…)
- Keep 100% of the regional system as the long-term goal but consider interim targets necessary to comply with OAR 660-012-0215(4).
  - Consider how these targets will be measured at the local level, particularly given multiple jurisdictions operating facilities (e.g. ODOT road within a city).
  - How can a local government address system completeness?
    - operated by a different jurisdiction, or
    - without available funding

- I recommend that Figure 2: Guidance for Assessing Plan Amendment Impacts, be modified to remove the "Calculate proportional share" box at the bottom.
  - This last step is not related to the performance measure.
  - Each jurisdiction addresses development requirements and system development charges differently. In some cases, the proportional share may not be assessed in the plan amendment stage but rather during the permitting stage.

- I recommend adjustments to table 5 to reflect the following:
  1. acknowledge that onsite requirements such as right-of-way dedication and frontage improvements are considered first, before these off-site improvements
  2. clarify that these use network distances to evaluate the off-site system
  3. consider at least double the distances currently listed in column 1, "Determine study area by selecting the specified distances along existing and planned facilities"
     - ½ mile for non-motorized
     - 1 mile for motorized
  4. provide that the multimodal impact area should consider the impact area identified for automobiles or the values in 2 above, whichever is greater.
  5. remove column 2 "Determine if the planned system should be updated based on the projected trip generation"
     - Within the Portland Metro Area, the concept is to build a complete system for all modes regardless of demand.
     - Demand is anticipated to increase over time as the system is improved to provide for all modes, and
     - Trip generation, development impacts and rough proportionality are considered on a case-by-case basis.
  6. Motor Vehicle section is incomplete
     - Add: safety improvements to existing and predicted hazard locations
     - Add: turn lanes
     - Add: traffic signals that met traffic warrants (however warrant 3 by itself does not meet the requirements for signal installation).
  7. Add a footnote: off-site improvements required during either the plan amendment or development review process will continue to be relate to the impact of the development.

- Next steps:

- Address how this measure and any thresholds under consideration would work at the local level and
- Address how to comply with OAR 660-012-0215.

- What specific changes would you like to see to improve the draft implementation action plan?

  Policy Implementation Actions:

  Adopt the updated Regional Mobility Policy in the 2023 Regional Transportation Plan and subsequent RTFP updates.

  The revised mobility performance measures above appear to be the right direction to proceed. The details of measure and how performance targets will be developed have yet to be considered. Adoption into RTP should only follow once there is consensus regarding the performance targets and how they are applied in practical applications.

  Request amendment of the Regional Mobility Policy for the Portland metropolitan area in the updated Oregon Highway Plan.

  The requested amendment to the Oregon Highway Plan should also address the requirements in OAR 660-012-0215 and OAR 660-012-0325.

  Update Regional Transportation Functional Plan Title 3, Transportation Project Development, to reflect the Regional Mobility Policy.

  - The RTFP update should be developed jointly with affected jurisdictions.
  - The RTFP update must address the requirements prescribed by the Climate Friendly and Equitable Communities (CFEC) transportation planning rules.
  - Several of the requirements in the current RTFP reference sections of the 2010 RTP.
    - Given the updates of the RTFP are less frequent than updates to the RTP, the references should be included in the RTFP and referenced internal to the document, or otherwise be provided a timeless reference.
  - The wording of the Performance Targets and Standards in Title 3.08.230 is currently extremely confusing. The section needs to be reworked and clarified.
  - How local jurisdictions respond to the regional VMT and travel speed on throughways, performance measures and targets needs additional discussion.
  - How local jurisdictions address regional system completeness needs additional discussion

Work with local jurisdictions to update policies that adopt the Regional Mobility Policy as their standards for RTP arterials.

The suggested regional performance measures are:

- VMT per capita / VMT per employee and
- travel speed on throughways.

The discussion about these measures indicates they are difficult to translate to arterials. The VMT measure is a land use measure and travel speed on throughways thus far explicitly excludes arterials because of the challenges presented.

The RTP can and should reference the tools and techniques being developed that may allow local jurisdictions to consider these performance measures.

- VMT spreadsheet tool with district level regional model inputs
- Corridor speed assessment methodology and
- Regional Dynamic Traffic Assignment

The RTP and RTFP should not require local jurisdictions to comply with performance targets using tools and techniques that are not yet available.

- Do you have other feedback or suggestions for the project team to consider?

  Recommend developing some complementary language. While much clearer than initially, this material is extremely challenging to develop and discuss.

Portland Bureau of Transportation Comments on draft Regional Mobility Policy (RMP)
August 24, 2022

Overarching comments

1. We're concerned that the clock is running out and there are still major gaps in the policy. Major questions remain unresolved on all of the measures, and how the Mobility policy process and measures relate to the RTP, RTFP, Congestion Management Process, and OHP.
2. The 8/17 draft RMP is less clear in many ways than the 6/15 draft RMP, especially regarding travel speed and queueing. Without clear targets and methodologies, we cannot evaluate the implications of the draft policy compared with the current policy.
3. To be able to provide meaningful feedback on solidifying the measures and targets, we need additional information as soon as possible to inform the next TPAC and other upcoming committee discussions. to understand the implications of the draft policy on the regional and local system, and on adopted climate, equity, and safety outcomes.
4. We are still looking for additional clarity on how the Mobility Policy language in draft Policies 4 and 5 on prioritizing safety and equity investments, interventions and outcomes is implemented through the Mobility Policy and/or the RTP as a whole. For example, while we appreciate the new reference to "reduce disparities" in system planning Step 6, it's still unclear what we're measuring and how it would be applied in prioritization.
5. In order to better understand how the priority outcomes of the RTP are being advanced by the RMP in conjunction with other RTP elements and processes, it would very helpful for the project team to begin showing the relationship between the RTP (especially the revised travel forecast consistent with reduced VMT/capita), the RMP (especially how it relates to/helps implement the Congestion Management Process), the RTFP (especially 3.08.210/220 sections on Transportation Needs and Solutions, respectively), and compliance with CFEC rules.

Requests for Information

- Tables and figures/maps comparing what does not meet Interim RMP (v/c) now (or 2105 baseline if that's what is available) and in 2040 (or whatever future year you have the information) across the region with tables and maps comparing what would not meet a 40 MPH target/16 hour (for example) target?
    - Tables 7.25 and 7.26 and Figures 7.24 through 7.29 in the 2018 RTP Chapter 7 show this for the current Interim RMP; we're requesting something similar to show whether and how a speed target would produce different results. Understanding the differences between current and proposed targets is essential for local agencies and community members before measures are determined.
- Any existing information from Kittelson supporting the 30-35 MPH throughput recommendation in the 6/15 draft RMP.
- We would appreciate a written response to these comments so that we can understand your thinking on our questions and recommendations. We've had informative conversations without seeing changes in the language in the draft policy (e.g., the phrase "through lanes" still showing up in System Completion on .pdf page 33 of the August 17

workshop packet after we thought we heard that it was mistakenly still included and would be removed, or the removal of the "step numbering" in Figures 1 and 2, which we had understood was an area of agreement).

- We support the concept "not at the expense of," but the language is too vague. We need something measurable (e.g., "does not increase/VMT per capita in the corridor.") Without something measurable there are likely to be different interpretations and potential conflicts. Please provide options for clearer use of the phrase and how it would be applied (e.g., in evaluating solutions consistent with RTFP 3.08.220 and in corridor refinement planning and project development).
  Please add definitions for the phrases "facility plan," "corridor refinement plan," and "area plan" and explain what types of projects would fit into each.

Questions & Comments on Specific Measures and the Policy Language/Process

Reliability & Travel Speed

- When and how will "TBD" be turned into an actual target? Are the primary criteria to maximize throughput while improving efficiency by reducing VMT/capita? We find the wide range (40-65 in the most recent draft) to be confusing and recommend a specific minimum target -- e.g., 40 MPH for 16 hours (excepting the three hour AM, two hour mid-day, and three hour PM peaks).
- It's important to note that studies show that crash rates increase with speed. Crashes seriously undermine travel time, travel speed, and travel reliability. How will you incorporate "known crash reduction factors" into the Reliability (or System Completeness measure)?
- What is the optimum length of throughway to evaluate average speeds? How does that compare with average trip lengths on the region's throughways? We do have concerns that the segment length will be too short, both in distance and in time (e.g., over the full year, as traffic volumes can be seasonal). Ensuring impacted jurisdictions understand how the policy's and applicable implementing tools' approaches would analyze combinations of segments to better mirror trip end to end system users' experiences will be very important (per footnote 14 on pdf. p. 41).
- Based on the language in the draft, a speed threshold will be a target, not a standard, and therefore would be used to identify potential problems, not a standard that must be met. Please confirm this understanding.
- Step 4 on .pdf page 41 seems to be conflating needs and solutions into a single step focused on speed. Identifying solutions is a separate step taken through the Mobility Corridor Strategy laid out in Figure 8.5 of the 2018 RTP. Please separate the problems/needs identification step (for all modes, policies, and programs) from the solution evaluation step.

Queueing

- The queueing measure as presented in the packet appears to be missing any clear target and methodology, making its implications difficult to assess.
- Does the queueing analysis only apply when there are "significant" impacts (Figure 3, .pdf page 45)?

- What is the target that we're evaluating against in Step 5 on .pdf page 41? How will "managing throughways for longer trips resulting in reducing off-ramp traffic volumes" be evaluated? As referenced above, this step conflates problem identification and solution evaluation, which are separate steps taken through separate processes. Please separate the problem identification step (based on clear, measurable targets) from the solution evaluation step.

System Completeness

- Policies (e.g., road and parking pricing and parking management) and programs (e.g., financial incentives), along with multimodal projects that constitute a VMT reduction scenario that meets the 2035 and 2045 VMT reduction targets will be key inputs to the utility of system completeness in advancing outcomes. As such, we recommend that those types of policies and programs also be included in the System Completeness requirements, but we do not clearly see them referenced in Figure 1 or Table 4.
- System Completeness should be used to assess equity as well as safety. It is still unclear to us how will we measure "create greater equity and reduce disparities" (Step #6, .pdf page 41).
    - It appears that the Needs Assessment in the RTP is intending to analyze this, but additional clarity on the connection between those processes would be helpful in understanding how the mobility policy will fulfill its own policy language intent (Policy #5) and meaningful advance a priority RTP outcome.
    - Using the EFAs (overlaid on the High Injury Network) to prioritize where investment should occur to address the highest needs and to close identified gaps and deficiencies seems a promising way forward.
    - Having the RMP and/or the RTFP direct Metro and partners to prioritize policies, projects and programs on that basis would help ensure that this prioritization actually occurs.
    - In addition, using outcome-based targets (such as mode share, access, or travel time competitiveness) as diagnostic tools akin to the travel sped measure for throughways would allow the region and local agencies to develop "needs" based on an objective target/standard.
- Does the equity priority in #6, .pdf page 41 only apply to system plans, or also to plan amendments?
- Noting that the High Injury Corridors network is not listed in the System guidance or elements in Tables 3 or 4, how will safety policies, programs, and projects on High Injury Corridors be incorporated into and prioritized in System Completeness needs, in Corridor Refinement Planning, and in System Planning (e.g., a new Step 7 or expanded Step 6 on .pdf page 41?)
- Please explain how and when specific TDM and TSM needs (policies, projects, and programs), including road and parking pricing strategies, will be developed for system completeness.

Plan Amendment Questions

- Step 4: How is proportionality determined? For example, is it what the relevant elements of the identified needs are based on geography (like a System Impact fee assessment) or a mathematical calculation?
- Step 6: This still seems unclear how this is to be assessed, unless stipulated elsewhere.
    - While we believe that the planned system will need to be updated based on projected trip generation that achieves the Division 44 regional VMT reduction targets and 660-12-0830 performance targets, we are not sure we understand why the study area for potential impacts would be different for different modes (Table 5, .pdf page 46)? Is there a reason the study area shouldn't be the same size for all policies, programs, and modal projects, as impacts and problems/needs are likely to be area-wide, not just facility-by-facility?
    - Very specifically, if the team continues to want to apply different distances to define the study area, it should also consider distinguishing between types of transit, consistent with the Regional Transit Strategy's recognition of different "access sheds" based on the type of service (with rail being the greatest area, I believe ½-mile and BRT/streetcar fitting in between the ¼-mile bus).
- Would the mode splits used in Figure 2, .pdf page 44 be those needed to achieve the Division 44 regional VMT reduction targets?
- Please explain what the note at the bottom of Figure 2, .pdf page 44 means: "Note: Vehicular trip generation with planned mode splits will be used until or unless mode specific trip generation resources become available."
    - It appears that the regional model produces subregional mode shares, see Figure 7.10 and Table 7.13 in the 2018 RTP. At what scale can plan amendments be run through the regional travel demand model and produce meaningful VMT and mode share results?
    - We'll note that we will need to update the RTFP mode share targets to be consistent with what's needed to achieve regional and local VMT/capita targets, since most centers are already meeting mode share targets while the region is falling far short of reaching VMT/capita targets, even in 2040.
- Given that the region's VMT/capita reduction targets increase 10% between 2035 and 2045, and another 5% by 2050, don't we need a stronger VMT reduction target than "district" level VMT reduction, given that some districts have very high VMT/capita and VMT/employee? Should the target be reducing VMT/capita and VMT/employee below the regional average for any plan amendments in order to support the increased VMT reductions needed over time (see Figure 3, .pdf page 45)?

Questions/Comments on Draft Implementation Plan

- We are supportive of the proposal to "develop explanatory text for each of the five policy statements and specify the actions to implement each," though more focused discussion of what those actions to implement are will be an important part of the process of operationalizing the policy, so we look forward to more specific proposals on that in the coming steps.
    - We believe our comments above about how to build from the Needs Assessment to be prioritizing through the lenses of safety HIC network) and equity (EFAs) would be a useful starting place.

- Encouragingly, the additional noted intention to update the RTFP to require "evaluating and minimizing disparities" also suggests a similar path forward, but understanding how that will work in more detail (including the establishment of targets for disparity closure) will be essential to our ultimate comfort with the implementation plan.

Kim-

Thank you for the opportunity to comment on the Regional Mobility Policy updates. We appreciate the clarity that the jurisdictions will be able to retain the current v/c measures during the development review process.

The new other aspects of the new Mobility Policy are fairly complicated and it is unclear how successful it will be at obtaining the objectives and outcomes anticipated. Since the procedures and evaluation requirements are new, it is difficult to comment on the effectiveness of the new Mobility policy on achieving the mobility desired.

A few high level comments are below.

- More refinement of the VMT maps is needed so that staff throughout the region understands how to use the information properly.
- As presented, the applications of identification of a complete system appears fairly cumbersome. It is unclear what is meant by "proportional share" and how this will be applied during the plan amendment process.
- For the Implementation Action Plan, there should be more explicit dates. It is not clear what is meant by near term and when the various actions would occur.

More specific comments follow at the end of this document.

Thank you for providing the opportunity for input during this phase of the Mobility Policy development.

Clackamas County Staff

Below are questions and comments we have about the materials

1. **Draft Mobility Policy Language** –
    a. Policy 1 – Remove word "public's"
    b. Use of the word "ensure" in Mobility Policy 1 and 5 is unachievable. Change word in Policy 1 to "Focus" and Policy 5 to "support" or "provide."
2. Table 1 - Regional Mobility Policy Performance Measures
    a. The "How it will be used" column should be more descriptive of the actual process of applying the measure. The current information in this column is more about outcomes, especially for the VMT measure.
3. Table 2
    a. System Completeness
        i. More clarity on how it is actually applied, operationalize of it
4. Need more explanation of the 2040 FC VMT /capita map
    a. What level of accuracy does the map have for zone to zoned travel?
    b. Has this been calibrated?

    c. There are more layers that we are desiring to see. Granularity of data is a question. Different perspectives on travel. Employment areas have regional draw, therefore higher VMT per employee.
    d. More works needs to be done on tools and training
5. Questions about Table 3 and Table 4
    a. There is a lot of "Guidance for Defining the Complete Planned System"
    b. Need to have measurable standards that will improve outcomes? There is nothing that connects to mode-share, equity or access
        i. Table 4 – make similar to call out where are the differences
6. Plan Amendment Evaluation Actions
    a. Proportional share – when and how is this applied. Use of the term?
    b. Proportionality typically is used during development review.
7. What are the time frames for the Implementation Action Plan?
    a. Near term Data and Guidance Action – What is Near Term? When will this be done?
8. It would be helpful to see a system-wide map of where the outcomes of applying the speed measure would indicate substantial issues on the Throughway system and compare that to places that don't meet the current v/c standard.