

2023 RTP policy brief

Safe and healthy urban arterials

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Introduction and purpose

As part of the update of the 2023 Regional Transportation Plan (RTP), Metro staff are developing policy briefs, similar to background reports developed in previous RTP updates. The briefs are informational documents that provide a mix of existing conditions, existing policy, challenges, and policy considerations for further discussion and/or recommendations. Their purpose is to support the Joint Policy Advisory Committee for Transportation (JPACT) and Metro Council discussions on RTP policies, projects, programs and actions in response to these issues. The policy briefs are also intended to inform the RTP needs and revenue analysis and the RTP project list solicitation.



Note: Map 1 is included for illustrative purposes. Updates to the 2023 RTP motor vehicle functional classifications map will likely include new major arterials and other changes to the motor vehicle functional classifications.



Policy questions in **Section 4** focus on potential strategic actions to address the types of challenges identified in **Section 3** to developing safe and healthy urban arterial roadways in the region.

The focus of the brief is on roadways identified as major arterials in the RTP, henceforth referred to as "urban arterials" illustrated in **Map 1**. While the types of issues and challenges identified in Section 2 and 3 may also occur on other roadways, including minor arterials, Metro staff recommend that major arterials be the focus for the following reasons: they have a higher order significance to the regional system than minor arterials, e.g. they are more likely to connect to regional centers and throughway interchanges. they "accommodate longer distance through trips and serve more of a regional traffic function" compared to minor arterials (2018 RTP); they are typically more dangerous due to higher speeds, volumes and more travel lanes than minor arterials; they are typically the most complicated roads to make improvements on, requiring a lot of coordination and planning; and even with coordinated planning and investments all of the needs will likely take a long time to address. Focusing on major (urban) arterials should not diminish the important needs of minor arterials or other projects. It is merely a way to develop and refine strategic actions to address the needs of some of the most important travel corridors in the region. Examples of urban arterials (see Table 1 in Section 3) in each part of the region are used to illustrate common issues on the urban arterials.

Section 1. Why is a new approach for urban arterials needed?

Urban arterials often serve as multicultural community hubs dotted with vibrant businesses, affordable housing, parks and schools. In Metro's 2040 Growth Concept, urban arterials serve as key corridors that connect regional centers. They play a critical role in the transit system and are incredibly complex. They typically have four or more travel lanes carrying tens of thousands of vehicles each day, often with posted travel speeds of 35 miles per hour or higher. Some urban arterials are also major freight truck routes, providing important connections to the region's industrial areas and intermodal facilities.

While these characteristics enable huge numbers of cars, buses and trucks to crisscross the region every day, without safety and health interventions they can be deadly, disproportionately impacting people with lower incomes and Black, Indigenous, and people of color (BIPOC). The majority of urban arterials are In Metro's 2040 Growth Concept, urban arterials serve as key corridors that connect regional centers. They play a critical role in the transit system and are incredibly complex.





designated Regional Emergency Transportation Routes¹, serving critical life safety function during large scale disasters by helping connect our vulnerable populations with critical infrastructure and essential facilities region-wide.² However, despite their critical role in the region's transportation system, decades of underinvestment and land use patterns has led to persistent safety and equity issues, as shown in **Map 2**. Safety, equity, economic development and land use, and transit and mobility represent four important areas of intersection with urban arterials.

Land use and economic development

- Urban arterials are where people, live, work and play and are critical to implementing regional land use vision. Many of the urban arterials in the greater Portland region are also where people access jobs, housing, and other essential services. These corridors play a critical role for communities. All seven of the 2040 Growth Concept's Regional Centers, 23 out of 32 Town Centers and 54 out of 67 Station Communities have an urban arterial passing through them. Urban arterials provide the backbone within emerging growth areas, as identified in concept plans.³
- 2. Current conditions can create barriers to economic development on urban arterials. Existing zoning, design and safety issues make it difficult for centers to develop economically and become the thriving communities as envisioned in the 2040 Growth Concept. While the barriers to development along urban corridors are complex, making roadways safer is important.⁴ Pedestrian improvements alone may not create as many economic benefits as they would compared to lowering volumes and speeds through major roadway design and land use changes. While making pedestrian improvements on higher speed routes has significant benefits for safety and access to transit, the recent Active Transportation Return on Investment study found less

3 The number of centers and station communities intersected and connected by an urban arterial will change with the update of the 2023 RTP motor vehicle functional classification modal map.

4 A December 2018 draft report "82nd Avenue Study: Understanding Barriers to Development" from Portland's Bureau of Planning and Sustainability examines the layers of barriers to development along the urban arterial, including safety issues.

¹ See map at <u>https://rdpo.net/emergency-transportation-</u> routes

² The ETRs were updated in 2020 in a regional effort led by the Regional Disaster Preparedness Organization (RDPO) and Metro. The routes will be prioritized in 2022-23.

economic benefits for businesses than on lower speed and traffic streets within 2040 centers.⁵

Equity

- 1. Urban arterials are important travel corridors and places Black, Indigenous and People of Color (BIPOC) and people with lower income live, work and travel. Sixtyseven percent of urban arterial mileage is in areas with higher than average populations of BIPOC, people with lower income and limited English proficiency. People with lower income and people of color, especially Black people, are more likely to be killed in a traffic crash.⁶ The five bus routes carrying the most people of color and low-income riders are on urban arterials, including #72(Killingworth/82nd), #20 (Burnside/Stark), #57 (TV Hwy), #9 (Powell), #75 (Lombard/ Caesar Chavez). These are also high injury corridors.
- 2. Urban arterials contribute to unhealthy air quality and heat island affects in Equity Focus Areas. Census tracts with the highest estimated prevalence of asthma in the region are more likely to intersect with an urban arterial, especially those within an Equity Focus Area.⁷ Many urban arterials also lack a robust tree canopy or other green infrastructure, which can help reduce urban heat island effects, air and noise pollution for people traveling, living and working along the roadway.

Mobility, especially for transit

- Urban arterials provide mobility to thousands of people in Portland region.
 Urban arterials make up about 5 percent of the roadways within the metropolitan area yet they are the backbone of the regional roadway network⁸, carrying a large share of trips in the region, e.g. Tualatin Valley Highway carries over 40,000 motor vehicle trips per day⁹ and 7,000 transit trips.¹⁰ They function as links between communities in existing urban areas, e.g. 99E between the cities of Milwaukie and Oregon City, and as backbones within emerging growth areas as called for in concept plans.
- 2. Highest bus ridership in the region is on urban arterials. Eight of the 10 highestridership bus routes in the TriMet system are on urban arterials. Collectively these lines carry about 25 percent of TriMet's ridership.¹¹
- 3. Nearly all urban arterials align with existing or planned frequent bus routes. Many of these routes are future priorities for adding more frequent service but lack dedicated right of way that is needed for faster, more efficient service, and bicycle and pedestrian infrastructure.

⁵ Metro Active Transportation Return on Investment Report, February 2022 <u>https://www. oregonmetro.gov/active-transportation-returninvestment-study</u>

⁶ Regional Transportation Safety Strategy 2-year Progress Report, Metro (June 2021), https://www.oregonmetro.gov/sites/default/ files/2021/08/03/RTSS-progress-report-20210603. pdf

⁷ Centers for Disease Control (CDC). Places: Local Data for Better Health (accessed 1/14/22). <u>https://experience.arcgis.com/</u> <u>experience/22c7182a162d45788dd52a2362f8ed65</u>

⁸ There are approximately 5,894 miles of roadways within the region, 299 of which are classified as Major Arterials; calculation by functional classification, not lane miles.

^{9 2019} ODOT, area east of SW 170th Ave. https://www.oregon.gov/odot/Data/ Documents/TVT 2019.xlsx

^{10 2019} TriMet data

^{11 2020} TriMet data.



Safety

- 1. A disproportionate number of serious and fatal crashes occur on urban arterials. While urban arterials account for 5 percent of roadway miles in the region, 41 percent of traffic fatalities and serious injuries occur on urban arterials.¹² Arterials have the highest number of crashes per-road mile of any roadway classification. And, whereas arterials and throughways in the region have similar overall annual vehicle miles traveled (there are about 175 million more vehicle miles traveled on throughways each year) the number of serious crashes per 100 million vehicle miles traveled is seven times higher on arterial roadways than on throughways.¹³ A majority of urban arterials are also identified as Regional High Injury Corridors (2015-2019 crash data).14 Urban arterials are dangerous due to high traffic speeds, volumes, numbers of lanes, and the mix of different modes traveling at different speeds. The auto-oriented designs and land use patterns on many of these roadways, such as frequent driveways and access points, in combination with higher speeds and traffic volumes can also contribute to safety conflicts.
- 2. A disproportionate number of serious pedestrian and bicycle crashes and fatalities occur on urban arterials. Fifty percent of fatal bicycle crashes and 49 percent of fatal pedestrian crashes occur on urban arterials. Forty-one percent of serious bike crashes and 53 percent of serious pedestrian crashes occur on urban arterials. Urban arterials can be barriers for people walking, accessing transit, bicycling, or using a

13 The serious crash rate on throughways is 1.1 serious crashes per 100 million VMT. The serious crash rate on arterials is 7.4 serious crashes per 100 million vehicle miles traveled. Section 2, crashes by roadway classification, 2018 Metro State of Safety Report: <u>https://www.oregonmetro.gov/sites/default/</u>

files/2018/05/25/2018-Metro-State-of-Safety-Report-05252018.pdf

Fatal and serious crashes occur on urban arterials not identified as High Injury Corridors, but the concentration is lower. Urban arterials not identified as High Injury Corridors include the SE 10th Ave section of Tualatin Valley Highway in downtown Hillsboro; Brookwood Parkway N of Shute Road; SW Watson Avenue in downtown Beaverton (2-lanes); Schools Ferry Road west of 135th; Beaverton-Hillsdale Highway east of 96th Avenue which has bike facilities east of 65th, unlike the rest of the highway; Ave A and Country Club Road in Lake Oswego; Highway 43; Airport Way; Greeley Avenue and Marine Drive in Portland; 172nd Avenue in Clackamas County.

¹² For context, RTP minor arterials make up 7 percent of roadway miles, while 31 percent of fatal and serious crashes occur on them (2015-2019 ODOT crash data.) Out of the 6,793 fatal and serious crashes that occurred, 2,072 occurred on minor arterials. Refer to the crash tables in the Appendix.

mobility device. In 2015, sidewalks were missing on half of all arterial roadway miles, and 44 percent of all arterial roadway miles lacked bikeways.¹⁵ Filling sidewalk and bikeway gaps on urban arterials would considerably increase the number of people with access to essential destinations within walking and bicycling distance.¹⁶ Other safety interventions such as medians, sidewalk buffers, enhanced pedestrian crossings, lighting and signal improvements are also lacking, though more data is needed to better understand needs. Project development for the 2020 regional transportation funding measure highlighted the safety and mobility needs of several urban arterials.

15 2018 RTP existing conditions analysis for minor and major arterial roadways. Compared to all roadways in the region, arterials have less sidewalks completed. Fifty-five percent of roadway miles in the region have completed sidewalks.

16 Pedestrian Network Analysis for the Regional Active Transportation Plan, June 2013. https://www.oregonmetro.gov/regional-active-transportation-plan



Note: Map is included for illustrative purposes to illustrate the need and does not reflect definitive map of eligible facilities.

Section 2. Why now?

As **Chart 1** shows, foundational regional and state policies beginning in the 1990s with adoption of the Transportation Planning Rule and 2040 Growth Concept led to thirty years of developing and implementing comprehensive multimodal connectivity, design and complete street policies in the greater Portland region. See the **Appendix** for analysis of the impact of these arterial roadway policies.

Chart 1 History of Arterial Roadway Policy (1990s to present)

| 1990 | Transportation Planning Rule |
|------|--|
| 1995 | 2040 Growth Concept 2040 Corridor Designations OHP Classifications |
| 2000 | Wildlife Crossing and Groop Streets |
| | RTP Networks and Classifications |
| | RTP Street Connectivity Policies |
| 2005 | RTP Design Policies RTP Complete Streets Design Guidelines |
| | RTP Interim Mobility Policy |
| | RTP Mobility Corridor Policies |
| 2010 | Regional Transportation Functional Plan |
| | Oregon Highway Design Manual Climate Smart Strategy |
| | Oregon Highway Plan Amendments |
| 2015 | Multimodal Mixed-use Areas |
| 2015 | Undata to Regional Decign Guidelines |
| | High Injury Corridors Designations |
| | Equity Focus Areas Designations |
| | Jurisdictional Transfer Regional Framework Report |
| 2020 | Blueprint for Urban Design Classifications BTP Emerging Technology Policies |

While there is a comprehensive policy framework in the **Regional Transportation** Plan (RTP) and a strong history of regional collaboration and desire by transportation agencies and land use authorities to develop healthy and safe roadways, the challenges documented in the next section continue to stand in the way. In order to address the safety and equity issues on urban arterials, the region needs an agreed upon approach to improve and maintain these roadways, including a coordinated and comprehensive set of actions that help address these issues and leverage needed funding to achieve the community's vision for these roadways.

Section 3. What are the challenges to fixing urban arterials?

Understanding the challenges, as well as what has been working, will help us understand what might be done differently and identify potential strategies to achieve safe and healthy urban arterials.

Funding challenges

Ongoing challenges in bringing funding to urban arterials

1. Capital and maintenance needs are greater than available funding. The cost of improving these facilities to urban standards with a systemic corridor wide approach can be very expensive and especially burdensome to smaller jurisdictions with limited staff capacity. The overwhelming costs of transforming urban arterials to address all of the needs can be overwhelming. Jurisdictions have used incremental investments to address safety hot spots and work towards complete streets. However, the design process challenges of implementing even the simplest of projects, as described below, increases costs and complexity. Table 1 shows five example urban arterials in which the level of need estimated for the 2020 regional transportation funding measure is much greater compared to the level of revenues allocated to projects on those facilities in the 2018 RTP. These costs are illustrative and do not include maintenance costs. They are provided here to illustrate the level of need.



- 2. General lack of dedicated funding and coordinated investments. Given the current structure of federal, state, local and regional funding, there is no one dedicated funding source to urban arterial planning or capital projects. While several cities and counties have local transportation revenue sources, these jurisdictions typically cannot assemble enough funding necessary for a transformational project. Unlike regional transit corridor planning which has consistently received federal funds that enables a full project to move forward, urban arterials typically do not; improvements are made in a piecemeal fashion and it is difficult to piece together enough funding to make substantial improvements. Jurisdictions may be hesitant to fund the needed corridor planning studies and conduct public outreach without some assurance that funding for capital improvements will be available. Further, these transformational and larger scale projects require a level of funding which has not historically been available. It is important to note than when there is an influx of funding on urban arterials, gentrification and displacement are concerns that must be addressed.
- **3.** Lack of identified or prioritized projects to address equity, gaps and deficiencies. While there are important projects on urban arterials in the 2018 RTP, the 20+ year plan does not include projects to complete all the gaps and deficiencies, including in Equity Focus Areas and communities that have been under-served and under-invested in. Seventeen percent of projects in the 2018 RTP and 6 percent of forecasted revenues are prioritized on urban arterials, despite these facilities carrying a large share of regional trips and serious crashes. This is a result of a combination of factors, including inadequate funding, competition of projects for available funding, complexity of projects, prioritization of other needs, and a lack of data on deficiencies and needs.¹⁷ Very few of the 2018 RTP projects prioritized for these facilities are planned to be built in the first 10 years of the plan, as shown in **Table 1**.

¹⁷ Lack of comprehensive data on the needs and deficiencies on urban arterials makes it challenging to plan and identify opportunities. In particular, equity informed data is needed. Regional safety and network data, ODOT's Active Transportation Needs Inventory (ATNI), TriMet's Pedestrian Plan, the needs identified in the 2020 regional transportation funding measure provide valuable information, but gaps to developing an updated network built for analyzing mobility, would support developing systematic and coordinated investment plans.



Policy and design challenges

Ongoing challenges to achieving multimodal designs and complete streets

- 1. Outdated functional purpose of state-owned urban arterials. About a third of urban arterial mileage in the region is owned by the State. However, many of these roads no longer serve their original statewide function, and the State has focused its resources on throughways. A handful of these roadways still have a "Statewide" Functional Classification in the Oregon Highway Plan even though they no longer serve a statewide function.¹⁸ Transferring ownership to local agencies has helped, such as Sandy Blvd in Portland and Powell in Gresham, but has not happened yet on many of the state-owned urban arterials. Multiple agencies are typically involved in projects along urban arterials. However, it is not always clear who is leading the way to improve the roadways - local government, ODOT or the transit provider – hence the term 'orphan highways'. This makes it difficult to work through trade-offs in decision making and to address problems in a coordinated manner.
- 2. Design standards and state laws prioritize motor vehicle throughput.¹⁹ Urban arterials serve many functions. An outcomes-based design approach seeks to achieve a comprehensive set of shared values, goals and desired outcomes identified in adopted policies. Constrained right of ways and additional regulations (e.g. some urban arterials are ORS 366.215 Reduction Review Routes) add challenges to balancing the trade-offs between different modes. Furthermore, the 2018 RTP regional mobility policy that has been in place since 2000 (measuring volume to capacity) prioritizes motor vehicle throughput over other outcomes, such as improving safety for people walking and bicycling. For example, NW/ SW185th Avenue has multimodal elements but its design is primarily focused on motor vehicles. This challenge can make it very difficult to complete even simple projects such as adding a bicycle lane or a median island to urban arterials. Jurisdictions may prioritize projects on other facilities that they know they can complete and that are also
- 18 The 2020 Highway Jurisdictional Transfer report, includes Roadway Classification recommendations for portions of TV Highway, Hwy 43, 99W, and 99E Consultant recommendation. See Attachment G at <u>https://www.oregonmetro.</u> gov/jurisdictionaltransfer
- 19 Refer to Chapter 43 of the Metro Creating Livable Streets Guide for a discussion of functions.





important. **As Table 1** shows, these example roadways pass through 2040 centers, and are expected to absorb a significant proportion of future residential and job growth. Despite regional and state design best practices (and local zoning) the design process faces many obstacles to achieving complete streets in centers, primarily the continued prioritization of vehicle throughout over other important outcomes.

Table 1. Examples of roadblocks to building safe and healthy arterials

| | Tualatin Valley Highway | 82nd Avenue | SE McLoughlin Boulevard | SW/NW 185th Avenue | SE/NE 122nd Avenue |
|---|--|--|---|---|--|
| Estimated needs identified in 2020 regional transportation funding measure | \$800M | \$730M | \$330M | \$190M | \$100M |
| Project \$ on facility in 2018 RTP | \$208M | \$65M | \$129M | \$76M | \$23M |
| Share of RTP projects prioritized for first 10 years of the plan | 3 of 16 projects | 4 of 6 projects | 3 of 10 projects | 0 of 3 projects | 2 of 2 projects |
| Share of RTP projects with primary purpose of reducing fatalities/serious injuries | 1 of 16 projects | 4 of 6 projects | 2 of 10 projects | 0 of 3 projects | 0 of 2 projects |
| Share of RTP projects with secondary objective of reducing fatalities/serious injuries | 8 of 16 projects | 1 of 6 projects | 3 of 10 projects | 3 of 3 projects | 2 of 2 projects |
| 2040 Centers served by road | Forest Grove, Cornelius, Hillsboro, Aloha, Beaverton | 82nd Ave Max station area, Clackamas, Lents, Gateway | Milwaukie, Gladstone, Oregon City | Tanasbourne/ Amberglen, Willow Creek/ SW 185th station area, Aloha | 122nd Ave Max station area, Gateway |

Notes: 1) One project may represent a "bucket" of projects, for example adding lighting, sidewalks and crossings at several locations. This approach provides flexibility, but provides less detail as to what will be completed in the end. 2) Examples from the regional funding measure are included to provide an example of level of need. The process did not capture all priorities and was tailored to the specific mechanism of the funding measure. 3) Most projects should and do achieve multiple desired outcomes. In this table the primary and secondary objectives are highlighted to illustrate which projects in the RTP are primarily focused on safety, a critical concern on urban arterials.

Building on what is working: a history of investments and collaboration

The policy questions identified in Section 4 build on past efforts to address challenges on urban arterials. State and local transportation agencies have been working to enhance safety on urban arterials for decades. Successful transit projects illustrate the capacity of regional partners to coordinate effectively to complete complex corridor projects. Recently, with the regional transportation funding measure, coordination went into developing comprehensive proposals to meet the needs of the communities living along our region's urban arterials.

- 1. Long history of collaboration and investments. Metro, ODOT, counties, cities and TriMet have been working to improve safety along urban arterial corridors for decades, including efforts such as:
- ODOT Region 1 Active Transportation Needs Inventory (ATNI)
- Metro and TriMet's Enhanced Transit Corridor Study
- PBOT's Vision Zero
- McLoughlin Boulevard Strategic Investment planning effort
- 82nd Avenue Planning
- Beaverton Downtown design standards
- Beavercreek Rd planning
- TV Highway planning efforts
- Major Streets Transportation Improvement Program (MSTIP) investments in county arterials
- 2. 2020 regional transportation funding measure. This effort was a collaborative process centered on equity brought multiple stakeholders together, assessed and developed projects with local investment teams that included community members and leaders. The process developed proposals for several important regional corridors and included Better Bus projects that would improve transit reliability and speeds on urban arterials. Identifying needs along the

corridors highlighted the lack of data and planning. The process identified strategies to address displacement, which is an important part of a funding strategy for urban arterials. While the funding measure did not pass, this was a valuable learning process and together ODOT, local agency partners and Metro staff gained a wealth of information and developed concepts which provide a strong foundation for future work.

- 3. Coordinated, systemic investments with investment areas planning. These efforts integrate land use, housing, jobs and transportation corridor planning supporting a systematic and coordinated approach to investments.
- 4. Metro and ODOT are leading an effort to update the Regional Mobility Policy. Updating how the region defines and measures mobility beyond the volume to capacity ratio to better align the mobility policy with the comprehensive set of shared values, goals and desired outcomes identified in the Regional Transportation Plan, the 2040 Growth Concept, as well as with local and state goals.



Section 4. What's needed to move forward?

The following questions are presented for consideration by the Metro Council, the Joint Policy Advisory Committee on Transportation (JPACT) and other regional partners. These, and other policy questions developed in the planning process, are intended to help guide a new approach to urban arterials in the 2023 RTP update.

| • | |
|---|--|
| | |
| Table 2. Challenges and policy questions for update of 2023 RTP | |
| able 2. chancinges and poincy questions for aparate of 2020 Kin | |

| Fu ch | nding allenges | Policy Questions |
|----------|--|--|
| 1. | Capital and maintenance needs are | A. What updates should be considered in the 2023 RTP to develop a funding and investment approach to advance safety and equity outcomes on urban arterials? Potential updates could include: |
| | available | Emphasizing investments in urban arterials |
| | funding | • Emphasizing priorities from the 2020 regional funding measure into the RTP project list |
| 2. | Lack of | Identification of new revenue source(s) dedicated to urban arterials |
| | funding and coordinated investments | B. How might regional partners coordinate resources and projects in the 2023 RTP to identify a combination of corridor planning, transformative corridor wide improvements and strategic near-term safety investments on urban arterials? What risks need to be addressed in emphasizing urban arterials over other projects? Strategic actions could include: |
| 3. | Lack of identified or | Including corridor planning for urban arterials to create a pipeline and strategy for funding and investment (leveraging RFFA and other sources to fund planned corridors) |
| | prioritized projects to address | Encouraging incremental near-term investments that can be moved forward quickly in coordination with long-term investment strategy |
| | address equity, gaps and deficiencies | C. How should desired equity and safety outcomes and impacts inform decisions in the 2023 RTP to strategically invest in urban arterials? In what ways could High Injury Corridors, Equity Focus Areas and the planned transit network be used to advance safety and equity goals on urban arterials? Strategic actions could include: |
| | | Updating and enhancing data to better understand needs |
| | | Emphasizing filling transit, bicycle and pedestrian gaps in equity focus areas and centers on urban arterials |
| Po ch | licy and design allenges | Policy questions |
| 1. | Outdated functional purpose of | What changes to the design and project development process are needed to support development of complete streets on urban arterials? What type of implementation activities in the RTP could support a better process? Strategic actions could include: |
| | urban arterials. | Updating state and local functional classifications to be consistent with the RTP design classifications to support implementing the 2040 Growth Concept and planned land uses |
| 2. | Design standards and state laws prioritize motor vehicle throughput | Identifying legislative fixes and other implementation activities in the RTP to remove roadblocks to implementing complete streets |
| | | Committing to applying urban design standards (BUD, NACTO, Metro's Designing Livable Streets Guide, approved local standards) on identified corridors in policies and projects |
| | | Committing in plans and policies, including the new Regional Mobility Policy, to an outcomes and performance-based process that prioritizes safety, transit, walking and bicycling in trade-offs |
| | | Including implementation activities to support jurisdictional transfer of urban arterials |

Appendix 1. Impact of urban arterial policies

1. Oregon Transportation Planning Rule (TPR) (1991)

This required regional and local system plans. It included a flawed 0060 section. It required balancing land use and transportation, but assumed there's some level of traffic mobility that equals balance. There was a belief that you could build your way out of congestion. This created a choice of creating overbuilt, unsafe streets vs shifting all the development outside the UGB.

2. 2040 Growth Concept (1995) (implemented through Regional Framework Plan and 1996 Urban Growth Management Functional Plan (UGMFP) (UGMFP last updated in 2018)

This ties land use and transportation together - desired land uses guide transportation investments. It brought multimodal responsibility to the RTP. Previously the only projects in the RTP were either highways or High Capacity Transit. The growth concept established that the region has an interest in mixed use centers being successful. Thus, smaller bike and pedestrian projects within centers (including on arterials) became "regional" / eligible for federal funds. This is a pivotal point on how federal funds are spent.

3. 2040 Corridor designations (1995)

Corridors were envisioned to play a key role in the success of the 2040 Growth Concept however they have never been clearly defined. Region wide they run through very different land uses, from urban neighborhoods and centers to employment and commercial areas. Due to a lack of a vision for these urban arterials development and redevelopment progress along corridors has been limited with only a few successful examples in the region.

4. OHP classifications (1999)

ODOT doesn't have classifications for bike, ped, design, Transportation System Management & Operations (TSMO). This creates confusion. There are conflicting desires from state/region for some arterials and different uses are prioritized. The OHP included Special Transportation Areas, Commercial Centers and Urban Business areas. These are land use areas that could factor into design, to be approved by ODOT. Level of Service (LOS) alone, can't be the deciding factor. A problem is that they had to be approved by ODOT, and solutions were often mobility focused / not place-making focused.

5. RTP Networks and classifications (e.g., design, motor vehicle, bike, ped, freight and transit, TSMO) (2000), last updated 2018

This expressed the importance of arterials from modal perspective. RTP classifications link to specific design policies. Inconsistent classifications exist between the state and regional motor vehicle system.

6. RTP street connectivity policies (2000), continues to be reflected in 2018 RTP

This established that better local connectivity reduced the need for wider arterials. Retrofitting local street connectivity has been challenging in some areas, e.g. Washington County given the barriers such as railroads, streams and topography.

7. RTP design policies (2000) continues to be reflected in 2018 RTP

These specify the desired number of lanes on arterials. The cross sections show a complete streets approach.

8. RTP complete streets design guidelines (2000) Updated with Designing Livable Streets Guide (2020)

These are the design standards for urban arterials to implement the 2040 Growth Concept. They are best practices, but are not requirements. They are not consistently applied in plans and projects. Unclear if the issue is lack of awareness, or that they're viewed as inconsistent with adopted city, county, state design standards. The street design classification should be arbiter of trade-offs – guidelines provide performance based approach.

9. Wildlife crossing and Green Streets added in to design guidance. (2002)

These are recognized by NOAA fisheries as safe harbor from ESA for salmon and steelhead.

10. RTP interim mobility policy (2000) to be updated in the RTP in 2023.

Achieving this policy is in conflict with 2000 RTP street design policies. We can't afford to build to a congestion-free peak hour. No one wants to pay for it and no one wants the system that would result if you did.

11. RTP mobility corridor policies (2010), continue to be reflected in 2018 RTP

In rapidly filling up travel corridors, there is a need to depend on the nearby local system, likewise the nearby system is affected by the corridors. These policies demonstrate how mobility is supported through multiple facilities and modes within a broader corridor. The policy is implemented through corridor planning. Corridor plans are not all consistent, e.g. EMCP vs. TV Hwy corridor plan. The concept came out of FHWA. Throughways filling up can be relieved by local system, bundle together interrelated facilities, look at the relationship, breakaway from different organizations. They illustrate the land use context. Urban arterials no longer seen as important once a throuhgway is built in the corridor; lack of thinking about a system. It is challenging to coordinate all the different plans within one travel corridor.

12. Regional Transportation Functional Plan (2012)

The Functional plan expanded to include transportation. Parking provisions were moved into the RTFP (formerly in Urban Growth Management Functional Plan (UGMFP) Title 2. There are minimum and maximum parking ratios for commercial and retail uses along arterials. It guides local implementation of RTP, e.g arterial design concepts and connectivity standards, local pedestrian and bicycle plans including provision for sidewalks and bikeways on all arterials, controlled pedestrian and bicycle crossings of major arterials, local TSMO plans including arterial performance monitoring. It provides hierarchy for what to do first to address mobility, before adding vehicle capacity. Not clear how this is documented and that all steps are taken.

13. Oregon Highway Design Manual (2012)

This uses V/V ratios that are different from RTP and OHP. It creates issues when there are differences between system plan policy targets/standards and project design standards. It is auto-centric.

14. Oregon Highway Plan Amendments (2011)

These created the "Do the Best we can" standard. It was later undone in 2012.

15. TPR – Multimodal Mixed Use Areas (MMAs) (2012)

These established that the power is at local level (in principal) – local cities and counties can adopt these and get a lot more flexibility in design.

16. Climate Smart Strategy (2014)

This links public health outcomes to transportation choices. Transportation System Management & Operations and Transit were found to be the most effective strategies for reducing GHG emissions, since both have design implications.

17. Emerging Technology in RTP (2018)

This strategy called out need for active curb management for these emerging businesses

18. High injury corridors designations (2018)

A policy map in the RTP that identifies the six percent of roadways in the region where 60 percent of fatal and serious crashes occur (in addition to state and locally identified areas). Nearly all urban arterials are also high injury corridors. High injury corridors are intended to help prioritize investments where they can be most effective.

19. Equity Focus Areas designations (2018)

These are where historically marginalized communities are currently located. Mapping has illustrated the proximity of these communities to urban arterials. Regional policy focuses investments in these areas.

20. Blueprint for Urban Design (BUD) design classifications (2020)

These establishes guidance for urban design on Oregon state highways until such time that all ODOT manuals related to urban design can be updated to include these revised design criteria. ODOT is currently updating its Highway Design Manual to incorporate the BUD. The six urban contexts portrayed in the BUD, along with their respective design criteria, will allow project teams to better align ODOT's transportation needs with local community aspirations. The Bud is just beginning to be implemented.

21. Jurisdictional Transfer (JT) regional framework report (2020)

Many (1/3 of mileage) of the RTP Major Arterials are state-owned. The JT report created a prioritization of these roadways as transfer candidates

22. Emergency Transportation Routes Phase 1 (2020)

There is a large overlap in ETRs and arterials. All of the ETRs have been mapped. There is work underway to tier/prioritize these routes and provide operational guidance for their owners in 2022-23.

23. Planning Emphasis Areas (PEAs) (2022)

These are established by Federal Highway Administration and include areas such as Complete Streets and Climate Change. They are expected to be incorporated into regional planning.

Appendix 2. Roadway miles and serious crashes

| RTP Motor Vehicle Functional Classification | Miles (within MPA) | % total |
|--|--------------------|---------|
| All roadways | 5893.8 | 100% |
| Major arterials | 298.7 | 5.1% |
| Minor arterials | 395.0 | 6.7% |

Source: Metro RLIS. Calculation is by roadway name, not lane miles

Roadway miles in Equity Focus Areas (EFAs)

| Urban arterials in EFAs | Length miles | % in EFAs |
|-------------------------|--------------|-----------|
| POC+LEP | 154.6 | 51.6% |
| POC+LEP+LI | 200.4 | 66.9% |
| Not in EFAs | 99.1 | 33.1% |
| UAs in EFAs | 200.4 | 66.9% |
| Total in dataset | 299.5 | |

Source: Metro, 2022

Serious crashes on urban arterials (major arterials)

| 2007-2019 crashes | Urban arterials | All roadways | |
|-------------------|-----------------|--------------|-------|
| Fatal crashes | 343 | 856 | 40.1% |
| Fatalities | 354 | 884 | 40.0% |
| Serious crashes | 2451 | 6035 | 40.6% |
| Serious injuries | 2744 | 6727 | 40.8% |
| F or S crashes | 2759 | 6793 | 40.6% |
| All crashes | 114659 | 284032 | 40.4% |

| 2015-2019 crashes | Urban arterials | All roadways | |
|-------------------|-----------------|--------------|-------|
| Fatal crashes | 160 | 404 | 39.6% |
| Fatalities | 165 | 415 | 39.8% |
| Serious crashes | 1032 | 2469 | 41.8% |
| Serious injuries | 1129 | 2686 | 42.0% |
| F or S crashes | 1173 | 2834 | 41.4% |
| All crashes | 45662 | 115955 | 39.4% |

| 2015-2019 crashes | Urban arterials | All roadways in MPA | % on UA |
|-------------------------------|-----------------|------------------------|---------|
| Pedestrian fatal crashes | 83 | 168 | 49.4% |
| Pedestrian fatalities | 83 | 176 | 47.2% |
| Pedestrian serious crashes | 168 | 317 | 53.0% |
| Pedestrian serious injuries | 168 | 327 | 51.4% |
| Bike fatal crashes | 10 | 20 | 50.0% |
| Bike fatalities | 10 | 20 | 50.0% |
| Bike serious crashes | 51 | 126 | 40.5% |
| Bike serious injuries | 51 | 126 | 40.5% |

| All crashes | 45662 | 115955 | 39.4% |
|-------------|-------|--------|-------|
| | | | |

Source: ODOT crash data, 2021

Note: a single crash event can be considered both a fatal crash and a serious crash (they're not exclusive)



If you picnic at Blue Lake or take your kids to the Oregon Zoo, enjoy symphonies at the Schnitz or auto shows at the convention center, put out your trash or drive your car – we've already crossed paths.

So, hello. We're Metro – nice to meet you.

In a metropolitan area as big as Portland, we can do a lot of things better together. Join us to help the region prepare for a happy, healthy future.

Metro Council President

Lynn Peterson

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