

# TRANSPORTATION SYSTEM PLAN



# DISCUSSION DRAFT STAGE 3 UPDATE 19 MAY 2017





1120 SW Fifth Avenue, Suite 800 Portland, OR 97204 503.823.5185 Fax 503.823.7576 TTY 503.823.6868 www.portlandoregon.gov/transportation

Dan Saltzman Commissioner Leah Treat Director

# Memorandum

SUBJECT:	Discussion Draft of the Transportation System Plan (TSP) Update: Stage 3: Completing the TSP
FROM:	Courtney Duke, AICP, Senior Transportation Planner + Project Manager TSP3 Team, PBOT Transportation Planning
TO:	TSP Stage 3: Discussion Draft Reviewers
DATE:	May 19, 2017

The Transportation System Plan is the 20-year plan to guide transportation policies and investments in Portland. The TSP meets state and regional planning requirements to coordinate land use and transportation planning and addresses local transportation needs.

The attached **Discussion Draft of the Transportation System Plan (TSP) Update: Stage 3: Completing the TSP** includes several components to modify sections of the TSP to complete the TSP and incorporate direction from the Comp Plan and other planning efforts.

#### Please review the attached document and return your comments to Courtney Duke by <u>July 21,</u> <u>2017</u> @ <u>TSP3@portlandoregon.gov</u>.

Please forward this draft for review to other key people in your bureau, section, community or organization. Comments can be submitted in the form that works best for you as a reviewer: track changes in the .pdf; an email, scanned handwritten comments, a phone call, etc. We do ask that all comments from your organization be submitted at the same time, by one person, for ease of review.

For general questions please contact Courtney Duke <u>courtney.duke@portlandoregon.gov</u>. Questions related to specific sections can be directed to PBOT staff listed as the Task Lead later in this memo. The TSP was updated in three stages. Each stage was developed with a public engagement and adoption process:

- Stage One: This Stage was part of the Comp Plan Update, as outlined in Task 4 of the Periodic Review Work Plan. New proposed TSP goals & policies, projects & program lists and a financial plan were prepared with the Comp Plan Update and adopted by City Council in June 2016.
- Stage Two: This Stage was also a part of the Comp Plan Update, as outlined in Task 5 of the Periodic Review Work Plan. Tasks included in this stage of the TSP Update were modifying TSP objectives to be consistent with the proposed Comp Plan update, incorporating street classification changes, and addressing performance measures and city code changes to implement the Comp Plan. This stage was adopted by City Council in December 2016.
- Stage Three: This Stage is not part of the Comp Plan Update. This is the final stage of the TSP update. A full list of components is outlined below.

#### TSP Stage 3 Update

#### Section 1: Introduction

This chapter updated to reflect an adopted Comp Plan, the Portland Plan, and updates since December 2016.

#### Section 2: TSP Objectives (TSP 2007 Goal 6, and various objectives)

TSP objectives changes are proposed in these sections to provide consistency with the adopted Comp Plan and to incorporate recommendations and changes to reflect recent planning efforts such as Vision Zero and Connected Centers, as well as move actions or projects to a separate list.

# Section 3: TSP Geographic Policies (TSP 2007 District Policies and Objectives; SP 2007 Policies 6.35 – 6.41 and related objectives)

District policies and objectives were deleted or modified to reflect the Pattern Areas in the adopted Comp Plan. In addition, many of the objectives were actions, projects or studies that have either been completed or incorporated into the TSP project list, programs or studies.

#### Section 4: TSP Street Classifications

*Traffic Classification Descriptions and Maps (TSP 2007 Policy 6.5)* Traffic Classification Descriptions and Maps updated to reflect changes.

*Transit Classification Descriptions and Maps (TSP 2007 Policy 6.6)* Transit Classification Descriptions and Maps updated to reflect changes.

*Emergency Response Classification Descriptions and Maps (TSP 2007 Policy 6.10)* Classification Descriptions and Maps updated to reflect changes and work with the Fire Bureau and PBOT Traffic section.

#### Section 5: Modal Plans

Revised section to reflect Modal Master Plans and need for additional information.

#### Section 6: Regional Transportation Plan Compliance

Revised section to reflect compliance with Metro's current Regional Transportation Plan.

# Section 7: Performance Measures (former TSP 2007 Policy 11.13, new policy 9.26 and related objectives)

Review the measures identified in the Periodic Review order, i.e. 'level of service' standard and 'mode split' targets in the TSP.

#### Section 8: Autonomous Vehicle Policy (new Policy 9.x)

New policies and objectives to address Autonomous Vehicles and associated technologies.

#### Section 9: Glossary

New terms added since December 2016.

#### **Other Information**

Please see our Story Map and informational flyer on the project website. https://www.portlandoregon.gov/transportation/63710

#### **Digital Document**

TSP3 Team is also working on a digital document that will combine and streamline the document on the web and as a hard copy. Information and review of this component will be later in 2017.

#### TSP3: Discussion Draft Tasks, Sections and Staff May 2017

SECTION	NAME	PBOT LEAD
	Project Management	C. Duke/ S. Valle
	Digital Document; additional materials	E. Aigner
	Public Involvement	F. Patricolo
1	Introduction	C. Duke
2	TSP Objectives	B. Herrera/C. Duke
3	Geographic Policies and Objectives	F. Patricolo
4	Traffic Classification Descriptions	Z. Wagner
4	Traffic Classification Maps	Z. Wagner/K. Donohue
4	Transit Classification Descriptions	Z. Wagner
4	Transit Classification Maps	Z. Wagner/ K. Donohue
4	Emergency Response Classification Descriptions	Z. Wagner
4	Emergency Response Classification Maps	Z. Wagner/ K. Donohue
5	Modal Plans	C. Duke
6	RTP Compliance	C. Duke
7	Performance Measures (LOS/Mode Split)	P. Hurley
8	Autonomous Vehicle Policy and Objectives	P. Hurley
9	Glossary	C. Duke

Thank you for your time and consideration.

# Transportation System Plan Stage 3 update 19 May 2017

Section 1: Introduction	1-1 2-1 3-1
Section 2: TSP Objectives	
Section 3: Pattern Area Policies and Objectives	
Section 4: Street Classifications	4-1
Traffic Classification maps	4-18
Transit Classification maps	4-36
Emergency Response Classification maps	4-54
Section 5: Modal Plans	5-1
Section 6: RTP Compliance	6-1
Section 7: Performance Measures	7-1
Section 8: Connected and Autonomous Vehicles	8-1
Section 9: Glossary	9-1

# Section 1 Introduction

## SUMMARY OF REVISIONS

- updated to reflect adopted Comp Plan (2016)
- updated to reflect current update

## SUGGESTED LANGUAGE FOR ADOPTION

Updated 12 May 2017

#### Introduction

Portland is projected to add 140,000 new jobs and 260,000 new residents over the next 20 years. As Portland and the region grow, however, there is a continuing challenge to maintain the natural environment, economic prosperity, and overall quality of life. If in 2035 the percentage of people who drive alone to work remains the same as it is now (nearly 60 percent), traffic, carbon emissions, and household spending on vehicles and fuel will all worsen significantly. In order to accommodate this growth, our transportation system must provide Portlanders safer and more convenient ways to walk, bike, and take transit for more trips. The 2035 Transportation System Plan guides investments to maintain and improve the livability of Portland by:

- saving lives and reducing injuries to all people using our transportation system
- limiting traffic congestion so transit and freight vehicles can move more reliably
- reducing, carbon emissions and promoting healthy lifestyles
- keeping more money in the local economy, as we spend less on vehicles and fuel
- creating great places

The Transportation System Plan is the 20-year plan to guide transportation policies and investments in Portland. The TSP meets state and regional planning requirements and addresses local transportation needs. Transportation planning that promotes active transportation modes is essential to preserving the City's livability and for the protection of the natural environment Constructing significant amounts of new automobile capacity to accommodate growth is not a viable option because of the enormous costs and impacts. Adding more streets and parking lots divides neighborhoods, uses valuable land, encourages urban sprawl, and has negative environmental impacts. Alternative approaches, supporting a safer, more affordable and more complete multimodal transportation network must be used to ensure integrated, comprehensive solutions. The first TSP was adopted by Council in 2002 (Ordinance 177028).

The Transportation System Plan helps implement the City's 2035 Comprehensive Plan in addition to the region's 2040 Growth Concept by supporting a transportation system that makes it more convenient for people to walk, bicycle, use transit, and drive less to meet their daily needs. The TSP also recognizes that the transportation system must help grow and sustain the City's economic health by accommodating the needs of businesses and supporting Portland's role in the international economy.

The 2035 TSP includes:

- Goals and policies that guide the maintenance, development and implementation of Portland's transportation system
- Objectives that further the implementation of the goals and policies
- A list of projects and City wide programs along with a financial plan that would accommodate 20 years of population and employment growth
- Master street plans and modal plans

• Strategies and regulations for implementation, including street classifications

#### Elements of the TSP

The goals and policies, street classification descriptions and maps, the financial plan and the master street plan maps in the TSP were adopted as part of the Comprehensive Plan by City Council in 2016. The TSP was adopted concurrently with the Comprehensive Plan, but published under a separate cover. Stage 3 Update will be adopted separately from the Comp Plan and Stages 1 and 2, then incorporated into one TSP document.

The TSP is both an implementation tool and a supporting document to the Comprehensive Plan. It contains the transportation element of the City's Public Facilities Plan, and the List of Significant Projects and Citywide Programs. The TSP also provides more detail than the Comprehensive Plan by including additional supporting information about transportation system conditions.

#### **Transportation System Plan Updates**

In order to keep the TSP current and up-to-date with recent transportation planning and development activities, it is updated at regular intervals. The first two updates in the mid-2000s were not intended to include new policy initiatives. They were primarily technical in nature and included corrections, updates to project descriptions, updates on studies, and inclusion of new master street plans adopted as a part of planning efforts.

The first update was completed and adopted by City Council on October 13, 2004 (effective date, November 12, 2004; Ordinance Nos. 178815 and 178826).

The second update was completed and adopted by City Council on April 5, 2007 (effective date, May 5, 2007; Ordinance No 180871). While primarily technical in nature, this update also included new policy language to implement the City's Green Street Policy.

Stage 1 TSP Update was a part of the City's Comprehensive Plan update process and a component of the state's Periodic Work Plan Task 4. It included Goals, Policies, Projects and Programs and a Financial Plan. It was adopted by City Council in June 2016 (ordinance number).

The Stage 2 TSP Update was a part of the City's Comprehensive Plan update and changes were made to implement the Comp Plan, as well as reflect adopted plans and classification changes since the last update in 2007. Periodic Work Plan Task 5. It was adopted by City Council December 2016 (xxx ordinance number).

TSP Stage 3 TSP Update is incorporating regional information, updating geographic policies and objectives, updating objectives, adding a few policies, changes to street classification for traffic, transit and emergency response, modal plans, and other changes as identified. There is also parallel staff process to reformat the document and create a new user friendly digital document.

#### **REGULATORY FRAMEWORK**

The TSP addresses and complies with a number of State and regional goals, policies, and regulations, as summarized below.

#### State of Oregon

#### Statewide Planning Goals

Oregon has 19 goals that provide a foundation for the State's land use planning program. The TSP must comply with all applicable State goals. The two goals directly applicable to the TSP are Goal 11: Public Facilities Plan and Goal 12: Transportation.

#### Transportation Planning Rule

The Transportation Planning Rule (TPR) implements statewide planning Goal 12: Transportation. The TPR requires State, regional, and local jurisdictions to develop Transportation System Plans (TSPs) that comply with TPR provisions. These provisions include reducing vehicle miles traveled (VMT) per capita by 10 percent over the next 20 years, reducing parking spaces per capita, and improving opportunities for alternatives to the automobile.

#### Oregon Transportation Plan

The Oregon Transportation Plan (OTP) serves as the State's TSP. Regional and local TSPs must be consistent with the OTP.

#### **Regional Metro**

#### Regional Transportation Plan

First adopted by Metro in 1983, with latest update in 2014, the Regional Transportation Plan (RTP) serves as the regional TSP. As such, the RTP:

- Is consistent with the requirements of the State TPR and OTP
- Implements the 2040 Growth Concept and Regional Framework Plan
- Focuses on the regional transportation system
- Includes multimodal functional classifications and street design classifications
- Includes a list of major system improvements
- Includes a funding plan

As of March 2017 Metro and regional partners are updating the RTP with a new RTP to be issued in 2018.

#### Region 2040 Growth Concept

Metro adopted the 2040 Growth Concept as part of the Regional Urban Growth Goals and Objectives (RUGGOs) in 1995. The 2040 Growth Concept stated the preferred form of long-term regional growth and development, including the urban growth boundary (UGB), density, and open space protection. It also designates design types, such as central city, regional center, town center, and main street.

#### Regional Transportation Functional Plan

The Regional Transportation Functional Plan (first adopted in 2010, last updated in 2012; Ordinance No 10-1241B) implements the Goals and Objectives in section 2.3 of the RTP and the policies of the RTP, and replaces the regional parking policy of the Urban Growth Management Functional Plan (See RTFP Title 4: Regional Parking Management.) It provides policy basis and direction for local TSPs. The RTFP codifies requirements that local plans must comply with to be consistent with the Regional Transportation Plan. Therefore, its requirements are binding on cities and counties.

#### Urban Growth Management Functional Plan

Metro adopted the Urban Growth Management Functional Plan (UGMFP) in 1996 and updated it 2014 to implement regional goals and objectives adopted by the Metro Council as the Regional Growth Goals and Objectives (RUGGO), including the 2040 Growth Concept and the Regional Framework Plan. The UGMFP addresses the accommodation of regional population and job growth. Its requirements are binding on cities and counties.

#### Regional Framework Plan

The Regional Framework Plan, adopted in 1997, identifies regional policies to implement the 2040 Growth Concept, preserving access to nature and building great communities for today and the future. The plan was amended in 2005 and 2010, and again in 2014 as part of the adoption of the Climate Smart Strategy.

#### City of Portland

#### Comprehensive Plan

Portland's 2035 Comprehensive Plan guides land use development and public facility investment decisions between now and 2035. This guidance is intended to help make Portland more prosperous, healthy, equitable and resilient.

The Comprehensive Plan includes five elements that work together to accomplish this goal:

- 1. Vision and Guiding Principles
- 2. Goals and Policies
- 3. Comprehensive Plan Map
- 4. List of Significant Projects
- 5. Transportation policies, classifications and master street plans

Within the Comprehensive Plan and TSP, there are nine Transportation goals:

- 1. Safety
- 2. Multiple goals
- 3. Great places
- 4. Environmentally sustainable
- 5. Equitable transportation
- 6. Positive health outcomes

- 7. Opportunities for prosperity
- 8. Cost effectiveness
- 9. Airport futures

Transportation related policies from the 2035 Comprehensive Plan (2015) are located in Chapter 9 (Transportation), Chapter 3 (Urban Design), Chapter 4 (Development) and Chapter 8 (Public Facilities). The TSP also includes additional sub-policies and geographic -specific policies and objectives.

Chapter 9 policies are grouped in these subject areas:

- Designing and planning
- Land use, development, and placemaking
- Streets as public spaces
- Modal Policies
- Airport Futures
- System Management
- Transportation Demand Management
- Parking Management
- Finance, Programs and Coordination

Chapter 8: Public Facilities

- Funding
- Public Benefits
- Public Rights of Way
- Trails
- Stormwater systems

Chapter 3: Urban Form

- Citywide design and development
- Centers
- Corridors
- Transit Station Areas
- City Greenways
- Employment areas
- Pattern Areas

Chapter 4: Development

- Design and Development of centers and corridors
- Designing with nature

Portland Bureau of Transportation also using Comprehensive Plan Chapter 2: Community Involvement for its public involvement policies.

Chapter 2 has seven goals and 41 policies.

Goals

- Community Involvement as a Partnership
- Social Justice and Equity
- Value Community Wisdom and Participation
- Transparency and Accountability
- Meaningful Participation
- Accessible and Effective Participation
- Strong Civic Infrastructure

Chapter 2 policies are grouped in these major areas:

- Partners in decision making
- Environmental justice
- Invest in education and training
- Community assessment
- Transparency and accountability
- Community involvement program
- Process design and evaluation
- Information design and development

#### SEVEN OUTCOMES

Working with our partners at Metro, Bureau of Planning and Sustainability, and the Oregon Department of Transportation, with direction from the Portland Plan (2012), the Climate Action Plan (2010), Health Equity & the Transportation System Plan Report (2012), and from the Comprehensive Plan Update, PBOT staff developed an outcomes based approach to the TSP.

These seven outcomes directed policy choices as well as informed the development of criteria for selecting and prioritizing TSP Projects and Programs. The Transportation System Improvements Chapter contains details on the citywide project and programs process and evaluation.

These seven outcomes are:

- 1. Improve access to daily needs, such as jobs, schools, grocery stores, and health care
- 2. Reduce/eliminate transportation fatalities and injuries
- 3. Improve health by increasing walking and bicycling
- 4. Increase economic benefits, such as access to family wage jobs and freight access
- 5. Ensure disadvantaged communities benefit as much or more than non-disadvantaged communities
- 6. Reduce global warming pollution from transportation
- 7. Prioritize the most cost-effective projects

# Section 2 TSP Objectives

## SUMMARY OF REVISIONS & CONTEXT FOR REVIEW

TSP objectives are a component of the TSP that furthers Comp Plan policies through more specific direction. TSP objectives were adopted in 2002; updated in 2004, 2007, and 2016 as a part of Stage 2 of the TSP Update.

#### Goals, Policies and Objectives:

- **Goals** are the broadest expressions of a community's desires. Goals give direction and are concerned with the long term, and often describe ideal situations.
- **Policies** are broad statements that set preferred courses of action. Policies are choices made to carry out the goals in the foreseeable future. Policies should be specific enough to help determine whether or not a proposed project, program or course of action will advance community values expressed in the goals.
- **Objectives** are specific statements that carry out a plan in the short term. Objectives help assess incremental progress toward achieving the broader purposes expressed in goals and policies.

There will be some policies that do not have objectives. Some objectives may be located under a policy that is not the best fit. Other objectives may need additional modification to reflect more current thinking especially with recent Vision Zero, Equity, Parking, and Transit Planning programs.

The purpose of this Discussion Draft is to review and comment, propose modifications, additions, or deletions of objectives. In addition, are the objectives under the appropriate policy or should they be somewhere else? Are the appropriate Comp Plan policies listed?

#### The TSP team asks the following questions:

**Are objectives needed?** Are they moving PBOT's work plan forward, influencing decisions, and ensuring implementation? The Comp Plan has very few objectives; it is mainly a goals and policies document. Do goals and policies that impact transportation need additional direction?

**Are some or most of the objectives better suited to an action or work plan?** An Action/Work Plan section is being considered as part of this update.

**Should some be deleted and or modified?** Many objectives have not been modified since 2002 - many of the directives have been advanced and completed.

**Does the TSP need new objectives under new policies? If so, what and where?** Does the TSP need additional objectives to look towards another 20 years to direct the Bureau, the City and regional partners? Or do existing plans and programs adopted by City (VisionZero, Portland Progress, Connected Centers, Parking Toolkit, etc.) sufficiently implement the goals and policies? Or are objectives still needed to give additional direction and implement the goals and policies?

A majority of the Comp Plan policies were created using the 2007 adopted objectives as a basis for the policy and elevated objectives to a goal or policy level. Therefore, a number of the objectives could be seen as redundant. But could they be replaced or updated to further the new policy? There are also a number of new policies such as uses in the right-of-way and trails that have yet to be implemented. Adding objectives could ensure the implementation of these new policies, while waiting until implementation begins could also be useful to see where and what objectives are needed.

Objectives are adopted by City Council by ordinance which make them law. Other plans and programs are adopted by resolution and therefore do not have the force of law. Having objectives creates additional pressure and a legal 'hook' to move goals and policies forward. As stated earlier, Objectives are specific statements that carry out a plan in the short term. Objectives help assess incremental progress toward achieving the broader purposes expressed in goals and policies.

#### Location of other objectives in TSP3 Discussion Draft

Pattern area and geographic policies and objectives (District policies and objectives) are in Section 3.

Street classifications are also objectives. Street classification descriptions and maps for Transit, Traffic and Emergency Response are in Section 4.

Performance measure policies and objectives are in Section 7.

Technology and autonomous vehicle policies and objectives are in Section 8.

#### **Objectives updated and adopted in 2016**

As part of TSP Update stage 2, bicycle and community engagement objectives were updated. Stage 2 also updated the Bicycle and Street Design Classifications.

#### **Objectives not being updated in TSP3**

Pedestrian and Freight objectives and classifications will be updated at a later date as part of the PedPDX (Pedestrian Master Plan Update in 2018) and a future Freight Master Plan update.

Comprehensive Plan goals and policies are in the gray boxes below. The goals and policies were adopted by City Council in 2016 as part of the Comprehensive Plan Update and Stages 1 and 2 of the TSP Update. <u>These goals and policies are NOT under review.</u>

Staff is recommending the explanatory language for goals and policies from the Comp Plan not be included in the TSP document for ease of reading. The language will still be in the adopted Comp Plan.

## SUGGESTED LANGUAGE FOR ADOPTION

Updated 19 May 2017

#### Key

Text in gray boxes *Existing adopted Goals and Policies from the Comp Plan (Adopted 2016). These are provided for context and are NOT under review or up for amendments.* 

Existing language <u>Suggested new language</u> <del>Deleted language</del> Note: Staff proposes to not include explanatory language from the Comp Plan in the TSP document.

A NOTE ON NUMBERING: The numbers in parentheses following the goals and policies reference the Comp Plan numbering. The TSP objective numbers in parentheses follow this format and are from the Appendix to the TSP Stage 2 Update.

## Transportation (Comp Plan Chapter 9)

#### **Transportation goals**

#### Safety

The City achieves the standard of zero traffic-related fatalities and serious injuries. Transportation safety impacts the livability of a city and the comfort and security of those using City streets. Comprehensive efforts to improve transportation safety through equity, engineering, education, enforcement and evaluation will be used to eliminate traffic-related fatalities and serious injuries from Portland's transportation system. (CP Goal 9.A)

#### Multiple goals

Portland's transportation system is funded and maintained to achieve multiple goals and measureable outcomes for people and the environment. The transportation system is safe, complete, interconnected, multimodal, and fulfills daily needs for people and businesses. (CP Goal 9.B)

#### Great places

Portland's transportation system enhances quality of life for all Portlanders, reinforces existing neighborhoods and great places, and helps make new great places in town centers, neighborhood

centers and corridors, and civic corridors. (CP Goal 9.C)

#### Environmentally sustainable

The transportation system increasingly uses active transportation, renewable energy, or electricity from renewable sources, achieves adopted carbon reduction targets, and reduces air pollution, water pollution, noise, and Portlanders' reliance on private vehicles. (CP Goal 9.D)

#### Equitable transportation

The transportation system provides all Portlanders options to move about the city and meet their daily needs by using a variety of safe, efficient, convenient, and affordable modes of transportation. Transportation investments are responsive to the distinct needs of each community. (CP Goal 9.E)

#### Positive health outcomes

The transportation system promotes positive health outcomes and minimizes negative impacts for all Portlanders by supporting active transportation, physical activity, and community and individual health. (CP Goal 9.F)

#### **Opportunities for prosperity**

The transportation system supports a strong and diverse economy, enhances the competitiveness of the city and region, and maintains Portland's role as a West Coast trade gateway and freight hub by providing efficient and reliable goods movement, multimodal access to employment areas and educational institutions, as well as enhanced freight access to industrial areas and intermodal freight facilities. The transportation system helps people and businesses reduce spending and keep money in the local economy by providing affordable alternatives to driving. (CP Goal 9.G)

#### Cost effectiveness

The City analyzes and prioritizes capital and operating investments to cost effectively achieve the above goals while responsibly managing and protecting our past investments in existing assets. (CP Goal 9.H)

#### **Airport futures**

Promote a sustainable airport (Portland International Airport [PDX]) by meeting the region's air transportation needs without compromising livability and quality of life for future generations. (CP Goal 9.1)

## **Transportation policies**

### **Design and planning policies**

The City of Portland's transportation system is a key public facility. The following policies describe what the transportation system is, what it does, and what factors to consider in how the overall system is used. Policies 8.1-8.60 in Comprehensive Plan Chapter 8: Public Facilities and Services also apply to the need for quality facilities and services, multiple benefits, reliability, and creating a multi-purpose and safe right of way.

**Street design classifications:** Maintain and implement street design classifications consistent with land use plans, environmental context, urban design pattern areas, and the Neighborhood Corridor and Civic Corridor Urban Design Framework designations. (CP Policy 9.1)

**Street policy classifications:** Maintain and implement street policy classifications for pedestrian, bicycle, transit, freight, emergency vehicle, and automotive movement, while considering access for all modes, connectivity, adjacent planned land uses, and state and regional requirements. (CP Policy 9.2)

**a:** Designate district classifications that emphasize freight mobility and access in industrial and employment areas serving high levels of truck traffic and to accommodate the needs of intermodal freight movement. (CP Policy 9.2.a.)

**b:** Designate district classifications that give priority to pedestrian access in areas where high levels of pedestrian activity exist or are planned, including the Central City, Gateway regional center, town centers, neighborhood centers, and transit station areas. (CP Policy 9.2.b.)

**c:** Designate district classifications that give priority to bicycle access and mobility in areas where high levels of bicycle activity exist or are planned, including Downtown, the River District, Lloyd District, Gateway Regional Center, town centers, neighborhood centers, and transit station areas. (CP Policy 9.2.c.)

**Transportation System Plan:** Maintain and implement the Transportation System Plan (TSP) as the decision-making tool for transportation-related projects, policies, programs, and street design. (CP Policy 9.3)

**Use of classifications:** Plan, develop, implement, and manage the transportation system in accordance with street design and policy classifications outlined in the Transportation System Plan. (CP Policy 9.4)

**9.4.a.** Classification descriptions and designations are used to determine the appropriateness of street improvements and to make recommendations on new and expanding land uses

through the land use review processes. (2007 TSP Objective xxx.)

**9.4.b.** Classification descriptions are used to describe how streets should function for each mode of travel, not necessarily how they are functioning at present. (TSP objective 9.2.b.)

**9.4.c.** All of a street's classifications must be considered in designing street improvements and allocating funding. While a proposed project may serve only one classification, improvements should not preclude future modifications to accommodate other classifications of the street. (TSP objective 9.2.c.)

**9.4.d.** When the existing use of a street does not comply with its classification, no additional investments should be made that encourage that inappropriate use. (TSP objective 9.2.d.)

**9.4.e.** Designate new streets within a land division site as Local Service Streets for all modes unless otherwise designated through a concurrent or subsequent Comprehensive Plan amendment to the Transportation Element System Plan. (TSP objective 9.2.e.)

**9.4.f.** Designate new streets within Pedestrian Districts<u>and</u> Freight Districts<u>and Bicycle</u> <u>Districts</u> as Local Service Streets unless otherwise designated through a Comprehensive Plan amendment to the Transportation <del>Element</del> <u>System Plan</u>. Element. (TSP objective 9.2.f.)

Mode share goals and vehicle miles travelled (VMT) reduction: Increase the share of trips made using active and low-carbon transportation modes. Reduce VMT to achieve targets set in the most current Climate Action Plan and Transportation System Plan, and meet or exceed Metro's mode share and VMT targets. (CP Policy 9.5)

**Transportation strategy for people movement:** Implement a prioritization of modes for people movement by making transportation system decisions according to the following ordered list:

- 1. Walking
- 2. Bicycling
- 3. Transit
- 4. Taxi / commercial transit / shared vehicles
- 5. Zero emission vehicles
- 6. Other single-occupant vehicles

When implementing this prioritization, ensure that:

- The needs and safety of each group of users are considered, and changes do not make existing conditions worse for the most vulnerable users higher on the ordered list.
- All users' needs are balanced with the intent of optimizing the right of way for multiple modes on the same street.
- When necessary to ensure safety, accommodate some users on parallel streets as part of a multi-street corridor.
- Land use and system plans, network functionality for all modes, other street functions,

- and complete street policies, are maintained.
- Policy-based rationale is provided if modes lower in the ordered list are prioritized. (CP Policy 9.6)

**Moving goods and delivering services:** In tandem with people movement, maintain efficient and reliable movement of goods and services as a critical transportation system function. Prioritize freight system reliability improvements over single-occupancy vehicle mobility where there are solutions that distinctly address those different needs. (CP Policy 9.7)

**Affordability:** Improve and maintain the transportation system to increase access to convenient and affordable transportation options for all Portlanders, especially those who have traditionally been under-served or under-represented or have historically borne unequal burdens. (CP Policy 9.8)

Accessible and age-friendly transportation system: Ensure that transportation facilities are accessible to people of all ages and abilities, and that all improvements to the transportation system (traffic, transit, bicycle, and pedestrian) in the public right-of-way comply with the Americans with Disabilities Act of 1990. Improve and adapt the transportation system to better meet the needs of the most vulnerable users, including the young, older adults, and people with different abilities. (CP Policy 9.9)

**Geographic policies:** Adopt geographically-specific policies in the Transportation System Plan to ensure that transportation infrastructure reflects the unique topography, historic character, natural features, system gaps, economic needs, demographics, and land uses of each area. (CP Policy 9.10)

Note: See Section 3 of TSP3 for Pattern Area and Geographic Policies and Objectives.

#### Land use, development, and placemaking policies

**Land use and transportation coordination:** Implement the Comprehensive Plan Map and the Urban Design Framework through coordinated long-range transportation and land use planning. Ensure that street policy and design classifications and land uses complement one another. (CP Policy 9.11)

**Growth strategy:** Use street design and policy classifications to support goals 3A-3G in Comprehensive Plan Chapter 3: Urban Form. Consider the different design contexts and transportation functions in Town Centers, Neighborhood Centers, Neighborhood Corridors, Employment Areas, Freight Corridors, Civic Corridors, Transit Station Areas, and Greenways. (CP Policy 9.12)

Development and street design: Evaluate adjacent land uses to help inform street classifications in

framing, shaping, and activating the public space of streets. Guide development and land use to create the kinds of places and street environments intended for different types of streets. (CP Policy 9.13)

#### Streets as public spaces policies

Streets, including sidewalks and planting strips, provide critical transportation and utility functions. In Portland, streets are the most abundant type of public space, occupying nearly 20 percent of land area in the city. The following policies support community desire to expand the use of streets beyond their transportation functions. See Comprehensive Plan Chapter 8: Public Facilities and Services and Comprehensive Plan Chapter 4: Design and Development for further use and streetscape policies.

**Streets for transportation and public spaces:** Integrate both placemaking and transportation functions when designing and managing streets by encouraging design, development, and operation of streets to enhance opportunities for them to serve as places for community interaction, environmental function, open space, tree canopy, recreation, and other community purposes. (CP Policy 9.14)

**Repurposing street space:** Encourage repurposing street segments that are not critical for transportation connectivity to other community purposes. (CP Policy 9.15)

**Design with nature:** Promote street and trail alignments and designs that respond to topography and natural features, when feasible, and protect streams, wildlife habitat, and native trees. (CP Policy 9.16)

#### **Modal policies**

Portland is committed to providing a multimodal transportation system that offers affordable and convenient travel options within the city, region, and outside the Metro area. Because trips are made for different reasons, they vary in length and type of vehicle (mode) needed to make them. Different modes create different kinds of impacts — on neighborhood livability and carbon emissions, for example. These policies recognize that some modes are more appropriate than others for different types of trips.

**Pedestrian transportation:** Encourage walking as the most attractive mode of transportation for most short trips, within neighborhoods and to centers, corridors, and major destinations, and as a means for accessing transit. (CP Policy 9.17)

Note: Pedestrian Objectives will be updated as part of PedPDX, the update to the Pedestrian

Master Plan in 2018.

**9.17.a.** Support walking to transit by giving priority to the completion of the pedestrian network that serves Comp Plan Centers and Corridors, transit centers, stations, and stops; providing adequate spacing and quality of crossing opportunities at transit stops; and planning and designing pedestrian improvements that allow adequate space for transit stop facilities. (TSP objective 9.)

**Pedestrian networks:** Create more complete networks of pedestrian facilities, and improve the quality of the pedestrian environment. (CP Policy 9.18)

Note: Pedestrian Objectives will be updated as part of PedPDX, the update to the Pedestrian Master Plan in 2018.

**d.** Develop a citywide network of pedestrian trails that increases pedestrian access for recreation and transportation purposes and links to schools, parks, transit, and shopping as well as to the regional trail system and adjacent cities. (TSP objective 9.) SEE TRAILS POLICIES IN CHAPTER 8 (below)

**Pedestrian safety and accessibility:** Improve pedestrian safety, accessibility, and convenience for people of all ages and abilities. (CP Policy 9.19)

**9.19.a.** Increase pedestrian safety and convenience by identifying and analyzing high pedestrian collision locations; making physical improvements, such as traffic calming, signal improvements, and crossing improvements in areas of high pedestrian use; and supporting changes to adopted statutes and codes that would enhance pedestrian safety. (TSP objective 9.)

**Bicycle transportation:** Create conditions that make bicycling more attractive than driving for most trips of approximately three miles or less. (CP Policy 9.20)

Note: Bicycle Objectives were updated in Stage 2 TSP Update.

Accessible bicycle system: Create a bicycle transportation system that is safe, comfortable, and accessible to people of all ages and abilities. (CP Policy 9.21)

Note: Bicycle Objectives were updated in Stage 2 TSP Update.

**Public transportation:** Coordinate with public transit agencies to create conditions that make transit the preferred mode of travel for trips that are not made by walking or bicycling. (CP Policy 9.22)

**d.** Implement transit-preferential measures on Major Transit Priority Streets to achieve travel times competitive with the automobile and to improve service reliability. (TSP objective 9.12.d.)

**a.** Support light rail transit and bus connections as the foundation of the regional transit system, with completion of the system to connect all regional centers, downtown Vancouver, major attractions, and intermodal passenger facilities as a high priority for the region. (TSP objective 9.12.a.)

**Transportation to job centers:** Promote and enhance transit to be more convenient and economical than the automobile for people travelling more than three miles to and from the Central City and Gateway. Enhance regional access to the Central City and access from Portland to other regional job centers. (CP Policy 9.23)

**Transit service:** In partnership with TriMet, develop a public transportation system that conveniently, safely, comfortably, and equitably serves residents and workers 24 hours a day, seven days a week. (CP Policy 9.24)

**924.a.** Base decisions about light rail transitway alignments and their connections to other regional facilities on individual corridor studies. (TSP objective 9.12.b.)

**9.24.b**. Expand primary and secondary bus service to meet the growing demand for <u>commute</u> and <u>non-commute (off-peak)</u> trips, operate as the principal transit service for access and mobility needs, help reduce congestion, and support the economic activities of the City. (TSP objective 9.12.c.)

**9.24.c** Consider the use of <u>alternative other forms types</u> of transit, <u>including such as</u> vanpools, <u>community/jobs connector service, paratransit shared private-for-hire</u> and dial-a-ride in low-density areas, and <u>other unique</u> forms of transit such as water taxis. (TSP objective 9.12.e.)

**Transit equity:** In partnership with TriMet, maintain and expand high-quality frequent transit service to all Town Centers, Civic Corridors, Neighborhood Centers, Neighborhood Corridors, and other major concentrations of employment, and improve service to areas with high concentrations of poverty and historically under-served and under-represented communities. (CP Policy 9.25)

**9.25.a** Support a public transit system and regional transportation strategies that address the transportation needs of historically marginalized communities to provide increased mobility options and access.

**9.25.b** Support regional equity measures for transportation system evaluation.

Transit funding: Consider funding strategies and partnership opportunities that improve access to and

equity in transit service, such as raising metro-wide funding to improve service and decrease user fees/fares. (CP Policy 9.26)

**Transit service to centers and corridors:** Use transit investments as a means to shape the city's growth and increase transit use. In partnership with TriMet and Metro, maintain, expand, and enhance Portland Streetcar, frequent service bus, and high-capacity transit, to better serve centers and corridors with the highest intensity of potential employment and household growth. (CP Policy 9.27)

**9.27.a.** Develop streetcar lines in Portland to connect new or redeveloping neighborhoods to employment opportunities and other destinations, including shopping, education, and recreation. (TSP objective 9.12.h.) ?

**9.27.b.** Locate major park-and-ride lots only where transit ridership is increased significantly, vehicle miles traveled are reduced, transit-supportive development is not hampered, bus service is not available or is inadequate, and the surrounding area is not negatively impacted. (TSP objective 9.12.g.)

**Intercity passenger service:** Coordinate planning and project development to expand intercity passenger transportation services in the Willamette Valley, and from Portland to California, Seattle, and Vancouver, BC. (CP Policy 9.28)

**9.28.a.** Support continuation of Union Station as the multimodal transportation hub, serving as the primary passenger rail and intercity bus terminal in the Portland metropolitan area and providing direct connections among passenger rail, light rail, streetcar, intracity buses, taxis, <u>private-for-fire</u> and airport shuttle buses. (TSP objective 9.17.a.)

**9.28.b.** Support development of passenger transfer facilities in existing and emerging regional centers. (TSP objective 9.17.c.)

**9.28.c.** Support commuter rail service where it will reinforce the 2040 Growth Concept and is an efficient alternative to the automobile. (TSP objective 9.17.d.)

**e.** Support expansion of Northwest Corridor passenger rail service between Eugene, Portland, Seattle, and Vancouver, B. C. by incremental improvements in speed, frequency, and station facilities, in cooperation with the States of Oregon and Washington and the Province of British Columbia. (TSP objective 9.17.e.) POLICY 9.28 DOES THIS

**Regional trafficways and transitways:** Maintain capacity of regional transitways and existing regional trafficways to accommodate through-traffic. (CP Policy 9.29)

9.29.a. Regard the City's Regional Trafficway system within Portland to be substantially complete,

except for safety or other improvements to existing facilities that increase their efficiency. (TSP objective 9.18.a.)

**9.29.b.** Oppose extension of a new circumferential freeway north of US 26 into the City and through Forest Park. (TSP objective 9.18.b.)

**9.29.a.** Emphasize travel mode choice, through provision of efficient travel options and other demand strategies, as the priority strategy to preserve capacity and efficient operations on the regional traffic way.

**9.29.b** Engage with regional partners to address major freight system gaps while preserving natural resources (e.g., forest park) and supporting Portland goals and priorities.

**9.29.c.** Work with ODOT to manage the location, spacing, and type of road and street intersections on Regional Trafficways<del>, St. Helens Road, Lombard east of Interstate 5, and McLoughlin, and develop access management plans for other City streets as needed to ensure the safe and efficient operation of these facilities. (TSP objective 9.22.a.)</del>

**9.29.d.** Provide local access to arterials, while minimizing conflicts with through-traffic. (TSP objective 9.22.b.)

**<u>9.29.e.</u>** Ensure that access management measures do not adversely impact any transportation mode, consistent with the classifications of the street where these measures are applied. (TSP objective 9.22.c.)

**9.29.f** Direct interregional traffic to use Regional Trafficways and Regional Transitways, and manage these facilities to maximize their existing capacity. (TSP objective 9.23.a.)

**9.29.g.** Minimize the impact of interregional and long intraregional trips on Portland neighborhood and commercial areas, while supporting the travel needs of the community. **(TSP objective 9.23.b.)** 

**9.29.***h* Manage traffic on Neighborhood Collectors that Metro designates as Collectors of Regional Significance so they maintain their function as distributors of traffic between Major City Traffic Streets or District Collectors and Local Service Streets, rather than function primarily for regional traffic movement. **(TSP objective 9.23.c.)** 

**d.** Use the TSP refinement<u>area and corridor</u> plan process to determine specific projects and actions to meet needs in identified transportation <u>needs</u>. corridors. (TSP objective 9.23.d.)

**Multimodal goods movement:** Develop, maintain, and enhance a multimodal freight transportation system for the safe, reliable, sustainable, and efficient movement of goods within and through the city. (CP Policy 9.30)

**Economic development and industrial lands:** Ensure that the transportation system supports traded sector economic development plans and full utilization of prime industrial land, including brownfield redevelopment. (CP Policy 9.31)

**Multimodal system and hub:** Maintain Portland's role as a multimodal hub for global and regional movement of goods. Enhance Portland's network of multimodal freight corridors. (CP Policy 9.32)

**9.32.a.** Coordinate with private and public stakeholders to identify improvement and funding strategies for multimodal freight mobility needs. (TSP objective 9.16.b.)

**Freight network:** Develop, manage, and maintain a safe, efficient, and reliable freight street network to provide freight access to and from intermodal freight facilities, industrial and commercial districts, and the regional transportation system. Invest to accommodate forecasted growth of interregional freight volumes and provide access to truck, marine, rail, and air transportation systems. Ensure designated routes and facilities are adequate for over-dimensional trucks and emergency equipment. (CP Policy 9.33)

**9.33c.** Participate with interjurisdictional partners in the development of corridor plans, master plans, and regional facility plans that impact freight mobility. (TSP objective 9.16.c.)

**d.** Address freight access and mobility needs when conducting multimodal transportation studies or designing transportation facilities. (TSP objective 9.16.d.)

**a.** Support a well integrated freight system that includes truck, rail, marine, air, and pipeline modes as vital to a healthy economy. (TSP objective 9.16.a.)

**9.7.a.** Prioritize transportation investments in the freight street network that improve connections between Freight Districts and Regional Truckways. (TSP objective 9.14.a.)

**9.7.b.** Accommodate truck travel on designated truck streets through improvements to facility design and operations that address the dimensional needs of trucks. (TSP objective 9.14.b.)

**9.7.c.** Encourage through-truck traffic to use Regional Truckways, Priority Truck Streets, and Major Truck Streets for mobility and Truck Access Streets and Local Service Truck Streets to access local destinations. (TSP objective 9.14.c.)

**9.7.d.** Develop and implement street connectivity plans for Freight Districts to improve truck circulation and access to industrial land uses. (TSP objective 9.14.d.)

**9.7.e.** Develop and implement a signage plan for designated truck routes and major freight destinations. (TSP objective 9.14.e.)

**9.7.f.** Designate and maintain preferred routes to accommodate over-dimensional freight movement. (TSP objective 9.14.f.)

**9.7.g.** Employ intelligent transportation system measures to reduce delays and improve travel time on Regional Truckways, Priority Truck Streets and Major Truck Streets. (TSP objective 9.14.g.)

**9.7.h.** Evaluate and improve locations where inadequate roadway design creates barriers for truck access in Freight Districts and on designated truck streets. (TSP objective 9.15.a.)

**9.7.i.** Upgrade bridges to remove load limits and vertical clearance restrictions on designated truck streets. (TSP objective 9.15.b.)

**9.7.k.** Provide adequate off-street loading areas for larger employment, commercial and multi-family developments. (TSP objective 9.15.d.)

**9.7.I.** Manage supply, operations, and demand of on-street truck loading spaces to ensure efficient, reliable and safe loading and unloading activities. (TSP objective 9.15.e.)

**Sustainable freight system:** Support the efficient delivery of goods and services to businesses and neighborhoods, while also reducing environmental and neighborhood impacts. Encourage the use of energy efficient and clean delivery vehicles, and manage on- and off-street loading spaces to ensure adequate access for deliveries to businesses, while maintaining access to homes and businesses. (CP Policy 9.34)

**e.** Work with community stakeholders to minimize adverse impacts of freight activity on the environmental and residential and mixed use neighborhoods. (TSP objective 9.16.e.)

**Freight rail network:** Coordinate with stakeholders and regional partners to support continued reinvestment in, and modernization of, the freight rail network. (CP Policy 9.35)

**9.7.j.** Use public-private collaboration to identify and implement measures to minimize delays and improve safety at at-grade rail freight crossings. (TSP objective 9.15.c.)

**Portland Harbor:** Coordinate with the Port of Portland, private stakeholders, and regional partners to improve and maintain access to marine terminals and related river-dependent uses in Portland Harbor. (CP Policy 9.36)

**a:** Support continued reinvestment in, and modernization of, marine terminals in Portland Harbor. (CP Policy 9.36.a.)

**b:** Facilitate continued maintenance of the shipping channels in Portland Harbor and the Columbia River. (CP Policy 9.36.b.)

**c:** Support shifting more long-distance, high-volume movement of goods to river and oceangoing ships and rail. (CP Policy 9.36.c.)

See Policy 3.71 for the river transportation policy.

Portland Heliport: Maintain Portland's Heliport functionality in the Central City. (CP Policy 9.37)

Automobile transportation: Maintain acceptable levels of mobility and access for private automobiles while reducing overall vehicle miles traveled (VMT) and negative impacts of private automobiles on the environment and human health. (CP Policy 9.38)

**Automobile efficiency:** Coordinate land use and transportation plans and programs with other public and private stakeholders to encourage vehicle technology innovation, shifts toward electric and other cleaner, more energy-efficient vehicles and fuels, integration of smart vehicle technology with intelligent transportation systems, and greater use of options such as car-share, carpool, and taxi. (CP Policy 9.39)

Note: See Section 8 for Technology and Autonomous Vehicle Policies and Objectives.

**Emergency response:** Maintain a network of accessible emergency response streets to facilitate safe and expedient emergency response and evacuation. Ensure that police, fire, ambulance, and other emergency providers can reach their destinations in a timely fashion, without negatively impacting traffic calming and other measures intended to reduce crashes and improve safety. (CP Policy 9.40)

Note: See Section 4 for Emergency Response Classification Descriptions, Changes and Maps.

**a.** Use the emergency response classification system to determine whether traffic slowing devices can be employed. (TSP objective 9.19.a.)

**b.** Use the emergency response classification system to guide the routing of emergency response vehicles. (TSP objective 9.19.b.)

**c.** Use the emergency response classification system to help site future fire stations. (TSP objective 9.19.c.)

#### Airport futures policies

The Port of Portland manages the Portland International Airport (PDX) as a regional, national, and international air transportation hub. The Port partnered with the City of Portland and Multnomah, Washington, and Clackamas Counties to prepare the Airport Futures Plan (2010) and guide airport development to 2035. Policy direction set in this project include Goal 9.1 and the following policies. Additional airport related policies are found in the Comprehensive Plan Chapter 4: Design and Development and Comprehensive Plan Chapter 7: Environment and Watershed Health.

**Portland International Airport:** Maintain the Portland International Airport (PDX) as an important regional, national, and international transportation hub serving the bi-state economy. (CP Policy 9.41)

Support continuation of Portland International Airport as the multimodal passenger air facility hub by encouraging direct connections for all modes, including light rail transit, buses, taxis, <u>private-for-hire</u>, and airport shuttles. (TSP objective 9.17.b.)

**Airport regulations:** Implement the Airport Futures Plan through the implementation of the Portland International Airport Plan District. (CP Policy 9.42)

**a:** Prohibit the development of a potential third parallel runway at PDX unless need for its construction is established through a transparent, thorough, and regional planning process. (CP Policy 9.42.a.)

**b:** Support implementation of the Aircraft Landing Zone to provide safer operating conditions for aircraft in the vicinity of PDX by limiting the height of structures, vegetation, and construction equipment. (CP Policy 9.42.b.)

**c:** Support the Port of Portland's Wildlife Hazard Management Plan by implementing airport-specific landscaping requirements in the Portland International Airport Plan District to reduce conflicts between wildlife and aircraft. (CP Policy 9.42.c.)

**Airport partnerships:** Partner with the Port of Portland and the regional community to address the critical interconnection between economic development, environmental stewardship, and social responsibility. (CP Policy 9.43)

Support an ongoing public advisory committee for PDX to:

**a:** Support meaningful and collaborative public dialogue and engagement on airport related planning and development. (CP Policy 9.43.a.)

**b:** Provide an opportunity for the community to inform the decision-making related to the airport of the Port, the City of Portland, and other jurisdictions/organizations in the region. (CP Policy 9.43.b.)

c: Raise public knowledge about PDX and impacted communities. (CP Policy 9.43.c.)

**Airport investments:** Ensure that new development and redevelopment of airport facilities supports the City's and the Port's sustainability goals and policies, and is in accordance with Figure 9-3 — Portland International Airport. Allow the Port flexibility in configuring airport facilities to preserve future development options, minimize environmental impacts, use land resources efficiently, maximize operational efficiency, ensure development can be effectively phased, and address Federal Aviation Administration's airport design criteria. (CP Policy 9.44)

#### System management policies

Portland's transportation system is an integrated network of roads, rails, trails, sidewalks, bicycle paths, and other facilities within and through the city. These modal networks intersect and are often located within the same right of way. The policies below provide direction to manage the system in ways that:

- Allow different modes to interact safely.
- Maximize the capacity of the existing network.
- Identify where additional capacity might be needed.

Also see Policies 8.37 through 8.49 in Comprehensive Plan Chapter 8: Public Facilities and Services.

**System management:** Give preference to transportation improvements that use existing roadway capacity efficiently and that improve the safety of the system for all users. (CP Policy 9.45)

a Reduce and Manage automobile travel demand and promote transportation choices before considering the addition of roadway capacity for single-occupant vehicles. (TSP objective 9.20.a.)

**b.** Employ transportation system management measures, including such as coordinating and synchronizing signals, signal prioritization, and intersection redesign, to improve mobility operations and safety for all modes of travel. (TSP objective 9.20.b.)

**c.** Design, build, and operate the transportation system so that it can be safely navigated by all users. (TSP objective 9.20.c.)

**Traffic management:** Evaluate and encourage traffic speed and volume to be consistent with street classifications and desired land uses to improve safety, preserve and enhance neighborhood livability, and meet system goals of calming vehicle traffic through a combination of enforcement, engineering, and education efforts. (CP Policy 9.46)

**a.** Manage traffic on Neighborhood Collectors and Local Service Streets consistent with the land uses they serve and to preserve and enhance neighborhood livability. (TSP objective 9.21.a.)

**b.** Encourage non-local traffic, including trucks, to use streets of higher traffic and truck classifications through design, operations, permitting, and signing. (TSP objective 9.21.b.)

**c.** Implement measures on Local Service Traffic Streets that do not significantly divert traffic to other streets of the same classification, except when needed to give priority to pedestrians and/or bicycle traffic. (TSP objective 9.21.c.) [vision zero]

**d.** Implement measures on Neighborhood Collectors that do not result in significant diversion of traffic to streets of lower classification. (TSP objective 9.21.d.) .) [vision zero]

e. Reduce traffic speeds through enforcement and design, education and enforcement in high

density main streets, Centers and Corridors, to levels that are safe and comfortable for bicyclists and pedestrians. (TSP objective 9.21.e.)

**f.** Use traffic calming tools, traffic diversion, and other available tools and methods to create and maintain sufficiently low automotive volumes and speeds on neighborhood greenways to ensure a comfortable cycling environment on the street. (TSP objective 9.21.f.)

#### NEW POLICY:

#### MASTER STREET PLANS

Develop conceptual master street plans for areas of the City that have significant amounts of vacant or underdeveloped land and where the street network does not meet City and Metro connectivity guidelines.

Ensure that new residential development and development in zones that allow a mix of uses include street plans that are consistent with master street plans, extend and connect to adjacent areas, and meet connectivity objectives. (TSP objective 9.25.b.)

As areas with adopted Street Plans develop provide connectivity for all modes by developing the streets and accessways-as shown on the Master Street Plan Maps xx-in Section xxx of the Comprehensive Plan.

<u>Continue to provide connectivity areas with adopted Street Plans all modes of travel by</u> <u>developing public and private streets as shown on the Master Street Plan Maps xx-in Section</u> <u>xxx of the Comprehensive Plan.</u>

**f.** As the South Waterfront District develops, provide connectivity for all modes of travel by developing the streets and accessways as shown on Chapter 11, Map 1. (TSP objective 9.25.f.)

**g.** As the western half of the Bridgeton neighborhood develops, provide connectivity for all modes of travel by developing the streets as shown in Chapter 11, Map 2. (TSP objective 9.25.g.)

**h.** As the Gateway regional center redevelops, provide additional connectivity for all modes of travel as shown in Chapter 11, Map 3. (TSP objective 9.25.h.)

i. As the Airport Way vicinity continues to develop, use the Airport Way Secondary Infrastructure Plan as a guide to provide connectivity for all modes of travel by developing streets as shown in Chapter 11, Map 4. (TSP objective 9.25.i.)

**j.** Continue to provide connectivity in the River District for all modes of travel by developing public and private streets as shown in Chapter 11, Map 5. (TSP objective 9.25.).)

**k.** As the Southwest District develops, provide connectivity for all modes of travel by developing streets as shown in Chapter 11, Map 6. (TSP objective 9.25.k.)

I. As the Far Southeast District develops, provide connectivity for all modes of travel by developing

streets as shown in Chapter 11, Map 7. (TSP objective 9.25.I.)

**m.** As the street system is modified around the west end of the Ross Island Bridge, provide enhanced connectivity for all modes as shown in Chapter11, Map 8. (TSP objective 9.25.m.)

**n.** Preserve street connectivity in areas of the City that meet the standards of this policy and its objectives as shown in Chapter11, Maps 9 through 16. (TSP objective 9.25.n.)

**o.** Improve connectivity in the St. Johns town center by implementing the St. Johns Master Street Plan as shown in Chapter 11, Map 17. (TSP objective 9.25.o.)

**p.** Improve and preserve connectivity in the Northwest District by implementing the Northwest District Master Street Plan as shown in Chapter 11, Map 18. (TSP objective 9.25.p.)

**q.** Establish a network of streets in Multnomah County Unincorporated Urban Pockets to provide connectivity for all modes of travel as shown in Chapter 11, Maps 19 A through C. (TSP objective 9.25.q.)

**Connectivity:** Establish an interconnected, multimodal transportation system to serve centers and other significant locations. Promote a logical, direct, and connected street system through street spacing guidelines and district-specific street plans found in the Transportation System Plan, and prioritize access to specific places by certain modes in accordance with policies 9.6 and 9.7. (CP Policy 9.47)

Note: Connectivity objectives will be reviewed and modified as part of the Connected Centers planning process currently underway.

**a.** Provide interconnected local and collector streets to serve new and redeveloping areas and to ensure safe, efficient, and convenient pedestrian, bicycle, and vehicle access with preference for public streets over private streets. (TSP objective 9.24.a.)

Use-large-scale Green Streets <u>Neighborhood Greenways</u> as a means of connecting neighborhoods, using the right-of-way efficiently, and enhancing neighborhood livability. (TSP objective 9.24.d.).

Create short blocks through development of frequent street connections in mixed-use areas of planned high-density development. (TSP objective 9.24.b.)

**c.** Provide convenient and safe bicycle and pedestrian connections to transit routes, schools, and parks, as well as within and between new and existing residential developments, employment areas, and other activity centers where street connections are not feasible. (TSP objective 9.24.c.)

**c.** Identify opportunities to extend and connect streets, provide direct public right-of-way routes, and limit the use of cul-de-sac and other closed-end street designs. (TSP objective 9.25.c.)

**d.** Provide full street connections with spacing of no more than 530 feet between connections, except where prevented by barriers such as topography, railroads, freeways, or environmental constraints. Where streets must cross over protected water features, provide crossings at an average spacing of 800 to 1,200 feet, unless exceptional habitat quality or length of crossing prevents a full street connection. (TSP objective 9.25.d.)

**e.** Provide bike and pedestrian connections at approximately 330-foot intervals on public easements or rights-of-way when full street connections are not possible, except where prevented by barriers such as topography, railroads, freeways, or environmental constraints. Bike and pedestrian connections that cross protected water features should have an average spacing of no more than 530 feet, unless exceptional habitat quality or length of crossing prevents a connection. (TSP objective 9.25.e.)

**Technology:** Encourage the use of emerging vehicle and parking technology to improve real-time management of the transportation network and to manage and allocate parking supply and demand. (CP Policy 9.48)

Note: See Section 8 of TSP3 Discussion Draft for additional policies and objectives related to technology and autonomous vehicles.

**Performance measures:** Establish multimodal performance measures and measures of system completeness to evaluate and monitor the adequacy of transportation services based on performance measures in goals 9.A. through 9.I. Use these measures to evaluate overall system performance, inform corridor and area-specific plans and investments, identify project and program needs, evaluate and prioritize investments, and regulate development, institutional campus growth, zone changes, Comprehensive Plan Map amendments, and conditional uses. (CP Policy 9.49)

Note: See Section 7 of TSP3 Discussion Draft for Policies and Objectives related to Performance Measures.

**Regional congestion management:** Coordinate with Metro to establish new regional multimodal mobility standards that prioritize transit, freight, and system completeness. (CP Policy 9.50)

**a:** Create a regional congestion management approach, including a market-based system, to price or charge for auto trips and parking, better account for the cost of auto trips, and to more efficiently manage the regional system. (CP Policy 9.50.a.)

<b>b:</b> In the interim, use the deficiency thresholds and operating standards of the Regional Mobility Policy, in Figure 9-4, for evaluation of impacts to state facilities and the regional arterial and throughway network. (CP Policy 9.50.b.)						
Figure 9-4 Interim Deficiency Thresholds and Operating Standards						
Location	Standards					
	Mid-Day One-Hour Peak*	PM 2-Hour Peak*				
		1 <sup>st</sup> Hour	2 <sup>nd</sup> Hour			
Central City, Gateway, Town Centers, Neighborhood Centers, Station Areas	.99	1.1	.99			
I-84 (from I-5 to I-205), I-5 North (from Marquam Bridge to Interstate Bridge, OR 99-E (from Lincoln St. to OR 224),US 26 (from I-405 to Sylvan Interchange), I-405	.99	1.1	.99			
Other Principal Arterial Routes	.90	.99	.99			
*The demand-to-capacity ratios in the table are for the highest two consecutive hours of the weekday traffic volumes. The mid-day peak hour is the highest 60-minute period between the hours of 9 a.m. and 3 p.m. The 2nd hour is defined as the single 60-minute period, either before or after the peak 60-minute period, whichever is highest.						
<b>Multimodal Mixed-Use Area:</b> Designate a Central City Multimodal Mixed-Use Area (MMA) in the geography indicated in Figure 9-2, which will render state congestion / mobility standards inapplicable to proposed plan amendments under OAR 660-0012-0060(10), subject to ODOT concurrence and execution of an agreement between ODOT and the City of Portland. The agreement should emphasize potential safety and operational impacts. (CP Policy 9.51)						
Transportation demand management (TDM) policies						
Providing residents and employees information and incentives to walk, bicycle, use transit, and otherwise reduce the need to own and use private vehicles can be one of the quickest, least expensive,						

otherwise reduce the need to own and use private vehicles can be one of the quickest, least expensive, and most effective strategies to achieve City goals and to prevent traffic and parking impacts. Transportation and parking demand management (TDM) programs can cost-effectively increase the modal share of walking, bicycling, and shared vehicle trips.

**Outreach:** Create and maintain TDM outreach programs that work with Transportation Management Associations (TMA), residents, employers, and employees that increase the modal share of walking, bicycling, and shared vehicle trips while reducing private vehicle ownership, parking demand, and

drive-alone trips, especially during peak periods. (CP Policy 9.52)

**New development:** Create and maintain TDM regulations and services that prevent and reduce traffic and parking impacts from new development and redevelopment. Encourage coordinated area-wide delivery of TDM programs. Monitor and improve the performance of private-sector TDM programs. (CP Policy 9.53)

Note: TDM Objectives to be reviewed and modified based on TDM process, Code and Admin Rule under development.

Require institutions and new development to participate in programs to reduce single-occupant automobile trips. (TSP objective 9.28.f.)

**Projects and programs:** Integrate TDM information into transportation project and program development and implementation to increase use of new multimodal transportation projects and services. (CP Policy 9.54)

Note: TDM Objectives to be reviewed and modified based on TDM process, Code and Admin Rule under development.

**a.** Develop neighborhood-based programs to promote and support multimodal strategies and trip reduction strategies and programs. (TSP objective 9.28.a.)

**b.** Meet the access and mobility needs of businesses and employees in key employment and regional centers with customized alternative transportation programs that result in reduced congestion and improved air quality. (TSP objective 9.28.b.)

**d.** Require institutions to regulate parking facilities, first to provide short-term parking for visitors and, second, to minimize the amount of employee parking through demand management measures such as carpooling, ridesharing, flexible work hours, telecommuting, parking management, and employer-subsidized transit passes. (TSP objective 9.28.d.)

**c.** Support and encourage the growth of car sharing among City residents and businesses through actions that expand the supply of car sharing vehicles at convenient locations and actions that increase the demand for car sharing services. (TSP objective 9.28.c.)

**e.** Require institutions to mitigate excessive parking impacts on residential areas. (TSP objective 9.28.e.)

#### Parking management policies
Vibrant urban places link people and activities. As Portland grows, we must manage both the demand and supply of parking to achieve climate, health, livability, and prosperity goals. Providing too much and/or underpriced parking can lead to more driving and less walking, cycling, and transit use; inefficient land use patterns; and sprawl. Insufficient parking can negatively affect neighborhood livability and economic vitality. These policies provide guidance to manage parking demand and supply to meet a variety of public objectives, including achieving compact walkable communities, reducing private vehicle ownership and overall vehicle use, enhancing livability, reducing pollution, and expanding economic opportunity.

**Parking management:** Reduce parking demand and manage supply to improve pedestrian, bicycle and transit mode share, neighborhood livability, safety, business district vitality, vehicle miles traveled (VMT) reduction, and air quality. Implement strategies that reduce demand for new parking and private vehicle ownership, and that help maintain optimal parking occupancy and availability. (CP Policy 9.55)

**a.** Implement measures to achieve Portland's share of the mandated 10 percent reduction in parking spaces per capita within the metropolitan area over the next 20 years. (TSP objective 9.29.a.)

**b.** Consider transportation capacity and parking demand for all motor vehicles in the regulation of the parking supply. (TSP objective 9.29.b.)

**c.** Develop parking management programs and strategies that improve air quality, reduce congestion, promote alternatives to the drive-alone commute, and educate and involve businesses and neighborhoods. (TSP objective 9.29.c.)

**Curb Zone:** Recognize that the Curb Zone is a public space, a physical and spatial asset that has value and cost. Evaluate whether, when, and where parking is the highest and best use of this public space in support of broad City policy goals and local land use context. Establish thresholds to utilize parking management and pricing tools in areas with high parking demand to ensure adequate on-street parking supply during peak periods. (CP Policy 9.56)

**On-street parking:** Manage parking and loading demand, supply, and operations in the public right of way to achieve mode share objectives, and to encourage safety, economic vitality, and livability. Use transportation demand management and pricing of parking in areas with high parking demand. (CP Policy 9.57)

**a.** Support land uses in existing and emerging regional centers, town centers, neighborhood centers, and main streets with an adequate supply of on-street parking spaces while emphasizing grouped bicycle parking in the street. (TSP objective 9.30.a.)

b. Maintain existing on-street parking in older neighborhoods and commercial areas where

off-street parking is inadequate, except where parking removal is necessary to accommodate alternatives to the automobile <u>and/or address safety concerns</u>. (TSP objective 9.31.b.)

**c.** Support carpooling in commercial districts by providing convenient, affordable, and adequate on-street spaces. (TSP objective 9.31.c.)

**d.** Develop and maintain on-street parking meter districts to provide for customer turnover, reduce on-street parking use by commuters, efficiently allocate parking among diverse users, encourage the use of alternatives to the automobile, and provide a funding source for transportation projects within the districts. (TSP objective 9.31.d.)

**Off-street parking:** Limit the development of new parking spaces to achieve land use, transportation, and environmental goals, especially in locations with frequent transit service. Regulate off-street parking to achieve mode share objectives, promote compact and walkable urban form, encourage lower rates of car ownership, and promote the vitality of commercial and employment areas. Use transportation demand management and pricing of parking in areas with high parking demand. Strive to provide adequate but not excessive off-street parking where needed, consistent with the preceding practices. (CP Policy 9.58)

**a.** Consider eliminating requirements for off-street parking in areas of the City where there is existing or planned high-quality transit service and good pedestrian and bicycle access. (TSP objective 9.31.a.)

**b.** Encourage the redevelopment of surface parking lots into transit-supportive uses or development or to include facilities for alternatives to the automobile. (TSP objective 9.31.b.)

**c.** Limit the development of new parking spaces to achieve land use, transportation, and environmental objectives. (TSP objective 9.31.c.)

**Share space and resources:** Encourage the shared use of parking and vehicles to maximize the efficient use of limited urban space. (CP Policy 9.59)

**Cost and price:** Recognize the high public and private cost of parking by encouraging prices that reflect the cost of providing parking and balance demand and supply. Discourage employee and resident parking subsidies. (CP Policy 9.60)

**Bicycle parking:** Promote the development of new bicycle parking facilities including dedicated bike parking in the public right-of-way. Provide sufficient bicycle parking at high-capacity transit stations to enhance bicycle connection opportunities. Require provision of adequate off-street bicycle parking for new development and redevelopment. Encourage the provision of parking for different types of bicycles. In establishing the standards for long-term bicycle parking, consider the needs of persons

with different levels of ability. (CP Policy 9.61)

NOTE: Bicycle parking objectives updated in Stage 2 TSP Update.

#### Finance, programs, and coordination policies

Programs and funding are required to build and maintain the transportation system, and they are necessary to help decide what projects to build. They also provide public information about what facilities are available and how they can be used. Agencies outside the City also own and operate facilities within Portland and provide funding for new facilities. These policies address essential funding and coordination opportunities with other agencies, as well outreach and education programming.

**Coordination:** Coordinate with state and federal agencies, local and regional governments, special districts, other City bureaus, and providers of transportation services when planning for, developing, and funding transportation facilities and services. (CP Policy 9.62)

**New development impacts:** Prevent, reduce, and mitigate the impacts of new development and redevelopment on the transportation system. Utilize strategies including transportation and parking demand management, transportation system analysis, and system and local impact mitigation improvements and fees. (CP Policy 9.63)

**Education and encouragement:** Create, maintain, and coordinate educational and encouragement programs that support multimodal transportation and that emphasize safety for all modes of transportation. Ensure that these programs are accessible to historically under-served and under-represented populations. (CP Policy 9.64)

Educate road users particularly motorists, about the serious and potentially fatal consequences of the most dangerous behaviors on Portland streets, including speeding, impairment and other dangerous behaviors.

**a.** Publicize activities and the availability of resources and facilities that promote a multimodal transportation system. (TSP objective 9.32.a.)

**b.** Implement educational <u>safety campaigns</u> programs-that recognize the need for developing and maintaining a multimodal transportation system supporting <u>all modes of travel.</u> that supports the movement of freight as well as people. (TSP objective 9.32.b.)

**c.** Encourage walking by developing <u>educational programing</u>. s for both motorists and pedestrians and by supporting and participating in encouragement events for pedestrians. (TSP

objective 9.32.c.)

**d.** Develop and implement education and encouragement plans aimed at youth and adult cyclists and motorists. (TSP objective 9.32.d.)

**e.** Increase public awareness of the benefits of walking and bicycling and of available resources <u>and network connectivity</u>. <u>facilities</u>. (TSP objective 9.32.e.)

**f.** <u>Develop community partnerships and Safe Routes to School programs with an emphasis on</u> <u>equity, neighborhood livability, traffic safety and health</u>. <del>a strong school curriculum and</del> program on transportation safety and travel choices with emphasis on environmental consequences, neighborhood livability, personal safety, and health. (TSP objective 9.32.f.)

**g.** Educate community citizens and businesses about Green Streets <u>Neighborhood Greenways</u> and how they can serve as low traffic urban networks serve as urban greenways to enhance, improve, and connect neighborhoods to encourage their support, demand and funding for these projects. (TSP objective 9.32.g.)

**h.** Increase bicycle-safety education, enforcement and outreach to encourage <u>safe travel</u> behavior of all modes and enable them to operate safely, comfortably and respectively together. to increase bicycling in Portland. (TSP objective 9.32.h.)

**i.** Promote active transportation bicycling and walking as <u>a</u> safe and convenient transportation to and from school. (TSP objective 9.32.i.

**j.** Continue and expand encouragement programs that provide services <del>and equipment,</del> support behavior changes, raise awareness, and provide incentives that increase <del>bicycling</del> <u>active transportation</u>-in Portland. (TSP objective 9.32.j.)

Educate schools and community partners about the environmental benefits and congestion relief that result from more students using active transportation to get to and from school.

**Telecommuting:** Promote telecommuting and the use of communications technology to reduce travel demand. (CP Policy 9.65)

**Project and program selection criteria:** Establish transportation project and program selection criteria consistent with [Transportation] goals 9A through 9I, to cost-effectively achieve access, placemaking, sustainability, equity, health, prosperity, and safety goals. (CP Policy 9.66)

QUESTION: Modify to reflect TSP Project Selection Prioritization Process and Criteria?

**a.** Address existing deficiencies <u>identified safety risks</u> or hazards <u>by using infrastructure</u> <u>safety countermeasures to improve safety for all road users</u>., improving pedestrian, <u>bicycle</u>, and vehicular safety. (TSP objective 9.33.a.)

Reduce fatal and serious injury crashes by achieving safe operating speeds or separating vulnerable road users from motor vehicles.

**b.** Use good resource management and minimize or reduce negative impacts to the natural environment. (TSP objective 9.33.b.)

**c.** Provide and improve access to, between and within activity Comp Plan Centers and Corridors and develop safe routes to schools. (TSP objective 9.33.c.)

**d.** Improve access to existing and emerging employment and industrial areas. (TSP objective 9.33.d.)

**e.** Promote street connectivity for all modes, especially in areas where identified deficiencies exist, to support desired urban form and travel patterns. (TSP objective 9.33.e.)

**f.** Address area-wide needs, including <u>safety</u>, access and mobility, environmental protection, Green Street design and quality urban design, in a comprehensive approach to project selection. (TSP objective 9.33.f.)

**g.** Increase the efficiency and effectiveness of the system by wise application of available financial, capital, and human resources (TSP objective 9.33.g.)

**h.** Develop the transportation system consistent with and supportive of community values. (TSP objective 9.33.h.)

**Funding:** Encourage the development of a range of stable transportation funding sources that provide adequate resources to build and maintain an equitable and sustainable transportation system. (CP Policy 9.67)

**a.** Support pricing strategies that are based on the environmental and social costs of motor vehicles <u>and economic costs of congestion.</u> (TSP objective 9.27.a.)

**b.** In cooperation with Metro and other jurisdictions, choose corridors to implement market-based pricing where high-quality transportation alternatives to driving exist. (TSP objective 9.27.b.)

# Public Facilities and Services (Comp Plan Chapter 8)

#### Public rights-of-way

Public rights-of-way enhance the public realm and provide a multi-purpose, connected, safe, and healthy physical space for movement and travel, public and private utilities, and other appropriate public functions and uses. (CP Goal 8.D)

#### **Funding policies**

Portland's investments in the public facility systems necessary to serve designated land uses are funded through a variety of mechanisms, including taxes, user rates and fees, system development charges, and partnerships. The policies in this section acknowledge and support cost-effective service provision, maintenance of diverse funding streams to support the public's investments, and equitable sharing of the costs of investing in and maintaining the City's public facilities.

**Cost-effectiveness:** Establish, improve, and maintain the public facilities necessary to serve designated land uses in ways that cost-effectively provide desired levels of service, consider facilities' lifecycle costs, and maintain the City's long-term financial sustainability. (CP Policy 8.27)

**m.** Continue to explore cost effective methods to finance local street improvements, including green streets projects. (TSP objective 8.1.m.)

**Shared costs:** Ensure the costs of constructing and providing public facilities and services are equitably shared by those who benefit from the provision of those facilities and services. (CP Policy 8.28)

**System development:** Require private or public entities whose prospective development or redevelopment actions contribute to the need for public facility improvements, extensions, or construction to bear a proportional share of the costs. (CP Policy 8.29)

**Partnerships:** Maintain or establish public and private partnerships for the development, management, or stewardship of public facilities necessary to serve designated land uses, as appropriate. (CP Policy 8.30)

#### **Public benefits policies**

The following policies support investments to improve equity, economic prosperity, human and watershed health, and resiliency while minimizing negative impacts. They also recognize that the public facility and service needs, and the appropriate approaches to meeting those needs, vary throughout the city. See Comprehensive Plans Chapter 2: Community Involvement for policies related to community engagement in public facility decisions.

**Application of Guiding Principles:** Plan and invest in public facilities in ways that promote and balance the Guiding Principles established in The Vision and Guiding Principles of this Comprehensive Plan. (CP

Policy 8.31)

**Community benefits:** Encourage providing additional community benefits with large public facility projects as appropriate to address environmental justice policies in Comprehensive Plan Chapter 2: Community Involvement. (CP Policy 8.32)

**Community knowledge and experience:** Encourage public engagement processes and strategies for large public facility projects to include community members in identifying potential impacts, mitigation measures, and community benefits. (CP Policy 8.33)

**Resource efficiency:** Reduce the energy and resource use, waste, and carbon emissions from facilities necessary to serve designated land uses to meet adopted City goals and targets. (CP Policy 8.34)

NOTE: These objectives are operational in nature. PBOT currently does all of these. Should they be deleted and instead reference PBOT internal processes?

**a.** Integrate <u>environmental</u> best management practices into all aspects of the Portland Bureau of Transportation activities. (TSP objective 8.2.a.)

**b.** Continue to reuse and recycle office and construction materials and equipment, compost leaves, and separate street debris. (TSP objective 8.2.b.)

**c.** Maintain equipment and facilities to minimize air, water, and noise pollution. (TSP objective 8.2.c.)

**d.** Use environmentally safe products. (TSP objective 8.2.d.)

**e.** Minimize runoff and erosion in all ground-disturbing activities, including construction, excavation, landscaping, and trench work. (TSP objective 8.2.e.)

f. Use alternative energy sources to power equipment whenever feasible. (TSP objective 8.2.f.)

**g.** Incorporate sustainable and Green Street design solutions for streets and other transportation projects. (TSP objective 8.2.g.)

**Natural systems:** Protect, enhance, and restore natural systems and features for their infrastructure service and other values. (CP Policy 8.35)

**p.** Develop standards and incentives to encourage Green Streets projects in private development, redevelopment and enhancement projects wherever technically and economically feasible. (TSP objective 8.1.p.)

**n.** Consider and minimize impacts on the natural environment and watershed health, consistent with the City and regional response to the Endangered Species Act, the City's Green Streets Policy and stream crossing design guidelines in the Green Streets handbook, in the planning, design, and development of transportation projects. (TSP objective 8.1.n.)

**Context-sensitive infrastructure:** Design, improve, and maintain public rights-of-way and facilities in ways that are compatible with, and that minimize negative impacts on, their physical, environmental, and community context. (CP Policy 8.36)

**i.** Construct local residential streets to minimize pavement width and total right-of-way width, consistent with the operational needs of the facility and taking into account the needs of both pedestrians and vehicles. (TSP objective 8.1.i.)

**Site- and area-specific needs:** Allow for site- and area-specific public facility standards, requirements, tools, and policies as needed to address distinct topographical, geologic, environmental, and other conditions. (CP Policy 8.37)

**Age-friendly public facilities:** Promote public facility designs that make Portland more age-friendly. (CP Policy 8.38)

#### Public rights-of-way policies

The policies in this section support the role of public rights-of-way in providing multiple public services, including multimodal transportation access and movement, stormwater management, water distribution, private utilities, tree canopy, and community use, among others. Current practices and the Portland Plan regard public rights-of-way as a coordinated and interconnected network that provides a place for these multiple public facilities and functions.

Note: The following objectives need a policy

**c.** When changes to a right-of-way are proposed, consider the overall capacity impacts to the immediately affected street, as well as potential areawide capacity impacts. (TSP objective 8.1.c.)

**f.** Provide planned bicycle facilities on designated alignments and in conjunction with street improvements, or develop equally safe and convenient alternative access for bicycles on parallel streets when the appropriate bikeway facility cannot be provided on the designated

street. (TSP objective 8.1.f.)

**g.** Include improvements that enhance transit operations, safety, and travel times in projects on existing or planned transit routes. (TSP objective 8.1.g.)

**b.** Consider the needs and safety of all users of a planned facility in its design and during the construction process. (TSP objective 8.1.b.)

**k.** Encourage the beautification of the City by incorporating appropriate streetscape elements along regionally designated streets and along other City-designated arterials, in conjunction with the Urban Forestry Program. (TSP objective 8.1.k.)

**Interconnected network:** Establish a safe and connected rights-of-way system that equitably provides infrastructure services throughout the city. (CP Policy 8.39)

**Transportation function:** Improve and maintain the right-of-way to support multimodal transportation mobility and access to goods and services as is consistent with the designated street classification. (CP Policy 8.40)

**a.** Make changes to public rights of way that are consistent with their street classifications and descriptions in the Transportation <u>System Plan</u> Element of the Comprehensive Plan. (TSP objective 8.1.a.) - See classification policy in Chapter 9.

**j.** Ensure that transportation facilities are accessible to all people and that all improvements to the transportation system (traffic, transit, bicycle, and pedestrian) in the public right-of-way comply with the Americans with Disabilities Act of 1990. (TSP objective 8.1.j.)

- **a.** Improve the quality of the pedestrian environment by implementing pedestrian design guidelines to ensure that all construction in the right-of-way meets a pedestrian quality standard and by developing special design districts for Pedestrian Districts and main streets. (TSP objective 9.)
- **b.** Implement design guidelines for truck streets that meet the dimensional needs of trucks, particularly for Freight Districts, while balancing the needs of other transportation modes in the right-of-way. (TSP objective 9.15.f.)
- **c.** Improve streets within Freight Districts and on truck-designated streets to facilitate truck movements. (TSP objective 8.1.h.)
- **d.** Encourage the formation of local improvement districts (LIDs) for the construction of transportation infrastructure, which may include streets, curbs, or other structures; pedestrian or bicycle facilities; drainage; and street trees. (TSP objective 8.
- **e.** Require adequate right-of-way or easements where adequate space for planned bikeway and pedestrian facilities is not available. (TSP objective 8.1.q.)
- f. Continue to test, evaluate, and implement appropriate innovative design treatments that

improve operating conditions and safety for cyclists. (TSP objective 8.1.r.)

**g. s.** Utilize interim bicycle facility improvements where the preferred design treatment is not currently feasible. (TSP objective 8.1.s.)

**Utility function:** Improve and maintain the right-of-way to support equitable distribution of utilities, including water, sanitary sewer, stormwater management, energy, and communications, as appropriate. (CP Policy 8.41)

**Stormwater management function:** Improve rights-of-way to integrate green infrastructure and other stormwater management facilities to meet desired levels-of-service and economic, social, and environmental objectives. (CP Policy 8.42)

**Trees in rights-of-way:** Integrate trees into public rights-of-way to support City canopy goals, transportation functions, and economic, social, and environmental objectives. (CP Policy 8.43)

**Community uses:** Allow community use of rights-of-way for purposes such as public gathering space, events, food production, or temporary festivals, as long as the community uses are integrated in ways that balance and minimize conflict with the designated through movement and access roles of rights-of-ways. (CP Policy 8.44)

**Pedestrian amenities:** Encourage facilities that enhance pedestrian enjoyment, such as transit shelters, garbage containers, benches, etc. in the right of way. (CP Policy 8.45)

**Commercial uses:** Accommodate allowable commercial uses of the rights-of-way for the purpose of enhancing commercial vitality, if the commercial uses can be integrated in ways that balance and minimize conflict with the other functions of the right-of-way. Restrict the size of signage in the right-of-way. (CP Policy 8.46)

**Flexible design:** Allow flexibility in right-of-way design and development standards to appropriately reflect the pattern area and other relevant physical, community, and environmental contexts and local needs. (CP Policy 8.47)

**h. o.** Consider the desired character of the area, including neighborhood livability, in the design and development of transportation projects. (TSP objective 8.1.o.)

- e. Use a variety of transportation resources in developing and designing projects for all City streets, such as the City of Portland's Pedestrian Design Guide, Bicycle Master Plan-Appendix A, NACTO Urban Bikeway Design Guide, NACTO Urban Street Design Guide, Portland Parks and Recreation Trail Design Guidelines, Designing for Truck Movements and Other Large Vehicles, and City of Portland Green Street Policy, Stormwater Management Manual, Design Guide for Public Street Improvements, and Neighborhood <u>Greenways.</u> (TSP objective 8.1.e.)
- j. Use Metro street design guidelines (Creating Livable Streets: Street Design for 2040, November 1997 and Green Streets, July 2002) as a resource in developing and designing projects for streets on the regional system. (TSP objective 8.1.d.)

**Corridors and City Greenways:** Ensure public facilities located along Civic Corridors, Neighborhood Corridors, and City Greenways support the multiple objectives established for these corridors. Corridor and City Greenway goals and policies are listed in Comprehensive Plan Chapter 3: Urban Form. (CP Policy 8.48)

**Coordination.** Coordinate the planning, design, development, improvement, and maintenance of public rights-of-way among appropriate public agencies, private providers, and adjacent landowners. (CP Policy 8.49)

**a.** Coordination efforts should include the public facilities necessary to support the uses and functions of rights-of-way, as established in policies 8.40 to 8.46. (CP Policy 8.49.a.)

**b.** Coordinate transportation and stormwater system plans and investments, especially in unimproved or substandard rights-of-way, to improve water quality, public safety, including for pedestrians and bicyclists, and neighborhood livability. (CP Policy 8.49.b.)

**Undergrounding:** Encourage undergrounding of electrical and telecommunications facilities within public rights-of-way, especially in centers and along Civic Corridors. (CP Policy 8.50)

**Right-of-way vacations:** Maintain rights-of-way if there is an established existing or future need for them, such as for transportation facilities or for other public functions established in policies 8.40 to 8.46. (CP Policy 8.51)

**Rail rights-of-way:** Preserve existing and abandoned rail rights-of-way for future rail or public trail uses. (CP Policy 8.52)

#### **Trails policies**

The City of Portland's trail system is a key part of both the City's multi-modal transportation system and its recreation system. Trails within this system take many different forms and are located within the right of way and on public and private property. Trails provide Portlanders with local and regional pedestrian and bicycle connections and access to many key destinations within the city. They also provide a place to recreate and allow Portlanders to experience the city's parks and natural areas. Trails play a particularly important role in meeting pedestrian and bicyclist mobility and connectivity needs in western neighborhoods. See Western Neighborhood Pattern Area Policies 3.100 and 3.103. The policies in this section support continued improvement, management, and coordination of the trail system.

**Public trails:** Establish, improve, and maintain a citywide system of local and regional public trails that provide transportation and/or recreation options and are a component of larger network of facilities for bicyclists, pedestrians, and recreational users. (CP Policy 8.53)

**Trail system connectivity:** Plan, improve, and maintain the citywide trail system so that it connects and improves access to Portland's neighborhoods, commercial areas, employment centers, schools, parks, natural areas, recreational facilities, regional destinations, the regional trail system, and other key places that Portlanders access in their daily lives. (CP Policy 8.54)

**Trail coordination:** Coordinate planning, design, improvement, and maintenance of the trail system among City agencies, other public agencies, non-governmental partners, and adjacent landowners. (CP Policy 8.55)

**Trail diversity:** Allow a variety of trail types to reflect a trail's transportation and recreation roles, requirements, and physical context. (CP Policy 8.56)

**Public access requirements:** Require public access and improvement of Major Public Trails as shown in Figure 8-2 — Major Public Trails. Major Public Trails include regional trails and other significant trail connections that provide for the movement of pedestrians, cyclists, and other users for recreation and transportation purposes. (CP Policy 8.57)

**Trail and City Greenway coordination:** Coordinate the planning and improvement of trails as part of the City Greenways system. See Comprehensive Plan Chapter 3: Urban Form for additional policies

related to City Greenways. (CP Policy 8.58)

**Trail and habitat corridor coordination:** Coordinate the planning and improvement of trails with the establishment, enhancement, preservation, and access to habitat corridors. See Comprehensive Plan Chapter 3: Urban Form for additional policies related to Habitat Corridors. (CP Policy 8.59)

**Intertwine coordination:** Coordinate with the Intertwine Alliance and its partners, including local and regional parks providers, to integrate Portland's trail and active transportation network with the bi-state regional trail system. (CP Policy 8.60)

#### Stormwater system policies

The City's sewer and drainage system accommodates Portland's current and future needs. It also protects public health, water quality, and the environment. Using asset management and watershed health as goals and guides, the City considers the whole watershed as an interconnected hydrologic system.

The City manages sanitary sewage through an extensive piped collection and treatment system, including two wastewater treatment plants that discharge to the Columbia and Willamette rivers. Stormwater is managed and conveyed through a variety of facilities, including pipes, sumps, surface facilities, and natural drainageways. Green infrastructure, including landscaped stormwater facilities and natural resources such as trees and natural areas, is an important part of the stormwater system. Private property investments and public private partnerships also play key roles in the management of stormwater.

The policies below ensure effective sanitary and stormwater systems.

**Stormwater facilities:** Provide adequate stormwater facilities for conveyance, flow control, and pollution reduction. (CP Policy 8.68)

**Green infrastructure:** Promote the use of green infrastructure, such as natural areas, the urban forest, and landscaped stormwater facilities, to manage stormwater. (CP Policy 8.71)

**Stormwater discharge:** Avoid or minimize the impact of stormwater discharges on the water and habitat quality of rivers and streams. (CP Policy 8.72)

On-site stormwater management: Encourage on-site stormwater management, or management as

close to the source as practical, through land use decisions and public facility investments. (CP Policy 8.73)

#### Maintenance objectives

QUESTION: These Objectives are operational in nature; should they be deleted or reference PBOT internal practices?

**a.** Consider the potential impacts of maintenance obligations and life-cycle costs in the development of transportation projects and programs. (TSP objective 8.3.a.)

**b.** Incorporate retrofitting or removing impervious surfaces and culverts identified in the region's fish passage and watershed management programs into maintenance activities for the transportation system. (TSP objective 8.3.b.)

**c.** Use best management practices to address environmental impacts of maintenance activities. (TSP objective 8.3.c.)

**d.** Pursue strategies for new sources of revenues for maintenance of the transportation system. (TSP objective 8.3.d.)

**e.** Coordinate capital improvement program development with ongoing maintenance needs in addition to preservation and rehabilitation projects. (TSP objective 8.3.e.)

**f.** Make improvements to the bicycle network, including removing physical hazards, and maintain the bicycle infrastructure in a timely and efficient manner. (TSP objective 8.3.f.)

# Urban Form (Comp Plan Chapter 3)

## Urban Form Goals

#### A city designed for people

Portland's built environment is designed to serve the needs and aspirations of all Portlanders, promoting prosperity, health, equity, and resiliency. New development, redevelopment, and public investments reduce disparities and encourage social interaction to create a healthy connected city. (CP Goal 3.A)

#### A climate and hazard resilient urban form

Portland's compact urban form, sustainable building development practices, green infrastructure, and active transportation system reduce carbon emissions, reduce natural hazard risks and impacts, and improve resilience to the effects of climate change. (CP Goal 3.B)

#### Focused growth

Household and employment growth is focused in the Central City and other centers, corridors, and transit station areas, creating compact urban development in areas with a high level of service and amenities, while allowing the relative stability of lower-density single-family residential areas. (CP Goal 3.C)

#### A system of centers and corridors

Portland's interconnected system of centers and corridors provides diverse housing options and employment opportunities, robust multimodal transportation connections, access to local services and amenities, and supports low-carbon complete, healthy, and equitable communities. (CP Goal 3.C)

#### Connected public realm and open spaces

A network of parks, streets, City Greenways, and other public spaces supports community interaction; connects neighborhoods, districts, and destinations; and improves air, water, land quality, and environmental health. (CP Goal 3.C)

#### **Citywide Design and Development Policies**

All ages and abilities: Strive for a built environment that provides a safe, healthful, and attractive environment for people of all ages and abilities. (CP Policy 3.4)

#### **Centers Policies**

Centers are compact and pedestrian oriented urban places. They are connected to public transit and active transportation networks. They anchor complete neighborhoods with retail stores and businesses (grocery stores, restaurants, markets, shops, etc.), civic amenities (libraries, schools, community centers, places of worship, etc.), housing options, health clinics, daycare centers, employment centers, plazas and parks, or other public gathering places.

Centers will be the primary areas for growth and change in Portland over the next 20 years. Focusing new growth in centers helps achieve goals of having more Portlanders live in complete neighborhoods, use public transit and active transportation — walking, biking, and rolling — to commute to work and complete errands, and it will help mitigate and prepare for the effects of climate change. Clustering destinations and housing within compact, walkable centers makes access by transit, walking, wheelchair, and bicycle more practical and reduces the amount of driving needed to access services, reducing the impact on roadways, reducing congestion, and helps in facilitating freight movement.

Centers range in scale from the Central City's downtown to small neighborhood centers, providing local access to services and allowing Portlanders across the city to live a healthy, active lifestyle. Neighborhood business districts and the commercial services they provide are the foundation of many centers, but centers, particularly larger centers, will also become a focus for public services, gathering <del>places, and housing growth. In and around all centers, there will be change as areas urbanize and new</del> <del>services, shops and housing are developed.</del>

The Urban Design Framework identifies four types of centers that vary in size, scale, service area, local versus regional role, and density of residents and businesses. The specific boundaries of these centers is shown on the Comprehensive Plan Map.

The four types are:

- 1. Central City
- 2. Regional Center (Gateway)
- 3. Town Center
- 4. Neighborhood Center

Policies in this section identify essential elements and functions of centers that will be enhanced over time. Additional policies provide more detailed direction for specific types of centers based on their scale.

**Investments in centers:** Encourage public and private investment in infrastructure, economic development, and community services in centers to ensure that all centers will support the populations they serve. (CP Policy 3.16)

**Accessibility:** Design centers to be compact, safe, attractive, and accessible places, where the street environment makes access by transit, walking, biking, and mobility devices such as wheelchairs, safe and attractive for people of all ages and abilities. (CP Policy 3.19)

**Center connections:** Connect centers to each other and to other key local and regional destinations, such as schools, parks, and employment areas, by pedestrian trails and sidewalks, bicycle sharing, bicycle routes, frequent and convenient transit, and electric vehicle charging stations. Prepare and adopt future street plans for centers that currently have poor street connectivity, especially where large commercial parcels are planned to receive significant additional housing density. (CP Policy 3.20)

**Green infrastructure in centers:** Integrate nature and green infrastructure into centers and enhance public views and connections to the surrounding natural features. (CP Policy 3.21)

#### **Central City policies**

The Central City is a living laboratory for how the design and function of a dense urban center can

concurrently provide benefits to human health, the natural environment, and the local economy. As Portland is the major center for jobs, transit, services, and civic and cultural institutions for the entire city and region. The Central City houses numerous attractions including Portland State University, the Oregon Convention Center, City Hall, Tom McCall Waterfront Park and the Willamette River, Pioneer Courthouse Square, and many museums and venues for artistic and cultural activities and professional sports. The Central City's ten unique districts include Downtown, the West End, Goose Hollow, Pearl, Old Town/Chinatown, Lower Albina, Lloyd, the Central Eastside, South Waterfront, and South Downtown/University. Together, these districts provide a diversity of opportunities for urban living, economic development, retail and entertainment.

**Transportation hub:** Enhance the Central City as the region's multimodal transportation hub and optimize regional access as well as the movement of people and goods among key destinations. (CP Policy 3.26)

#### Gateway Regional Center policies

Gateway Regional Center is East Portland's major center, providing the area and region with civic, employment, and community services. It includes the city's largest transit hub outside of downtown and good freeway access to regional destinations such as Portland International Airport.

**Transportation:** Enhance Gateway's role as a regional high-capacity transit hub that serves as an anchor for East Portland's multimodal transportation system. (CP Policy 3.30)

#### **Town Center policies**

Town Centers are located throughout Portland to serve broad parts of the city. They are typically anchored by employment centers or institutions, feature a wide range of commercial and community services, and have a wide range of housing options. Development in Town Centers is intended to be up to mid rise in scale, with larger scale buildings primarily located close to high capacity transit stations. Mid-rise development is typically as high as five to seven stories.

**Transportation:** Improve Town Centers as multimodal transportation hubs that optimize access from the broad area of the city they serve and are linked to the region's high-capacity transit system. (CP Policy 4.34)

#### Neighborhood center policies

Neighborhood Centers are smaller, sometimes village like centers that include a mixture of higher density commercial and residential buildings. Because these centers are smaller than Town Centers, there are many more of them citywide. Development in Neighborhood Centers is generally intended to be low rise in scale, although larger scale can be appropriate in locations close to high capacity transit stations or near the Central City. Low rise development typically includes buildings up to four stories in height.

**Transportation:** Design Neighborhood Centers as multimodal transportation hubs that are served by frequent-service transit and optimize pedestrian and bicycle access from adjacent neighborhoods.

#### **Inner Ring District policies**

The Inner Ring Districts include some of Portland's oldest neighborhoods, with several historic districts and a broad diversity of housing types. These areas include distinct districts, such as Albina and Northwest Portland, that have multiple mixed use corridors in proximity (see the shaded areas in the Urban Design Framework), allowing most residents to live within a quarter mile distance of frequent service transit and neighborhood businesses. The Inner Ring Districts are also served by a highly interconnected system of streets and sidewalks, and are within a three mile biking distance of the Central City's array of services, jobs, and amenities.

These policies acknowledge that growth in the Inner Ring Districts plays an important role in allowing more people to have access to their many opportunities, but also acknowledge that this growth should be integrated into these areas' historic urban fabric. The Inner Ring Districts, especially along their corridors, play a similar role to Town Centers in accommodating growth.

**Corridors:** Guide growth in corridors to transition to mid-rise scale close to the Central City, especially along Civic Corridors.

Active transportation: Enhance the role of the Inner Ring Districts' extensive transit, bicycle, and pedestrian networks in conjunction with land uses that optimize the ability for more people to utilize this network. Improve the safety of pedestrian and bike connections to the Central City. Strengthen transit connections between the Inner Ring Districts and to the Central City.

#### **Corridor policies**

<del>Corridors, like centers, are areas where Portland will grow and change much over the next 20 years.</del> They are busy, active streets with redevelopment potential. They are close to neighborhoods and are places with transit, stores, housing, and employers. They need to be planned, designed, and improved to be places that benefit and become successful additions to surrounding neighborhoods. The largest places of focused activity and density along these corridors are designated as centers.

There are two types of street corridors:

- 1. Civic Corridors
- 2. Neighborhood Corridors

**Growth and mobility:** Coordinate transportation and land use strategies along corridors to accommodate growth and mobility needs for people of all ages and abilities.

**Connections:** Improve corridors as multimodal connections providing transit, pedestrian, bicycle, and motor vehicle access and that serve the freight needs of centers and neighborhood business districts.

**Design:** Encourage street design that balances the important transportation functions of corridors with their roles as the setting for commercial activity and residential living.

**Green infrastructure in corridors:** Enhance corridors with distinctive green infrastructure, including landscaped stormwater facilities, extensive tree plantings, and other landscaping that both provide environmental function and contribute to a quality pedestrian environment.

#### **Civic Corridor policies**

Civic Corridors are the city's busiest, widest, and most prominent streets. They provide major connections among centers, the rest of the City, and the region. They support the movement of people and goods across the city, with high levels of traffic and pedestrian activity. Civic Corridors provide opportunities for growth and transit supportive densities of housing, commerce, and employment. Development in Civic Corridors is intended to be up to mid rise in scale, with lower scale generally more appropriate in locations far from the Central City or transit stations. Mid rise development typically ranges from five to seven stories.

Abundant trees and high-quality landscaping beautify Civic Corridors and offset the impacts of their large paved areas. These corridors exemplify the benefits of green infrastructure by cleaning and soaking up stormwater runoff and minimizing urban heat island effects, while also being enjoyable places to live, work, and gather. Civic corridors are safe for all types of transportation. Civic Corridors policies apply to the roadway, the public realm of the street, and the buildings that line the street.

Integrated land use and mobility: Enhance Civic Corridors as distinctive places that are models of

ecological urban design, with transit-supportive densities of housing and employment, prominent street trees and other green features, and high-quality transit service and pedestrian and bicycle facilities.

**Design great places:** Improve public streets and sidewalks along Civic Corridors to support the vitality of business districts, create distinctive places, provide a safe, healthy, and attractive pedestrian environment, and contribute to quality living environments for residents.

**Mobility corridors:** Improve Civic Corridors as key mobility corridors of citywide importance that accommodate all modes of transportation within their right-of-way or on nearby parallel routes.

**Freight:** Maintain freight mobility and access on Civic Corridors that are also Major or Priority Truck Streets.

#### **Neighborhood Corridor policies**

Neighborhood Corridors are narrower main streets that connect neighborhoods with each other and to other parts of the city. They have transportation, land use, and design functions that are important at a neighborhood or district level. They support neighborhood business districts and provide housing opportunities close to local services, amenities, and transit lines. They are streets that include a mix of commercial and higher density housing development. This policy is intended to balance the important transportation functions of Neighborhood Corridors with their roles in supporting the viability of business districts and residential livability.

**Neighborhood Corridors:** Enhance Neighborhood Corridors as important places that support vibrant neighborhood business districts with quality multi-family housing, while providing transportation connections that link neighborhoods.

#### Transit station areas policies

Transit stations provide access to high capacity transit, which currently consists of the region's light rail system, and in the future may also include bus rapid transit. These policies encourage housing and employment growth in transit station areas to maximize people's ability to benefit from the regional connections they provide and to increase transit access to employment. The policies support a range of transit station area types, with differing priorities for growth, depending on the station type and context.

Priority is given to growth in station areas located in centers since they provide more people with opportunities to be close to both transit and to commercial and public services. These stations have the highest potential for mixed use development. Center stations benefit from the concentration of local services and businesses as well as connections to other transit routes typically found on corridors. Mixed-use development with housing is not the priority for all transit station areas; some are locations for employment, or they serve major regional destinations such as the Oregon Zoo. See Figure 3-4 — Transit Station Areas.

**Transit-oriented development:** Encourage transit-oriented development and transit-supportive concentrations of housing and jobs, and multimodal connections at and adjacent to high-capacity transit stations.

**a.** Consider the existing or planned availability of high-quality transit service when adopting more intensive residential, commercial, and employment designations. (TSP objective 9.13.a.)

**b.** Focus medium-density and high-density development, including institutions, in transit-oriented developments along transit lines. (TSP objective 9.13.b.)

**c.** Require commercial and multifamily development to orient to and provide pedestrian and bicycle connections to transit streets and, for major developments, provide transit facilities on a site or adjacent to a transit stop. (TSP objective 9.13.c.)

**d**- Examine the benefits of limiting drive through facilities in existing or planned areas of high intensity development and high levels of pedestrian, bicycle, and transit activity when planning studies are being done for these areas. (TSP objective 9.13.d.)

**Community connections:** Integrate transit stations into surrounding communities and enhance pedestrian and bicycle facilities (including bike sharing) to provide safe and accessible connections to key destinations beyond the station area.

**Transit station area safety:** Design transit areas to improve pedestrian, bicycle, and personal safety.

#### **City Greenways policies**

City Greenways are a system of distinctive pedestrian and bicycle friendly streets and trails, enhanced by lush tree canopy and landscaped stormwater facilities that support active living by expanding transportation and recreational opportunities and making it easier and more attractive to reach destinations across the city. As Portland continues to grow, the City Greenways system will strengthen connections to nature, weave green elements into neighborhoods, and enhance mobility and recreation. City Greenways are a network that includes the following types of infrastructure:

- 1. Enhanced greenway corridors are distinctive streets with extensive tree canopy and landscaped stormwater facilities that provide connections between major centers, schools, parks, natural areas, and the rivers. Enhanced greenway corridors often involve improvements to existing streets, including wide planting strips and other features that provide space for large-canopy trees.
- 2. Trails are designated routes on land or water that provide public access for recreation or transportation purposes, such as walking and bicycling. They are often located along rivers, through natural areas, or along rail or highway rights of way, with connections to and through neighborhoods.
- 3. Heritage parkways are iconic streets or segments of streets with elements such as linear parkways, scenic views, and distinctive landscaping or street design.
- 4. Neighborhood greenways are an extensive network of streets with low volumes of motor vehicle traffic that are prioritized for bicycles and enhance the pedestrian environment, working in conjunction with the rest of the City Greenways system to extend the system into all neighborhoods.

See Figure 3-5 – City Greenways.

**Connections:** Create a network of distinctive and attractive City Greenways that link centers, parks, schools, rivers, natural areas, and other key community destinations.

**Integrated system:** Create an integrated City Greenways system that includes regional trails through natural areas and along Portland's rivers, connected to neighborhood greenways, and heritage parkways.

**Multiple benefits:** Design City Greenways that provide multiple benefits that contribute to Portland's pedestrian, bicycle, green infrastructure, and parks and open space systems.

**Design:** Use design options such as distinctive street design, motor vehicle diversion, landscaping, tree plantings, scenic views, and other appropriate design options, to create City Greenways that extend the experience of open spaces and nature into neighborhoods, while improving stormwater management and calming traffic.

Additional policies related to City Greenways are provided in Chapter 9: Transportation.

#### Employment areas policies

Portland is a major employment center in the region and the state. The diversity of the economy is

spread evenly among four types of business sectors that thrive in different parts of the city: industrial, office, institutional, and retail/service. The city's employment geographies are:

Central City: The Central City is the region's high-density employment center. It is primarily an office district for professional and business services, finance, information, software, and government. It is also a key location for the entertainment, small industry, and education sectors.

Industrial Districts: Industrial districts are in the low, flat areas along Portland Harbor and the Columbia Corridor, Oregon's freight infrastructure hub. Manufacturing and distribution sectors concentrate here. They typically need one story buildings, medium to large sites, and locations buffered from housing. There is also an industrial district in the Central Eastside and smaller industrial areas scattered around the city, mostly adjacent to major transportation hubs.

Neighborhood Commercial: Neighborhood Commercial areas are mainly home to the retail, personal service, and related sectors that serve customers on site. These businesses locate amid their market areas, lining corridors across the city. They generally need ground floor space along pedestrian or auto-oriented streets.

Campus Institutions: Institutions in the health care and education sectors are concentrated in large hospital and college campuses and dispersed smaller facilities. Major institutions are large employers with campuses that vary from pastoral expanses to more concentrated urban grounds. They are located throughout the city, often in or adjacent to residential areas.

Each of these sectors is growing, and each has different land use needs and offers different prosperity benefits. Traded sector (export) businesses bring income and jobs into the region and are mainly in the industrial and office sectors. Middle wage jobs that require less college education and offer upward mobility are concentrated in the industrial sectors. Office jobs offer a wide variety of wages and are mainly concentrated in the Central City but are also distributed in neighborhood business districts.

Retail and service sector jobs are concentrated in the Central City and neighborhood business districts. They provide needed services to residents and include many locally owned businesses; they do not typically offer higher paying employment opportunities. The health care and education sectors are the leading job growth opportunities, most of which are located on major campuses. Healthcare is one of the city's fastest growing employment sectors.

Regional Truck Corridors: Maintaining the primary truck routes into and through the city supports Portland's role as an important West Coast hub and a gateway for international and domestic trade. These streets are integral to the growth of traded sector businesses such as manufacturing, warehousing and distribution industries.

**Regional Truck Corridors:** Enhance designated streets to accommodate forecast freight growth and support intensified industrial use in nearby freight districts. See Figure 3-7 — Employment Areas. Designated regional truckways and priority truck streets (Transportation System Plan classifications are shown to illustrate this network). (CP Policy 3.69)

# Design and Development (Comp Plan Chapter 4)

## **Design and Development Goals**

#### Context-sensitive design and development

New development is designed to respond to and enhance the distinctive physical, historic, and cultural qualities of its location, while accommodating growth and change. (CP Goal 4.A)

#### Human and environmental health

Neighborhoods and development are efficiently designed and built to enhance human and environmental health: they protect safety and livability; support local access to healthy food; limit negative impacts on water, hydrology, and air quality; reduce carbon emissions; encourage active and sustainable design; protect wildlife; address urban heat islands; and integrate nature and the built environment. (CP Goal 4.C)

#### **Context Policies**

Portland's neighborhoods have distinct characteristics and street environments that provide a sense of place and that are a setting for public life. The following policies guide building and site design to respond to positive characteristics of their context and promote accessible and attractive public environments. They also support designing development to contribute to the quality of the public realm of streets and other open spaces, and encourage the integration of natural elements into the built environment.

**Pattern areas:** Encourage building and site designs that respect the unique built natural, historic, and cultural characteristics of Portland's five pattern areas described in Chapter 3: Urban Form. (CP Policy 4.1)

**Community identity:** Encourage the development of character-giving design features that are responsive to place and the cultures of communities. (CP Policy 4.2)

Site and context: Encourage development that responds to and enhances the positive qualities of site

and context — the neighborhood, the block, the public realm, and natural features. (CP Policy 4.3)

**Natural features and green infrastructure:** Integrate natural and green infrastructure such as trees, green spaces, ecoroofs, gardens, green walls, and vegetated stormwater management systems, into the urban environment. Encourage stormwater facilities that are designed to be a functional and attractive element of public spaces, especially in centers and corridors. (CP Policy 4.4)

**Pedestrian-oriented design:** Enhance the pedestrian experience throughout Portland through public and private development that creates accessible, safe, and attractive places for all those who walk and/or use wheelchairs or other mobility devices. (CP Policy 4.5)

**Street orientation:** Promote building and site designs that enhance the pedestrian experience with windows, entrances, pathways, and other features that provide connections to the street environment. (CP Policy 4.6)

**Development and public spaces:** Guide development to help create high-quality public places and street environments while considering the role of adjacent development in framing, shaping, and activating the public space of streets and urban parks. (CP Policy 4.7)

**Alleys:** Encourage the continued use of alleys for parking access, while preserving pedestrian access. Expand the number of alley-facing accessory dwelling units. (CP Policy 4.8)

**Transitional urbanism:** Encourage temporary activities and structures in places that are transitioning to urban areas to promote job creation, entrepreneurship, active streets, and human interaction. (CP Policy 4.9)

#### Design and development of centers and corridors policies

Centers and corridors are places where large numbers of people live, work, and visit. Careful attention to the design of centers and corridors is necessary to ensure that they become places where people want to live and gather, and where getting around by walking, biking, or wheelchair is an attractive choice. These policies also encourage the development of centers as places that reflect the character and cultures of the surrounding neighborhoods. **Walkable scale:** Focus services and higher-density housing in the core of centers to support a critical mass of demand for commercial services and more walkable access for customers. (CP Policy 4.20)

**Street environment:** Encourage development in centers and corridors to include amenities that create a pedestrian-oriented environment and provide places for people to sit, spend time, and gather. (CP Policy 4.21)

**Relationship between building height and street size:** Encourage development in centers and corridors that is responsive to street space width, thus allowing taller buildings on wider streets. (CP Policy 4.22)

**Design for pedestrian and bicycle access:** Provide accessible sidewalks, high-quality bicycle access, and frequent street connections and crossings in centers and corridors. (CP Policy 4.23)

#### Designing with nature policies

Incorporating natural features and functions into development improves human and ecological health, yielding tangible social, environmental, and economic benefits. Designing with nature provides or enhances ecosystem services, such as stormwater management, cooling of air and water, reduction of landslide, wildfire and flooding risks, protection or enhancement of fish and wildlife habitat, and opportunities for Portlanders to enjoy nature in their daily lives. These policies apply to a broad range of land uses and development sites, encouraging development designed to enhance the identity and beauty of Portland's neighborhoods, business districts, and industrial districts, while improving watershed health and resilience to climate change.

Additional goals and policies about the integration of nature into the built environment and infrastructure are found in Comprehensive Plan Chapter 7: Environment and Watershed Health, Chapter 8: Public Facilities and Services, and Chapter 9: Transportation.

**Design with nature:** Encourage design and site development practices that enhance, and avoid the degradation of, watershed health and ecosystem services and that incorporate trees and vegetation. (CP Policy 4.73)

**Flexible development options:** Encourage flexibility in the division of land, the siting and design of buildings, and other improvements to reduce the impact of development on environmentally-sensitive areas and to retain healthy native and beneficial vegetation and trees. (CP Policy 4.74)

**Low-impact development and best practices:** Encourage use of low-impact development, habitat-friendly development, bird-friendly design, and green infrastructure. (CP Policy 4.75)

**Impervious surfaces:** Limit use of and strive to reduce impervious surfaces and associated impacts on hydrologic function, air and water quality, habitat connectivity, tree canopy, and urban heat island effects. (CP Policy 4.76)

# Section 3 Pattern Area Policies

# SUMMARY OF REVISIONS

Policies for the eight transportation districts in the 2007 TSP were audited and reoriented towards the five pattern areas in the adopted Comp Plan. The five pattern areas include:

- Rivers Pattern Area
- Central City Pattern Area
- Inner Neighborhoods Pattern Area
- Eastern Neighborhoods Pattern Area
- Western Neighborhoods Pattern Area

Pending public feedback on this Discussion Draft, Objectives that are presently repeated in each pattern area will be considered for inclusion in the overall TSP Objectives section. Presently, all pattern areas include the following Objectives:

- Coordination
  - New objective
- Healthy Trees
  - New objective
- Area Plan Reference
  - New objective. In the future, this will link to an interactive map of area plans in the digital TSP document.

The following Objectives were retained from District Policies:

- Objective N: Local circulation
  - Retained from SE district policy
- Objective O: Bike routes
  - Retained from NE district objectives and edited to include both directions, safety, Green Loop to NE 9th Bikeway.
- Objective NN: Urban Trail Plan
  - Retained from SW district objective, updated language "implementing", "which may include"

Objectives that are not listed above (as retained from District Policies) are new objectives as sourced from City plans, staff, agency partners, and community Transportation Expert Group

#### contributors.

# SUMMARY OF PROCESS

NOTE: Comprehensive Plan Goals and Policies are in the GRAY box below. The Goals and Policies were adopted by City Council in 2016 as part of the Comprehensive Plan Update and Stages 1 and 2 of the TSP Update. <u>These Goals and Policies are NOT under review.</u>

- Pending public feedback on this Discussion Draft, Objectives that are presently repeated in each pattern area will be considered for inclusion in the overall TSP Objectives section.
- Existing Geographic Policies were formatted around eight transportation districts in the 2007 TSP. Those transportation districts include:
  - Central City
  - SE
  - Far SE
  - NE
  - Far NE
  - N
  - NW
  - ∎ SW
  - Each of these transportation district-oriented objectives were reviewed to determine if they should be carried over and "rehoused" in one of the five Pattern Area Policies as adopted by the Comp Plan. The pattern areas include:
    - Rivers
    - Central City
    - Inner Neighborhoods
    - Western Neighborhoods
    - Eastern Neighborhoods
  - To determine what should be proposed for deletion or rehousing and/or editing, each district policy was cross-referenced to any related Comp Plan and/ or previously updated TSP policies. Then four criteria were applied to each district policy:
    - <u>Addressed:</u> District objective is relatable to a present action, one or more new TSP Projects, or by a new Comprehensive Plan policy, which supersedes and addresses the interests within the statement.
    - <u>Concluded</u>: District objective has been developed into one or more projects over time, which have been completed, rendering the objective

no longer relevant even if the objective statement is non sequitur (see below).

- Geographically unconstrained: District objective statement includes generalizations that apply to a broader geographic area than the Geographic Policy objectives are intended to be confined to. These generalizations are intended to be addressed in TSP Objectives section and were forwarded for consideration as a general TSP Objective.
- <u>Non sequitur</u>: Statement describes a specific project or location-specific interest rather than relaying an objective about geographic policy. Projects are now hosted in the adopted TSP Project List.
- PBOT and Bureau of Planning and Sustainability staff reviewed the district objectives, noting individual objectives that did not fall into the deletion criteria. Staff also reviewed past local and area plans and developed new objectives where they thought additional guidance is needed to meet lessons learned and fulfill previous plan recommendations.

# **Pattern Areas**

## SUGGESTED LANGUAGE FOR ADOPTION

Updated 19 May 2017

#### Key

Existing language <u>Suggested new language</u> <del>Deleted language</del> Adopted Comprehensive Plan language not under discussion for amendment

# **Pattern Areas**

Portland has five distinct Pattern Areas. The development patterns and characteristics of these areas are influenced by the natural landscape and how and when these parts of the city were developed.

- 1. Rivers
- 2. Central City
- 3. Inner Neighborhoods
- 4. Western Neighborhoods
- 5. Eastern Neighborhoods

Each Pattern Area has unique physical, social, cultural, and environmental qualities that differentiate them and create their sense of place. To maintain and enhance the positive qualities and sense of place in each pattern area, it is desirable to have policies and regulations that respond to each area's unique natural and built assets.

The following policies identify key positive characteristics of each of Portland's Pattern Areas that are relevant to decisions related to future development in these areas. Area and

neighborhood plans should be consulted for more detailed guidance on design priorities in different parts of the city.

## **Rivers Pattern Area**

Human settlement began along and at the confluence of the Willamette and Columbia rivers because it offered Native Americans plentiful food, natural resources, and critically-important trade and transportation opportunities. After white immigrants began moving to the area, the settlement grew into the city of Portland. As the city's initial form-giving features, the two rivers have continued to shape the city.

Today, the Willamette and Columbia rivers continue to serve multiple functions and roles.

The rivers:

- Are features of significant historic and cultural significance to Native American tribes and others throughout the region.
- Serve as essential industrial transportation corridors that support the local and regional economy.
- Support recreational, subsistence, and commercial fisheries.
- Provide important habitat for resident and migratory fish and wildlife.
- Are important scenic, recreational, and transportation amenities for Portlanders and visitors.

These policies foster development and land stewardship approaches that recognize, support, and balance the varied systems, uses, and activities along the Columbia and Willamette rivers, including: the Portland Harbor, Columbia Corridor, and other prime industrial lands; habitat areas and corridors; distinctive riverfront neighborhoods along the banks; and access to, along, and within the rivers.

Policy 3.71	River transportation. Recognize and enhance the roles of the Willamette and
	Columbia rivers as part of Portland's historic, current, and future transportation
	infrastructure, including for freight, commerce, commuting, and other public and
	private transportation functions.
Policy 3.72	Recreation. Improve conditions along and within the Willamette and Columbia
	rivers to accommodate a diverse mix of recreational users and activities.
	Designate and invest in strategically-located sites along the length of Portland's
	riverfronts for passive or active recreation activities that are compatible with
	nearby land uses, historically and culturally important sites, significant habitat
	areas, restoration sites, and native fish and wildlife usage.
Policy 3.73	Industry and port facilities. Enhance the regionally significant economic

[	
	infrastructure that includes Oregon's largest seaport and largest airport, unique
	multimodal freight, rail, and harbor access; the region's critical energy hub; and
	proximity to anchor manufacturing and
	distribution facilities.
Policy 3.75	Commercial activities. Enhance the roles of the Willamette and Columbia rivers
	in supporting local and regional business and commerce, including commercial
	fishing, tourism, recreation, and leisure.
Policy 3.77	River access. Enhance and complete Portland's system of river access points
	and riverside trails, including the Willamette Greenway Trail, and strengthen
	active transportation connections between neighborhoods and the rivers.
Policy 3.78	River management and coordination. Coordinate with federal, state, regional,
	special districts, and other agencies to address issues of mutual interest and
	concern, including economic development, recreation, water transportation,
	flood and floodplain management and protection, regulatory compliance, permitting, emergency management, endangered species recovery, climate
	change preparation, Portland Harbor Superfund, brownfield cleanup, and
	habitat restoration.
Policy 3.79	Columbia River. Enhance the role of the Columbia River for river dependent
	industry, fish and wildlife habitat, subsistence and commercial fisheries, floating-
	and land-based neighborhoods, recreational uses, and water transportation.
Policy 3.81	Willamette River Central Reach. Enhance the role of the Willamette River
	Central Reach as the Central City and region's primary riverfront destination for
	recreation, history and culture, emergency response, water transportation, and
	as habitat for fish and wildlife.
Policy 3.83	Willamette River Greenway. Maintain multi-objective plans and regulations to
	guide development, infrastructure investments, and natural resource protection
	and enhancement within and along the Willamette Greenway.
Objective A	Coordination. Coordinate among bureaus when designing and
	implementing facilities in the right of way.
Objective B	Healthy trees. Acknowledging the role tree canopy plays in responding
	to the heat island effect along roadways, prioritize the space for
	retaining existing mature but healthy trees when planning ROW
	improvements and explore alternatives to retain trees, including
	alternative street standards and stormwater system designs and minor
	additional ROW acquisition or agreements with adjacent property

owners.

Objective CArea plan reference. Refer to local area plans for additional applicable<br/>geographic objectives.

## **Central City Pattern Area**

The Central City is home to Portland's greatest concentrations of employment, and civic, cultural, and higher education institutions. Primary natural features include the Willamette River, large street trees, green streets and landscaping, and corridors of park blocks that further weave nature into the Central City. The area's high-density mixed-use neighborhoods contribute to the distinct identities of different areas within the Central City. These policies highlight some key design priorities for the Central City related to its distinctive urban form. These policies encourage design in the Central City that enhances its role as the region's center of innovation and exchange, in recognition that a healthy city must have a healthy core.

Policy 3.87	<b>Central City bicycle system.</b> Expand and improve the Central City's bicycle system.
Objective D	<b>Coordination.</b> Coordinate among bureaus when designing and implementing facilities in the right of way.
<u>Objective E</u>	<b>Pedestrian priorities.</b> Guide operational and right of way tradeoffs to favor pedestrian priorities in the Central City where there are high pedestrian volumes and transit mode share.
Objective F	Non-SOV mode choice. Encourage those who travel to and within the <u>Central City to arrive by means of transit, active transportation, and other</u> means besides Single Occupancy Vehicles (SOV) including walking and <u>biking.</u>
<u>Objective G</u>	<b>Regional Transit Hub.</b> Protect and enhance the Central City's function as a regional transit hub, especially as pertaining to decisions impacting right of way allocation at portals.
Objective H	Impacts of innovations. Study and consider how innovations in
	transportation such as car sharing, bike sharing, shared parking and autonomous vehicles might impact traffic and parking pressures.
<u>Objective I</u>	Healthy trees. Acknowledging the role tree canopy plays in responding to the heat island effect along roadways, prioritize the space for retaining existing mature but healthy trees when planning ROW

	improvements and explore alternatives to retain trees, including
	alternative street standards and stormwater system designs and minor
	additional ROW acquisition or agreements with adjacent property
	owners.
Objective J	Area plan reference. Refer to local area plans for additional applicable
	<u>geographic objectives.</u>

#### Inner Neighborhoods Pattern Area

The Inner Neighborhoods were developed and shaped during the Streetcar Era of the late 19th and early 20th centuries. The Inner Neighborhoods are characterized by a regular pattern of neighborhood business districts located along former streetcar streets interspersed with residential areas. This Pattern Area has a small block pattern with an interconnected street grid that make transit, walking, and bicycling attractive options. Within this Pattern Area is an inner ring of neighborhoods that provide important opportunities for additional housing close to the Central City, but where future growth should be integrated into the existing and historic context. These policies express the overall design approach in Inner Neighborhoods.

Policy 3.88	Inner Neighborhoods main streets. Maintain and enhance the Streetcar Era
	pattern of street-oriented buildings along Civic and Neighborhood corridors.
Policy 3.89	Inner Neighborhoods street patterns. Preserve the area's urban fabric of
	compact blocks and its highly interconnected grid of streets.
Policy 3.91	Inner Neighborhoods active transportation. Use the extensive street, sidewalk,
	and bikeway system and multiple connections to the Central City as a key part
	of Portland's active transportation system.
Delley 202	Inner Neichberheade residential errors. Continue the patterns of small
Policy 3.92	Inner Neighborhoods residential areas. Continue the patterns of small,
	connected blocks, regular lot patterns, and streets lined by planting strips and
	street trees in Inner Neighborhood residential areas.
Objective K	Coordination. Coordinate among bureaus when designing and
	implementing facilities in the right of way.
Objective L	Active transportation. Continue to develop safe pedestrian networks
	and access to transit.
Objective M	North-South transit. Support development of, access to, and service
	enhancement for North-South transit.

Objective N	Local circulation. Operate Neighborhood Collectors to function primarily
	as circulation for local traffic rather than as regional streets, even where
	they carry a significant amount of regional traffic.
<u>Objective O</u>	Bike routes. Continue to develop safe east/west and north/south bicycle
	routes, both on-street and off-street, to connect with existing bikeways
	(including those on East Burnside, I-205, and Green Loop to NE 9th
	Bikeway) and with work, school, commercial, and recreational
	destinations.
Objective P	Alleyways. Promote and guide the implementation of alley
	improvements that result in alleys that are safe, well maintained, and an
	asset for the community.
<u>Objective Q</u>	Cut-through traffic. Reinforce improvements to street design to reduce
	or mitigate neighborhood cut-through traffic and support the appropriate
	use of streets designated for commuter and pass-through traffic.
Objective R	Impacts of innovations. Study and consider how innovations in
	transportation such as car sharing, bike sharing, shared parking and
	autonomous vehicles might impact traffic and parking pressures.
Objective S	Inner Neighborhoods displacement vulnerability. Evaluate and
-	document displacement vulnerability risk factors (such as households
	renting versus owning, belonging to communities of color, not having a
	college degree, and being lower income) for potentially impacted plan
	and project areas, recognizing Inner Neighborhoods have higher
	proportions of these risk factors and residents may be at risk of
	displacement.
Objective T	Healthy trees. Acknowledging the role tree canopy plays in responding
	to the heat island effect along roadways, prioritize the space for
	retaining existing mature but healthy trees when planning ROW
	improvements and explore alternatives to retain trees, including
	alternative street standards and stormwater system designs and minor
	additional ROW acquisition or agreements with adjacent property
	owners.
<u>Objective U</u>	Area plan reference. Refer to local area plans for additional applicable
	geographic objectives.
#### Eastern Neighborhoods Pattern Area

Portland's Eastern Neighborhoods feature a diverse range of urban and natural landscapes. Many structures in the Eastern Neighborhoods, which also include parts of Brentwood-Darlington and Cully, were developed after World War II. In addition, most of this this area was annexed into the City of Portland after the 1980 Comprehensive Plan was completed. The policies for the Eastern Neighborhoods promote design that responds to and enhances the area's distinctive mix of urban patterns and natural features, such as groves of Douglas firs, the East Buttes, and streams. Some policies address the opportunities and challenges presented by the area's large blocks, deep lots, gaps in pedestrian and bicycle connectivity, and wide street corridors.

The Eastern Neighborhoods provide opportunities for new and distinctive approaches to the design of development and infrastructure that can enhance the area's positive characteristics and improve quality of life. It is important to continue the area's verdant character and provide a more livable environment, while reducing disparities and increasing access to services.

Policy 3.93	Eastern Neighborhoods street, block, and lot pattern. Guide the evolving
	street and block system in the Eastern Neighborhoods in ways that build on
	positive aspects of the area's large blocks, such as opportunities to continue
	mid-block open space patterns and create new connections through blocks that
	make it easier to access community destinations.
Policy 3.94	Eastern Neighborhoods site development. Require that land be aggregated
	into larger sites before land divisions and other redevelopment occurs. Require
	site plans which advance design and street connectivity goals.
Policy 3.95	Eastern Neighborhoods trees and natural features. Encourage development
	and right-of-way design that preserves and incorporates Douglas fir trees and
	groves, and that protects the area's streams, forests, wetlands, steep slopes, and buttes.
Policy 3.97	Eastern Neighborhoods corridor landscaping. Encourage landscaped building
	setbacks along residential corridors on major streets.
Policy 3.98	Eastern Neighborhoods active transportation. Enhance access to centers,
	employment areas, and other community destinations in Eastern
	Neighborhoods by ensuring that corridors have safe and accessible pedestrian
	and bicycle facilities and creating additional secondary connections that provide
	low-stress pedestrian and bicycle access.
Objective V	Prioritize new sidewalk connections. Prioritize adding sidewalks where

	there are none over expanding/ widening existing connections.
<u>Objective W</u>	<b>Flexibility in street design</b> . Employ a tailored approach to meeting the needs of pedestrian and bicycle connectivity, which may require consideration of alternatives to traditional complete streets design.
<u>Objective X</u>	<b>Eastern Neighborhoods displacement vulnerability.</b> Evaluate and document displacement vulnerability risk factors (such as households renting versus owning, belonging to communities of color, not having a college degree, and being lower income) for potentially impacted plan and project areas, recognizing Eastern Neighborhoods have higher proportions of these risk factors and residents may be at risk of displacement.
<u>Objective Y</u>	<b>Coalition building.</b> Work with other bureaus, agencies, and organizations to counter displacement risks, as identified by the analysis documented in Objective M, by addressing community stabilization needs when implementing large capital projects, such as regional-scale projects.
<u>Objective Z</u>	North-South transit. Support development of, access to, and service enhancement for North-South transit.
<u>Objective AA</u>	Healthy trees. Acknowledging the role tree canopy plays in responding to the heat island effect along roadways, prioritize the space for retaining existing mature but healthy trees when planning ROW improvements and explore alternatives to retain trees, including alternative street standards and stormwater system designs and minor additional ROW acquisition or agreements with adjacent property owners.
Objective BB	<b>Cut-through traffic.</b> Reinforce improvements to street design to reduce or mitigate neighborhood cut-through traffic and support the appropriate use of streets designated for commuter and pass-through traffic.
Objective CC	<b>Coordination.</b> Coordinate among bureaus when designing and implementing facilities in the right of way.
Objective DD	Area plan reference. Refer to local area plans for additional applicable geographic objectives.

#### Western Neighborhoods Pattern Area

The Western Neighborhoods have been shaped by their location within the terrain of Portland's west hills. Much of this area was developed after World War II. These policies encourage design that responds to the area's prominent characteristics, such as its hilly topography, streams, ravines, and forested slopes, while cultivating a built environment that expands mobility and accessibility for all people. These design approaches are intended to apply to a range of development types and locations.

Policy 3.100	Western Neighborhoods active transportation. Provide safe and accessible
	pedestrian and bicycle connections, as well as off-street trail connections, to
	and from residential neighborhoods.
Policy 3.103	Western Neighborhoods trails. Develop pedestrian-oriented connections and
	enhance the Western Neighborhoods' distinctive system of trails to increase
	safety, expand mobility, access to nature, and active living opportunities in the
	area.
Objective EE	Transit-oriented development. Collaborate with the Portland Housing
	Bureau and other community development institutions on
	transit-oriented development projects, to ensure connectivity projects
	benefit people of color and address displacement pressures in areas
	with higher percentages of people of color, to improve transit access
	and housing options in high opportunity areas, and to address sidewalk
	deficiencies in communities of color.
Objective FF	Flexibility in street design. Employ a tailored approach to meeting the
	needs of pedestrian and bicycle connectivity, which may require
	consideration of alternatives to traditional complete streets design.
Objective GG	Stormwater integration. Seek consultation, partnerships, and
	collaborations with the Bureau of Environmental Services to integrate
	transportation planning, projects, and programs with area stormwater
	objectives.
Objective HH	Infrastructure design. Encourage infrastructure design alternatives in
	the western commercial areas that will reinforce the village character of
	the historic centers and smaller commercial nodes.
Objective II	Focus for active transportation. Primarily focus sidewalk and bicycle
	route improvements in the designated Centers and Corridors of the

	<u>Comp Plan.</u>
Objective JJ	Environmentally sensitive design. Where topography has precluded
	pedestrian or automobile connections in the past, prioritize
	environmentally sensitive design alternatives when considering and
	planning new access ways.
<b>Objective KK</b>	Healthy trees. Acknowledging the role tree canopy plays in responding
	<u>to the heat island effect along roadways, prioritize the space for</u>
	retaining existing mature but healthy trees when planning ROW
	improvements and explore alternatives to retain trees, including
	alternative street standards and stormwater system designs and minor
	additional ROW acquisition or agreements with adjacent property
	owners.
Objective LL	Filling gaps in connections. Support work that looks for opportunities to
	fill gaps in important access connections, including exploring traditional
	ROW acquisition and partnerships with other city bureaus.
Objective MM	Accessible routes. Improve accessibility/create parallel routes in some
	cases. Explore what existing facilities and connections most merit
	upgrades or secondary accessible routes.
Objective NN	Urban Trail Plan. Use the Southwest Urban Trail Plan as a guide to
<u></u>	implementing (which may include dedicating and developing) trail
	segments in Southwest.
Objective OO	Cut-through traffic. Reinforce improvements to street design to reduce
	or mitigate neighborhood cut-through traffic and support the appropriate
	use of streets designated for commuter and pass-through traffic.
Objective PP	Coordination. Coordinate among bureaus when designing and
	implementing facilities in the right of way.
<b>Objective QQ</b>	Public-private partnerships. Leverage opportunities for public and
	private partnerships, as possible, in order to stretch limited resources
	and achieve enhanced outcomes.
<b>Objective RR</b>	Area plan reference. Refer to local area plans for additional applicable
	<u>geographic objectives.</u>

#### **District Policies**

The following District Policies are proposed for deletion, however are not shown with strikethrough for convenience of review.

#### **Objective 9.34 North Transportation District (formerly Objective 6.35)**

**9.34.a.** Improve truck and freight movement in North Portland through changes to the street system, street classifications, and signing to enhance the economic vitality of the area and minimize impacts on residential, commercial, and recreational areas.

**9.34.b.** Support efficient functioning of the N Marine Drive/ N Lombard (west of N Philadelphia)/N Columbia Boulevard loop as the truck and commuter access to the Rivergate industrial area and adjacent industrial areas.

**9.34.c.** Direct industrial traffic onto N Columbia Boulevard, while allowing limited access from residential neighborhoods and mitigating for unacceptable traffic impacts.

**9.34.d.** Implement the Phase 1 and Phase 2 improvements recommended in the I-5 Delta Park Environmental Assessment.

**9.34.e.** Consult with the Federal Highway Administration and ODOT to remove the US 30 Bypass designation from Philadelphia and Lombard, west of Martin Luther King, Jr. Boulevard, and relocate it to more appropriate streets to minimize impacts on the St Johns town center and the Lombard main street.

**9.34.f.** Support improvements to transit service that will link North Portland to areas outside the downtown, especially to the Rose Quarter transit center and industrial areas within and outside the district.

**9.34.g.** Encourage transit coverage and frequency improvements, as well as bus stop improvements, within the district and within commercial and employment centers, including Portland International Raceway, Swan Island, and Rivergate.

**9.34.h.** Develop light rail transit on North Interstate and to the Exposition Center; place stations at major arterials where good feeder bus service can be provided; capitalize on redevelopment opportunities that support light rail; and mitigate potential negative impacts of diversion of automobile traffic onto nearby Neighborhood Collectors and Local Service Traffic Streets.

**9.34.i.** Preserve the planned functions of Willamette Boulevard by evaluating and implementing transportation measures along N Lombard east of N St. Louis to improve Lombard's function as a District Collector and main street.

**9.34.j.** Improve pedestrian and bicycle access within the St. Johns town center and from nearby destinations, including Pier Park, the Columbia Slough, and Smith and Bybee Lakes.

**9.34.k.** Develop additional east/west and north/south bicycle routes to serve commuter and recreational bicyclists and provide connections to Northeast Portland bikeways.

**9.34.I.** Complete the sidewalk system in North Portland, including enhanced pedestrian crossings on streets with high volumes of vehicle traffic.

**9.34.m.** Consider extension of the Willamette Greenway Trail south from its current designation that ends at Edgewater and connecting to the trail on Swan Island, following the outcome of a feasibility study.

**9.34.n.** Explore opportunities for additional street connections over the railroad cut and between the Willamette River and nearby residential areas.

**9.34.o.** Improve parking management within the St. Johns town center and at Portland International Raceway.

**9.34.p.** Encourage the use of Columbia Boulevard as the primary route for over-dimensional truckloads while ensuring the role of N Lombard (west of Martin Luther King, Jr. Boulevard) as an interim route until such time as improvements are completed that allow North Columbia to accommodate all types of over-dimensional truckloads.

#### **Objective 9.35 Northeast Transportation District (formerly Objective 6.36)**

**9.35.a.** Encourage automobile and truck through-traffic to use major arterials near the edges of the district to reduce peak-period traffic impacts and to preserve neighborhood livability.

**9.35.b.** Enhance traffic and pedestrian access and improve transit service to regional and district commercial areas, including Lloyd Center, Hollywood, Rose City Park, Sandy Boulevard, and the neighborhood commercial district at NE 60<sup>th</sup>/Prescott/Cully.

**9.35.c.** Retain Portland Boulevard's interchange with I-5, while maintaining its function and appearance as a Neighborhood Collector east of I-5.

**9.35.d.** Encourage the use of I-84 and I-205 for primary access to the Columbia South Shore, Portland International Airport, and Portland International Center; encourage the use of NE Airport Way (east of I-205) and Portland Boulevard/Killingsworth (south of the Columbia Slough) as the

#### 3-15

secondary access from the interstate system.

**9.35.e.** Improve transit service and facilities where needed to serve employment areas, including the Columbia Corridor, Northwest industrial area, and developing residential areas.

**9.35.f.** Work with Tri-Met and businesses to encourage the use of alternatives to automobiles, particularly in the Columbia Corridor, through transit service improvements and incentives and transportation demand management techniques such as flexible work hours, telecommuting, carpooling, bicycling, and vanpooling.

**9.35.g.** Continue to develop east/west and north/south bicycle routes, both on-street and off-street, to connect with existing bikeways (including those on East Burnside and I-205) and with work, school, commercial, and recreational destinations.

**9.35.h.** Increase pedestrian access to transit throughout the district, including enhancing pedestrian districts where through-traffic is discouraged.

**9.35.i.** Implement the projects recommended in the Columbia Corridor Transportation Study that improve vehicle and transit access, safety for all modes, and local connections.

**9.35j.** Balance the needs of adjacent land uses (located in a design zone) at the NE Lombard and Martin Luther King, Jr. Boulevard intersection with the need for truck movement.

**9.35.k.** Implement the recommendations in the Hollywood and Sandy Plan to create a pedestrian-friendly and transit-supportive town center and main street, with emphasis at key nodes where neighborhood services and mixed-use development are encouraged.

**9.35.I.** Use street dedications and street vacations as a tool to support development, while ensuring connectivity and access.

**9.35.m.** Bring substandard streets up to City standards, including construction of sidewalks, especially in the Cully neighborhood.

#### **Objective 9.36 Far Northeast Transportation District (formerly Objective 6.37)**

**9.36.a.** Enhance the arterial street system by improving connections between Neighborhood Collectors and District Collectors and eliminating bottlenecks, such as narrow rail viaducts, that contribute to intrusions into residential neighborhoods by commercial, industrial, and non-local traffic.

9.36.b. Improve cross-town transit service to accommodate trips within the Far Northeast District,

transit service along Sandy, and transit connections to light rail.

**9.36.c.** Improve the designated bicycle network and connect major routes to routes in adjacent districts and jurisdictions.

**9.36.d.** Implement the Gateway Concept and Redevelopment Strategy recommendations to provide street connections as redevelopment occurs, manage regional traffic impacts, and focus boulevard and main street improvements on 102<sup>nd</sup>.

**9.36.e.** Resolve the long-term future of the park-and-ride facility at the Gateway transit center to reinforce the regional center's long-term vitality.

**9.36.f.** Add pedestrian facilities, including sidewalks and crossings, and enhancements, such as street trees and drinking fountains, to provide good access within neighborhoods and to Gateway and other commercial areas.

#### **Objective 9.37** Southeast Transportation District (formerly Objective 6.38)

**9.37.a.** Direct interdistrict traffic to Regional Trafficways on the edges of the district, and manage traffic on Major City Traffic Streets and other arterials primarily through transportation system management measures.

**9.37.b.** Support improvements to SE McLoughlin Boulevard to ensure its function as the major north/south route for regional traffic, while maintaining its operational characteristics as a Major City Traffic Street between Powell and Reedway and addressing pedestrian and bicyclist access along and across the street.

**9.37.c.** Operate Neighborhood Collectors in Southeast Portland to function primarily as circulation for district traffic rather than as regional streets, even where they carry a significant amount of regional traffic.

**9.37.d.** Facilitate pedestrian access and safety in Southeast Portland by improving connections to the Willamette River; adding connections between neighborhoods and parks, institutions, and commercial areas; and enhancing pedestrian crossings with curb extensions and improved markings.

**9.37.e.** Improve access and safety for bicycles through the development of more inner Southeast east/west bike routes and the provision of bicycle facilities across bridges and to a variety of destinations, including downtown, the river, and parks.

9.37.f. Recognize SE Foster's (west of I-205) importance as a main street and as a Major City

Traffic Street and Major City Transit Street by improving the pedestrian environment, preserving on-street parking, facilitating transit movement, and adding street trees.

**9.37.g.** Encourage regional and interdistrict truck traffic to use Regional Truckways, Priority and Major Streets in southeast Portland by establishing convenient truck routing that better serves trucks, while protecting Southeast neighborhoods.

**9.37.h.** Minimize left-turn movements to auto-accommodating development along SE 39th Avenue, and eliminate or consolidate driveways where possible.

**9.37.i.** Continue to improve cross-town transit service, transit facilities and bus stops, and transit travel times, and expand off-peak and weekend service to provide access to activity centers on Portland's eastside.

**9.37.j.** Support planning for and development of light rail transit and streetcars in Southeast Portland, including consideration of feeder transit service and pedestrian and bicycle access.

**9.37.k.** Examine the potential for returning SE Belmont and SE Morrison between SE 12th and 25th to two-way streets in the future, and make changes to street classifications if needed to support and reinforce Belmont's role as a main street.

**9.37.I.** Support SE Tacoma's function as a main street and District Collector in the future, and support and implement transportation projects that will reinforce these designations.

**9.37.m.** Implement transportation improvements identified in the Lents Urban Renewal Plan that will revitalize its commercial core and environs.

**9.37.n.** Support the livability of Southeast neighborhoods by improving the efficiency of parking and loading in commercial areas and by reducing commuter parking in residential areas.

**9.37.o.** Address the safety and access needs of pedestrians and bicyclists as part of freight-related street improvements for SE Holgate between SE 26<sup>th</sup> Avenue and McLoughlin Boulevard.

#### **Objective 9.38** Far Southeast Transportation District (formerly Objective 6.39)

**9.38.a.** Consider existing and future land use patterns, environmental impacts, the need for additional connectivity of collectors, and transit accessibility when improvements are planned and designed for the arterial system, particularly SE Powell and SE Foster.

**9.38.b.** Improve arterials through better signalization and intersection design to serve adjacent land uses and to provide for access to adjacent neighborhoods, while minimizing non-local traffic

#### 3-18

on local streets.

**9.38.c.** Accommodate bicyclists and pedestrians along arterials and at crossings, especially at activity nodes, through a combination of street and traffic management improvements.

**9.38.d.** Reduce travel demand in the district by providing additional transit service, including feeder service to light rail and alternatives to buses for low-density areas.

**9.38.e.** Consider implementing parking controls in the vicinity of light rail stations where commuter parking is impacting nearby residential neighborhoods.

**9.38.f.** Provide adequate street connections in the Far Southeast District through the development and implementation of master street plans that identify connections for vehicles, pedestrians, and bicyclists.

**9.38.g.** Support transit and pedestrian-friendly development along the Division main street with multimodal transportation investments.

**9.38.h.** Implement transportation improvements identified in the Lents Urban Renewal Plan that will revitalize its commercial core and environs.

**9.38.i.** Implement the Gateway Concept and Redevelopment Strategy recommendations to provide street connections as redevelopment occurs, manage regional traffic impacts, and focus boulevard and main street improvements on 102<sup>nd</sup>.

**9.38.j.** Improve pedestrian access at the light rail transit stations by adding local street connections and improvements, including enhanced crossings and wider sidewalks.

**9.38.k.** Provide an off-street pathway and reasonable public access between the neighborhood south of SE Market, through the medical center campus, and extending through the commercial area south of SE Washington.

**9.38.I.** Implement recommendations from the Pleasant Valley Concept and Implementation Plans to create a community with a well-connected street system that provides safety and convenience for all modes of transportation.

#### **Objective 9.39 Northwest Transportation District (formerly Objective 6.40)**

**9.39.a.** Expand transit service throughout the district, including adding more cross-town service, connecting bus service from the Civic Stadium light rail station to the northwest industrial area, and improving service in low-density areas such as Linnton.

**9.39.b.** Route non-local traffic, including non-local truck traffic, on Major City Traffic Streets and Regional Trafficways in order to minimize conflicts among modes.

**9.39.c.** Incorporate pedestrian and bicycle access improvements into all transportation projects, especially along arterials and at crossing locations.

**9.39.d.** Protect Forest Park's natural resources in the design and development of transportation projects in or near the park.

**9.39.e.** Reinforce the Northwest District main streets – NW 21<sup>st</sup>, 23<sup>rd</sup>, Burnside, and Thurman – by retaining and improving their pedestrian-oriented character and improving access to transit.

**9.39.f** Support a range of strategies in the high-density portions of the district to address parking issues, including commuter and event parking impacts.

**9.39.g.** Maintain neighborhood livability in the construction or reconstruction of streets by adding street trees, buffering pedestrians from traffic, and preserving on-street parking.

**9.39.h.** Limit transportation projects on West Burnside to those that reduce vehicle miles traveled, give preference to transit, improve pedestrian and bicycle access, or improve safety, but do not increase automobile capacity.

**9.39.i.** Improve access to NW 14<sup>th</sup> and 16<sup>th</sup> to support their function as connections to the commercial and industrial areas in Northwest Portland and to reduce impacts of non-local traffic on residential areas.

**9.39.j.** Evaluate and make recommendations on returning the NW Everett/NW Glisan and the NW18th/NW 19<sup>th</sup> couplets to two-way streets.

**9.39.k.** Support the scenic and natural character of NW Skyline Boulevard by focusing non-local north/south traffic between West Burnside and NW Cornell Road on NW Miller.

**9.39.I.** Preserve and enhance freight mobility, and industrial access in the Freight District, by maintaining or improving truck operations on Front Avenue, Yeon Avenue , Nicolai Street, St Helens Road, and the 14<sup>th</sup> and 16<sup>th</sup> Avenues couplet.

#### **Objective 9.40** Southwest Transportation District (formerly Objective 6.41)

**9.40.a.** Use the Willamette Shore Line right-of-way, the corridor identified in the Macadam Corridor Improvement Plan, or other alignment as appropriate to provide future streetcar commuter service or light rail in the Macadam corridor.

**9.40.b.** Improve the primary transportation functions of SW Broadway Drive, SW Patton Road, SW Vista, SW Humphrey, and SW Dosch Road as Neighborhood Collectors by supporting pedestrian, bicycle, and transit use; calming traffic; and discouraging heavy volumes of non-local commuter traffic.

**9.40.c.** Consider designation of a 'Red Electric Line' alignment for pedestrians and bicyclists, as identified in the Southwest Urban Trails Plan, upon completion of a feasibility study.

**9.40.d.** Evaluate the transportation impacts on adjacent neighborhoods when considering increases in development potential of large new or redeveloping areas, and include mitigation measures in development plans.

**9.40.e.** Use the Southwest Urban Trail Plan as a guide to dedicating and developing trail segments in Southwest.







## Section 4 Street Classifications

### SUMMARY OF REVISIONS

Street classification descriptions and maps are proposed to be updated for the Traffic, Transit, and Emergency Response classifications. Traffic classifications are primarily being updated to include Vision Zero safety language and to reflect PBOT staff analysis of traffic system needs. Transit classifications are primarily being updated to reflect TriMet's Service Enhancement Plans and to respond to TriMet and PBOT staff requests. Emergency Response Classifications are primarily being updated to include a new Secondary Emergency Response Street classification and to incorporate Fire Bureau and PBOT staff requests.

Bicycle and Street Design Classifications were updated in Stage 2 of the TSP update, so they are not proposed for any further changes during Stage 3. Pedestrian Classifications require more detailed analysis and will be updated in the coming years through updates to the Pedestrian Master Plan and

Select Freight Classifications were reviewed and updated can be found in Section 2 TSP Objectives. Freight Classifications may be revisited in a future Freight Master Plan update.

Maps in this document show future proposed classifications, street segments with changes are highlighted in blue. <u>Emergency Response</u>, <u>Transit</u> and <u>Traffic Classifications</u> can also be reviewed on the <u>Map App</u>.

# Policy 6.10: Emergency Response Classification descriptions

#### SUMMARY OF REVISIONS

A Secondary Emergency Response Streets classification was created to offer guidance to emergency responders for desired routes during times when Major Emergency Response Streets are congested or blocked, as well as to provide more flexibility to PBOT in the use of traffic calming devices on these routes. The revised classifications provide greater clarity on the use of speed bumps and speed cushions on emergency response streets.

#### SUGGESTED LANGUAGE FOR ADOPTION

Updated 19 May 2017

Key

Existing language <u>Suggested new language</u> <del>Deleted language</del>

#### Policy 6.10 Emergency Response Classification Descriptions

Emergency Response Streets are intended to provide a network of streets to facilitate prompt emergency response.

Explanation: Eight maps show the emergency response classifications. One map is located with the policy associated with each of the eight transportation districts.

Objectives:

#### A. Major Emergency Response Streets

Major Emergency Response Streets are intended to serve primarily the longer, most direct legs of emergency response trips.

a. Improvements. Design treatments on Major Emergency Response Streets should enhance mobility for emergency response vehicles by employing preferential or priority treatments.  b. Traffic Slowing. Major Emergency Response Routes Streets that also have a Local Service or Neighborhood Collector traffic classification are eligible for speed cushions, subject to the approval of Portland Fire and Rescue. Major Emergency Response Streets that also have a District Collector or higher traffic classification are not eligible for traffic slowing devices in the future. Existing traffic slowing devices speed bumps on Major Emergency Response Streets may remain temporarily, and be replaced if necessary and shall be replaced with speed cushions when streets are repaved or undergo other major modifications, subject to the approval of Portland Fire and Rescue.

#### B. <u>Secondary Emergency Response Streets</u>

Secondary Emergency Response Streets are intended to provide alternatives to Major Emergency Response Streets in cases when traffic congestion, construction, or other events occur that may cause undue delays in response times.

- Improvements. Design treatments on Secondary Emergency Response Streets should enhance mobility for emergency response vehicles by employing preferential or priority treatments, while also allowing for limited traffic slowing treatments to enhance safety and livability.
- <u>Traffic Calming. Secondary Emergency Response Streets that also have a Local</u> <u>Service or Neighborhood Collector traffic classification are eligible for speed</u> <u>cushions. Secondary Emergency Response Streets that also have a District</u> <u>Collector or higher traffic classification are not eligible for traffic calming devices in</u> <u>the future. Existing speed bumps on Secondary Emergency Response Streets may</u> <u>remain temporarily, and shall be replaced with speed cushions when streets are</u> <u>repaved or undergo other major modifications.</u>

#### C. Minor Emergency Response Streets

Minor Emergency Response Streets are intended to serve primarily the shorter legs of emergency response trips.

- a. Classification. All streets not classified as Major Emergency Response Streets or <u>Secondary Emergency Response Streets</u> are classified as Minor Emergency Response Streets.
- b. Improvements. Design and operate Minor Emergency Response Streets to allow access to individual properties by emergency response vehicles, but maintain livability on the street.
- c. Traffic Slowing. Minor Emergency Response Streets are eligible for <u>all types of</u> traffic slowing devices.

Explanation: The Emergency Response Street classification descriptions were developed as part of the Emergency Response Study adopted by City Council resolution in 1998.

## **Policy 6.6: Transit Classification Descriptions**

#### SUMMARY OF REVISIONS

Transit Classifications are being updated based on requests from TriMet and PBOT staff to better reflect current policies and guidelines for transit service, including desired functions, service levels, stop spacing, and safety. In addition to changing several existing classifications, the Community Transit Street classification is proposed for removal because it has not been used as intended and does not reflect the TriMet Service Enhancement Plans. Community Transit Streets were intended to reflect potential routes for fixed-route circulator or demand-responsive bus service, but TriMet has instead identified a "Community Connector" concept that would generally not run on fixed routes but instead serve various destinations within an area. This type of transit service would be appropriate for Local Transit Streets, so the Community Transit Street classification is no longer needed. This change will help bring the zoning code (which has several "transit street" requirements that currently apply to Community Transit Streets) more in line with planned transit service.

### SUGGESTED LANGUAGE FOR ADOPTION

Updated 19 May 2017

#### Key

Existing language Suggested new language Deleted language

#### **Policy 6.6 Transit Classification Descriptions**

Maintain a system of transit streets that supports the movement of transit vehicles for regional, interregional, interdistrict, and local trips.

Explanation: Eight maps show the transit classifications. One map is located with the policy associated with each of the eight transportation districts.

Objectives:

#### A. Regional Transitways

Regional Transitways are intended to provide for <u>facilitate</u> interregional and interdistrict transit trips with <u>fast and reliable service over long distances</u>. <del>right of way exclusively</del>

reserved for transit use to the extent possible. Regional Transitways are served by frequent high-frequency, high-speed, high-capacity, express, or limited ,express, or limited service, and to that connects the Central City with all and regional centers.

- Land Use. Development with a regional attraction (e.g., shopping centers, arenas) are encouraged to locate adjacent to Regional Transitways stations to reduce traffic impacts on adjoining areas and streets. Locate high-density development within a half-mile of transit stations on Regional Transitways, with the highest densities closest to the stations.
- Access to Transit. Transit stations should be designed to accommodate a high level of <u>safe</u> multimodal access within a half-mile radius of the station. <u>Provide</u> <u>convenient first- and last-mile connection opportunities at Regional Transitway</u> <u>stations when feasible, including feeder bus service, bike-share stations, secure</u> <u>bicycle parking, pick-up and drop-off zones, and shuttle services.</u> <u>Use feeder</u> <u>bus service to access Regional Transit stations.</u> Use park-and-ride facilities to access Regional Transit stations only at ends of Regional Transitways or where adequate feeder bus service is not feasible.
- Improvements. Use transit-preferential treatments to facilitate <u>fast and reliable</u> <u>transit light rail and bus</u>-operations. <u>Provide signal pre-emption or transit signal</u> <u>priority at major intersections, prioritize transit stations or transit lanes over</u> <u>on-street parking, and provide enough lane width to accommodate standard</u> <u>transit vehicles. Provide exclusive or semi-exclusive transitways wherever</u> <u>possible, including treatments on freeways and expressways such as transit</u> <u>lanes, HOV lanes, HOT lanes, and "bus on shoulder" operations. Employ</u> access management measures to reduce conflicts between transit vehicles and other vehicles. Where compatible with adjacent land uses, rRight-of-way acquisition or parking removal may occur to accommodate transit-preferential measures and improve access to transit. <u>Carefully consider any street design changes to</u> <u>Regional Transitways that impact travel time in light of the potential costs and benefits to transit riders, while also taking into account other adopted goals and policies.</u>
- Transfer Points. Provide safe and convenient transfer points with covered waiting areas with transit route information, benches, trash receptacles, enhanced signing, lighting, and telephones.
- ➡ Transit Stations. Locate Regional Transitway stations at intervals of approximately one-quarter mile to one mile, while taking into account other factors including the need to serve major destinations, activity centers, and transfer points. Express service may have stations located at intervals of one

<u>mile or greater, as appropriate to serve origins and destinations.</u> Transit stations should have a full range of passenger services, including accessible boarding platforms, covered waiting areas, route information, benches, secure bicycle parking, trash receptacles, enhanced signing, lighting, and telephones.

- Bus Stops. Buses providing local service along Regional Transitways should have more frequent stop spacing, similar to stop spacing along Major Transit Priority Streets.
- Dual Classification. A street with a dual Regional Transitway and Major Transit Priority Street classifications should retain the operational characteristics of a Major Transit Priority Street and respond to adjacent land uses.
- **Connections.** A ramp that connects to a Regional Transitway is classified as a Regional Transitway up to its intersection with a lower-classified street.

#### B. Major Transit Priority Streets

Major Transit Priority Streets <u>facilitate the frequent and rapid-reliable movement of</u> <u>transit vehicles that connect Central City, regional centers, and town centers with each</u> <u>other and to other major destinations. Major Transit Priority Streets are provided</u> <u>frequent service at a minimum of 15 minute headways with daytime and evening service</u> <u>7 days a week, or are expected to receive that level of service in the future to support</u> <u>envisioned growth.-are intended to provide for high quality transit service that connects</u> the Central City and other regional and town centers and main streets.

- Land Use. Transit-oriented land uses should be encouraged to locate along Major Transit Priority Streets, especially in centers. Discourage auto-oriented development from locating on a Major Transit Priority Street, except where the street is outside the Central City, regional or town designated center, station community, or main street and is also classified as a Major City Traffic Street. Support land use densities that vary directly with the existing and planned capacity of transit service.
- Access to Transit. Provide safe and convenient access for pedestrians and bicyclists to, across, and along Major Transit Priority Streets. <u>Provide safe and</u> <u>accessible pedestrian crossings at all transit stops along Major Transit Priority</u> <u>Streets.</u>
- Improvements. Employ transit preferential measures, such as signal priority and bypass lanes. Provide transit signal priority at major intersections, prioritize transit stops or transit lanes over on-street parking, and provide enough lane width to accommodate standard transit vehicles. Consider the use of transit priority lanes where needed to reduce congestion-related transit delay. Design

intersections of Major Transit Priority Streets with other Major Transit Priority Streets or Transit Access Streets to allow turning movements of a standard transit vehicle. Where compatible with adjacent land use designations, right-of-way acquisition or parking removal may occur to accommodate transit-preferential measures or improve access to transit. The use of access management should be considered where needed to reduce conflicts between transit vehicles and other vehicles. Carefully consider any street design changes to Major Transit Priority Streets that impact travel time in light of the potential costs and benefits to transit riders, while also taking into account other adopted goals and policies.

- Transfer Points. Provide safe and convenient transfer points with <u>accessible</u> <u>stops</u>, covered waiting areas, transit route information, benches, trash receptacles, enhanced signing, lighting, and telephones. Limited transit service should stop at transfer points and activity centers along Major Transit Priority <u>Streets</u>.
- Dual Classification. Streets with dual Regional Transitway and Major Transit Priority Street classifications should retain the operational characteristics of Major Transit Priority Streets, and development should orient to the street.
- Bus Stops. Locate bus stops to provide convenient access to neighborhoods and commercial centers. Stops should be located <u>roughly every one-quarter</u> <u>mile</u>, while taking into account other factors including the need to serve major destinations, activity centers, and transfer points. Stop spacing should also take into account existing sidewalk and street connectivity, with potentially closer <u>stop spacing where sidewalk and street connectivity is more limited</u>. <u>relatively</u> <u>close together in high density and medium density areas</u>, including regional and town centers and along most main streets, and relatively farther apart\_in lowerdensity areas. On-street parking should be prohibited at bus stops in order to provide accessible waiting areas. Passenger amenities should include shelters and route information.

#### C. Transit Access Streets

Transit Access Streets <u>facilitate movement of transit vehicles connecting town centers</u>, <u>neighborhood centers</u>, and industrial and employment areas with other destinations and other transit service. Transit Access Streets are provided fixed-route service that is <u>commensurate with the level of demand</u>. are intended for district oriented transit service serving main streets, neighborhoods, and commercial, industrial, and employment areas.

- **Land Use.** Encourage pedestrian- and transit-oriented development in commercial, institutional, and mixed-use areas along Transit Access Streets.
- Access to Transit. Provide safe and convenient pedestrian and bicycle access to transfer points and stops and along Transit Access Streets. <u>Provide safe and</u> <u>accessible pedestrian crossings at all transit stops along Transit Access Streets.</u>
- **Transfer Points.** Provide bus shelters, safe and convenient pedestrian crossings, and transit information at transfer points.
- Improvements. Provide transit signal priority as needed at major intersections and prioritize transit stops over on-street parking. Provide sufficient lane width to accommodate standard transit vehicles where appropriate, taking into account other street classifications. Employ transit preferential measures at specific intersections to facilitate bus operations where there are significant bus delays. Applicable preferential treatments include signal priority, queue jump lanes, and curb extensions.
- Bus Stops. <u>Stops should be located roughly every one-eighth to one-quarter</u> mile, while taking into account other factors including the need to serve major destinations, activity centers, and transfer points. Stop spacing should also take into account existing sidewalk and street connectivity, with potentially closer stop spacing where sidewalk and street connectivity is more limited. Locate stops closer together in neighborhood commercial areas and somewhat farther apart in other areas along Transit Access Streets. On-street parking should be prohibited at bus stops in order to provide accessible waiting areas.</u> Passenger amenities, including covered waiting areas, are appropriate along Transit Access Streets.

#### D. Community Transit Streets

Community Transit Streets are intended to serve neighborhoods and industrial areas and connect to citywide transit service.

**Land Use.** Encourage pedestrian and transit oriented development in commercial, institutional, and mixed use areas along Community Transit Streets.

**Transit Service.** Community Transit Streets typically carry feeder bus service, mini-bus, or demand responsive services. Demand responsive service may include service that is tailored to areas (e.g., industrial areas) that have unusual transit service needs. The size and type of transit vehicle should be appropriate to the needs of the land uses served.

Pedestrian and Bicycle Access. Provide safe and convenient pedestrian and bicycle

access along Community Transit Streets and to transfer points and stops.

**Improvements.** Community Transit Streets are typically used for access by bicyclists, pedestrians, and drivers to reach neighborhood destinations. Parking removal or the acquisition of additional right of way should not be undertaken to enhance transit service on Community Transit Streets, except at specific locations to correct unsafe transit operations or accommodate access to transit.

**Transfer Points.** Provide covered waiting areas and transit information at transfer points.

**Bus Stops.** Locate stops closer together in neighborhood commercial areas and farther apart in other areas along Community Transit Streets.

#### D. Local Service Transit Streets

Local Service Transit Streets <u>primarily facilitate movement of smaller transit vehicles</u>, including paratransit and community/jobs connector shuttles. Local Service Transit Streets seldom have regular transit service except for short street segments and do not typically include transit-specific street design elements such as bus stops. Local Service Transit Streets may be used for bus movements to and from a layover facility or bus garage, for turning around at the end of a line, or for temporary reroutes of a fixed-route line. are intended to provide transit service to nearby residents and adjacent commercial areas.

- Land Use. Transit operations on Local Service Transit Streets should give preference to access for individual properties and to the specific needs of property owners and residents along the street.
- Classification. Streets not classified as Regional Transitways, Major Transit Priority Streets, <u>or</u> Transit Access Streets, <u>or Community Transit Streets</u> are classified as Local Service Transit Streets.
- Function. Local Service Transit Streets may be used for paratransit service or community/jobs connector service, end loops for regularly scheduled routes, or temporary detours, and may carry school buses.
- Bus Stops. L-If needed, locate stops along Local Service Transit Streets based on Tri Met adopted service standards.
- Explanation: Local Service Transit Streets seldom carry regular bus service, except for short street segments to accommodate bus operations and for loops at the ends of routes.

#### E. Transit Stations

Transit stations are locations where light rail vehicles or other high capacity transit vehicles stop to board and unload passengers.

- Locations. Locate Transit Stations on Regional Transitways to provide direct and convenient service to regional and town centers and major trip generators along the transitway. Station locations are conceptual. Actual locations should be used for regulatory purposes such as measuring distances.
- Passenger Facilities. Provide safe and convenient covered waiting areas and easy transfer to other transit services. Provide transit information and access for pedestrians and bicyclists. Transit Stations should have a full range of passenger services, including route information, benches, secure bicycle parking, trash receptacles, enhanced signing, lighting, and telephones.
- Transit Station Spacing. Place Transit Stations along Regional Transitways with light rail service or other high capacity transit service at intervals of approximately one half mile. In high density areas in the Central City, consider closer station spacing of three to four blocks <u>one quarter mile</u>.

#### F. Intercity Passenger Rail

Intercity Passenger Rail provides commuter and other rail passenger service.

• **Station Spacing.** Stations are typically located one or more miles apart, depending on overall route length.

#### G. Passenger Intermodal Facilities

Passenger Intermodal Facilities serve as the hub for various passenger modes and the transfer point between modes.

 Connections. Passenger Intermodal Facilities connect inter-urban passenger service with urban public transportation service and are highly accessible by all modes.

## **Policy 6.5: Traffic Classification Descriptions**

#### SUMMARY OF REVISIONS

Traffic Classification descriptions are primarily being updated to include new safety language that reflects recently-adopted Vision Zero policies. They are also being updated to reflect other requests from PBOT staff to ensure that the classifications reflect current policies and guidelines.

#### SUGGESTED LANGUAGE FOR ADOPTION

Updated 19 May 2017

Key

Existing language <u>Suggested new language</u> <del>Deleted language</del>

#### **Policy 6.5 Traffic Classification Descriptions**

Maintain a system of traffic streets that support the movement of motor vehicles for regional, interregional, interdistrict, and local trips as shown. For each type of traffic classification, the majority of motor vehicle trips on a street should conform to its classification description.

Explanation: There are six classifications for traffic streets. Each classification describes how a traffic street should function (what kinds of traffic and what kinds of trips are expected) and what types of land uses the street should serve. Eight maps show the traffic classifications. One map is located with the policy associated with each of the seven transportation districts other than the Central City. The classification map for the Central City (the eighth transportation district) is located with the Central City Transportation Management Plan goal, policies, and objectives in this chapter.

Objectives:

#### A. Regional Trafficways

Regional Trafficways are intended to serve interregional district movement that has only one trip end in a transportation district or to serve trips that bypass a district completely.

- a. **Safety.** Regional Trafficways should make safety the highest priority. Safety countermeasures should be employed on Regional Trafficways to address identified safety risks with a focus on eliminating fatal and serious injury crashes.
- b. Land Use/Development. Regional Trafficways should serve the Central City, regional centers, industrial areas, and intermodal facilities and should connect key freight routes within the region to points outside the region. Encourage private and public development of regional significance to locate adjacent to Regional Trafficway interchanges.
- c. **Connections.** Regional Trafficways should connect to other Regional Trafficways, Major City Traffic Streets, and District Collectors. A ramp that connects to a Regional Trafficway is classified as a Regional Trafficway from its point of connection up to its intersection with a lower-classified street. <u>At ramps and along access streets, accommodate safe multimodal movements.</u>
- d. **Buffering.** Adjacent neighborhoods should be buffered from the impacts of Regional Trafficways.
- e. **Dual Classification.** A street with dual Regional Trafficway and Major City Traffic Street classifications should retain the operational characteristics of a Major City Traffic Street and respond to adjacent land uses.

#### B. Major City Traffic Streets

Major City Traffic Streets are intended to serve as the principal routes for <u>interdistrict</u> traffic that has at least one trip end within a <u>City of Portland</u> transportation district.

- a. <u>Safety.</u> Safety should be the highest priority on Major City Traffic Streets. Safety countermeasures should be employed on Major City Traffic Streets to address identified safety risks with a focus on eliminating fatal and serious injury crashes for all modes. Major City Traffic Streets should provide separation between motor vehicles and people walking, bicycling, and using mobility devices, and provide safe multimodal crossings to destinations.
- b. Land Use/Development. Major City Traffic Streets should provide motor vehicle connections among the Central City, regional centers, town centers, industrial areas, and intermodal facilities. Auto-oriented development should locate adjacent to Major City Traffic Streets, <u>except within designated centers, main streets</u>, station areas, and other areas with high pedestrian demand. <del>but should orient to pedestrians along streets also classified as Transit Streets or within Pedestrian Districts.</del>

- c. **Connections.** Major City Traffic Streets should serve as primary connections to Regional Trafficways and serve major activity centers in each district. Traffic with no trip ends within a <u>City of Portland</u> transportation district should be discouraged from using Major City Traffic Streets. <u>Where a Major City Traffic</u> <u>Street intersects with a Neighborhood Collector or Local Service Traffic Street,</u> <u>access management and/or turn restrictions may be employed to reduce traffic</u> <u>delay.</u>
- d. **On-Street Parking.** On-street parking may be removed and additional right-of-way purchased to provide adequate traffic access when consistent with the street design designation of the street. Evaluate the need for on-street parking to serve adjacent land uses and improve the safety of pedestrians and bicyclists when making changes to the roadway.

#### C. Traffic Access Streets

Traffic Access Streets are intended to provide access to Central City destinations, distribute traffic within a Central City <u>sub</u>district, provide connections between Central City <u>sub</u>districts, and distribute traffic from Regional Trafficways and Major City Traffic Streets for access within the district. Traffic Access Streets are not intended for through-traffic with no trip ends in the district.

- a. <u>Safety.</u> Safety should be the highest priority on Traffic Access Streets. Traffic Access Streets should provide frequent, safe crossings for people walking, bicycling, and using mobility devices.
- Land Use/Development. Traffic Access Streets serve Central City land uses. Solutions to congestion problems-<u>Traffic management</u> on Traffic Access Streets must accommodate the high-density pattern desired in the Central City.
- c. **Connections.** Connections to adjoining transportation districts should be to District or Neighborhood Collectors. Intersections of Traffic Access Streets and streets with higher or similar classifications should be signalized, where warranted, to facilitate the safe movement of traffic along each street as well as turning movements from one street to the other.
- d. Access. Reduction in motor vehicle congestion is given less priority than: supporting pedestrian access and enhancing the pedestrian environment; maintaining on-street parking to support land uses; accommodating transit; or accommodating bicycles. Access to off-street parking is allowed <u>and access to</u> <u>structured off-street parking is encouraged on Traffic Access Streets.</u>

e. **Right-of-way Acquisition.** Acquisition of additional right-of-way to reduce congestion is discouraged.

#### D. District Collectors

District Collectors are intended to serve as distributors of traffic from Major City Traffic Streets to streets of the same or lower classification. District Collectors or to serve trips that both start and end within a district.

- a. **Safety.** Safety should be the highest priority on District Collectors. Safety countermeasures should be prioritized on District Collectors to address identified safety risks with a focus on eliminating fatal and serious injury crashes.
- b. Land Use/Development. District Collectors generally connect town centers, corridors, main streets, and neighborhoods to nearby regional centers and other major destinations. Land uses that attract trips from the surrounding neighborhoods or from throughout the district should be encouraged to locate on District Collectors. Regional attractors of traffic should be discouraged from locating on District Collectors.
- c. Connections. District Collectors should connect to Major City Traffic Streets, other collectors, and local streets and, where necessary, to Regional Trafficways. <u>Where a District Collector intersects with a Neighborhood Collector or Local Service Traffic Street</u>, access management and/or turn restrictions may <u>be employed to reduce traffic delay</u>.
- d. **Right-of-way Acquisition.** On Street Parking. Removal of on street parking and r <u>R</u>ight-of-way acquisition should be discouraged on District Collectors, except at specific problem locations to accommodate the equally important functions of traffic movement and vehicle access to abutting properties.

#### E. Neighborhood Collectors

Neighborhood Collectors are intended to serve as distributors of traffic from Major City Traffic Streets or District Collectors to Local Service Streets and <u>or</u> to serve trips that both start and end within areas bounded by Major City Traffic Streets and District Collectors.

- a. <u>Safety.</u> Safety should be the highest priority on Neighborhood Collectors. Safety countermeasures should be implemented on Neighborhood Collectors to address identified safety risks.
- b. Land Use/Development. Neighborhood Collectors should connect neighborhoods to nearby centers, corridors, station communities, main streets, and other nearby destinations. New land uses and major expansions of land

uses that attract a significant volume of traffic from outside the neighborhood should be discouraged from locating on Neighborhood Collectors.

- c. **Connections.** Neighborhood Collectors should connect to Major City Traffic Streets, District Collectors, and other Neighborhood Collectors, as well as to Local Service Streets. <u>Where a Neighborhood Collector intersects with a</u> <u>higher-classified street</u>, access management and/or turn restrictions may be <u>employed to reduce traffic delay</u>.
- d. **Traffic Calming.** Traffic calming tools may be used to improve neighborhood safety and livability, when consistent with other street classifications.
- e. **Function.** The design of Neighborhood Collectors may vary over their length as the land use character changes from primarily commercial to primarily residential. Some Neighborhood Collectors may have a regional function, either alone or in concert with other nearby parallel collectors. All Neighborhood Collectors should be designed to operate as neighborhood streets rather than as regional arterials. and through traffic should be discouraged.
- f. <u>Right-of-way acquisition.</u> On Street Parking. The removal of on street parking and r <u>Right-of-way</u> acquisition should be discouraged on Neighborhood Collectors.

#### F. Local Service Traffic Streets

Local Service Traffic Streets are intended to distribute local traffic and provide access to local residences or commercial uses.

- a. **Safety.** Local Service Traffic Streets should maintain slow operating speeds to accommodate safe use by all modes.
- Land Use/Development. Discourage auto-oriented land uses, <u>including</u> <u>structured parking</u>, from using Local Service Traffic Streets as their primary access.
- c. **Classification.** Streets not classified as Regional Trafficways, Major City Traffic Streets, <u>Traffic Access Streets</u>, District Collectors, or Neighborhood Collectors are classified as Local Service Traffic Streets.
- d. Connections. Local Service Traffic Streets should connect neighborhoods, provide local circulation, and provide access to nearby centers, corridors, station areas, and main streets. <u>Street segments may be closed to through</u> <u>traffic in some cases as long as local access and overall neighborhood</u> <u>connectivity is maintained.</u>

- e. **Traffic Calming.** Traffic calming tools may be used to improve neighborhood safety and livability or if needed to support a neighborhood greenway.
- f. Function. Local Service Traffic Streets provide local <u>access and circulation for traffic, while often functioning as through routes for pedestrians</u>, and bicyclists and (except in special circumstances) should provide on street parking. In some instances where vehicle speeds and volumes are very low (for example, woonerfs and accessways), Local Service Traffic Streets may accommodate both-vehicles, and pedestrians, and bicyclists in a shared space.

#### SUMMARY OF REVISIONS

Traffic Classification descriptions are primarily being updated to include new safety language that reflects recently-adopted Vision Zero policies. They are also being updated to reflect other requests from PBOT staff to ensure that the classifications reflect current policies and guidelines.

Maps in this document show future proposed classifications, street segments with changes are highlighted in blue. <u>Emergency Response</u> classifications can also be reviewed on the <u>Map</u> <u>App</u>.





- Major Emergency Response
- ----- Secondary Emergency Response
- Minor Emergency Response
- proposed classification





- Major Emergency Response
- ----- Secondary Emergency Response
  - Minor Emergency Response
- proposed classification





- Major Emergency Response
- ----- Secondary Emergency Response
  - Minor Emergency Response
- proposed classification





0 0.25 0.5 1 Miles

- ----- Major Emergency Response
- —— Secondary Emergency Response
- Minor Emergency Response
- proposed classification





0 0.25 0.5 1 Miles

#### **Emergency Response Classification**

- Major Emergency Response
- ----- Secondary Emergency Response
  - Minor Emergency Response
- proposed classification




#### **Emergency Response Classification**

- Major Emergency Response
- ----- Secondary Emergency Response
  - Minor Emergency Response
  - proposed classification





### **Emergency Response Classification**

- Major Emergency Response
- ----- Secondary Emergency Response
  - Minor Emergency Response
- proposed classification





- Major Emergency Response
- Secondary Emergency Response
- Minor Emergency Response
- proposed classification







- Major Emergency Response
- ----- Secondary Emergency Response
  - Minor Emergency Response
- proposed classification





### **Emergency Response Classification**

- ----- Major Emergency Response
- ----- Secondary Emergency Response
- Minor Emergency Response
- proposed classification





- Major Emergency Response
- ----- Secondary Emergency Response
- Minor Emergency Response
- proposed classification





- Major Emergency Response
- Secondary Emergency Response
  - Minor Emergency Response
- proposed classification





#### **Emergency Response Classification**

- ----- Major Emergency Response
- ----- Secondary Emergency Response
  - Minor Emergency Response
- proposed classification







- Major Emergency Response
- ----- Secondary Emergency Response
  - Minor Emergency Response
- proposed classification







- Major Emergency Response
- ----- Secondary Emergency Response
  - Minor Emergency Response
- proposed classification







- Major Emergency Response
- ----- Secondary Emergency Response
  - Minor Emergency Response
- proposed classification





0 0.25 0.5 1 Miles

- Major Emergency Response Secondary Emergency Response
  - Minor Emergency Response
  - proposed classification



TRANSPORTATION SYSTEM PLAN UPDATE: STAGE 3 - DISCUSSION DRAFT SECTION 4: STREET CLASSIFICATIONS

#### 4-35

# **Transit Classification Maps**

# SUMMARY OF REVISIONS

Traffic Classification descriptions are primarily being updated to include new safety language that reflects recently-adopted Vision Zero policies. They are also being updated to reflect other requests from PBOT staff to ensure that the classifications reflect current policies and guidelines.

Maps in this document show future proposed classifications, street segments with changes are highlighted in blue. <u>Transit</u> can also be reviewed on the <u>Map App</u>.



#### **Transit Classification**

- Regional Transitway
- Regional Transitway & Major Transit Priority Street
- Major Transit Priority Street
- Transit Access Street
- Local Service Transit Street
- → Intercity Passenger Rail
- proposed classification





- Regional Transitway
- Regional Transitway & Major Transit Priority Street
- Major Transit Priority Street
- Transit Access Street
- Local Service Transit Street
- → Intercity Passenger Rail
- proposed classification







- Regional Transitway
- Regional Transitway & Major Transit Priority Street
- Major Transit Priority Street
- Transit Access Street
- Local Service Transit Street
- ------ Intercity Passenger Rail
- proposed classification





#### **Transit Classification**

- Regional Transitway
- Regional Transitway & Major Transit Priority Street
- Major Transit Priority Street
- Transit Access Street
- Local Service Transit Street
- → Intercity Passenger Rail
- proposed classification



TRANSPORTATION SYSTEM PLAN UPDATE: STAGE 3 - DISCUSSION DRAFT SECTION 4: STREET CLASSIFICATIONS

#### 4-40





- Regional Transitway
- Regional Transitway & Major Transit Priority Street
- Major Transit Priority Street
- Transit Access Street
- Local Service Transit Street
- → Intercity Passenger Rail
- proposed classification







- Regional Transitway
- Regional Transitway & Major Transit Priority Street
- Major Transit Priority Street
- Transit Access Street
- Local Service Transit Street
- Intercity Passenger Rail
- proposed classification







- Regional Transitway
- Regional Transitway & Major Transit Priority Street
- Major Transit Priority Street
- Transit Access Street
- Local Service Transit Street
- → Intercity Passenger Rail
- proposed classification





- Regional Transitway
- Regional Transitway & Major Transit Priority Street
- Major Transit Priority Street
- Transit Access Street
- Local Service Transit Street
- → Intercity Passenger Rail
- proposed classification







- Regional Transitway
- Regional Transitway & Major Transit Priority Street
- Major Transit Priority Street
- Transit Access Street
- Local Service Transit Street
- Intercity Passenger Rail
- proposed classification







- Regional Transitway
- Regional Transitway & Major Transit Priority Street
- Major Transit Priority Street
- Transit Access Street
- Local Service Transit Street
- ------ Intercity Passenger Rail
- proposed classification





#### **Transit Classification**

- Regional Transitway
- Regional Transitway & Major Transit Priority Street
- Major Transit Priority Street
- Transit Access Street
- Local Service Transit Street
- → → Intercity Passenger Rail
- proposed classification





#### **Transit Classification**

- Regional Transitway
- Regional Transitway & Major Transit Priority Street
- Major Transit Priority Street
- Transit Access Street
- Local Service Transit Street
- → Intercity Passenger Rail
- proposed classification





#### **Transit Classification**

- Regional Transitway
- Regional Transitway & Major Transit Priority Street
- Major Transit Priority Street
- Transit Access Street
- Local Service Transit Street
- Intercity Passenger Rail
- proposed classification







- Regional Transitway
- Regional Transitway & Major Transit Priority Street
- Major Transit Priority Street
- Transit Access Street
- Local Service Transit Street
- -+---+ Intercity Passenger Rail
- proposed classification







- Regional Transitway
- Regional Transitway & Major Transit Priority Street
- Major Transit Priority Street
- Transit Access Street
- Local Service Transit Street
- ------ Intercity Passenger Rail
- proposed classification







- Regional Transitway
- Regional Transitway & Major Transit Priority Street
- Major Transit Priority Street
- Transit Access Street
- Local Service Transit Street
- → Intercity Passenger Rail
- proposed classification





#### **Transit Classification**

- Regional Transitway
- Regional Transitway & Major Transit Priority Street
- Major Transit Priority Street
- Transit Access Street
- Local Service Transit Street
- → Intercity Passenger Rail
- proposed classification



# **Traffic Classification Maps**

# SUMMARY OF REVISIONS

Traffic Classification descriptions are primarily being updated to include new safety language that reflects recently-adopted Vision Zero policies. They are also being updated to reflect other requests from PBOT staff to ensure that the classifications reflect current policies and guidelines.

Maps in this document show future proposed classifications, street segments with changes are highlighted in blue. <u>Traffic Classifications</u> can also be reviewed on the <u>Map App</u>.



# Traffic Classification

- Regional Trafficway
- Regional Trafficway & Major City Traffic Street
- Major City Traffic Street
- District Collector Street
- ----- Neighborhood Collector Street
- ----- Traffic Access Street
- Local Service Traffic Street
  - proposed classification





# **Traffic Classification**

- Regional Trafficway
- Regional Trafficway & Major City Traffic Street
- Major City Traffic Street
- District Collector Street
- ----- Neighborhood Collector Street
- ----- Traffic Access Street
- Local Service Traffic Street
  - proposed classification





## **Traffic Classification**

- Regional Trafficway
- Regional Trafficway & Major City Traffic Street
- Major City Traffic Street
- District Collector Street
- ----- Neighborhood Collector Street
- ----- Traffic Access Street
- Local Service Traffic Street
  - proposed classification





# **Traffic Classification**

- Regional Trafficway
- Regional Trafficway & Major City Traffic Street
- Major City Traffic Street
- District Collector Street
- ----- Neighborhood Collector Street
- ----- Traffic Access Street
- Local Service Traffic Street
  - proposed classification





- Regional Trafficway
- Regional Trafficway & Major City Traffic Street
- Major City Traffic Street
- District Collector Street
- ----- Neighborhood Collector Street
- ----- Traffic Access Street
- Local Service Traffic Street
- proposed classification




0 0.25 0.5 1 Miles

#### Traffic Classification

- Regional Trafficway
- Regional Trafficway & Major City Traffic Street
- Major City Traffic Street
- District Collector Street
- ----- Neighborhood Collector Street
- ----- Traffic Access Street
- Local Service Traffic Street
- proposed classification







- Regional Trafficway
- Regional Trafficway & Major City Traffic Street
- Major City Traffic Street
- District Collector Street
- ----- Neighborhood Collector Street
- ----- Traffic Access Street
- Local Service Traffic Street
- proposed classification





0 0.25 0.5 1 Miles

#### **Traffic Classification**

- Regional Trafficway
- Regional Trafficway & Major City Traffic Street
- Major City Traffic Street
- ----- District Collector Street
- ----- Neighborhood Collector Street
- ----- Traffic Access Street
- Local Service Traffic Street
  - proposed classification





- Regional Trafficway
- Regional Trafficway & Major City Traffic Street
- Major City Traffic Street
- District Collector Street
- ----- Neighborhood Collector Street
- ----- Traffic Access Street
- Local Service Traffic Street
  - proposed classification





0 0.25 0.5 1 Miles

#### Traffic Classification

- Regional Trafficway
- Regional Trafficway & Major City Traffic Street
- Major City Traffic Street
- District Collector Street
- ----- Neighborhood Collector Street
- —— Traffic Access Street
- Local Service Traffic Street
- proposed classification



TRANSPORTATION SYSTEM PLAN UPDATE: STAGE 3 - DISCUSSION DRAFT SECTION 4: STREET CLASSIFICATIONS

#### 4-65



- Regional Trafficway
- Regional Trafficway & Major City Traffic Street
- Major City Traffic Street
- District Collector Street
- —— Neighborhood Collector Street
- Traffic Access Street
- Local Service Traffic Street
- proposed classification









- Regional Trafficway
- Regional Trafficway & Major City Traffic Street
- Major City Traffic Street
- District Collector Street
- ----- Neighborhood Collector Street
- ----- Traffic Access Street
- Local Service Traffic Street
  - proposed classification





- Regional Trafficway
- Regional Trafficway & Major City Traffic Street
- Major City Traffic Street
- District Collector Street
- ----- Neighborhood Collector Street
- ----- Traffic Access Street
- Local Service Traffic Street
  - proposed classification







- Regional Trafficway
- Regional Trafficway & Major City Traffic Street
- Major City Traffic Street
- District Collector Street
- ----- Neighborhood Collector Street
- ----- Traffic Access Street
- Local Service Traffic Street





0 0.25 0.5 1 Miles

#### **Traffic Classification**

- Regional Trafficway
- Regional Trafficway & Major City Traffic Street
- Major City Traffic Street
- District Collector Street
- ----- Neighborhood Collector Street
- ----- Traffic Access Street
- Local Service Traffic Street
  - proposed classification



# Section 5 Modal and Management Plans

#### SUMMARY OF REVISIONS and APPROACH

Modal and Management Plans are a requirement of the State Transportation Planning Rule for TSPs. Portland's existing Modal and Management Plans section is over 150 pages long and has not been updated since 2002. It references and relies on policies and sections of the Regional Transportation Plan, Comp Plan and the TSP that are no longer relevant, have been updated, or have been eliminated.

The existing Modal and Management Plans are:

- Motor Vehicle
- Public Transportation
- Pedestrian
- Bicycle
- Freight
- Air, Rail, Water, Pipeline
- TDM/parking
- TSM

#### **Proposal for Discussion and Comment**

Delete all existing content in 2007 TSP Modal and Management Plans chapter.

**Use adopted modal master plans as the modal plans for these modes.** This includes the Pedestrian Master Plan (1998, updating in 2017/18), the Freight Master Plan (2006), and the Bicycle Master Plan (2010). The Modal Plan section will add a short summary of the plans and links to websites and relevant documents.

Use existing plans, adopted plans, and current planning processes and projects as the basis for new modal plan sections for Motor Vehicle, Public Transportation, Air/Rail/Water/Pipeline, TDM/Parking and TSM.

For example, Public Transportation Plan would use Growing Transit Communities, TriMet Service Enhancement Plans, Enhanced Transit Corridors, Division Transit and SW Corridor planning to update and inform the plan. There will be a short summary of the plans and a link to relevant websites and documents.

#### Use new Comp Plan goals and policies to inform the plan sections.

For example, the Motor Vehicle Plan will reference Policy 9.6, Transportation Strategy for

the Movement of People as a starting place. The TDM and Parking Plan will reference new Comp Plan parking policies, the PBOT parking tool kit and City-Wide Parking Strategy, as well as the new TDM comp plan policies, plus new code and admin rules under development. There will be a short summary of the plans and links to relevant websites and documents.

**General and overall Transportation Planning Rule summary and requirements** for all plans in one introductory section rather than repeating for each mode. **DLCD has given preliminary approval** to this approach.

Comments and discussion on this approach is requested as part of the Discussion Draft.

# Section 6 Regional Transportation Plan Compliance

### SUMMARY OF REVISIONS

- Stages 1 and 2 of the TSP update and the Comp Plan met Metro and RTP requirements at the time of adoption (June and December 2016) with minor additional changes, some of which are being addressed in Section 7: Performance Measures.
- TSP3 Team will work directly with Metro staff during the Discussion and Proposed Draft phases to further complete the requirements and have an updated memo between the City and Metro prior to adoption.

# Section 7 Performance Measures

## SUMMARY OF REVISIONS

Per the Oregon Transportation Planning Rule (TPR), Transportation System Plans (TSP's) must be consistent with the Regional Transportation Functional Plan (RTFP). The 2014 RTFP requires TSP's to include several performance measures. A TSP can include performance measures beyond those in the RTFP. TSP performance measures meet the minimum standards in the RTFP, and can also set a higher standard to implement City policies that are stronger than, or different from, regional minimums. The priority for performance measures in this TSP update is, at a minimum, to be in compliance with the RTFP.

The performance measure objective amendments proposed below reflect and complement measures adopted in The Portland Plan, the Climate Action Plan, and the Comprehensive Plan. The amendments below add to the performance measures adopted by City Council in TSP Stage 2 in December 2016.

There are at least three notable changes:

- 1. Moving the Vision Zero objective to the top of the list, 9.26.a;
- 2. Adding a 10% work at home commute mode share target and adjusting the bicycle commute mode share target in Objective 9.26.e. to be more consistent with regional travel demand model and model post-processing results. The proposed 2035 bicycle commute mode share target would still more than double from the 2014 commute bicycle mode share;
- 3. Create a new performance measure designed to reduce future congestion by holding at current levels the number of non-freight motor vehicle trips in congested corridors.

#### Reference Documents: RTFP and TSP

The RTFP, section 3.08, requires "Each city and county shall demonstration that solutions adopted (in the TSP) will achieve progress toward..."

- Regional Non-SOV Modal Targets (daily trips by 2040 Design Type)
- Interim Regional Mobility Policy
- Safety
- Vehicle miles traveled per capita

- Freight reliability
- Congestion
- Walking, bicycling and transit mode shares.

Portland's 2007 TSP contains performance measures in two places:

- Chapter 2, Policy 11.13, Performance Measures (pp 2-148 to 2-151), and
- Chapter 15, System Performance.

The 2007 TSP does not have all of the RTFP-required performance measures, which is one reason we are proposing updates. Another reason to update TSP performance measures is to reflect City policies adopted in the 2035 Comprehensive Plan.

#### **Update Process**

Portland is updating the performance measures from the 2007 TSP in three stages.

In June 2016 the Portland City Council adopted Stage 1 of the 2035 TSP, which included a Vision Zero goal and the Portland-specific elements of the Interim Regional Mobility Policy as comprehensive plan policy 9.50.b, specifically for performance evaluation.

In December 2016 the Portland City Council adopted Stage 2 of the 2035 TSP. That package included updated or new performance measures including:

- Mode Share: daily, commute, and modal (pedestrian, bicycle, transit, carpool)
- Vehicle Miles Traveled (VMT) per capita
- Greenhouse Gas Emissions (GHG)
- Mobility (Interim Regional Mobility Policy and Level of Service references)
- Auto ownership in mixed use buildings

In TSP Stage 3 we are proposing to gain RTFP compliance with a mix of new and updated performance measures:

- Non-SOV Modal Targets
- Walking, Bicycling, and Transit Mode Shares
- Congestion
- Safety (Vision Zero)
- VMT/Capita
- Freight Reliability

#### Performance Measures: RTFP Compliance

PBOT is proposing to amend Transportation System Plan Objective 9.26, adopted by City Council in December 2016, as shown below.

PBOT is also proposing to delete the 2007 TSP Chapter 15, System Performance. Many of the performance measures in Chapter 15 are covered by Objective 9.26. Chapter 15 can be reviewed at <u>https://www.portlandoregon.gov/transportation/article/370492</u>.

## **Objective 9.26: Performance Measures**

### SUGGESTED LANGUAGE FOR ADOPTION

Updated 31 March 2017

#### Key

Existing language Suggested new language Deleted language (alt-shift-5)

Objective 9.26	Performance Measures (formerly Objective 11.13)		
	<b>9.26.a.</b> Vision Zero. Eliminate deaths a Portland streets by 2025.	nd serious injuries for all who share	
	<b>9.26.b.</b> Vehicle Miles Traveled (VMT). By 2035, reduce the number of miles Portlanders travel by car to 11 miles per day on average.		
	<b>9.26.c.</b> Establish mode split targets in 2 City, consistent with Metro's targets for	2040 Growth Concept areas within the r these areas.	
	<b>9.26.d.</b> Pattern Area Mode Share. By 2035, increase the mode share of daily non-drive alone trips to 70 percent % citywide and to the following in the five pattern areas:		
	Pattern Area	2035 target mode share	
	Central City	85% <del>87%</del>	
	Inner Neighborhoods	70% <del>71%</del>	
	Western Neighborhoods	65%	
	Eastern Neighborhoods	65%	
	Industrial and River	55%	

**<u>9.26.e.</u>** Modal Targets. By 2035, 70 percent of commuters walk, bike, take transit, carpool, or work from home at approximately the following rates:

Mode	2035 target mode share
Walk	7.5%
Bicycle	<u>15%</u> <del>25%</del>
Transit	25%
Carpool	<u>12.5%</u> 1 <del>0%</del>
Work at home	<u>10%</u>

**<u>9.26.f.</u>** Climate. By 2035, reduce Portland's transportation-related carbon emissions to 50% below 1990 levels, at approximately 934,000 metric tons.

**9.26.g.** Vehicle Ownership. By 2025, increase the percentage of new mixed use zone building households not owning an automobile from approximately 13% (2014) to 25%, and reduce the percentage of households owning two automobiles from approximately 24% to 10%.

**9.26.h.** Congestion. Maintain or decrease the number of peak period non-freight motor vehicle trips, system-wide and within each mobility corridor.

**9.26.i.** Level of Service. Use level-of-service, consistent with Table 9.1, as one measure to evaluate the adequacy of transportation facilities in the vicinity of sites subject to land use review. Evaluate alternative adequacy evaluation measures to improve safety while reducing vehicle miles traveled.

**9.26.j.** Level of Service Alternatives. Develop and uUse alternatives to the level-of-service measure to determine the adequacy of the transportation system in areas that exhibit the following characteristics:

- A mix of land uses, including residential
- A mode split consistent with targets established for the area

- Maximum parking ratios
- Adequate existing street connectivity

**9.26.k.** Interim Regional Mobility Policy. Maintain acceptable levels of performance on state facilities and the regional arterial and throughway network, consistent with the interim standard in Table 9.2, in the development and adoption of, and amendments to, the Transportation System Plan and in legislative amendments to the Comprehensive Plan Map.

**9.26.I.** Mobility Policy Alternatives. In areas identified by Metro that exceed the level-of-service in Table 9.2 and are planned to, but do not currently meet the alternative performance criteria, establish an action plan that does the following:

- Anticipates growth and future impacts of motor vehicle traffic on multimodal travel in the area
- Establishes strategies for mitigating the future impacts of motor vehicles
- Establishes performance standards for monitoring and implementing the action plan

**<u>9.26.m.</u>** Performance Monitoring. Develop performance measures to track progress in creating and maintaining the transportation system.

# Section 8 Connected and Autonomous Vehicles

### SUMMARY OF REVISIONS

Autonomous Vehicles (AVs) have the potential to benefit Portland by reducing crashes, improving first and last mile connections for transit users, and reducing the high cost of owning a private vehicle. AVs also have the potential to significantly increase traffic congestion, vehicle miles travelled, and climate pollution. Investments in AV infrastructure could increase demands on transportation budgets while use of AVs could threaten parking revenues. The protections and rules of the road adopted by state and local governments will substantially determine how much benefit and how much burden we experience.

Autonomous vehicle technology is advancing rapidly: AVs are being tested on public streets in Pittsburgh, California, and Arizona. We may have vehicles that are largely autonomous operating in Portland in 2017.

Portland does not have an autonomous vehicles policy. In order to maximize potential benefits and minimize potential threats, PBOT is proposing a policy based on AVs advancing our adopted comprehensive plan goals. The objectives below are designed to provide guidance from City Council to both implementing bureaus and private sector organizations. The policy could provide clear guidance for evaluating autonomous vehicle tests, pilots, and deployment. PBOT is also proposing to amend Comprehensive Plan Policy 9.6, the transportation strategy for people movement, to reflect a priority for AVs that are fleet, electric, and shared by multiple passengers. This combination is likely to produce the greatest benefits with the least risk.

With clear policy direction, use of autonomous vehicles in Portland could boost the likelihood of achieving our Vision Zero, economic, environmental, and equity goals.

# Policy 9.xx and Objective 9.41: Connected and Autonomous Vehicles

### SUGGESTED LANGUAGE FOR ADOPTION

Updated 12 May 2017

#### Key

Existing language <u>Suggested new language</u> <del>Deleted language</del> (alt-shift-5)

Policy 9.xx	Connected a	nd Autonomous Vehicles. Ensure that connected and	
	<u>autonomous</u>	vehicles advance Portland's Comprehensive Plan multiple	
	transportation goals and policies, including vision zero, climate pollution		
	reduction and	d cleaner air, equity, physical activity, economic opportunity, great	
	<u>places, cost e</u>	effectiveness, mode share, and reducing vehicle mile traveled.	
Objective 9.4	<u>1</u> <u>Conn</u>	ected and Autonomous Vehicles.	
	Priori	tize connected and autonomous vehicles that are fleet/shared	
	owne	rship, electric, fully automated and, for passenger vehicles, shared	
	<u>by m</u> ı	ultiple passengers. Develop and implement strategies on:	
	o 44		
		a. Safety: Ensure that all levels of self-driving vehicles operate	
	<u>sately</u>	r for all users, especially in the presence of vulnerable road users;	
	<u>9.41.</u>	<ol> <li>Reliability and Efficiency: Ensure that connected and</li> </ol>	
	auton	omous vehicles improve travel time reliability and system	
	efficie	ency by	
	4		
	1.	maintaining or reducing the number of vehicle trips during peak	
		congestion periods:	
	2.	reducing low occupancy vehicle trips during peak congestion	
		periods:	
	-		
	3.	paying for use of, and impact on, Portland's transportation	

system including factors such as congestion level, vehicle miles traveled, vehicle occupancy, and vehicle energy efficiency;

**9.41.c.** Climate: cut vehicle carbon pollution by reducing "empty miles" traveled by passenger vehicles with zero or one passengers;

**9.41.d.** Equity: make benefits of autonomous mobility available on an equitable basis to all segments of the community;

**9.41.f.** Adverse Impacts: identify, prevent, identify, and mitigate potential adverse impacts from connected and autonomous vehicles.

Use a full range of tools to ensure that connected and autonomous vehicles and private data communications devices installed in the City right of way contribute to achieving Comprehensive Plan and Transportation System Plan goals and policies, including:

**9.41.g.** Information: Maintain City authority to identify and develop appropriate data sharing requirements to inform and support safe, efficient, and effective management of the transportation system. Ensure that when connected and autonomous vehicles use City rights-of-way or when vehicles connect with smart infrastructure within the City they share information including vehicle type, occupancy, speed, travel routes, and travel times, with appropriate privacy controls. Ensure that private data communications devices installed in the City right of way are required to share anonymized transportation data;

**9.41.h.** Design and Manage: design and manage the mobility zone, curb zone, and traffic control devices, e.g. to limit speeds to increase safety. to minimize cut-through traffic, evaluate future demand for pick-up and drop-off zones, and to prioritize autonomous electric vehicles carrying more passengers in congested times and locations;

**9.41.i.** Investments: Evaluate the public cost and benefit of investments in wayside communication systems advancing connected and autonomous vehicles goals. Develop a criteria-driven automated vehicle wayside infrastructure investment plan.

**9.41.j.** Funding: Develop sustainable funding mechanisms to support connected and autonomous vehicle infrastructure and service investments, transportation system maintenance, and efficient system management;

9.41.k. Pricing: Ensure that autonomous vehicles and vehicles that

connect to smart City infrastructure, and private data communications devices installed in the City right of way, help pay for infrastructure and service investments, and support system reliability and efficiency. Develop a tiered pricing structure that reflects vehicle impacts on the transportation system, including factors such as congestion level, vehicle miles traveled, vehicle occupancy, and vehicle energy efficiency;

**9.41.I.** Pilot Projects: Carefully evaluate potential pros and cons of pilot projects; support testing connected and autonomous vehicles in limited initial applications to explore the best methods of advancing adopted goals, policies, and objectives;

**9.41.m.** Analysis: Evaluate the potential impacts of connected and autonomous vehicles on traffic and travel modeling, vehicle storage (parking) demand analysis and projects, right-of-way allocation, development, and parking and vehicle capacity project evaluation, management, funding, and other evolving issues;

**9.41.n.** Partnerships: Collaborate with federal, state, regional, local, and private sector partners. Advocate for state creation of a jurisdictional committee on automated safety technology with Portland representation, and state recognition of city oversight of autonomous vehicles on city streets.

**9.41.o.** Connectivity: Support federal requirements that all new passenger vehicles are equipped with dedicated short-range communications (DSRC) radios, which include a number of traffic safety technologies that are consistent with Portland's Vision Zero goals.

# **Policy 9.6: Transportation Strategy for People Movement**

## SUGGESTED LANGUAGE FOR ADOPTION

Updated 31 March 2017

#### Key

Existing language Suggested new language Deleted language (alt-shift-5)

Policy 9.6	<b>Transportation strategy for people movement.</b> Implement a prioritization of modes for people movement by making transportation system decisions according the following ordered list:		
	1. Walking		
	2. Bicycling		
	3. Transit		
	4. Fleets of electric, fully automated, multiple passenger vehicles		
	5. <u>Other shared vehicles</u>		
	6. Low or no occupancy vehicles, fossil-fueled non-transit vehicles		
	7. Taxi/commercial transit/shared vehicles		
	8. Zero emission vehicles		
	9. Other single-occupant vehicles		

# Section 9 Glossary

### SUMMARY OF REVISIONS

- New terms since 2016
- New terms for this document

# Glossary

**Autonomous Vehicle:** the U.S. Department of Transportation recommends defining autonomous vehicle technology levels using the SAE J3016 standard:

- Level 0 No Automation: The full-time performance by the human driver of all aspects of the dynamic driving task, even when enhanced by warning or intervention systems
- Level 1 Driver Assistance: The driving mode-specific execution by a driver assistance system of either steering or acceleration/deceleration using information about the driving environment and with the expectation that the human driver performs all remaining aspects of the dynamic driving task
- Level 2 Partial Automation: The driving mode-specific execution by one or more driver assistance systems of both steering and acceleration/deceleration using information about the driving environment and with the expectation that the human driver performs all remaining aspects of the dynamic driving task
- Level 3 Conditional Automation: The driving mode-specific performance by an Automated Driving System of all aspects of the dynamic driving task with the expectation that the human driver will respond appropriately to a request to intervene
- Level 4 High Automation: The driving mode-specific performance by an Automated Driving System of all aspects of the dynamic driving task, even if a human driver does not respond appropriately to a request to intervene
- Level 5 Full Automation: The full-time performance by an Automated Driving System of all aspects of the dynamic driving task under all roadway and environmental conditions that can be managed by a human driver.

**Connected Vehicle:** a vehicle that communicates with the Internet, other vehicles, wayside systems and/or passengers.

**Electric Vehicle:** An electric vehicle (EV), also referred to as an electric drive vehicle, is a vehicle which uses one or more electric motors for propulsion. Depending on the type of vehicle, motion may be provided by wheels or propellers driven by rotary motors, or in the case of tracked vehicles, by linear motors.

Historically marginalized communities: Communities included as part of the 2018 RTP Transportation Equity Assessment include: People of Color; People with Lower-Incomes; People with Limited English Proficiency; Older Adults; Young Persons

**Speed cushion:** Speed cushions are either speed humps or speed tables that include wheel cutouts to allow large vehicles to pass unaffected, while reducing passenger car speeds. They can be offset to allow unimpeded passage by emergency vehicles and are typically used on key emergency response routes. Speed cushions extend across one direction of travel from the centerline, with longitudinal gap provided to allow wide wheel base vehicles to avoid going over the hump.