Agenda

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

Meeting:	**RTP Transit work group meeting**
Date:	Wednesday, April 18, 2018
Time:	2:30 – 5:00 p.m.
Place:	Metro Regional Center, Room 370A
Purpose:	Draft Regional Transit Strategy and system expansion update
Outcome(s):	Review the Draft Regional Transit Strategy and feedback on the Transit System Expansion Policy analysis framework

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2:30 p.m.	**Welcome & project updates** *Who have you talked to about this work? What have you heard?*	Everyone
2:45 p.m.	**ETC Workshop update and Request for Interest** *Provide an update on the ETC workshops and schedule for the ETC Request for Interest (RFI) process*	Jamie Snook, Metro All - Discussion
3:00 p.m.	**RTP project refinement phase** *Discussion of changes in the 2018 RTP project list.*	All
3:10 p.m.	**Transit System Expansion Policy update** *Provide an update on the system expansion criteria development and validation process.*	Jamie Snook, Metro Oren Eshel, Nelson Nygaard
4:10 p.m.	**DRAFT of the Regional Transit Strategy** *Provide an overview of what is in the Draft Regional Transit Strategy and ask for feedback (by April 27th).*	Jamie Snook, Metro
5:00 p.m.	**Adjourn**	

Meeting Packet
• Transit Work Group Agenda
• Memorandum – Draft Regional Transit Strategy – Discussion DRAFT
• Draft Regional Transit Strategy Discussion Draft

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Covered bike racks are located on the north plaza and inside the Irving Street visitor garage. Metro Regional Center is on TriMet bus line 6 and the streetcar, and just a few blocks from the Rose Quarter Transit Center, two MAX stations and several other bus lines. Visit our website for more information: http://www.oregonmetro.gov/metro-regional-center

Memo

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

Date: Thursday, March 29, 2018
To: 2018 Regional Transportation Plan - Transit Working Group
From: Jamie Snook, Principal Planner
Subject: Draft Regional Transit Strategy – Discussion Draft

Purpose

The purpose of this memorandum is to provide an update to the Metro Advisory Committee (MTAC) on the development of the Discussion DRAFT Regional Transit Strategy (RTS). We are currently working on edits to the Regional Transit Network Map and will bring that to our meeting. The Regional Transit Strategy is a collaborative effort to create a single coordinated transit vision and implementation strategy. The objectives of the RTS are to:

- Implement the 2040 Growth Concept and Climate Smart Strategy
- Update RTP transit-related policies and performance measures
- Update the current Regional Transit Network Map and High Capacity Transit Map
- Update the Transit System Expansion Policy
- Recommend a coordinated strategy for future transit investments and identify potential partnerships, strategies and funding sources for implementation.

A public review draft of the Regional Transit Strategy will be released for public comment along with the DRAFT Regional Transportation Plan and other RTP Strategies in June 2018.

Action Requested
There is no formal action requested. Staff is seeking **feedback by April 27, 2018** regarding the following issues:

- Updated transit policies
- Proposed changes to the 2009 High Capacity Transit (HCT) System Map and additions to Regional Transit Network Map
- Updates on the Transit System Expansion Policy
- Draft Regional Transit Strategy report

Background

This is a critical time to consider how transit fits into our larger regional goals. The Climate Smart Strategy, adopted in 2014, provided clear direction to invest more in our transit system in order to meet regional goals and objectives related to sustainability and carbon emissions. Current growth rates will require us to expand transit service in order to provide people with transportation options and minimize congestion. Significant and coordinated investment is needed to continue to provide equivalent service as our region grows; increasing service and access will require dedicated funding, policies, and coordination from all jurisdictions. Transit also helps the region meet its equity and access goals as it is a primary mode of transportation for people with disabilities and youth, providing them with a way to get to work, school, and attaint access to daily needs. Investments in transit should increase access, provide more transportation options for residents and workers, and improve air quality, and reduce peak hour congestion.

The Regional Transit Strategy will inform as the transit component of the 2018 Regional Transportation Plan (RTP) update and will provide a coordinated vision and strategy for transit in the Portland metropolitan area.

Implement the 2040 Growth Concept and Climate Smart Strategy

Building off the Climate Smart Strategy, the regional transit vision is **to make transit more frequent, convenient, accessible and affordable for everyone**. The regional transit vision, policies and actions outlined in the Regional Transit Strategy build upon the strategies identified in the Climate Smart Strategy and support the implementation of our 2040 Growth Concept. The Regional Transit Strategy incorporates TriMet's Service Enhancement Plans, Wilsonville's Transit Master, Streetcar Strategic Plan and the 2009 adopted Regional High Capacity Transit Plan into a single vision of transit in the future.

Update RTP transit-related policies and performance measures

This vision has been incorporated into our transit related policies to create a seamless transit system that works for everyone. Existing policies were integrated with new policies that address: equity, maintenance and resiliency, enhanced transit concept, first and last mile, new technology and affordability.

The proposed new transit policies are:

Policy 1. Provide a seamless, integrated, affordable, safe and accessible transit network that serves people equitably, particularly communities of color and other historically marginalized communities, and people who depend on transit or lack travel options. *(New)*

Policy 2. Preserve and maintain the region's transit infrastructure in a manner that improves safety, security and resiliency while minimizing life-cycle cost and impact on the environment. *(New to address MAP-21 asset management and resiliency requirements)*

Policy 3. Make transit more frequent by expanding regional and local frequent service transit and improving local service transit. *(Minor revisions to consolidate policies)*

Policy 4. Make transit more convenient by expanding high capacity transit (through the System Expansion Policy framework) and the region's enhanced transit network *(New)*, and supporting expanded commuter rail and intercity transit service to neighboring communities. *(Minor revisions to consolidate policies)*

Policy 5. Make transit more accessible by improving pedestrian and bicycle access to transit stops and stations and using new mobility services to improve connections to high-frequency transit when walking, bicycling, or local bus service is not an option. *(Minor revisions to add language on role of new mobility services)*

Policy 6. Use emerging technologies to provide better, more efficient transit service, focusing on meeting the needs of people for whom conventional transit is not an option. *(New to add language on role of emerging technologies)*

Policy 7. Ensure that transit is affordable, especially for people who depend on transit. *(New to add language on transit affordability)*

The transit related performance measures were modified to include performance measures from the Climate Smart Strategy.

Update the current Regional Transit Network Map and High Capacity Transit Map

The Regional Transit Network is the future transit vision and includes future regional and local bus, enhanced transit corridors, high capacity transit and intercity rail. The proposed Regional Transit Network map has been updated to include the 2009 HCT lines, new enhanced transit concept, streetcar and future transit service as identified by the TriMet's Service Enhancement Plans and Wilsonville's Transit Master Plan.

Proposed changes to the 2009 HCT Map include:

- Moving the I-5 HCT corridor from "High Capacity Transit Corridors under development" to "Next Phase Regional Priority Corridor"
- Moving the Portland to Lake Oswego Streetcar project from "High Capacity Transit Corridors under development" to "Next Phase Regional Priority Corridor"
- Portland to Gresham in the vicinity of Powell Corridor remains a "Next Phase Regional Priority Corridor"
- Add Portland to Gresham on SE Division St "High Capacity Transit Corridors under development"
- Moved Portland to Sherwood in the vicinity of Barbur/Highway 99 Corridor from "Near Term Regional Priority" to "High Capacity Transit Corridors under development"
- Modified the Clackamas Town Center to Damascus to connect to Happy Valley via the Columbia to Clackamas Corridor in the "Regional Vision Corridors"

Update the Transit System Expansion Policy

The System Expansion Policy was adopted as part of the 2009 Regional High Capacity Transit (HCT) System Plan and was designed to help jurisdictions move projects towards implementation. The transit system expansion policy would only apply to those investments seeking FTA Capital Investment Grant (CIG) program funding (e.g. New Starts, Small Starts or Core Capacity). Examples of investments that could be considered as part of this program are the Division Transit Project, a corridor based bus rapid transit (BRT), or the Southwest Corridor Transit Project. The purpose of the System Expansion Policy is to:

- Clearly articulate the decision-making process by which future HCT corridors will be advanced for regional investment
- Establish minimum requirements for HCT corridor working groups to inform local jurisdictions as they work to advance their priorities for future HCT
- Define quantitative and qualitative performance measures to guide local land use and transportation planning and investment decisions
- Outlines the process for updating the RTP, including Potential future RTP amendments, for future HCT investment decisions

The updated Transit System Expansion Policy (TSEP) is still under development. Key elements to the updating the TSEP include:

- **Reduce the number of criteria** by eliminating duplicative measures, those not commonly used in peer processes, and certain qualitative measures that can instead become an element of a project justification narrative section of Metro's process of submitting projects for the Regional Transportation Plan (RTP).
- **Focus the core evaluation measures** on those elements that describe the benefit of the project, consistent with regional values, as well as measures that enhance the competitiveness of projects in the FTA CIG program.
- **Evaluate project readiness separately** for the highest priority projects. Project readiness factors include funding potential (aligned with FTA criteria) and local aspirations (measure local commitment and established agency partnerships to ensure successful project delivery)

The Transit System Expansion Policy includes a multi-phased evaluation that includes core criteria as well as readiness criteria. The Core Criteria is comprised of measures that describe the benefit of the projects, consistent with regional values, as well as assess the competitiveness of projects for funding through the FTA CIG program. The Readiness Criteria is the second filter and is evaluated separately from the core criteria assessment for the highest priority projects. Project readiness factors include funding potential (a simulated scoring based on the FTA CIG program criteria) and local aspirations (measure of local commitment and established agency partnerships to ensure successful project delivery).

Working with our regional partners, we were able to reduce the number of criteria from 26 to 12. We are currently applying the draft criteria to the HCT projects identified in the 2018 Regional Transportation Plan (RTP). This will help validate the criteria for future use.

The core criteria assessment would apply to all projects that would likely seek federal funding from the FTA CIG program. This core assessment focuses on:

- Mobility and ridership
- Land use supportive and market potential
- Cost effectiveness
- Equity benefit
- Environmental benefit

The readiness assessment focuses on:

- Local commitment and partnerships
- Funding potential

This assessment can help highlight which investment or set of investments perform best and their alignment with the transit vision. Local jurisdictions or agencies that want to move a project forward towards implementation would then be evaluated through the readiness assessment. The proposed HCT projects from 2018 RTP are being assessed using these criteria and may be refined depending on the results.

Next Steps

We are continuing to work with regional partners through the Transit Work Group to help update and refine the Regional Transit Strategy and Transit System Expansion Policy. Below is a short list of next steps:

- Update the transit project list and future transit service through the 2018 RTP project refinement phase;
- Continue to work on updating the Transit System Expansion Policy; and
- Update the Regional Transit Strategy with feedback from regional partners.

DISCUSSION DRAFT

2018 Regional Transportation Plan

Regional Transit Strategy

A strategy for providing better transit service in the greater Portland region

April 2, 2018

oregonmetro.gov/transit

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Metro is the federally mandated metropolitan planning organization designated by the governor to develop an overall transportation plan and to allocate federal funds for the region.

The Joint Policy Advisory Committee on Transportation (JPACT) is a 17-member committee that provides a forum for elected officials and representatives of agencies involved in transportation to evaluate transportation needs in the region and to make recommendations to the Metro Council. The established decision-making process assures a well-balanced regional transportation system and involves local elected officials directly in decisions that help the Metro Council develop regional transportation policies, including allocating transportation funds.

Regional Transportation Plan website: **oregonmetro.gov/rtp**
Regional Transit Strategy web site: **oregonmetro.gov/transit**

The preparation of this strategy was financed in part by the U.S. Department of Transportation, Federal Highway Administration and Federal Transit Administration. The opinions, findings and conclusions expressed in this strategy are not necessarily those of the U.S. Department of Transportation, Federal Highway Administration and Federal Transit Administration.

TABLE OF CONTENTS

TABLES AND FIGURES

This is under development.

ATTACHMENTS

This is under development.

FORWARD

This section is under development.

EXECUTIVE SUMMARY

This section is under development. Executive summary will be about 2 pages. Executive Summary could handout for distribution.

CHAPTER 1: INTRODUCTION

The 2018 Regional Transit Strategy (RTS) sets regional transit policy and provides a framework for working towards implementing a regional transit system that supports our 2040 Growth Concept.

The Regional Transit Strategy provides a comprehensive assessment of our transit priorities for the greater Portland region, defined as the area within the Metropolitan Planning Area (MPA). The MPA is slightly larger than the region's Urban Growth Boundary. The Regional Transit Strategy is the transit modal component of the 2018 Regional Transportation Plan update.

[FIGURE 1 INSERT RTP MODAL AND TOPICAL PLANS WITHIN STATEWIDE PLANNING HIERACHY]

This Introduction provides context for the RTS, including Metro's role in transit planning; the policy framework that was used to define the overall regional transit strategy and vision, relation to other plans, the planning process and public engagement and the organization of this document.

Metro's Role

As the region's metropolitan planning organization (MPO), Metro has a variety of roles in transportation transit planning, including:

- setting regional transit vision, policies, targets, and performance measures;
- reporting on annual transit targets and performance measures;
- planning for high capacity transit projects, environmental planning, project development leading to a locally preferred alternative;
- convening jurisdictions and agencies to achieve better coordination;
- encouraging best practices in transit planning and design;
- supporting and introducing transportation legislation;
- supporting local and state efforts; and
- allocating federal transportation funding.

The 2018 RTS provides the regional transit vision for the Portland metro region: to make transit more frequent, convenient, accessible and affordable for everyone.

Policy Context

The planning context and policy framework for the Regional Transit Strategy is dependent upon a variety of regional and state plans that determine, and shape key policies, goals and principles should be considered.

State Policy and Planning Context

The following section describes the relevant statewide plans and policies.

The **Oregon Public Transportation Plan (OPTP)** is the transit modal plan for the OTP and is currently being updated. The OPTP provides a statewide vision for the public transportation system as well as policy foundation to assist transportation agencies in make decisions.

The OPTP vision is: "In 2045, public transportation is an integral, interconnected component of Oregon's transportation system that makes Oregon's divers cities, towns, and communities work. Because public transportation is convenient, affordable and efficient, it helps further the state's quality of life and economic vitality and contributes to the health and safety of all residents, while reducing greenhouse gas emissions." The OPTP includes goals and policies regarding:

- Mobility – public transportation user experience
- Accessibility and connectivity – getting from here to here
- Community livability and economic vitality
- Equity
- Health
- Safety and security
- Environmental sustainability
- Land use
- Strategic investment
- Communication, collaboration, and coordination

The **Transportation Planning Rule (TPR)**, Chapter 660, division 12 of the Oregon Administrative Rule, implements the statewide planning goals for transportation. The rule includes requirements for how local governments and Metropolitan Planning Organizations (MPOs) in metropolitan areas coordinate planning for land use and transportation systems to increase transportation choices.

The **Oregon Transportation Plan (OTP)** is the long-range transportation system plan for the state. It establishes a vision and policy foundation to guide transportation system development and investment. The OTP and its mode and topic plans guide decisions by the Oregon Department of Transportation and other transportation agencies statewide and is reflected in the policies and decisions explained in local and regional plans.

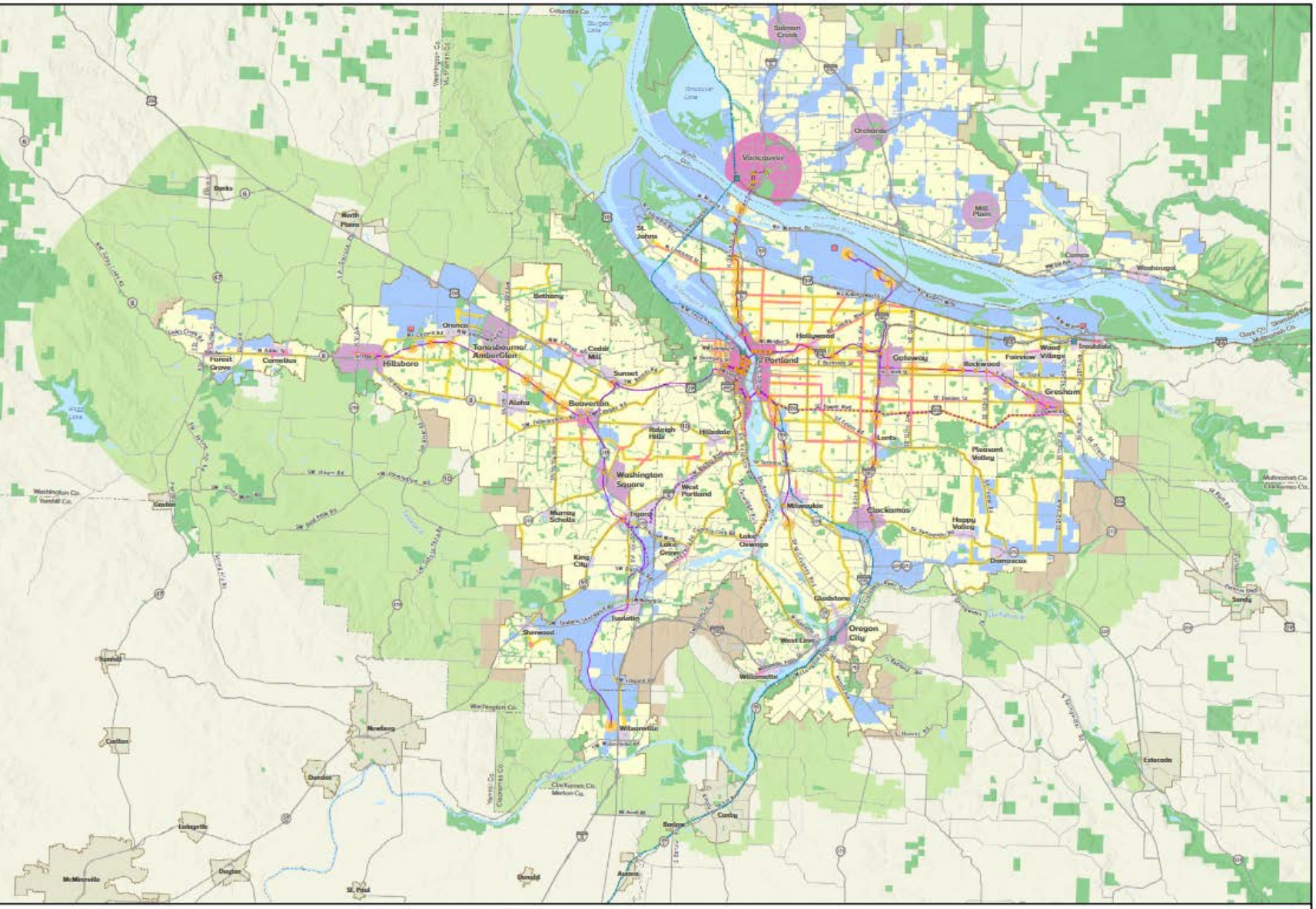
Regional Planning Context

The following section describes the relevant regional plans and policies.

Metro's **2040 Growth Concept**, see figure 2, is the region's long-range land use and transportation plan for managing growth to preserve the region's economic health and livability in an equitable, environmentally-sound and fiscally-responsible manner. The 2040 Growth Concept vision concentrates mixed-sue and higher density development in urban centers, station communities, corridors and main streets that are well-served by transit. It envisions a well-connected street network that supports biking and walking for short trips.

The **Regional Framework Plan**, adopted in 1997, identifies regional policies to implement the 2040 Growth Concept. The Plan has been amended overtime, most recently as part of the adoption of the Climate Smart Strategy in 2014. The policies in this plan aims to implement the 2040 Growth Concept and guides the RTS:

- Protect the economic health and livability of the region.
- Improve the safety of the transportation system.
- Provide a transportation system that is efficient and cost-effective, investing our limited resources wisely.
- Make the most of the investments the region has already made in our transportation system through system and demand management strategies, such as expanding the use of technology to actively manage the transportation system and providing traveler information and incentives to expand the use of travel options.
- Make **transit** convenient, frequent, accessible and affordable.
- Provide access to more and better choices for travel in this region and serve special access needs for all people, including youth, older adults and people with disabilities and people with low income.
- Provide adequate levels of mobility for people and goods within the region.
- Protect air and water quality, promote energy conservation, and reduce greenhouse gas emissions.
- Provide transportation facilities that support a balance of jobs and housing.
- Make biking and walking the most convenient, safe and enjoyable transportation choices for short trips.
- Limit dependence on drive alone travel, and increase biking, walking, carpooling, vanpooling and the use of **transit**.
- Make streets and highways safe, reliable and connected to provide for the movement of people and goods through an interconnected system of street, highway, air, marine and rail systems, including passenger and freight intermodal facilities and air and water terminals.



2040 Growth Concept Map

September 2014

0 2 4 miles

The Metro 2040 Growth Concept defines the form of regional growth and development for the Portland metropolitan region. The Growth Concept was adopted in December 1995 through the Region 2040 planning and public involvement process. This concept is intended to provide long-term growth management of the region.

The map highlights elements of parallel planning efforts including: the 2035 Regional Transportation Plan that outlines investments in multiple modes of transportation, and a commitment to local policies and investments that will help the region better accommodate growth within its centers, corridors and employment areas.

For more information on these initiatives, visit http://www.oregonmetro.gov/2040

- Central city
- Regional center
- Town center
- Station communities
- Main streets
- Corridors
- Employment land
- Parks and natural areas
- Neighborhood
- Rural reserve
- Urban reserve
- Urban growth boundaries
- Existing high capacity transit
- Planned high capacity transit
- Proposed high capacity transit tier 1
- Mainline freight
- High speed rail
- County boundaries
- Neighboring cities
- Airports
- Intercity rail terminal

Metro

Making a great place

Integrate land use, automobile, bicycle, pedestrian, freight and public transportation needs in regional and local street designs.

- Limit the impact of urban travel on rural land through use of green corridors.
- Manage parking to make efficient use of vehicle parking and land dedicated to vehicle parking.
- Demonstrate leadership on reducing greenhouse gas emissions.

The **Regional Transportation Plan** is a blueprint to guide investment and identify the region's priorities for all forms of travel – motor vehicle, transit, bicycle and walking – and the movement of goods and freight throughout the Portland metropolitan area. The plan identifies current and future transportation needs, investments needed to meet those needs and what funds the region expects to have available through 2040 to make those investments a reality. The plan is key step for these projects to qualify for potential regional, state and federal funding.

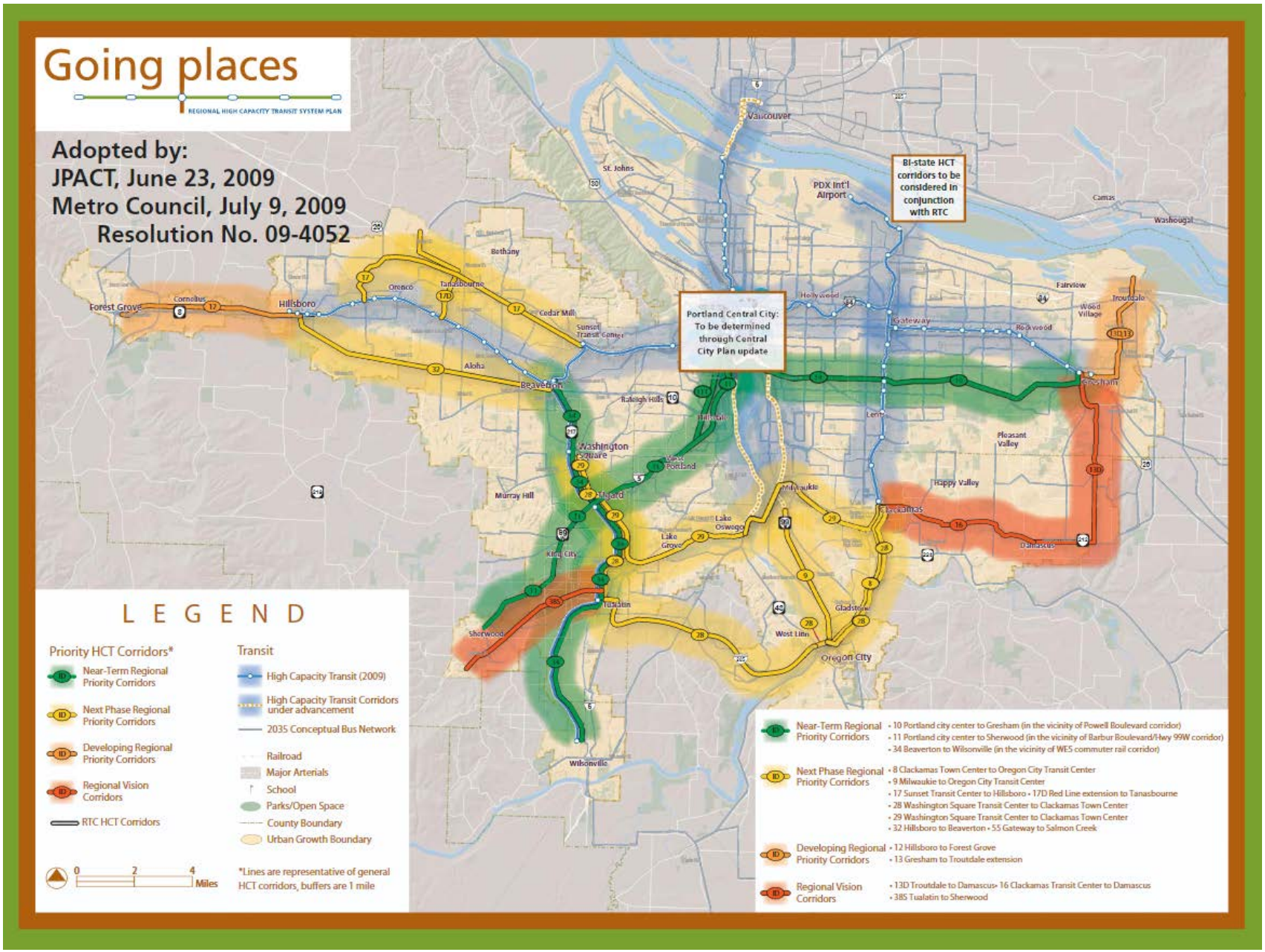
In 2009, Metro adopted a 30 year **The Regional High Capacity Transit (HCT) System Plan** to guide investments in light rail, commuter rail, bus rapid transit and rapid streetcar in the Portland metropolitan area. The HCT Plan identified16 corridors (see Figure 3) identified and ranked those corridors into four regional priority tiers, creating a framework for future system expansion prioritization. The four tiers are:

1. Near term regional priority corridors;
2. Next phase regional priority corridors;
3. Developing regional priority corridors; and
4. Regional vision corridors.

The near term regional priority corridors included three projects:

1. Portland city center to Gresham (in the vicinity of the Powell Boulevard corridor)
2. Portland city center to Sherwood (in the vicinity the Barbur Boulevard/Highway 99 corridor) and
3. Beaverton to Wilsonville (in the vicinity of the WES Corridor).

Two of these projects are moving forward. The Portland city center to Gresham is now called the Division Transit Project. The Division Transit Project is a 14-mile project that will increase transit capacity and improve travel time between Downtown Portland, Southeast and East Portland and Gresham. This project is currently in "project development" under the Federal Transit Administration (FTA) Capital Investment Grant program Small Starts funding pipeline.


Going places
REGIONAL HIGH CAPACITY TRANSIT SYSTEM PLAN
Adopted by:
JPACT, June 23, 2009
Metro Council, July 9, 2009
Resolution No. 09-4052
Bi-state HCT corridors to be considered in conjunction with RTC
Portland Central City: To be determined through Central City Plan update
Vancouver
St. Johns
PDX Int'l Airport
Camas
Washougal
Bethany
Forest Grove
Cornelius
Hillsboro
Orenco
Tanasbourne
Cedar Mill
Sunset Transit Center
Aloha
Beaverton
Hollywood
Gateway
Fairview
Wood Village
Troutdale
Rockwood
Gresham
Raleigh Hills
Hillsdale
Lents
Pleasant Valley
Happy Valley
Washington Square
West Portland
Multnomah
Murray Hill
Milwaukie
Clackamas
Lake Oswego
Lake Grove
King City
Damascus
Tualatin
Gladstone
Sherwood
West Linn
Oregon City
Wilsonville
LEGEND
Priority HCT Corridors*
Near-Term Regional Priority Corridors
Next Phase Regional Priority Corridors
Developing Regional Priority Corridors
Regional Vision Corridors
RTC HCT Corridors
Transit
High Capacity Transit (2009)
High Capacity Transit Corridors under advancement
2035 Conceptual Bus Network
Railroad
Major Arterials
School
Parks/Open Space
County Boundary
Urban Growth Boundary
0 2 4 Miles
*Lines are representative of general HCT corridors, buffers are 1 mile
Near-Term Regional Priority Corridors
• 10 Portland city center to Gresham (in the vicinity of Powell Boulevard corridor)
• 11 Portland city center to Sherwood (in the vicinity of Barbur Boulevard/Hwy 99W corridor)
• 34 Beaverton to Wilsonville (in the vicinity of WES commuter rail corridor)
Next Phase Regional Priority Corridors
• 8 Clackamas Town Center to Oregon City Transit Center
• 9 Milwaukie to Oregon City Transit Center
• 17 Sunset Transit Center to Hillsboro • 17D Red Line extension to Tanasbourne
• 28 Washington Square Transit Center to Clackamas Town Center
• 29 Washington Square Transit Center to Clackamas Town Center
• 32 Hillsboro to Beaverton • 55 Gateway to Salmon Creek
Developing Regional Priority Corridors
• 12 Hillsboro to Forest Grove
• 13 Gresham to Troutdale extension
Regional Vision Corridors
• 13D Troutdale to Damascus• 16 Clackamas Transit Center to Damascus
• 38S Tualatin to Sherwood

The Portland city center to Sherwood is now known as the Southwest Corridor Project. The Southwest Corridor Project proposal is a new 12-mile MAX line from Downtown Portland to Tigard and Bridgeport Village in Tualatin, along with numerous walking, biking and roadway project to help people access stations. Metro is working with TriMet, local partners and the FTA to develop the Southwest Corridor Environmental Impact Statement, in compliance with the National Environmental Policy Act, in anticipation of seeking federal funding through FTA's Capital Investment Grant program New Starts funding program.

Since these projects are moving forward, Metro, TriMet and regional partners will be updating the HCT plan as part of this effort.

Another aspect of the HCT Plan is the **System Expansion Policy** framework to advance high capacity transit project to regional priority. The framework:

- identifies which corridors should move into the federal project development process
- establishes a process for other corridors to advance toward development
- measures a corridor's readiness for investment using targets such as transit supportive land use policies, ridership development plans, community support and financial feasibility.

The system expansion policy is updated as part of the RTS and discussed further in Chapter 6: Implementation of this report.

The **Active Transportation Plan** (ATP) provides a vision, plan and policies for communities in our region to increase transportation options and support economic development, healthy active living, and equity. The primary recommends policy of the ATP is the completion of the active transportation network with a specific focus on providing access and connection to transit options. Holistic transportation planning considers more than one mode of transportation and the ATP clearly highlighted the importance of integrating active transportation and access to transit options.

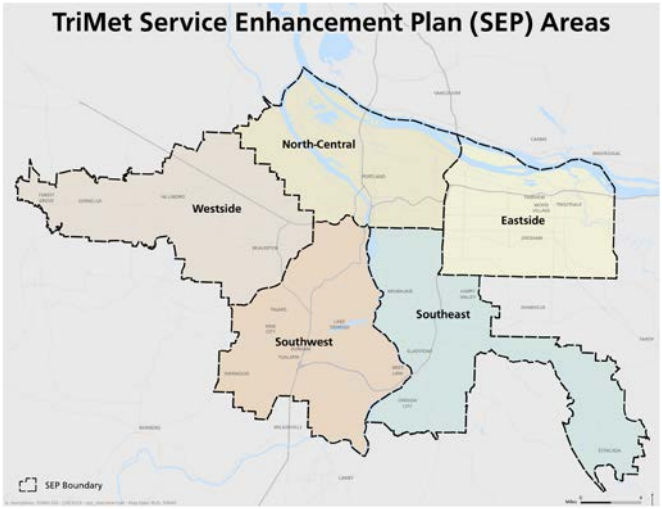
The **Climate Smart Strategy**, a 2009 mandate by the Oregon Legislature, sets policies, strategies and near-term actions to guide how the region moves forward to integrate reducing greenhouse gas emissions with ongoing efforts to create the future we want for our region. It will take a multi-modal effort to achieve our goal of reducing the region's per capita greenhouse gas emission from cars and light trucks at least 20 percent by 2035. Transit plays a key role in achieving these reductions.

As part of Metro's Code, the **Regional Transportation Functional Plan** contains policies and guidance to help local jurisdictions implement the policies in the Regional Transportation Plan its modal plans, including active transportation, freight and high capacity transit.

The **Urban Growth Management Functional Plan**, within the Functional Plan, provides guidance, under **Title 6: Centers, Corridors, Station Communities and Main Streets,** to

cities and counties and actions they must perform to be eligible for any regional investments. To be eligible for a regional investment, projects must be included in the RTP. In addition, cities or counties shall:

- Establish boundaries for the Center, Corridor, Station Community or Main Street;
- Perform an assessment of the Center, Corridor, Station Community or Main Street (including specific assessments to be included in this assessment); and
- Adopt a plan of actions and investments to enhance the Center, Corridor, Station Community or Main Street.



TriMet, the region's largest transit provider, has been working with riders, residents, neighborhood groups, governments, schools and businesses to create a shared vision for the future of transit through **TriMet's Service Enhancement Plans** (www.trimet.org/future).

Starting in 2012, TriMet began taking a fresh look at how transit service and access to transit could be improved to support current needs and future visions for community development and transportation system performance. By working with riders, businesses and neighbors to identify service needs and improvements throughout the region, we can expand service to be more responsive to the community's needs. In order to tailor the plans to meet differing communities' needs, the Service Enhancement Plans were developed for each of five geographic subareas, covering the entire region with TriMet's service district (in the order developed: West, Southwest, North-Central, Eastside and Southeast). As they were being developed, TriMet planners were careful to coordinate across these sub areas where the proposed network crosses those boundaries in order to form a coherent vision for the transit system.

These long-range plans (covering approximately a 20-year planning horizon) form the basis of the future service plans reflected in the Regional Transit Strategy and the 2018 Regional Transportation Plan update.

In 2017, Oregon legislature passed Oregon House Bill Keep Oregon Moving (HB2017) requiring TriMet to conduct a study on service for the region. This work is currently underway.

The 2016 update to **TriMet's Coordinated Transportation Plan for Elderly and Persons with Disabilities (CTP)** builds upon the foundation of the 2012 CTP as well as

the 2009 update, known as the Tri County Elderly and Disabled Transportation Plan (EDTP), both of which described the region's vision of a continuum of transportation services that takes into account people's abilities as they transition through various stages of age and disability.

The guiding principles of the CTP is to guide transportation investments toward a full range of options seniors and persons with disabilities, foster independent and productive lives, strengthen community connections, and strive for continual improvement of services through coordination, innovation and collaboration, and community involvement. This vision is accomplished through:

- Coordinate
- Innovate and collaborate
- Involve the Community
- Improve the service foundation
- Integrate land use and transportation decisions
- Improve customer convenience
- Improve safety
- Performance measures

Local Planning Context

The following section describes the relevant local plans and policies, from local transit provides. Additionally, cities and counties have policies, programs and project related to transit in their Transportation System Plans (TSPs) not listed in detail.

The Portland Streetcar is owned by the City of Portland and operated by the Bureau of Transportation (PBOT) in partnership with TriMet (the regional transit agency) and Portland Streetcar, Inc. (PSI), a non-profit that provides management support and private sector involvement in planning and operations. The **Portland Streetcar Strategic Plan 2015 – 2020** outlines the priories over the next five years. The vision for Portland Streetcar is to:

- Support and encourage growth in residential and commercial development in the central city, consistent with the City's Comprehensive Plan.
- Provide comfortable, convenient connections between housing, employment, educational institutions, services, and recreation.

More generally, the streetcar system was built to drive development toward the high-density neighborhoods identified in city and regional planning documents, and to provide a quality transit connection for those developments. This plan is meant to focus the partnership's work plan and resources on key areas of improvement for Portland Streetcar. Implementing the identified strategies will result in a more reliable and cost-

effective streetcar system that is recognized within the community as a critical component of Portland's present and future

The City of Wilsonville operates a transit service for the City of Wilsonville and connections outside the city called South Metro Area Regional Transit (SMART). The **Wilsonville Transit Master Plan** (TMP) (see http://ridesmart.com/327/Transit-Master-Plan-2017) provides a broad look ahead to the type of transit system and supportive transportation options required to meet Wilsonville's mobility needs. This is accomplished by providing proposals for improved transit service as well as strategies to reduce single-occupancy vehicles. With its combined transit and transportation options approaches, the TMP will guide future decision-making for SMART for the next five to seven years.

Cities and counties develop local transit plans and policies as well as development of their **Transportation System Plans (TSPs)**. The TSP identifies local needs and modal priorities, including transit. Cities and counties also develop localized plans, policies and incentives around transit.

Building upon our existing transit investments, policies, and plans, **the Regional Transit Strategy vision is to make transit more frequent, convenient, accessible and affordable for everyone**. The transit strategy will coordinate the operational, capital and transit supportive elements to make transit work more efficiently and effectively for everyone. The Regional Transit Vision is in response to the community needs and is as much about improving operations and ensuring a state of good repair as it is building new connections and supporting our 2040 Growth Concept and our Climate Smart Strategy.

Planning and Public Engagement Process

The Regional Transit Strategy was developed in coordination with and as part of the update of the Regional Transportation Plan between May 2016 and December 2018. The Regional Transit Strategy also provides and update to the Regional High Capacity Transit System Plan., adopted in 2009.

Throughout the planning process, transit and travel options were repeatedly identified as key elements to meeting and achieving our regional and local goals for the region.

Document Organization

The 2018 RTS is organized into six chapters, with a foreword, executive summary, and back matter such as a glossary and list of acronyms. Supporting documents are provided as standalone appendices. This section provides an overview of the different parts of the document.

Foreword

Introduces the genesis, purpose, limitations, and scope of the strategy.

Executive Summary

Provides a short summary and key elements of the strategy.

Chapter 1: Introduction

Provides and introduction to and context for understanding the strategy.

Chapter 2: Our Current Transit System

Describes our current transit system, both inside and connections to our MPA.

Chapter 3: Key Trends, Challenges and Opportunities

Describes the key trends, challenges and opportunities that shape our transit vision and policies.

Chapter 4: Regional Transit Vision and Policies

Describes the Regional Transit Vision and associated policies.

Chapter 5: Strategies and Actions

Describes the strategies and actions to help achieve our transit vision.

Chapter 6: Performance, Monitoring and Measuring Progress

Describes performance and monitoring measures for achieving our vision.

Chapter 7: Implementation

Outlines how to implement the Regional Transit Vision.

List of Partners

Agencies, organizations, non-profits, private entities, industry and the public who will play a role in implementing the 2018 RTS.

Acronyms

Defines acronyms used in the document.

Glossary

Defines terms used in the document.

Appendices

Appendices are stand-alone documents that provide additional technical information for the 2018 Regional Transit Strategy.

2009 High Capacity Transit (HCT) System Plan

CHAPTER 2: OUR CURRENT TRANSIT SYSTEM

We have options on how we get around today; we can drive, carpool, car share, bike, walk, or take transit. While this report focuses in on transit, a successful transportation system is a multi-modal transportation system.

The Oregon portion of our region is served internally by TriMet, Portland Streetcar Inc, the Portland Aerial Tram, Ride Connection and the City of Wilsonville SMART systems. The Southwest Washington portion of our is served by CTRAN, a full service transit provider for Clark County Washington, provides direction connections to Portland.

The Portland metropolitan region is also served by smaller providers that mainly operate outside our region or MPA but do make connections into our region. **Figure 4** shows the various existing transit options within and around our region.

Transit Service within the MPA

The following section describes the transit services that operate within our MPA.

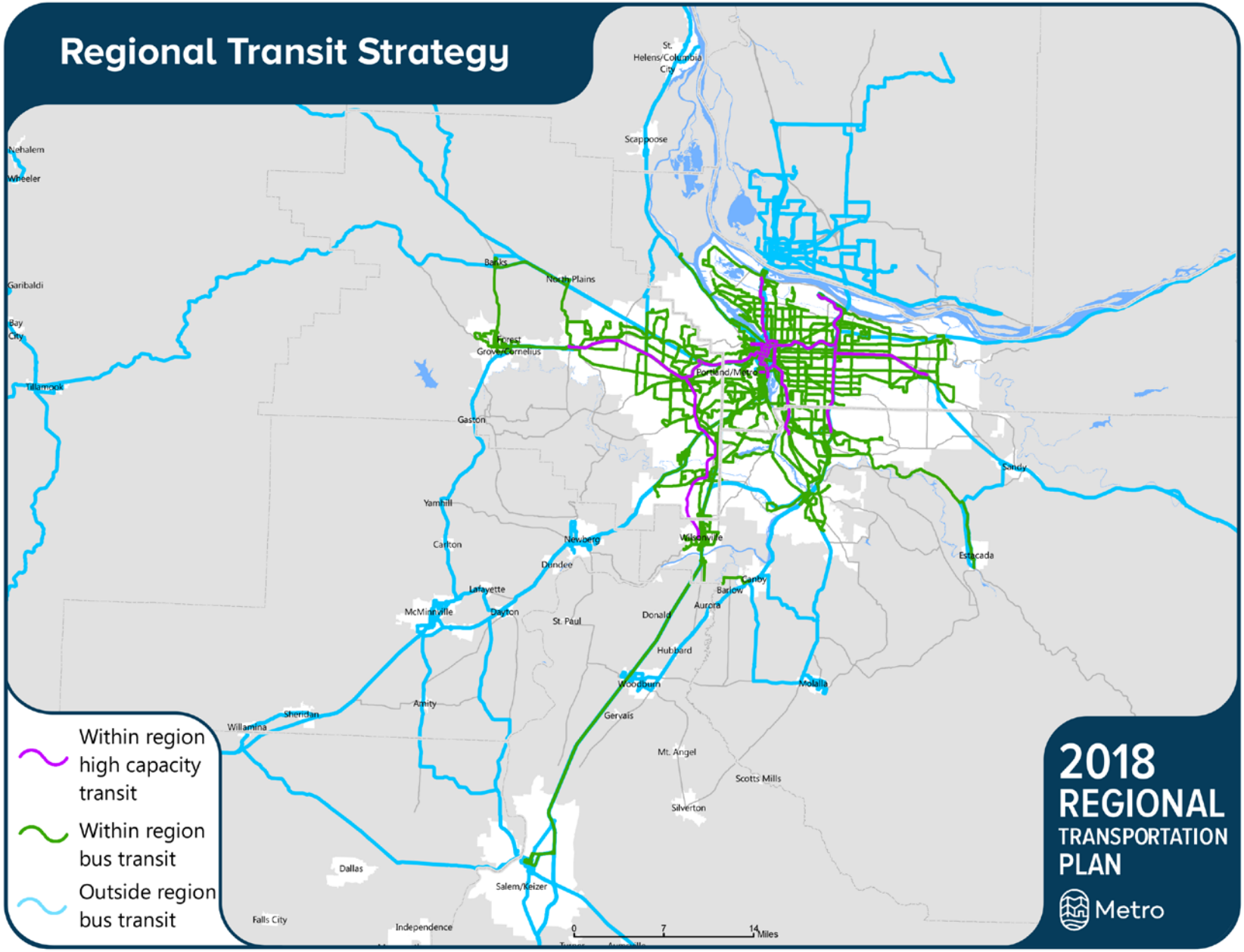
TriMet

TriMet is the largest of transit providers in our region. TriMet provides bus, light rail, commuter rail and paratransit services to the Portland metro region. The bus system serves most of the region with 77 bus lines, 12 frequent service bus lines, 6,644 bus stops and 659 buses.

TriMet's light rail MAX connects our regional and town centers of Hillsboro, Beaverton, Gresham, Clackamas Town Center, Milwaukie, Portland and the Portland Airport. TriMet and the region have invested in 5 MAX lines, 97 stations, 145 vehicles and 60 miles of track.

The Westside Express Service (WES) Commuter Rail serves the cities of Beaverton, Tigard, Tualatin and Wilsonville along an existing freight rail corridor. The WES Commuter Rail serves the region with three diesel multiple units (DMUs) and one trailer, two rail diesel cars (RDCs), five stations over 14.7 miles of track.

In addition to the bus and rail system, the LIFT Paratransit service provides door-to-door service for people with disabilities who are unable to ride regular bus or rail service. The LIFT Paratransit service is provided by 253 LIFT buses and 15 LIFT vans.


Regional Transit Strategy
St. Helens/Columbia City
Scappoose
Nehalem
Wheeler
Garibaldi
Bay City
Tillamook
Banks
North Plains
Forest Grove/Cornelius
Portland/Metro
Gaston
Yamhill
Carlton
Newberg
Dundee
Lafayette
McMinnville
Dayton
St. Paul
Donald
Aurora
Barlow
Canby
Wilsonville
Sandy
Estacada
Hubbard
Woodburn
Molalla
Gervais
Amity
Sheridan
Willamina
Mt. Angel
Scotts Mills
Silverton
Dallas
Salem/Keizer
Falls City
Independence
0
7
14
Miles
Within region high capacity transit
Within region bus transit
Outside region bus transit
2018 REGIONAL TRANSPORTATION PLAN
Metro

City of Portland Streetcar

The Portland Streetcar is owned by the City of Portland and operated by the Bureau of Transportation (PBOT) in partnership with TriMet (the regional transit agency) and Portland Streetcar, Inc. (PSI), a non-profit that provides management support and private sector involvement in planning and operations.

Portland Streetcar began service July 20, 2001 with a 2.4-mile alignment (4.8-miles round trip) from Portland State University to NW 23rd Avenue. Now, after 16 years, 5 extensions, and over 55 million riders, Portland Streetcar operates three lines around 16-miles of track in Portland's Central City.

South Metro Area Regional Transit (SMART)

The City of Wilsonville operates free in-town bus service in addition to inter-city connections to Salem, Canby, Tualatin, and South Portland. Known as South Metro Area Regional Transit, SMART also provides Dial-A-Ride service and an employee commuter program called SMART Options that encourages and shares resources for multi-modal commute trips. SMART operates over 35 vehicles ranging from 40-foot buses to minivans and a trolley bus.

Ride Connection

Ride Connection is a non-profit organization that works with community partners to provide and coordinate transportation options primarily for older adults and people with disabilities. Ride Connection provides a wide variety of services from training to use public transportation or transportation services to shuttle service to grocery stores and neighborhood centers to commuter service in rural areas not served by fixed route transit.

RideWise provides training for older adults and people with disabilities to travel independently and safely on public transit (bus and light rail). This service is at no cost for qualified individuals.

Door to Door services provides personalized transportation services for a variety of needs including medical, nutritive, shopping, supportive services, recreational and volunteer/work related needs.

RideAbout provides a free service for older adults and people with disabilities who need a little extra help getting around. RideAbout bus makes regular visits to grocery stores and local neighborhood centers.

Washington County Bus Service provides residents in rural Washington County a way to get around. Washington County Bus Service provides a connection from the Hillsboro Transit Center to Forest Grove via North Plains and Banks during the morning and evening commute periods.

Tualatin Shuttle provides a free deviated fixed route service connecting the Tualatin WES Commuter Rail Station to employment destinations in the Tualatin area during the morning and evening peak periods.

GroveLink provides a free deviated fixed route service in Forest Grove for access to employment, local destinations and regional transit services like TriMet and Washington County Bus Service from morning to evening commute periods (including mid-day service).

North Hillsboro Link provides a free deviated fixed route service linking the Orenco MAX Station to employment in the North Hillsboro area during the morning and evening commute periods.

Non Medical Transportation for OHP Members provides transportation for non-medical travel for Oregon Health Plan (OHP) members to community services, activities and other services specified in their service plan.

Dahlia: Dialysis Transportation provides a unique free transportation service to individuals who regularly receive dialysis treatments.

Portland Community College Shuttle

Portland Community College Shuttle is a free service to Portland Community College (PCC) students and staff. A current PCC ID must be shown to board the shuttle. Wheelchair lift is available on most buses.

Clackamas Community College Xpress Shuttle

The Clackamas Community College (CCC) Xpress Shuttle is a free shuttle service for students and the public. The shuttle connects from the MAX Green Line at the Clackamas Town Center to CCC in Oregon City and Harmony campuses. There are two shuttles: Shuttle 1 connects Clackamas Town Center and the CCC Oregon City Campus. Shuttle 2 also connects the Clackamas Town Center and the CCC Oregon City Campus with a stop at the Harmony Campus. The shuttles operate approximately 18 hours a day, Monday through Friday while school is in session.

Transit Service outside the MPA

The following section describes the transit services that operate outside our MPA but provide critical connections to our region.

C-TRAN

The C-TRAN offers the citizens of Clark County with safe, reliable and convenient public transpiration throughout the Clark County service area. They provide express commuter service to downtown Portland, Lloyd District, and Marquam Hill as well as limited bus service with connections to the Yellow Line light rail station; and three Connector service areas within the city limits of Camas, La Center, and Ridgefield.

In January 2017, C-TRAN launched the region's first bus rapid transit system, The Vine. The Vine uses larger buses, level boarding platforms and other features in order to reduce travel time improve reliability and control costs. The Vine cost less to operate than the service it replaced and saves riders time and marks C-TRAN as a regional leader in innovative transit infrastructure.

Salem-Keizer Transit Cherriots Regional

Cherriots Regional is the Salem-Keizer transit provider connecting people with places through safe, friendly, and reliable public transportation services. Enhancing the quality of life for the Salem-Keizer area through better air quality, less congestion, and increased services. Cherriots makes connections from Salem Transit Center to and from the Wilsonville Station at the WES between 5 a.m. and 8 p.m. each weekday. This route is a partnership between Wilsonville SMART and Cherriots, SMART providing eight trips and Cherriots providing five trips each day. Cherriots buses do not operate on weekends or holidays.

Cherry Lift is an origin-to-destination transportation service for people whose disability prevents them from using the Cherriots buses.

Columbia County Rider

The Columbia County Rider ("CC Rider") serves Columbia County residents and visitors with timely bus service between the communities of Clatskanie, Rainier, St. Helens, Scappoose, Vernonia, and many others, including trips to Portland and Kelso/Longview, WA.

CC Rider also offers a Dial-A-Ride service providing door to door transportation services for elderly, disabled and special life needs for the residents of Columbia County.

South Clackamas Transportation District

South Clackamas Transportation district (SCTD) operates three public transit service routes: Molalla to Clackamas Community College, Molalla to Canby, and Molalla City Bus. Upon request by a passenger (all passengers are eligible) using the Molalla City Bus Route, SCTD will deviate up to one-quarter mile from the established route.

Yamhill County Transit Area

The Yamhill County Transit Area (YCTA) provides bus service for everyone throughout Yamhill County with Link Routes to Hillsboro/MAX, Sherwood/TriMet, and Salem/SAM. YCTA also provides a Dial-a-Ride service for those unable to access the fixed routes due to mobility limitations or for those whose origins and destinations are not within close proximity to the fixed bus routes.

Canby Area Transit

Canby Area Transit (CAT) offers commuter bus service to Oregon City, Molalla, and Wilsonville. CAT also offers a general public Dial-A-Ride service within the Canby Urban Growth Boundary and a premium Dial-A-Ride service to eligible individuals who are unable to access the fixed route. Canby and Wilsonville SMART coordinate to provide better connections from Wilsonville to Canby and Oregon City.

Sandy Area Metro

Sandy Area Metro (SAM) offers Gresham and Estacada commuter routes as well as a demand-response service for door-to-door trips as needed. This service acts as a feeder service to the fixed route. A higher need of assistance requiring door-to-door service outside of the service area is also available.

Mt Hood Express

The Mt. Hood Express transit is a public bus service administered by Clackamas County and serves the communities along Highway 26, running from the city of Sandy east to Government Camp and Timberline. This service operates seven days a week as a limited stop commuter service. Seasonal service features include bike trailers and ski boxes for the convenience of riders to stow their equipment.

Columbia Gorge Express

The Columbia Gorge Express access to and from Portland to Multnomah Falls. Linking Gateway Transit Center with Multnomah Falls and Rooster Rock State Park, the Columbia Gorge Express bus provides an option, other than driving, for access the Gorge.

The Columbia Gorge Express will operate Friday through Sunday (and federal holidays), May through September. The bus departs Gateway Transit Center 10 times each day with round trip service to Rooster Rock State Park and Multnomah Falls.

CHAPTER 3: TRENDS, CHALLENGES AND OPPORTUNITIES

There are many trends, challenges and opportunities facing transit service in our region – from the increase in Transportation Network Companies (TNCs) to the abundance transit apps, an aging population, growing environmental concerns and many more. There is a lot to gain and a lot to lose. It's critical that our region remains proactive instead of reactive.

The following section describes the trends, challenges and opportunities that have influenced our regional transit policies and vision.

Implementing Climate Smart Strategy Goals

As greenhouse gases continue to increase, the Climate Smart Strategy is a response to a state mandate to develop and implement a strategy to reduce per capita greenhouse gas emission from cars and small trucks by 2035. Six desired outcomes for the region were endorsed by the Metro Policy Advisory Committee and approved by the Metro Council in 2010: vibrant communities, regional climate change leadership, transportation choices, economic prosperity, clean air and water, and equity. The Climate Smart Strategy achieves a 29 percent reduction in per capita greenhouse gas emissions, but it does more than just exceed the state mandated target. Analyses demonstrate it will also support job creation and economic development, save businesses and households money, help people live healthier lives, protect our region's clean air and water, and make the most of the investments we have already made in our transportation system.

The Regional Transit Strategy strives to support the goals laid out in the Climate Smart Strategy by improving transit's accessibility, service, reliability, and reach. Transportation sources account for 34 percent of greenhouse gas emissions in Oregon, the largest source of emissions in the state. Therefore, increasing use of transit and thereby keeping automobiles off the road is a key way to decrease emissions and help meet the goals set out by the strategy. TriMet and SMART are actively pursuing opportunities to change to low or no emission buses as part of their sustainability initiative and to support this effort

History of Racial Exclusion and Bias

The Draft 2018 RTP and the Regional Transit Strategy offer opportunities to reduce barriers and disparities faced by communities of color and other historically marginalized communities.

Like most of the nation, the Portland region's communities are more diverse than in previous generations and by the year 2045 communities of color are projected to be the majority. Unfortunately, most communities of color in the Portland metropolitan region currently experience the worst economic and social outcomes of any demographic group, due to a long history – even as part of Oregon's statehood–of persistent, exclusionary and discriminatory policies which have barred communities of color – regardless of income, education, language proficiency, or age – from the opportunities that many white residents have had. As a result, the region struggles with racial disparities across nearly every measure of well-being and prosperity, including transportation.

But for a place to be sustainable and economically prosperous, the region must proactively address issues of racial disparities and embrace the current and future diversity. Focusing on disparities will help develop and maintain sustainable economic growth by fostering greater racial inclusion and smaller racial income gaps.

The Portland metropolitan region's economic prosperity and quality of life depend on a transportation system that provides every person and business in the region with equitable access to safe, efficient, reliable, affordable and healthy travel options and have the same opportunity to thrive, regardless of their race or ethnicity.

The region's transportation system is one tool of many for reducing disparities experienced by communities of color. With a transportation system focused on mobility and access that addresses the transportation disparities faced by communities of color, the region's transportation system has the ability to open opportunities which can dramatically improve outcomes for people of color. While on the surface, a focus on racial equity may seem exclusionary, but by addressing the barriers faced by those communities, outcomes for other disadvantaged communities will improve as well.

Economic Growth

Portland is a critical West Coast domestic hub and international gateway for commerce and tourism. The economic health of the region is dependent on industries that have been attracted to the region because of our well-trained labor pool, relatively low cost of living, and high quality of life. Many of the companies who have moved to Oregon want to locate near transit lines.

Unfortunately, economic growth slowly puts strain on the factors that make the area attractive in the first place. As more people move to the area, congestion and the cost of living increase. As more goods are produced and transported throughout the region, emissions increase and erode air and water quality. This is where transit comes in.

Transit plays an important role in making the region affordable, attracting a well-educated work force, keeping freight and goods moving, and supporting access to new jobs. Transit supports a healthy economy by providing essential connections between where people live and work. Transit can help reduce the number of cars on the road, which reduces traffic congestion and improves the movement of freight.

Aging Infrastructure

The region's transit system is relatively new compared to other metropolitan areas. However, it is becoming increasingly more important to invest in it in order to preserve safety and efficiency. While the focus has largely been on system expansion in previous years, critical elements will soon require maintenance as the system ages. TriMet has provided the region with public transit since 1969. Although significant technological advancements have required fairly constant updates, TriMet's fleet and facilities need to be kept in a state of good repair through continual investment.

In addition, MAX light rail vehicles will need to be replaced during the plan period. The 26 oldest high-floor Type 1 MAX vehicles will need to be replaced by 2027 at a cost of $125 million, followed by 52 Type 2 MAX vehicles in 2034 and 27 Type 3 vehicles in 2040 at a cost of $250 million and $130 million respectively.

New Technology

Using technology to actively manage the Portland metropolitan region's transit system means using intelligent transportation systems and services to help improve the speed, reliability, and accessibility of transit. It also means taking advantage of the growth in personal technology to efficiently communicate information about transit options.

Smart phones have changed the way people get and fine information about transit. At a time when 90 percent of Americans own a cell phone, 58 percent own a smartphone, and 87 percent use the internet, technology can play a critical role in removing barriers to understand and using a variety of transit options. For example, smartphone apps can tell people when the next bus or MAX will arrive or how to plan a trip that uses multiple modes.

In order to be effective, user information provided by technology must be easy to use, accurate, and reliable. While technology that is up-to-date and user-friendly can be an enormous asset, technology that isn't up to the standards that people have come to expect can be a hindrance to getting people to choose transit when more convenient options exist.

Affordability

Traditionally, housing is considered affordable if it costs less than 30% of household income. However, those measures don't account for transportation costs, which are typically a household's second largest expense and inextricably tied to housing. According to the Housing and Transportation Index, the average Portland metropolitan area household spends 31% of their income on housing and an additional 21% on transportation. While only slightly higher than the ideal 50% for housing and transportation costs, this number hides the shocking truth of how much these costs vary. In reality, these costs range from a respectable 25% to a sky-high 105% when looking at individual blocks. In fact, there are two blocks in the metropolitan area where housing and transportation costs exceed 100% of income. While it's true that for these areas, it is housing that is the main culprit, transportation costs that are up to 27% of income are also contributing factors to the fact that Portland can be a prohibitively expensive city to live in.

Additionally, increasing affordability means more than lowering the cost of transit. It also means increasing access to it. This is a region where 15.3% of households take fewer than 10 transit trips per year. No matter how low the cost, people will not use transit if it isn't physically accessible, safe, and reliable. If there are no alternative transit options, then

people will be forced to bear the costs of owning and relying on automobiles, which add up to $12,213 for the average household in the metropolitan area.

The Regional Transit Strategy seeks to address these factors in order to make transit more accessible and convenient. In order to become the city we sought to create in the 2040 Growth Concept, affordable transit must become a priority.

Changing Travel Behavior

Travel behavior – mode choice, commuting patterns, trip length, and frequency – is influenced by a number of factors, including demographics, land use, community design, cost, access, car ownership, the economy, job locations, and social and environmental values.

Between 1990 and 1995, daily vehicle miles traveled (VMT) per capita increased significantly nationally as well as in the Portland metropolitan region. During the past 18 years, implementation of the region's integrated transportation and land use planning strategy – the 2040 Growth Concept – has resulted in 15 percent fewer miles driven per capita and less time spent commuting than the national average.

It is likely that this trend will continue, as transportation preferences are changing for the newer generations of Americans. The millennial and future generations expect shared mobility options rather than the single-occupancy vehicles their parents dreamed of because they allow them the luxury of working while in transit, staying connected with peers, relaxing, or exercising through active transportation. However, with the cost of housing on the rise, the millennial and future generations are unable to afford housing in areas with robust public transit options.

This public support could generate a big opportunity at this moment in time to promote investments that will encourage future generations to use more transit than previous generations through all stages of life and to continue to prioritize transit as a safer, more eco-friendly, and healthier transportation option.

Public Health

Inactive lifestyles are fueling an alarming increase in obesity in U.S. adults and children, and health experts are warning us about the resulting long-term health implications. At the same time, population growth puts added pressure on our air and water quality, which directly impact public health. The estimated annual medical cost of obesity in the U.S. was $147 billion in 2008 U.S. dollars; the medical costs for people who are obese were $1,429 higher than those of normal weight.

There is a trend of rapidly rising rates of chronic disease associated with obesity, weight problems, and sedentary lifestyles – conditions that public health officials now describe as epidemic. There was a dramatic increase in obesity in the United States from 1989 through 2014. It has leveled off in recent years and even decreased in certain states, but more than one-third of U.S. adults (36.5%) are still obese today. Oregon obesity levels are

lower than national levels; in 2015, 27.9% of Oregon's population was obese. In the greater Portland region, the percentage of adult survey respondents who reported being overweight or obese increased between 2002 and 2010. In 2010, Clackamas County had the highest percentage of adult survey respondents reporting being obese (27.6%). Washington County had the highest percentage of adult survey respondents reporting being overweight (39.2%) and the highest percentage of adults who were either obese or overweight (63.1%). Multnomah County had the lower percentage of adults who were either obese or overweight (56.5%).

Another public health concern is air and water quality. Some measures of air quality have improved dramatically; others indicate more work is needed. Regional air quality has met the Environmental Protection Agency's air quality standards for six pollutants, sufficient to achieve "maintenance" status. In the 1960s, the region averaged 180 days of air quality violations every year for ozone and carbon monoxide, but today we average zero.

More work is needed though. The Interstate 5 (I-5) corridor and the Pacific Northwest have unacceptable levels of benzene and other air toxins. For example, levels of toxic emissions near downtown Portland – most notably benzene – have been measured at more than 8.5 times the federal standard. Diesel particulate matter is another air toxin concern, and diesel emission levels in parts of the region exceed healthy levels. Regulatory monitoring of these air toxins and carbon emissions is not currently required, yet they pose significant risks to public health.

Interest in the connection between urban planning and active living grew in the 1990s, an outcome of a growing interest in "smart growth," a movement to integrate land use, transportation, and public health planning. Studies since then report positive effects on human health in neighborhoods built to encourage walking and biking. **Not only does transit facilitate more active lifestyles, it also has a positive impact on chronic diseases such as asthma that are related to air quality and vehicle emissions**. Since transit can have such a positive impact on public health, the Regional Transit Strategy affirms the RTP's vision for an active and healthy region.

Aging Population

Age distributions are influenced by birth rates, death rates, and migration. As the baby boomer population - the second largest generation after millennials - reaches retirement age, the proportion of people over 65 has begun to rise in both absolute numbers and percentage of the total population. The median age in the Portland region was 36.7 according to 2012 American Community Survey data, up from 34.8 in 2000.

In 2012, about 13.1 percent of the population in the Portland-Vancouver area was over 65; by 2030, that number is forecasted to be 17 percent. An aging population requires transit facilities equitably designed to serve people with a range of physical abilities.

Public Funding

The need for public funding is directly related to the issues of growth and aging infrastructure. Today, the federal government is investing less in infrastructure than ever before. While budgets are shrinking, our transit systems require funding for maintenance and expansion. Traditional approaches to financing transit projects are not only failing to maintain our existing infrastructure, they are wholly inadequate to expand and build new systems to accommodate growth.

Federal and state transit funding sources are at their lowest levels since the 1960s. Diminished resources mean increased competition for funds and reduced ability to expand, improve, and maintain existing transit infrastructure. New funding strategies, enhanced public and private collaboration, and stronger public support for new revenue sources must be developed to pay for major system investments.

HB2017, also known as Keep Oregon Moving, is an exciting new step in the right direction for transit funding. HB2017 includes funding for transit that will allow our region to expand and improve transit service. This goes a long way in expanding and improving transit service and includes opportunities for natural gas or electric vehicles purchases and a low income fare program.

Oregon lawmakers passed House Bill 2017(Section 122) the first comprehensive transportation package to receive legislative approval since 2009. At $5.3 billion, the package makes significant investments in transit and many other transportation initiatives across the state. The measure creates a statewide employee payroll tax dedicated to transit improvements.

CHAPTER 4: REGIONAL TRANSIT VISION AND POLICIES

This is an important time to update the Regional Transit Vision. With continued regional growth, comes challenges such as more congestion, higher housing prices, and constrained access to employment and daily needs. Residents, elected officials, and community organizations view increased transit service as a critical part of the overall solution to these challenges. To achieve the regional vision in the 2040 Growth Concept and Climate Smart Strategy, **the Regional Transit Vision is to make transit more frequent, convenient, access and affordable for everyone**. What does frequent, convenient, accessible and affordable mean?

Regional Transit Vision

Make transit more frequent by aligning frequency and type of transit service to meet existing and projected demand in support of local and regional land use and transportation visions.

Frequent transit service is defined as service that operates 15 minutes or better every day of the week, but this isn't the only type of service. Regional and local transit service provides basic service and ensures that most the region's population has transit service available to them; service span and frequencies vary based on the level of demand for the service. Because of limited resources, it is important to ensure that service meets demand. Frequency therefore means aligning the frequency and type of service to meet existing and/or projected demand for an area.

Make transit more convenient and competitive with driving by improving transit speed and reliability through priority treatments and other strategies. Improve transit rider experience by ensuring seamless connections between various transit providers, including transfers, information, and payment. Additionally, cities and counties who own the roads used by bus transit could partner with the transit agencies to implement transit priorities treatments.

In order for people to choose transit over driving, transit must be convenient and reliable. A transit trip needs to get people to their destination at the projected time, and it must be relatively easy to use. Perhaps most importantly, it needs to get people to their destination relatively quickly as compared to driving. This can be accompanied with strategies that prioritize transit (e.g. signal priority and bus lanes) as well as adopting technology that make transit more predictable and user-friendly (e.g. electronic fare and real-time monitoring systems).

Make transit more accessible by providing safe and direct biking and walking routes and crossings that connect to stops, as well as improve accessibility for seniors and persons with disabilities to ensure transit is accessible for everyone. Accessibility could also include park and ride facilities and drop off/pick up areas. Expand the system to improve access to jobs and essential destinations and daily needs.

Accessibility refers to two separate but related aspects of transit. One is to ensure that transit is physically accessible to everyone, regardless of age or ability. All transit users

must access transit via biking or walking, even if stops are mere feet away. Complete sidewalks and bike paths enhance the experience of using transit and handicap-accessible stations are essential to making transit work for everyone. The first/last mile connection is also an important part of accessibility, as it often represents the best opportunity for people living in rural towns or outlying areas to access our transit system.

The second component of accessibility is to ensure that essential destinations and jobs be accessible by transit. As the region grows, it's crucial to continue to expand community and regional transit service in order to improve access to these daily needs.

To make transit affordable by ensuring that transit is and remains affordable, especially for those dependent on it.

Affordability is the cornerstone of the other components of our vision. Frequency, convenience, and accessibility are meaningless if transit is not available to people because it is unaffordable. Additionally, affordability ensures that the transit system is equitable for low income populations, communities of color and those who rely on transit services instead of the private automobile to meet one's needs.

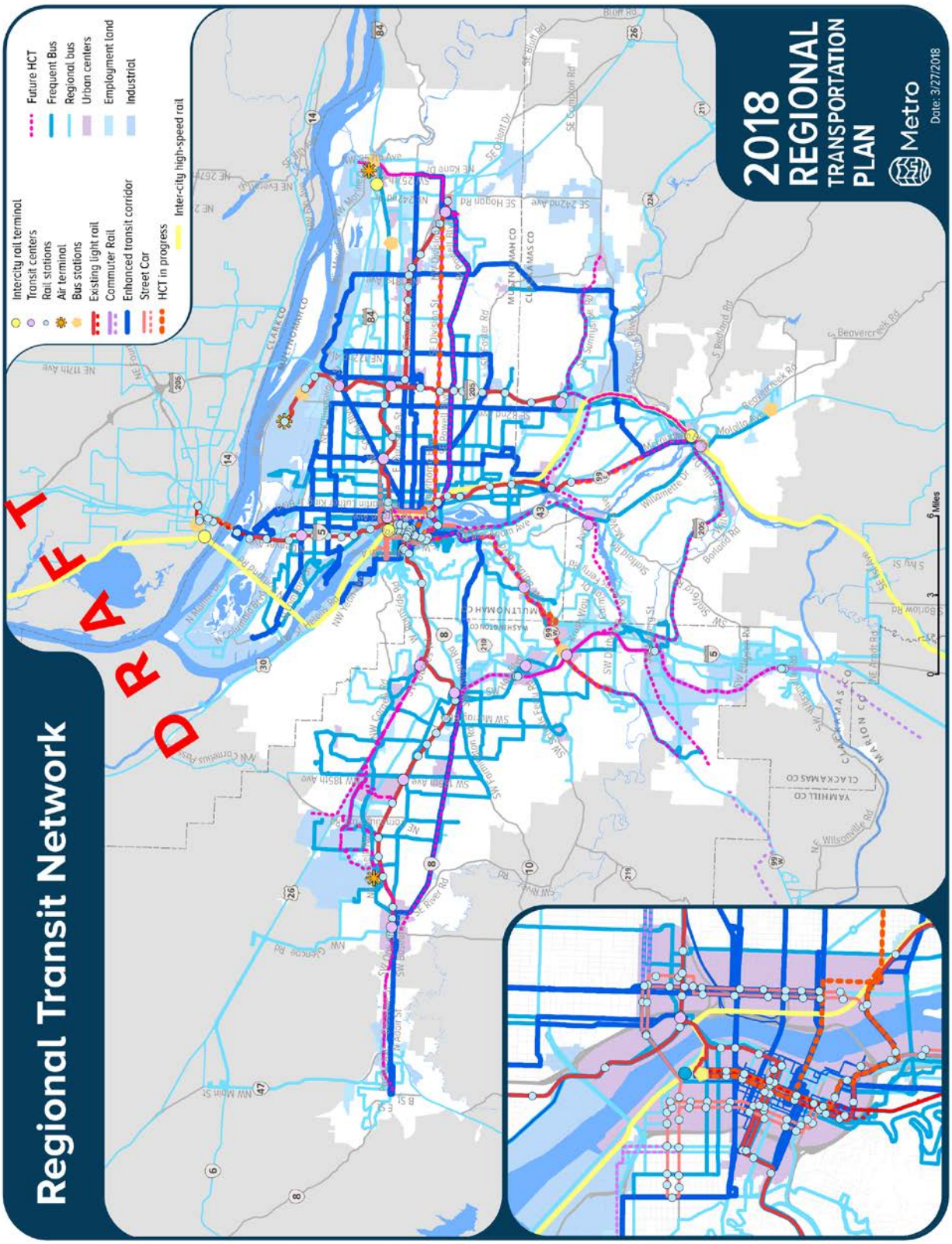
Regional Transit Network

The Regional Transit Network is the future transit vision. The Regional Transit Network includes future regional and local bus, enhanced transit corridors, high capacity transit and intercity rail.

Figure 5 presents the region's future transit network. The Regional Transit Network map has been updated to include the 2009 HCT lines, new enhanced transit concept, streetcar and future transit service as identified by the TriMet's Service Enhancement Plans and Wilsonville's Transit Master Plan.

There were changes made to the 2009 HCT Map which include:

- Moving the I-5 HCT corridor from "High Capacity Transit Corridors under development" to "Next Phase Regional Priority Corridor"
- Moving the Portland to Lake Oswego Streetcar project from "High Capacity Transit Corridors under development" to "Next Phase Regional Priority Corridor"
- Portland to Gresham in the vicinity of Powell Corridor remains a "Near Term Regional Priority"
- Added Portland to Gresham in the vicinity on SE Division St "High Capacity Transit Corridors under development"
- Moved Portland to Sherwood in the vicinity of Barbur/Highway 99 Corridor from "Near Term Regional Priority" to "High Capacity Transit Corridors under development"
- Modified the Clackamas Town Center to Damascus to connect to Happy Valley via the Columbia to Clackamas Corridor in the "Regional Vision Corridors"

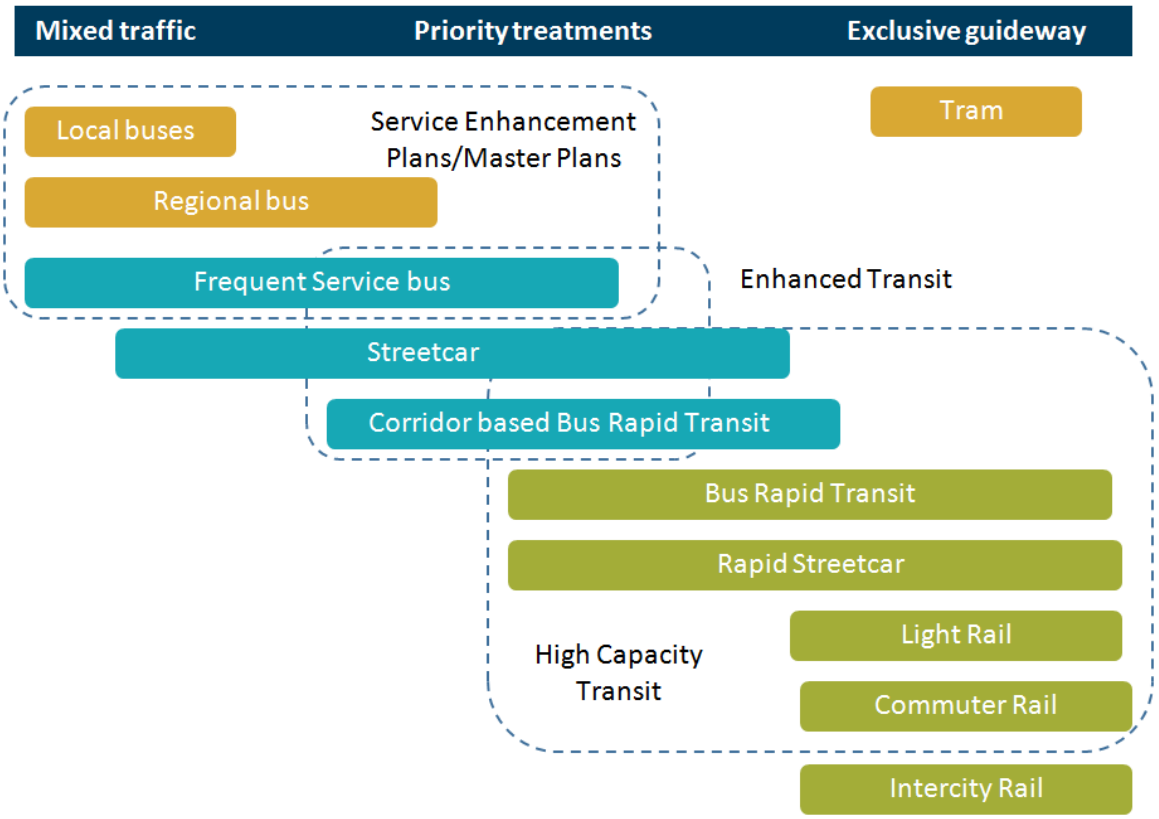

Regional Transit Network
DRAFT
2018 REGIONAL TRANSPORTATION PLAN
Metro
Date: 3/27/2018
Intercity rail terminal
Transit centers
Rail stations
Air terminal
Bus stations
Existing light rail
Commuter Rail
Enhanced transit corridor
Street Car
HCT in progress
Future HCT
Frequent Bus
Regional bus
Urban centers
Employment land
Industrial
Inter-city high-speed rail
0
3
6 Miles

Our existing and planned system includes a variety of transit modes, each with a special function in the overall system. Local, regional and frequent service bus lines are the backbone of our transit system. The transit providers plan for improving and expanding transit service through service enhancement plans, master plans and through annual service planning. Our bus system operates in mixed traffic and provides service across the region.

On top of our bus system, we have implemented streetcar and corridor based bus rapid transit (BRT). These services, along with frequent service, can and do include a variety of transit priority treatments. These tend to be more frequent and carry more transit riders than the regional and local bus system. The enhanced transit concept, new to our region, provides that transit priority treatment to help improve transit speed and reliability above the traditional transit service but not to the extent of high capacity transit or exclusive guideway.

Our high capacity transit system operates with the majority or all of the service in exclusive guideway. The high capacity transit system is meant to connect to regional centers and carry more transit riders than the local, regional and frequent service transit lines. Figure 6 shows the broad transit spectrum that exists or is planned for regional transit system.

Figure 6. Regional Transit Spectrum



Many variables impact decisions about what type of transit mode and frequencies are most appropriate, including existing and future land uses, transit demand and opportunities and constraints.

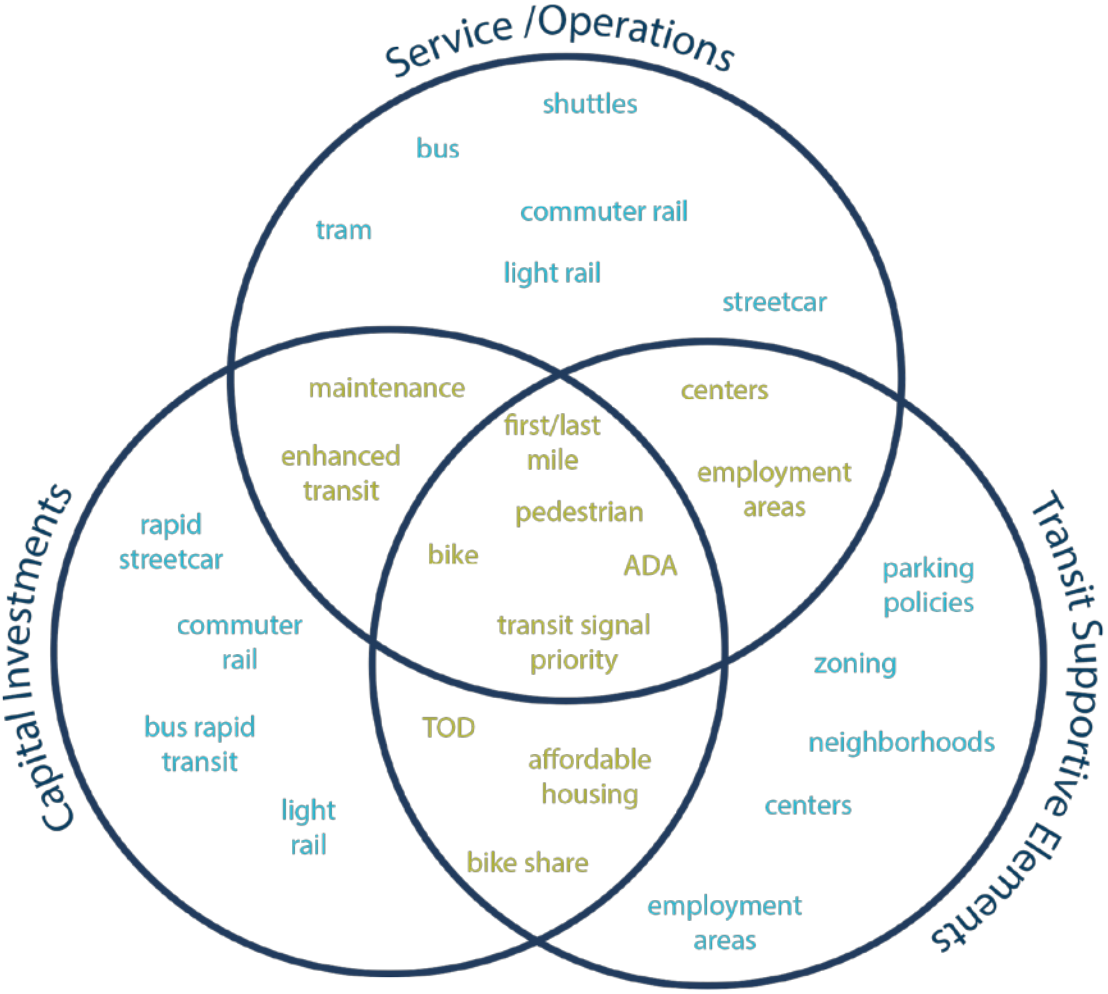
Implementation of the Regional Transit Vision

The Regional Transit Vision will be implemented through improving service, investing in infrastructure, collaborating between transit providers and local jurisdictions and expanding transit supportive elements:

1. **Transit service improvements:** local and regional transit service improvements designed to meet current and projected demand in line with local and regional visions and plans.
2. **Capital investments in transit:** new enhanced transit strategies such as signal priority, dedicated lanes or high capacity transit options such as bus rapid transit, light rail. commuter rail or high speed rail.
3. **Transit supportive elements:** including programs, policies, capital investments and incentives such as Travel Demand Management and physical improvements such as sidewalks, crossings, and complementary land uses.

Figure 7 shows the relationships between these different types of investments.

Figure 7 Service improvements, capital investments and transit supportive elements



Public agencies and transit providers must collaborate in prioritizing transit investments throughout the region. With the passing of House Bill 2017, the Oregon Legislature as identified transit improvements and service expansion as a priority for the state. With this additional funding, the region will be able to significantly increase and expand transit service. This only highlights the need to collaborate between transit providers.

Recommended RTP Transit Policy language

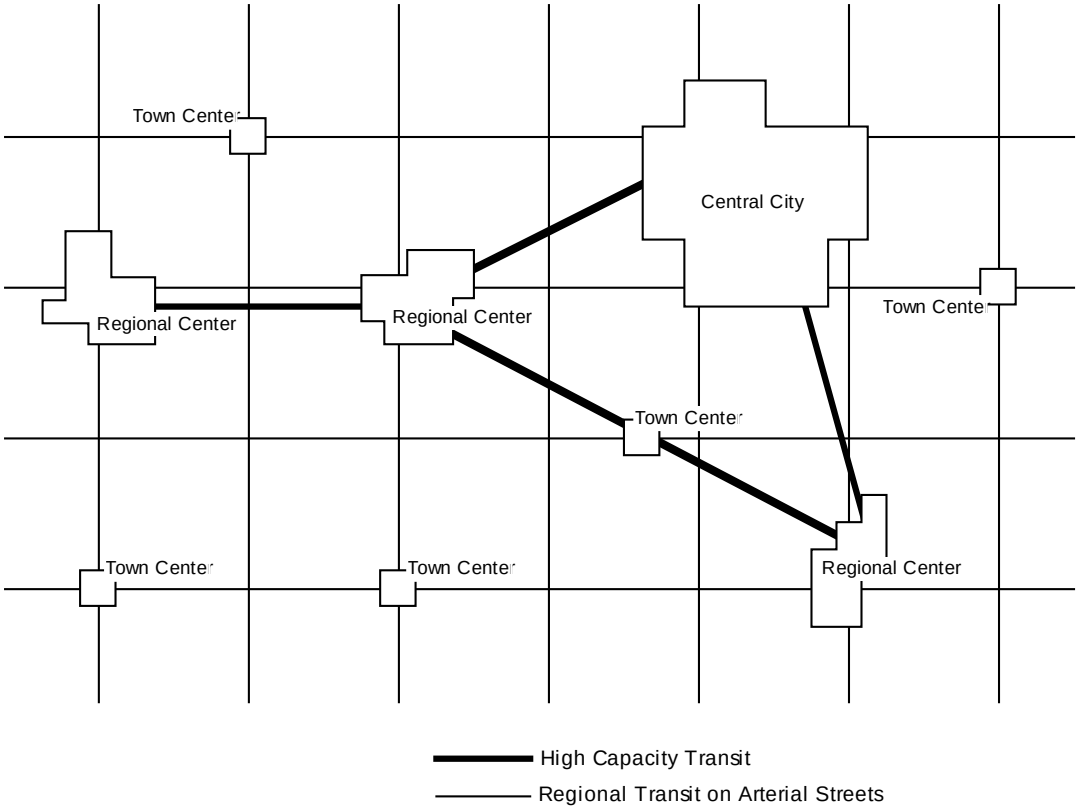
The regional street system has carried public transit for more than a century, beginning with the streetcars of the late 1800s and evolving into a combination of vans, buses, streetcars and light rail trains today. The Tri-County Metropolitan Transportation District of Oregon (TriMet) is the primary public transportation provider for the metropolitan region. The South Metro Area Regional Transit (SMART) in Wilsonville also provides regional transit service, connecting Wilsonville to downtown Portland. Just outside of the Metro region, Sandy Area Metro and Canby Area Transit provide transit service for Sandy and Canby. Bus service in other surrounding areas, all with connections to TriMet and SMART, is also provided by C-TRAN (Clark County, WA), Ride Connection, South Clackamas Transit District (SCTD), Cherriots (Salem, OR), Tillamook County Transportation District (Tillamook, OR), and Yamhill County Transit Area (Yamhill County, OR).

Transit is required to implement the Region's 2040 Growth Concept, which calls for focusing future growth in regional and town centers, station communities, and 2040 corridors. A regional transit network, coupled with transit-supportive development patterns and policies that support taking transit, biking, and walking, will be necessary to help the region:

- be less dependent on automobiles
- reduce overall transportation and housing costs
- lead healthier lives
- reduce greenhouse gas emissions

As part of the 2040 Growth Concept, transit is critical to connecting centers. **Figure x** shows how the regional transit system concept would connect the 2040 centers.

Figure8. Regional Transit Network Concept



The 2040 Growth Concept sets forth a vision for connecting the central city to regional centers like Gresham, Clackamas and Hillsboro with high capacity transit. The RTP expands this vision to include a complete network of regional transit along most arterial streets to better serve suburban communities. Existing land use mixes and future transit-oriented development potential should be considered and incorporated into service and station location decisions.

In order to leverage transit investments, it is important to ensure land uses are transit-supportive and support local and regional land use and transportation plans and visions to leverage and protect transit investments. Adjacent land uses, block size, street connectivity, and parking management affect the success of transit service. Policies and investments that make transit work best can be found in **Table x**.

Table 1. Effects of Land Use Strategies on Transit Service

Characteristic	Works	Doesn't Work
Density	High	Low
Street layout	Small blocks Grid system	Long, winding streets Cul-de-sacs, dead-end streets
Mix of uses	Mixed use (e.g., commercial, residential, and office uses)	Single use (e.g., all residential, all industrial)
Pedestrian and bicycle environment	Wide sidewalks Slow moving traffic Street elements (e.g., benches, street trees, pedestrian-scale lighting) Well-marked intersections with signalized crossings Bicycle parking	Narrow or no sidewalks Fast moving traffic Poor lighting No intersection markings and long pedestrian wait times
Site design	Buildings front the street and entrances	Buildings set back from the street and surrounded by surface parking
Parking	Limited Fee-based parking	Abundant Free

Source: TriMet

Transit-supportive development patterns include:

- A compact urban that generates transit riders.
- A mix of uses, and a balance of jobs and housing, that creates a place where activity occurs at least 18 hours a day.
- Well-designed streets and buildings that encourage pedestrian travel.
- Streets that can accommodate 40-foot buses.
- Safe, direct and convenient pedestrian and bicycle access, within communities and to transit stops.
- Street connectivity with good pedestrian and bike paths to extend the effective coverage of bus and rail service.
- Managed on-street and off–street parking.

Areas with low population and/or employment densities, abundant free parking, and with difficult access to transit stops generate fewer riders than areas with transit-supportive development. When fewer riders are generated, it costs more per ride to provide transit service than it does in transit-supportive areas. Ridership productivity is a key criterion in assessing the benefits of service improvements and new transit investments.

Regional transit priorities are informed by the following policies which aim to provide transit as an attractive and accessible travel option for all people in the Metro region,

optimize existing transit system operations and ensure transit-supportive land uses are implemented to leverage the region's current and future transit investments.

Seven policies form the foundation of this vision:

Policy 1: Provide a seamless, integrated, affordable, safe and accessible transit network that serves people equitably, particularly communities of color and other historically marginalized communities, and people who depend on transit or lack travel options (NEW)

Policy 2: Preserve and maintain the region's transit infrastructure in a manner that improves safety, security and resiliency while minimizing life-cycle cost and impact on the environment. (NEW)

Policy 3: Make transit more frequent by expanding regional and local frequent service transit and improving local service transit

Policy 4: Make transit more convenient by expanding high capacity transit (through the System Expansion Policy framework) and the region's enhanced transit network, and supporting expanded commuter rail and intercity transit service to neighboring communities

Policy 5: Make transit more accessible by improving pedestrian and bicycle access to transit and explore new ways to improve connections to high-frequency transit when walking, bicycling or local bus service isn't an option (REVISED)

Policy 6: Use emerging technologies to provide better, more efficient service – beginning with the people for whom conventional transit doesn't work (NEW)

Policy 7: Ensure that transit is affordable, especially for people who depend on transit (NEW)

Policy 1. Provide a seamless, integrated, affordable, safe and accessible transit network that serves people equitably, particularly communities of color and other historically marginalized communities, and people who depend on transit or lack travel options (NEW)

The Portland metropolitan region's economic prosperity and quality of life depend on a transportation system that provides every person and business in the region with equitable access to safe, efficient, reliable, affordable and healthy travel options and have the same opportunity to thrive, regardless of their race or ethnicity. With a transportation system focused on mobility and access that addresses the transportation disparities faced by communities of color, the region's transportation system has the ability to open opportunities which can dramatically improve outcomes for people of color. While on the surface, a focus on racial equity may seem exclusionary, but by addressing the barriers faced by those communities, outcomes for other disadvantaged communities will improve as well.

A complete and seamless transit system is based on providing frequent and reliable bus and rail transit service during all times of the day, every day of the week. This goes far beyond the responsibility of the transit agencies; it requires actions on behalf of the region and all the jurisdictions. In order to provide frequent and reliable service, the region needs to partner together to invest in transit priority treatments and high capacity transit to ensure that transit can take people where they need to go on time.

All transit trips begin and end with different modes of access even if stations are mere steps from origins and destinations. Riders access transit via walking, bicycling, bus, rail, carpools, shared mobility (like Uber and Lyft or Biketown) and private automobiles. Safe and comfortable access to the stations is critical to the riders experience and convenience, but also makes transit fully accessible to people of all ages and abilities. Every transit rider is a pedestrian first, whether it is walking to the station, parking their bike and walking to vehicle or walking from the park and ride to the bus or rail.

Typical fixed route transit service may not make sense for everyone throughout the whole region. People may often rely on demand-response transit or infrequent buses that provide slow service and are costly to operate. New shared mobility models like microtransit could provide better service at lower cost in these situations. As these options continue to mature, agencies should look for opportunities to supplement demand response and underperforming service with shared mobility. This could not only provide better service for underserved and transit-dependent residents, but also increase resources available to serve high-demand corridors.

Technology is another tool to actively manage the Portland metropolitan region's transit system means using intelligent transportation systems and services to help improve the speed and reliability of transit. It also means taking advantage of the growth in personal technology to efficiently communicate information about transit options.

Policy 2. Preserve and maintain the region's transit infrastructure in a manner that improves safety, security and resiliency while minimizing life-cycle cost and impact on the environment. (NEW)

While our transit system is still relatively new, it will become increasingly important to invest in upkeep as the system ages. It is critical to ensure that it is well-maintained and to replace or improve outdated parts of our transit system to preserve its efficiency. In addition, the Federal Transit Administration's State of Good Repair program is dedicated maintenance of our transit system includes incorporating industry best practices and recommendations related to reliability and safety and supporting TriMet's implementation of its Service Enhancement Plan to help transit agencies maintain bus and rail systems as part of the Moving Ahead for Progress in the 21st Century (MAP-21) Act. These grants are distributed to state and local governments to repair and upgrade rail and bus rapid transit systems that are at least seven years old.

Following the Great Recession of 2008, TriMet delayed new bus purchases for four years because of the resulting decrease in income from taxes. Starting in 2012, TriMet began to

replace buses on an accelerated schedule and has since moved away from having one of the oldest fleets in the country to an industry-standard average age of eight years. According to the FTA, the average useful life of a bus is 12 years, or 500,000 miles. Another area of investment for TriMet is the MAX system, parts of which are more than 30 years old. While the FTA's assigned life expectancy for rail cars is 25 years, industry experience reports a 30-35 year lifespan in reality. Nevertheless, the TriMet light rail system will soon be in need of repairs and upgrades.

It's also important that to plan for the future capacity of our transit system. As our region grows and ridership on our public transportation system is ever increasing, the region is starting to push the limits of what our existing infrastructure can handle. This creates more transit bottlenecks throughout the region, increasing congestion and decreasing the reliability of our transit system. Some lines already have many buses running behind schedule due to heavy traffic, which leads to unpredictable service. Other lines suffer from overcrowding. Popular lines will always have standees, but some trips have such high ridership that at times, riders are unable to board and must wait for another vehicle. In order to make transit more reliable and convenient, these factors must also be addressed. The FTA's Core Capacity grants help fund projects that increase the capacity, no less than 10%, on existing fixed guideway systems that are at capacity today or will be in five years.

Some recent maintenance projects and improvements that TriMet has currently undertaken include:

- Replacing switches and realigning the trackway at the Rose Quarter
- Replacing switches and reconstructing rail at SW 11th Avenue in Downtown Portland
- Completing design for reconstructing MAX trackway over the Steel Bridge
- Beginning a four-year replacement of overhead power contact wire on the original MAX Blue Line between Cleveland Ave in Gresham to Lloyd Center
- Upgrading and repairing platform areas at Gresham City Hall and Washington Park stations

Other improvement projects include upgrades to fourteen (14) MAX Blue Line stations between NE 42nd/Hollywood and Cleveland that include safety improvements and electronic display installations. Pedestrian crossings and shelters are being improved; trees on or near the platform are being removed to make space for lighting and improve the line-of-sight for security cameras.

Policy 3: Make transit more frequent by expanding regional and local frequent service transit and improving local service transit

Expand regional and local frequent service transit

Frequent service transit is defined as wait times of 15 minutes or better from the early morning to late in the evening, seven days a week. Its elements include additional service, reliability improvements, distinctive branding, improved passenger facilities at bus stops, enhanced pedestrian access and modern low-floor buses. Frequency is especially important for making transit more competitive with driving for riders who take short, local trips, because the time riders spend waiting for a bus to take a short trip is a proportionately larger component of the total travel time than it is for longer trips.

In 2040 corridors, main streets and centers, the RTP recommends supporting transit by providing transit-supportive development and well-connected street systems to allow convenient bicycle and pedestrian access.

Frequent bus service is appropriate when high ridership demand is demonstrated or projected, the streets are pedestrian-friendly, there are high proportions of transit-dependent residents, the lines connect to existing or proposed HCT corridors, and/or it serves multiple centers and major employers. Exhibiting many of the same service characteristics as frequent bus service, streetcar service functions primarily as a connection within and between 2040 centers and corridors.

Preferential treatments, such as transit signal priority, covered bus shelters, curb extensions, special lighting, enhanced sidewalks, protected crosswalks and bikeways, are all fundamental to making the frequent service bus and streetcars elements of the transit network function at its highest level. In select suburban locations, park-and-ride facilities may provide vehicular access to the frequent service network, especially for areas that cannot be well-served by local transit due to topography, street configuration, or lack of density.

Types of frequent transit services and facilities include:

- Frequent bus
- On-Street Bus Rapid Transit
- Streetcar (Local)
- Express Bus
- Enhanced Transit elements
- Regional transit centers and stops
- Bicycle stations/parking
- Park-and-ride facilities

Transit service improvements and expansion should be prioritized, with an emphasis on congested transit lines that serve historically marginalized communities. Decisions about transit investments should be assessed with an equity lens to ensure transit access for our most vulnerable communities.

Improve local service transit

The local transit network provides basic service and access to local destinations and the frequent and high capacity transit network. Service span and frequencies vary based on the level demand for the service. The local transit network ensures that the majority of the region's population has transit service available to them.

Local transit service is appropriate where there is some transit demand, but not enough to support regional or frequent service. Local transit is designed to provide full transit service coverage to the region. Transit preferential treatments and passenger facilities are appropriate at high ridership locations. Sidewalk connectivity, protected crosswalks and bikeways are all fundamental to making the local transit service elements of the transit network function at its highest level.

Providing local bus service increases the convenience of transit, particularly for areas without frequent service transit or where traditional transit service is not viable. Local transit service also expands community and regional transit service across the region that improves access to jobs and community places and can help facilitate that first/last mile connections where business and or homes are spread out and regional fixed-route bus service is not cost effective.

One foundational support of the regional transportation system in both urban and rural areas is the availability of demand-response services. These services provide access to transportation that "fills in the gaps" where fixed-route transit, complementary paratransit, or deviated fixed-route "last mile" shuttle services are not the appropriate or most cost-effective tool to meet the need of low income individuals, seniors or people with disabilities. Because these services operate in the background, as a coordinated addition to the total transportation system, they often go unnoticed. However, they provide a lifeline of service to low-income people who experience barriers to accessing the transportation system. Each year over 500,000 trips are provided on demand-response services throughout the region, and current service is still not enough to meet the existing demand or projected growth in demand concurrent with the region's growing population.

Types of local transit services include:

- Tram
- Local Bus
- Para-Transit
- Deviated "On-Demand" routes
- Community and job connector shuttles
- Employer Shuttle Service
- Community Event Shuttles

Local transit service improvements and expansion should be coordinated with TriMet's Coordinated Transportation Plan for Seniors and Persons with Disabilities and the Special Transportation Funds Advisory Committee (STFAC). Investments should be prioritized, as appropriate based on congestion along transit lines which service historically marginalized communities. Decisions about transit investments should be assessed with an equity lens.

Policy 4: Make transit more convenient by expanding high capacity transit (through the System Expansion Policy framework) and the region's enhanced transit network, and supporting expanded commuter rail and intercity transit service to neighboring communities

Expand high capacity transit, to serve transit dependent populations and improve system performance between key destinations

High Capacity Transit (HCT) investments help the region concentrate development and growth in its centers and corridors. The regional transit network concept calls for fast and reliable HCT service between the central city and regional centers. HCT service carries high volumes of passengers quickly and efficiently, and serves a regional travel market with relatively long trip lengths to provide a viable alternative to the automobile in terms of convenience and travel time.

High capacity transit provides greater connection of the Portland Central City, regional centers, and passenger intermodal facilities. It operates on a fixed guideway or within an exclusive right-of-way, to the extent possible. High capacity transit strives for frequencies of 10 minutes or better during the day and 15 minutes on weekends. Passenger infrastructure at HCT stations and within station communities often include enhanced amenities, such as real-time schedule information, ticket machines, special lighting, benches, shelters, bicycle parking, civic art and commercial services.

To optimize and leverage transit supportive land uses, alignments and station locations be oriented towards existing and future high density, mixed-use development. To this end, urban form and connectivity, redevelopment potential, market readiness, public incentives and infrastructure financing should all be considered during the corridor refinement and alternatives analysis phases of project development. High capacity transit investments are informed and prioritized by the System Expansion Policy (see implementation chapter of this strategy).

Types of high capacity transit types, facilities and services include:

- Light Rail Transit (MAX)
- Rapid Streetcar (Streetcars running in mostly exclusive right-of-way so that they are able to travel faster safely)
- Bus Rapid Transit (limited stop, all day bus service with significant portions of the line running in transit-only right-of-way).
- On-Street Bus Rapid Transit (limited stop, all day bus service, mostly operating in mixed traffic with focused transit priority treatments, such as queue jump lanes). Due to its flexibility, On-Street Bus Rapid Transit can have attributes that are more like High Capacity Transit or like Frequent Service Bus and may be considered as a mode in either, depending on circumstances.
- Commuter Rail (WES)
- Interurban Passenger Rail (e.g., Amtrak or regional rail systems in other regions)
- Intermodal Passenger Facilities (e.g., Union Station and Greyhound)
- Bicycle stations/parking
- Park-and-ride lots
- Transit Centers
- Transit Stations

Major infrastructure investments have implications within the communities they are located. Historic data shows that a major HCT investment contributes to both positive and negative outcomes for the communities they serve. It is critical that during the planning for a new HCT investment, a strategy should be developed that considers both the positive and negative impacts of the investment, particularly as it applies to the most at-risk populations. These tend to be people of color, low income, low English proficiency, seniors and youth. Additionally, these populations tend to be our most transit dependent. What this means is that their potential displacement from the economic pressures that the investment brings, ultimately leads to undermining the long-term effectiveness of the investment. By planning all new HCT lines through an Equitable Development Framework, we can attempt to lessen the negative impacts of the investment, while enhancing the opportunity that these transit-dependent populations can access from it, by limiting residential and business displacements and gentrification.

Any HCT planning effort should include the community directly into the decision-making process of selecting and designing the HCT facilities. The process should also be informed and include an assessment of data with an equity lens. Where possible HCT, projects should also enhance the contracting and job training benefits and opportunities for displaced and historically marginalized populations.

The Transit System Expansion Policy, described in more detail in Chapter 7, provides the policy framework for advancing HCT transit projects. This policy guidance and framework

provides the process and criteria to inform regional decision making process to advance HCT projects identified in the 2009 HCT Plan.

Potential and promising HCT corridors will be evaluated through the Transit System Expansion Policy framework. The evaluation will inform the regional conversation regarding prioritizing HCT corridors for implementation. The Transit System Expansion Policy process and criteria are under development. More information is presented in Chapter 7: Implementation.

Expand region's enhanced transit network - *NEW*

In order to meet the Portland Metro region's environmental, economic, livability and equity goals as we grow over the next several decades, we need to invest more in our transit system, particularly the frequent service bus network. The Enhanced Transit Concept (ETC) employs new public partnerships to produce transit service and investments that provides increased capacity and reliability, yet is relatively low-cost to construct, context-sensitive, and able to be deployed quickly throughout the region where needed.

ETC can be implemented through the coordinated investment of multiple partners and has the potential to provide a major improvement over existing service or even our region's best frequent service, but less capital-intensive and more quickly implemented than large scale high capacity transit. Investments would serve our many growing mixed-use centers, corridors, and employment areas that demand a higher level of transit service but are not seen as good candidates for light-rail, or bus rapid transit with fully dedicated lanes.

ETC partnerships could also create more reliable, higher quality transit connections to connect low-income and transit-dependent riders to jobs, school and services. It would allow for a more fine-grained network of higher-quality transit service to complement our high capacity transit investments, relieve transit congestion and grow ridership throughout the region.

Preferential treatments, such as transit signal priority, covered bus shelters, curb extensions, special lighting, enhanced sidewalks, protected crosswalks and bikeways, are also all fundamental to making the ETC network function at its highest level.

Improving the speed and reliability of our frequent service network could be implemented at the regional scale, along corridors or at "hot spot" locations. Table x describes the different types of treatments that have the potential to improve reliability.

Table 2. Enhanced Transit treatments

Regional	Hotspot
Bus on shoulder	Dedicated bus lane
Transit signal priority and signal improvements	Business access and transit (BAT) lane
Headway management	Intersection queue jump/right turn except bus lane
Corridor	Transit-only aperture
Level boarding	Pro-time (peak period only) transit lane
All door boarding	Bikes behind station
Bus stop consolidation	Left-side bike lanes
Rolling stock modification	Dedicated bike signal
Transit signal priority and signal improvements	Shared bus/bike zone
	Curb extension at stops/stations
	Far-side bus stop placement
	Street design traffic flow modifications

Enhanced transit project should be prioritized, as appropriate based on congestion along transit lines which service historically marginalized communities. Decisions about transit investments should be assessed with an equity lens.

Support expanded commuter rail and intercity transit service to neighboring communities

Intercity passenger rail and bus service to communities outside of the region provides an important connection to the regional transit network. A high level assessment of potential demand for commuter rail outside of the Portland urban growth boundary was conducted as part of the 2009 High Capacity Transit System Plan.

The demand estimates of ridership potential are highly conceptual and were developed only to determine the order of the magnitude of differences between corridors, not as actual predictions of ridership. The estimates are not based on detailed alignment, station location or service concepts. Rather, they estimate the potential to attract riders based on comparable commuter rail services in operation in the United States and the overall demand for work travel between the major corridor markets.

Key findings from this analysis are summarized below:

- **Potential Intercity Corridor.** A potential future **commuter rail line to Newberg** may be feasible in the long term. Even though the riders per mile analysis looks favorable due to the relatively short distance of the line, the overall population in the rail shed is very low compared to other corridors, and overall ridership is relatively low. Metro, regional partners and corridor communities should consider right of way preservation planning for this corridor and consider land use planning activities that focus on transit supportive development around potential future commuter rail station areas.
- **Promising Intercity Corridor**. **Salem/Keizer** is the most promising of the corridors evaluated. In addition to the highest market potential, this corridor has a number of favorable aspects: there is existing Amtrak passenger rail service in the corridor, this is a lightly used freight corridor that was evaluated in the 2001 Oregon Rail study as a

potential commuter rail corridor, and an alignment could easily tie into the WES commuter rail service now operating to Wilsonville. If the region or state chose to focus on the development of inter-regional rail service, this alignment should take priority. After coming to a similar conclusion about this corridor, the Oregon State Legislature passed House Bill 2408, which directs ODOT to study the possible extension of commuter rail service from Wilsonville to Salem, which is currently serviced by SMART today.

In addition, the Pacific Northwest Corridor is one of ten corridors identified for potential high-speed rail investments to better connect communities across America. Shown in Figure 9, this corridor provides an important intercity rail connection between Eugene, Oregon and Vancouver, British Columbia. More work is needed to determine what partnerships, infrastructure investments and finance strategies are needed to support this level of service. More information about current efforts to support high speed rail are described in chapter 6.

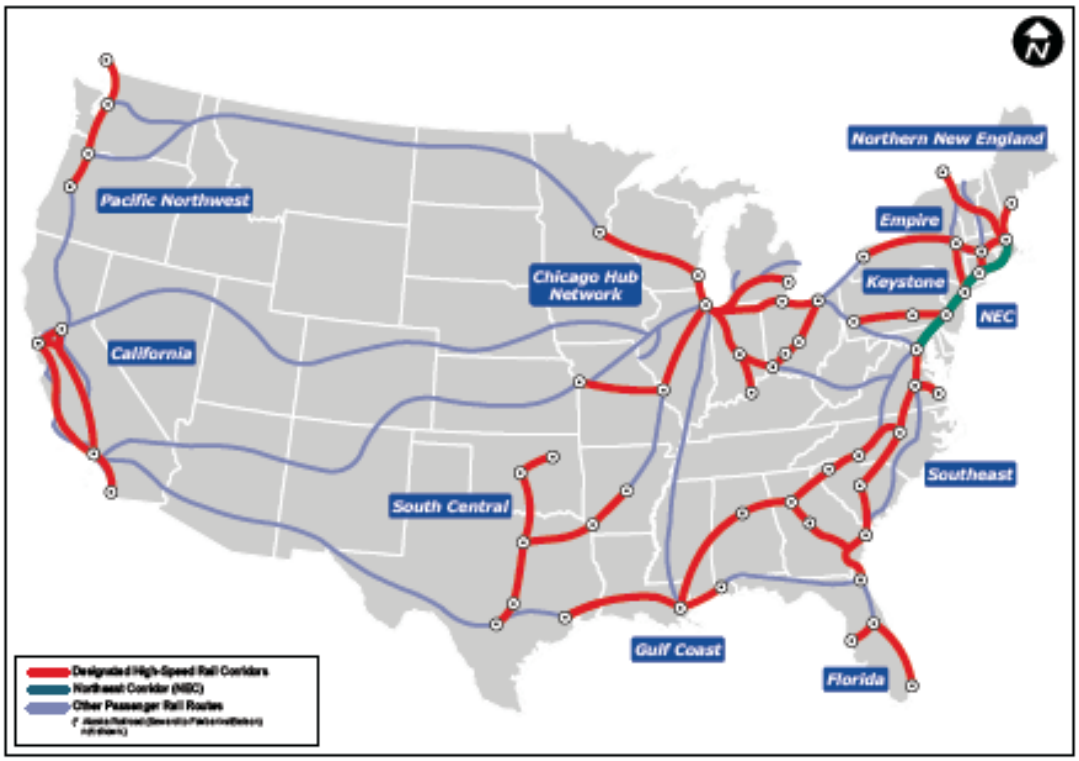


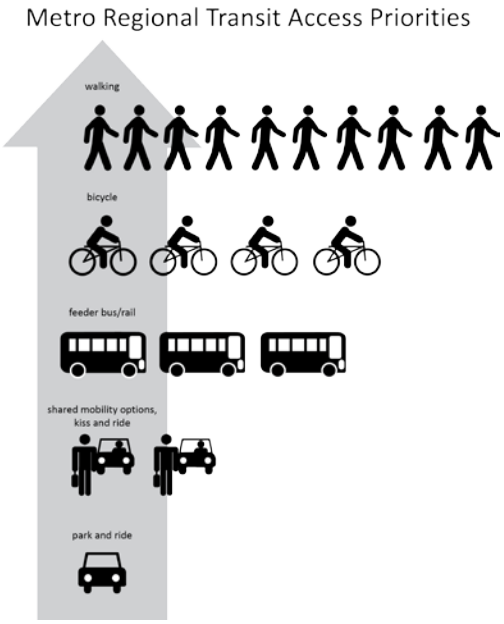
Figure 9. U.S. Intercity Passenger Rail Network

Source: U.S. Department of Transportation, Vision for High-Speed Rail in America (April 2009)

Policy 5: Make transit more accessible by improving pedestrian and bicycle access to transit and exploring new ways to improve connections to high-frequency transit when walking, bicycling or local bus service isn't an option *(REVISED)*

Improve pedestrian, bicycle access to transit

Figure 10
Regional Transit Access Priorities



Providing safe and direct walking and biking routes stops ensures that transit services are fully accessible to people of all ages and abilities. At some point in their trip, all transit riders are pedestrians. The environment where people walk to and from transit facilities is a significant part of the overall transit experience. An unattractive or unsafe walking environment discourages people from using transit, while a safer and more appealing pedestrian environment may increase ridership. Likewise, high quality local and regional bicycle infrastructure extends the reach of the transit network, allowing more people to access transit from longer distances. Figure 10 depicts the Metro region's priorities for providing multi-modal access to the region's transit service. It prioritizes walking and biking to transit and deemphasizes driving to transit.

Establishing pedestrian and bicycle connections to bus and train stations and stops helps extend the reach of the transit network, making trips made by transit feasible and accessible for more people of all ages and abilities, including seniors and people with disabilities. Transit, pedestrian and bicycle travel benefit as improvements are made to each of the modes.

Improving pedestrian and bicycle access to transit is accomplished through:

- filling sidewalk gaps within a mile of stops and stations;
- filling bicycle and trail network gaps within three miles of stops and stations;
- integrating trail connections with transit;
- providing shelters, transit tracker information and seating at stops and stations;
- providing bicycle amenities at transit centers such as repair stations and lockers;
- providing pedestrian and bicycle protected crossings at stations and stops where appropriate, including secured, covered bicycle parking or Bike and Rides at stations and stops;
- allowing bicycles on board transit and exploring the use of apps to let bicycle riders know if a bus or train has bicycle space available;

- locating transit stops and stations on bicycle and pedestrian maps, integrating biking, walking and transit on tools such as TriMet's Trip Planner and Transit Tracker;
- co-locate bike and car sharing facilities at transit stations to improve active transportation connections and manage parking demand, which helps to create a safer walking and bicycling environment; and
- Linking modal systems in regional and local transportation plans.

Explore new ways to improve connections to high frequency transit

Advances in technology have given rise to new transportation options that make it easier for people to share vehicles and rides and provide a potential first/last miles connection. Many of these options are already widely used in our region:

- In the city of Portland, transportation network companies (TNCs) Uber and Lyft provided an estimated 7 million rides in 2017. We do not know how many of these were first/last mile connections to transit.
- Car sharing services operate over 1,000 vehicles in the region, and though some of these services have been around for a decade, new models have sprung up, including free-floating car sharing companies like ReachNow and Car2Go that allow people to pick up and drop off a car anywhere within a defined service area.
- The City of Portland's bike share system, BIKETOWN, launched in July 2016, and carried over 300,000 trips in its first year. Many of the bikeshare stations are purposefully co-located at transit stations.

Other innovations are not yet available in our region, but may be soon:

- Shared electric bikes or scooters allow riders to take easier or longer-distance trips than they could on a conventional bicycle.
- Microtransit, which refers to services that use smart phones to allow riders to book trips, collect data to tailor routes that meet riders' needs and serve these routes with vehicles that are smaller than conventional buses, can be a viable model for communities that don't have high enough ridership for conventional transit to pencil to be cost effective.

These new options, along with conventional shared modes like transit, carpools, and vanpools, are often referred to collectively as "shared mobility." Combining transit and other shared modes can provide better service for travelers while creating better environments around stations. People who might otherwise need to drive to can instead use a combination of shared mobility and transit. In these situations, shared mobility provides more convenient connections to stations, but taking transit for the bulk of the trip keeps the journey more affordable. If more people use shared modes to get to transit rather than driving, it can free up space that might otherwise be used for parking for public spaces, bicycle and pedestrian facilities or development. In order to deliver on this potential, Metro and our partners need to improve connections between shared mobility and transit. There are several actions we can take.

- Dedicate space for shared mobility at transit stations. Accommodating bike share stations or pods of car share vehicles at transit makes it easy for transit riders to use these options. Setting aside space for pickups and dropoffs near stations can make it more convenient for people to access options to transit, as well as improve safety by reducing conflicts between modes. At stations with parking, reserving premium spaces for carpools or shared vehicles can provide an incentive for travelers to share trips instead of driving alone.
- Coordinate with shared mobility companies to provide shared connections to transit stations. Several communities already support vanpools or operate shuttles to and from transit stations. Similarly, public agencies can work partner with microtransit or carsharing companies to provide new connections to transit and promote the use of these services.
- Make it easy to plan and book transit and shared mobility trips. Smartphone apps are now the most common way for people in the Portland region to access information about their transportation options. At a minimum, transit agencies should make schedule and route information available through their own online tools as well as in general transit feed specification format so that it can be incorporated into apps like Google Maps, TransitApp, and moovel. TriMet's Open Trip Planner Shared-use Mobility project will create a platform to integrate data on transit and shared mobility options so that riders can easily plan multimodal trips. The ability to book and pay for multimodal trips on a single platform could make transit-shared mobility connections even more convenient.

There are two important issues to consider when integrating transit and shared mobility data. The first is ensuring that third-party apps use that data in a way that supports transit. No matter how easy-to-use or informative the apps and websites that public agencies develop are, a significant number of people will get data from third-party apps. The companies that develop these apps often monetize transit data by showing advertisements for TNCs that show how much quicker a rider could reach a destination by paying extra for an Uber or Lyft. These advertisements can draw people away from taking transit, and agencies should consider whether they want to place conditions on the use of transit data by third parties.

The second is maintaining access for the many people who can't access apps or make online payments, which can include low-income people, undocumented people, people with disabilities, or people with limited English proficiency—in other words, many of the same travelers who rely on transit. Phone-based concierge services or cash-based payment services at convenient locations, as well as traditional fare media and schedules, can help these people continue to access transit.

Design and manage designated transit streets to prioritize transit and shared travel. Dedicating transit lanes and rights of way and prioritizing buses at signalized intersection are widely used strategies to help transit vehicles move more quickly. As the region explores congestion pricing, we should consider methods of pricing that reduce tolls for

higher occupancy vehicles. More TNCs picking people up and dropping them off means that curb space is increasingly valuable, and the use of global positioning systems on TNC vehicles makes it possible to manage where these vehicles drop people off and pick them up. Agencies can manage the curbside to prioritize TNCs carrying more than one passenger and avoid conflicts with transit vehicles.

Policy 6. Use emerging technologies to provide better, more efficient service—beginning with the people for whom conventional transit is not an option.

Our region is home to many people with disabilities who require specialized vehicles and point-to-point service, as well as people who depend on transit but live in communities where fixed-route service doesn't make sense. These people often rely on demand-response transit or infrequent buses that provide slow service and are costly to operate. New shared mobility models like microtransit could provide better service at lower cost in these situations. As these options continue to mature, agencies should look for opportunities to supplement demand response and underperforming service with shared mobility. This could not only provides better service for underserved and transit-dependent residents, but also increase resources available to serve high-demand corridors. Over the longer term, autonomous vehicle (AV) technologies have the potential to make transit work more efficiently everywhere, and transit agencies should look for opportunities to test these technologies and understand their potential benefits as they become available.

Policy 7. Ensure that transit is affordable, especially for people who depend on transit

The cost of transportation burdens many households in the metropolitan region Transportation is usually the second largest share of household costs (after housing) and are particularly burdensome for low-income households who often have the longest distances to travel. It is therefore important to ensure that transit is affordable, particularly for the riders that need it the most (i.e. the riders who do not have access to cars). Ensuring that transit is affordable alleviates the cost of owning automobiles; in the Portland Metro Region, an individual saves an average of $10,477 annually by switching from cars to public transit (APTA, June Transit Savings Report, 2017).

Low-income households, people of color, people with disabilities, children, senior citizens, and people with limited English proficiency are those most affected by transportation costs because they're more transit-dependent than others. As our region continues to grow in both population and diversity, embracing this growing diversity means providing service that is equitable. Using equity as a lens to guide decisions ensures that the transit system benefits those who rely on it the most.

SMART routes within the City of Wilsonville are free, while other routes running to Canby, Tualatin, Barbur Transit Center, and Salem charge a fee. SMART also offers a reduced half price pass for seniors (60 years and older), persons with disabilities, Medicare card holders and youth riders (5-17 years old or students to 23 years old with valid student ID).

TriMet also rolled out the Hop Fastpass, a state-of-the-art electronic fare system for TriMet, C-TRAN, and Portland Streetcar. Riders will be able to choose from a variety of payment options, including a transit-only smart card, contactless bank card, and smartphones with contactless technology built in. One benefit of the Hop Fastpass for low-income riders is a daily and monthly cap on fares paid. Riders who use the system for two full-fare trips will be able to ride the rest of the day for free. Similarly, after using the Hop Fastpass for the equivalent cost of a monthly pass, riders will be able to use the transit system for free for the rest of the month. The Hop Fastpass therefore allows riders to buy daily and monthly passes one installment at a time, making discounts available to those who can't afford the cost of a daily or monthly pass up front.

TriMet has already implemented several programs in order to make transit affordable. Reduced fares are available to youths ages 7-17 and students in high school or pursuing a GED, and children 6 and under ride for free with a paying passenger. High school students in the Portland Public School District can ride for free during the school year as well by showing their student ID. Honored citizens, which include those over 65, those on Medicare, or those with disabilities are also eligible for reduced fares. Access Transit fare programs help low-income riders, including low-income seniors and riders with disabilities. These programs provide fares to non-profit and community-based organizations at lower to no cost, which are then distributed to clients.

Over the last few years, TriMet has been working toward a reduced fare program for people with limited incomes. A task force of advocates, community members and elected officials recommended a low income fare program where adults at or below 200 percent of the federal poverty level would be eligible for half-priced fare. Implementation of this program means that adults making up to $24,120 a year could take a ride for $1.75, and buy a day pass for $2.50 (the same price as Honored Citizen and Youth fares). Participants would use a reduced fare Hop card similar to an Honored Citizen or Youth card. House Bill 2017 provided the funding to implement the TriMet Low-Income Fare Program.

To ensure that transit remains affordable, the region should build partnerships with non-profit and human service providers to support the dissemination of information about these fare programs and to work through ways in which these programs can be more effective. This should also include advocating in the state legislature and to the voters to increase, deepen, and sustain long-term funding for programs which support keeping transit affordable for riders.

CHAPTER 5: STRATEGIES AND ACTIONS

Strategies

This section describes the current transit strategies that relate to how we are implement transit service, guiding our capital investments and supporting our transit system.

Climate Smart Strategy

In 2014 Metro released its Climate Smart Strategy, a state mandated strategy to implement changes that reduced per capita greenhouse gas emissions from cars and smalls trucks by 2035. Metro engaged communities, business, public health and elected leaders to shape a strategy that supports local plans for downtowns, main streets and employment areas; protect farms, forestland, and natural areas; creates healthy and equitable communities; increases travel options; and grow the economy while recuing greenhouse gas emissions.

Since its adoption in December of 2014 Metro and the region as a whole have already taken action to meet the goals of the strategy. Some of the places we have already began working include:

- Working with ODOT on updating the Oregon Public Transportation Plan
- Increasing state funding for transit service (House Bill 2017)
- Making funding for access to transit a priority through RTP
- Working with elected officials, community, and business leaders at local, regional and state levels to make transit more accessible
- Researching and developing best practices that support equitable growth and development near transit without displacement
- Developing a Regional Transit System Plan
- Supporting reduced fares and service improvement for low-income families, youth, older adults, and people with disabilities
- Partnering with transit providers and school districts to seek resources to support youth pass programs
- Expansion of transit payment options (Hop Fastpass)

As the list above highlights our region is making real strides towards using transit as a tool to reach our climate smart objectives. Our region's ability to successfully implement these strategies and actively improve the areas we are lacking demonstrates leadership and real dedication to the reduction of greenhouse gas emission in our region.

Focusing on racial equity

In June 2016, Metro adopted the Strategic Plan to Advance Racial Equity, Diversity, and Inclusion (Strategic Plan). The Strategic Plan's purpose is to provide clarity as to how Metro looks to achieves equity, one of the six desired outcomes for the region. The Strategic Plan to Advance Racial Equity,

Diversity, and Inclusion emerged as a need to provide greater direction to Metro's different lines of business and better integrating and approaching social equity in planning, operations, and services.

The key aspect of the Strategic Plan is its focus and emphasis on deliberately tackling inequities based on race and ethnicity. The Strategic Plan identifies specific objectives and implementation actions associated to each goal some of which are internally focused on Metro practices and some of which are externally focused to how Metro considers and serves the needs of communities of color. The Strategic Plan also builds on the extensive equity work that Metro departments and venues have been conducting for a number of years. In developing the 2018 RTP, the region looks to opportunities to align the goals areas of the Strategic Plan with the policies, strategies, and actions of the region's long-range transportation blueprint.

In previously adopted Regional Transportation Plans, the focus on equity has looked at whether future transportation investments will serve a broad spectrum of historically marginalized communities. Moving forward, the Strategic Plan provides unified strategic direction to have an additional focus on race for the crucial equity work currently underway at Metro, including the development of the region's long-range transportation blueprint. The RTP equity analyzes all projects with an equity lens and an overlap of transit investments and communities of color.

Collaboration between transit providers in transit planning and service operations

Transit riders are not particularly concerned with who the transit provider is, they just want to get to the places they are traveling to. Therefore, in order to improve transit services for the entire region, we need to increase the degree of collaboration between transit service providers. As mentioned in Chapter 2, there are transit options within our regional and transit options that operate outside our region but provide for critical connections. Collaboration between transit providers and services are critical to improving the experiences of transit riders who transfer from one to the other and to plan for improvements that will benefit both agencies in the future.

When improving, expanding and capital investments in transit service, transit providers should be coordinating to ensure that seamless connections between transit providers is maintained and or improved. Transit providers should explore ways to improve the connections between transit providers (e.g. payment options, marketing or information sharing) that improves the transit riders experience.

Enhanced Transit Concept

A consistent theme of our public and partner outreach is that transit needs to be more reliable if want people to ride it. Light rail and commuter rail operate in exclusive guideway, so reliability is not necessarily a big issue. But as our region grows and congestion worsens, the reliability of our bus system which operates in mixed traffic is going to become more and more important.

Through a Transportation Growth Management (TGM) grant, through the Oregon Department of Transportation (ODOT), TriMet and the City of Portland developed an Enhanced Transit Corridors Plan and a toolbox of potential improvements that could apply to congested transit corridors that

could increase capacity and reliability with moderate capital and operational investments and could be deployed quickly. The City of Portland and TriMet developed this approach specifically for transit service within the City of Portland. As this was being developed, Metro, TriMet and local jurisdictions sought to adapt this approach to the rest of the region to develop enhanced transit corridors that can move forward towards implementation and construction.

Through the RTS, the region developed a policy framework (see Chapter 3: Vision and Policies) and criteria to identify enhanced transit candidate corridors, as well as identify opportunities for service improvements, capital investments and policy commitments to enhance transit service in the corridors that need it most. The Regional ETC Pilot Work Plan goals are to:

- Increase transit ridership to level sufficient to meet regional and local mode split goals by improving transit reliability, speed, and capacity through hotspot bottleneck locations in congested corridors and throughout the region through moderate capital and operational investments from both local jurisdictions and transit agencies.
- Identify, design and build a set of Enhanced Transit projects, either as hotspot bottlenecks or across whole congested corridors or, in partnership with local jurisdictions and facility owners where improvements are most needed and can be deployed quickly to produce immediate results.
- Develop a pipeline of Enhanced Transit projects so they are ready to advance for to construction as funding is identified.

Role of Technology

Metro's Emerging Technology Strategy, included as part of the 2018 update to the Regional Transportation Plan, lays out a plan to harness innovations like automated vehicles and shared mobility to create a more equitable and livable Portland region. These technologies have the potential to transform how we travel, but much uncertainty remains about when they will reach maturity and how they will affect communities. The Emerging Technology Strategy forecasts when and how technology will likely impact our region and identifies policies and actions for Metro and our partners to guide the region toward positive outcomes.

Emerging technologies have the potential to support transit, but also present new challenges. Shared mobility services like car share and bike share to provide new opportunities to connect people who aren't within walking or bicycling distance of transit to stops and stations, but there is growing evidence that some of these services draw riders away from transit and make it harder for buses to operate efficiently by producing conflicts and congestion. Advances in automated vehicles and dynamic routing could help make transit more efficient and bring service to areas that are hard to serve with fixed routes, but automated passenger vehicles could make driving much more convenient, dramatically reducing transit ridership. The Emerging Technology Strategy includes policies and actions to ensure that technology supports transit, and these policies and actions are incorporated into the Regional Transit Strategy.

Growing Transit communities

The Growing Transit Communities Plan is an effort by the City of Portland's Bureau of Transportation to identify and prioritize the most beneficial improvements that would make getting to the bus and using the bus a safer and more convenient option, with a particular plan focus along sections of bus lines 87, 77, and 20. The purpose of the Growing Transit Communities Plan is to identify a methodology for determine a package of transportation investments on a corridor level that would best create transit-oriented neighborhoods, places where transit (along with walking and bicycling for short trips) is truly the mode of choice for getting to and from work, school, shops, or other destinations.

Frequent transit service is one essential component of a transit-oriented community, but other components include safe access to transit, bus stop quality, sidewalk and bikeway network connections, crossings of busy streets, and the overall built environment. Deficiencies in these other factors often lead to lower ridership, and make frequent service less viable to implement. Conversely, as these transit-supportive elements are put into place at a corridor and neighborhood level, transit demand is likely to increase, making increasing transit frequency more cost-effective, creating a virtuous cycle of Growing Transit Communities.

While this was developed by the City of Portland, the methodology to develop the concept can be applied to the rest of the region. As population increases throughout the region, increasing transit service frequency and targeted investments in access to transit are ways to increase transit ridership, meet our regional transit mode share targets and support the region's overall desired outcomes. As communities are thinking about additional service or expanding to frequent service, local jurisdictions should work with the transit provider to identify local actions that could be taken to improve ridership and justify additional service in corridors.

First and last mile connections

Another key transit-supportive element is ensuring safe, convenient and attractive access to the transit system for those who connect by walking, rolling and riding a bike. Given diverse facility ownership, it is imperative for transit operators in the region work closely with local and state partners to focus on strategic investments in improving access to transit on the roadway, cycling, pedestrian and other rights of way they own and operate but that are served by transit.

Pedestrian Access to Transit: Working with cities and counties across the region, as well as ODOT, TriMet's Pedestrian Network Analysis Project developed a data-driven system to prioritize places around the region where sidewalk and crosswalk investments will provide a safer and more comfortable walking experience and better access to transit.

This effort guides current and future investments in access, both from TriMet and from our partners in the region, and includes recent competitive grant awards for access improvements on corridors such as SW Barbur Blvd., SE Powell Blvd. and Tualatin Valley Hwy/Oregon Hwy 8.

Bicycle Access to Transit: With support from the state's Transportation Growth Management grant program, TriMet recently developed its first-ever Bike Plan to help improve bike access to transit,

and help guide investments in biking infrastructure and amenities by TriMet and its local and state jurisdictional partners. This includes improving bicycle facilities in the vicinity of transit service, expanding bike parking options at stations and stops and accommodating bikes on buses, MAX and WES trains. After a period of public outreach and working with stakeholders, the final plan was adopted by the TriMet Board of Directors in July 2016.

Improvements in bike parking facilities throughout the system are made as needed, and as funding allows, each year. These improvements may include new or additional basic bike racks, covered bike parking, bike locker upgrades, or secure and enclosed Bike & Ride facilities.

Transit operators also regularly seek grant awards for key bike parking improvements at strategic access points in the system. One recent highlight of a grant award is the current Westside Bike & Rides: Access to Employment project, funded through a ConnectOregon V grant from the State of Oregon. TriMet is using this funding to make enhanced bike parking improvements at the Goose Hollow/SW Jefferson St and Beaverton Creek MAX stations. This will allow cyclists to park their bikes at secure locations before traveling through the Westside tunnel, which is one of the most congested parts of the MAX system for bike access.

First and last mile connection for seniors and people with disabilities

Decisions we make today on how best to invest in transportation options for seniors and persons with disabilities will affect the future quality of life for thousands of tri-county residents. By 2040, there is expected to be approximately 230,000 more people 65 years and older in the tri-county area, growing from a 13.2 percent share of the population today to a 20.0 percent share in 2040. According to the 2010 US Census, over 10 percent of the region's population reported that they had a disability. Seniors will represent the fastest growing segment of population in years to come, far outpacing the rate of population growth. As the Portland metro region is projected to become proportionally older, many seniors are likely to become disabled due to physical frailty caused by the effects of aging. Existing resources are inadequate to meet the growing demand for services for these populations.

Transportation is a key determinant of health. The World Health Organization has developed a "Checklist of Essential Features of Age-friendly Cities" (2007) as a tool for a city's assessment and map for charting progress. All of the data indicates that 80-90% of individuals want to stay in their home as long as possible. One of the key elements of a Livable Community is adequate transportation to access medical care and other essential services. The concept of Age-friendly Communities or Livable Communities is being actively promoted by AARP, The National Council on Aging and the National Association of Area Agencies on Aging. The Institute on Aging at PSU is a leading expert in Age-friendly Communities.

These changing demographics challenge the conventional solutions of more buses, light rail service, and paratransit vans. While such traditional modes of transportation will surely be needed, there is a limit to how much the region can afford. Improved coordination among existing services, innovative collaboration to deliver new types of services and a regional commitment to

placing public facilities and social services at locations served by public transit will also be needed.

Regional Transit Strategy Actions

The Regional Transit Strategy Vision is to make transit more frequent, convenient, accessible and affordable for everyone. The following table describes the actions we can take to move our transit system towards our vision.

- **FREQUENT:** Align frequency and type of transit service to meet existing and projected demand in support of adopted local and regional land use and transportation plans.
- **CONVENIENT:** Make transit more convenient and competitive with driving by improving transit speed and reliability through priority treatments (e.g., signal priority, bus lanes, queue jumps, etc.) and other strategies. Improve customer experience by ensuring seamless connections between various transit providers, including transfers, route and schedule information and payment options.
- **ACCESSIBLE:** Provide safe and direct biking and walking routes and crossings that connect to transit stops to ensure transit services are fully accessible to people of all ages and abilities. Expand community and regional transit service across the region to improve access to jobs and Community places.
- **AFFORDABLE:** Ensure transit remains affordable, especially for those dependent upon it the most.

Table 3. Regional Transit Strategy Actions

FREQUENT	CONVENIENT	ACCESSIBLE	AFFORDABLE
ACTIONS: • Implement TriMet's Future of Transit Service Enhancement Plans. • Implement the SMART Master Plan. • Implement the Portland Streetcar Strategic Plan and expansion. • Implement and coordinate with C-TRAN's Transit Development Plan. • Implement and coordinate with state, regional, neighboring cities and rural transit providers future service plans. • Implement the Regional Enhanced Transit Concept Pilot Program. • Invest in Enhanced Transit Concept improvements. • Invest in High Capacity Transit corridors. • Implement TriMet's Coordinated Transportation Plan for Seniors and Persons with Disabilities, in conjunction with Special Transportation Fund Advisory Committee (STFAC) and service providers. • Coordinate transit investments with local and regional land use and transportation visions as service improvements are prioritized • Test and deploy connected vehicle technologies that help transit operate more efficiently, such as transit signal priority. • Design transit streets to prioritize curb access for transit vehicles and minimize conflicts with other modes.	**ACTIONS:** • Implement TriMet's Future of Transit Service Enhancement Plans. • Implement the SMART Master Plan. • Implement the Portland Streetcar Strategic Plan and expansion. • Implement and coordinate with C-TRAN's Transit Development Plan. • Implement and coordinate with state, regional, neighboring cities and rural transit providers future service plans. • Invest in Enhanced Transit Concept improvements. • Invest in High Capacity Transit corridors. • Invest in repair and maintenance and critical transit bottleneck improvements to ensure the existing system functions effectively and efficiently. • Facilitate service connections between transit modes and transit providers at transit hubs. • Implement and coordinate the HOP Fastpass program across multiple service providers. • Implement the TriMet Regional Transit Signal Priority Study recommendations, especially in congested corridors to improve on-time performance and reliability. • Provide programs and adopt policies that help increase transit usage and reduce drive alone trips, such as travel options information and support tools (e.g., trip planning services, wayfinding signage, bike racks at transit stops), individualized marketing, commuter programs (e.g., transit pass programs), and actively managing travel in downtowns and other mixed-use areas.	**ACTIONS:** • Coordinate transit investments with improvements to pedestrian and bicycling infrastructure that provide access to transit as service improvements are prioritized, in line with Regional Active Transportation Plan and TriMet's Coordinated Transportation Plan for Seniors and Persons with Disabilities. • Provide new community and regional transit connections to improve access to jobs and community services and make it easier to complete some trips without multiple transfers. • Enhance transit access to jobs and other daily needs, especially for historically marginalized communities[1], youth, older adults and persons living with disabilities. • Provide biking, walking, shared ride and park-and-ride facilities that help people access the transit system. • Use new mobility services like microtransit, TNCs and car/bike sharing to improve connections to high-frequency transit when walking, bicycling, or local bus service isn't an option. • Coordinate and link transit-oriented development strategies with transit investments. • Coordinate transit investments with the regional Equitable Housing Initiative. • Coordinate and link transit investments with local and regional land use and transportation visions as service improvements are prioritized. • Explore and pilot test technologies such as automated vehicles and dynamic routing to provide better transit in communities that currently lack frequent service. • Explore and pilot test the potential of new mobility services to provide more convenient and	**ACTIONS:** • Expand existing reduced fare program to low-income families and individuals in line with Metro/TriMet Low Income Fare Task Force recommendations. • Expand transit payment options (e.g., electronic e-fare cards) to increase affordability and convenience. • Expand student pass program

[1] Historically marginalized communities areas with high concentrations (compared to regional average) of people of color, people with low-incomes, people with limited English proficiency, older adults and/or young people.

FREQUENT	CONVENIENT	ACCESSIBLE	AFFORDABLE
	• Improve the availability of transit route and schedule information and integrate information on first and last-mile transportation options. • Coordinate efforts between transportation providers to increase information sharing and ease of use (e.g., transfers and payment integration).	cost-effective paratransit and human service transportation.	

CHAPTER 6: MONITORING AND MEASURING PROGRESS

The section is draft, under development and will be updated as part of the RTP refinement phase.

The objective of the regional transit strategy is to highlight policies and methods that aim to increase transit use across our region. This chapter will explore the various performance measures, targets and monitoring measures that determine whether or not the region is progressing towards its transit goals.

Regional Performance Measures

Performances measures were refined and developed as part of the 2018 RTP update and development on the RTS. The following 6 questions to help frame the current status of transit in our region:

- How much do people and goods travel in our region?
- How much do households spend on housing and transportation in our region?
- How safe is travel in our region?
- How easily, comfortable and directly can we access jobs and destinations in our region?
- How efficient is travel in our region?
- How will transportation impact climate change, air quality and the environment?

Answering these questions help paint a clearer picture of whether or not the region is meeting its transit goals.

How much do people and goods travel in our region?

While it's no surprise that as the region's population increases the amount of daily vehicle trips will also. As a result, the total daily VMT in our region is expected to grow by 31.9%. Although increases in population typically bring increased total VMT our region is unique in expecting a decrease in the per capita VMT. This means that even as our population grows the average resident is expected to drive less and seek other transportation options – a key reason why continued investment in the efficiency and quality of our regional transit system is necessary.

Concurrent with reduced VMT the region is expected to see a substantial increase transit usage. The 2040 strategic model estimates the number of weekday transit trips to increase from 252,500 (2015) to 582,800 (2040) a staggering 131% increase. In addition to transit the region is expected to see increases in walking, and biking as well. The City of Portland Sub area is expected to see the largest non driving mode share increases with 33% of trips expected to be non-driving.

The movement of people and goods through the network are great indicators of economic activity and as a region strategic efforts must be made to maintain and expand the effectiveness of our transit systems to ensure they remain viable transportation options as the region's population continues to increase.

The data above indicates that, as a region, we're ahead of our peers when it comes to growth in transit usage but, there is always room to improve. Metro, with the help of partners around the region, need to continue exploring the barriers to transit use in our region. Meaningful engagement will lead us to strategies that break down barriers to transit use and improve the overall quality of life of everyone that calls the Portland metropolitan region home.

How safe is travel in our region?

Regionally we've placed high value on transit as an alternative method to automobile travel, as proponents of transit use; we must also consider the safety of our transit system. Transit safety analysis is more complex than automobile due to the fact that in most scenarios transit users are pedestrians first.

Taking a transit user's unique position into consideration offers two primary ways to approach safety:

- Physical Safety: This type of safety is concerned with the likelihood of an individual sustaining serious injury or death during the course of their trip.
- Emotional Safety (Security): This type of safety is more difficult to measure and is concerned with the opinions of potential transit riders. Emotional safety usually considers the non-transportation based "dangers" of transit usage, such as the fear of discrimination, concerns with the complexity of trip planning, or even the fear of being harmed by people you encounter along the way.

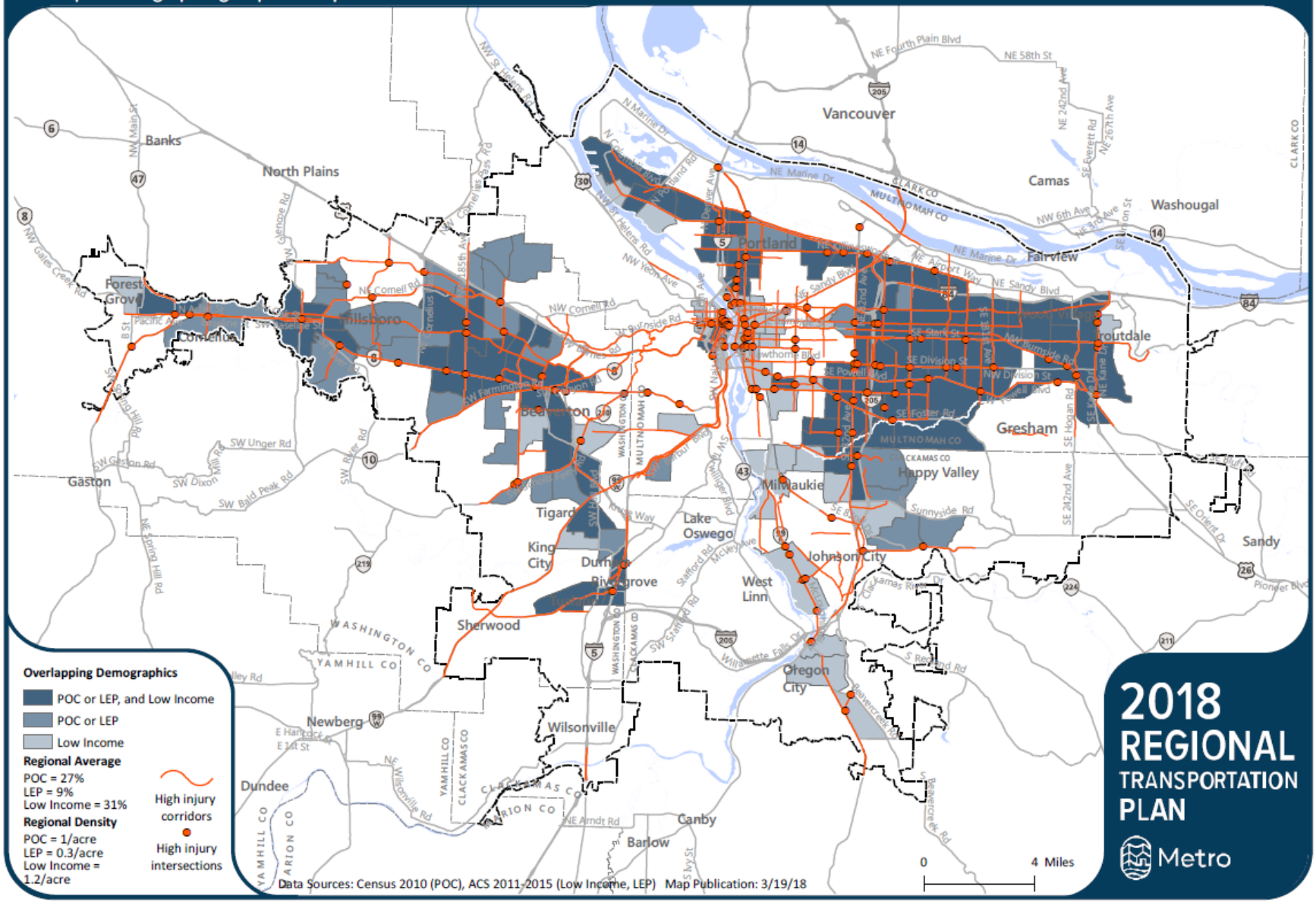
Physical safety concerns can typically be addressed by investments along the transit network that reduce the risk of serious death or injury for potential riders. From sidewalks, to stoplights – busses to bike lanes, projects that support safety support regional transit use. Across the constrained and strategic project lists the RTP identifies 382 projects aimed at increasing safety across the region.

Criteria: Build Complete Streets, Reduce fatal and severe injury crashes*, Reduce crashes*.

While the transit ride may be safer than its automobile counterpart, the entire trip may not be. Recalling that transit riders are pedestrians first it is critical we take into consideration their entire trip. High Injury Corridors (HIC) are places along a transportation network where there are disproportionate amounts of vehicular related deaths and injuries. The map below highlights the intersection of transit routes and high injury corridors.

High Injury Corridors Overlapping Communities of Color, English Language Learners, and Lower-Income Communities

This map shows the overlap of regional high injury corridors and road intersections with census tracts with higher than regional average concentrations and double the density of one or more of the following: people of color, people with low income, and English language learners. Census tracts where multiple demographic groups overlap are identified.



Many of the high crash corridors are along transit routes. This means, that in order to develop a safe and user friendly transit system, we must also invest in infrastructure that makes accessing transit safe, easy, and reliable.

How much do households spend on housing and transportation in our region?

For the average resident in our region housing and transportation consumes about 48% of their yearly income. The general rule of thumb is that no more than 28% of a person's income should go toward housing; currently our regional average is 27%. Potentially more so than housing, transportation expenditures can vary greatly, most sources suggest that a reasonable transportation cost lies somewhere between 15% – 20% of an individual's total income. Our region reports an average of 20% compared to the National average of 22%.

Transit use has the ability to significantly impact where our money is going. In 2016, the American Public Transportation Association (APTA) released its Transit Savings report which compared the average monthly expenditures for automobile ownership compared to transit use. On average, individuals in Portland were expected to spend $9,778 less per year by using transit. With similar savings reflected in 2018, $9,800 would represent approximately 15% of the regional average income. This means that the average driver in our region with viable access to transit could see their transportation expenditures fall to as low as 5% of their total income by switching modes of travel.

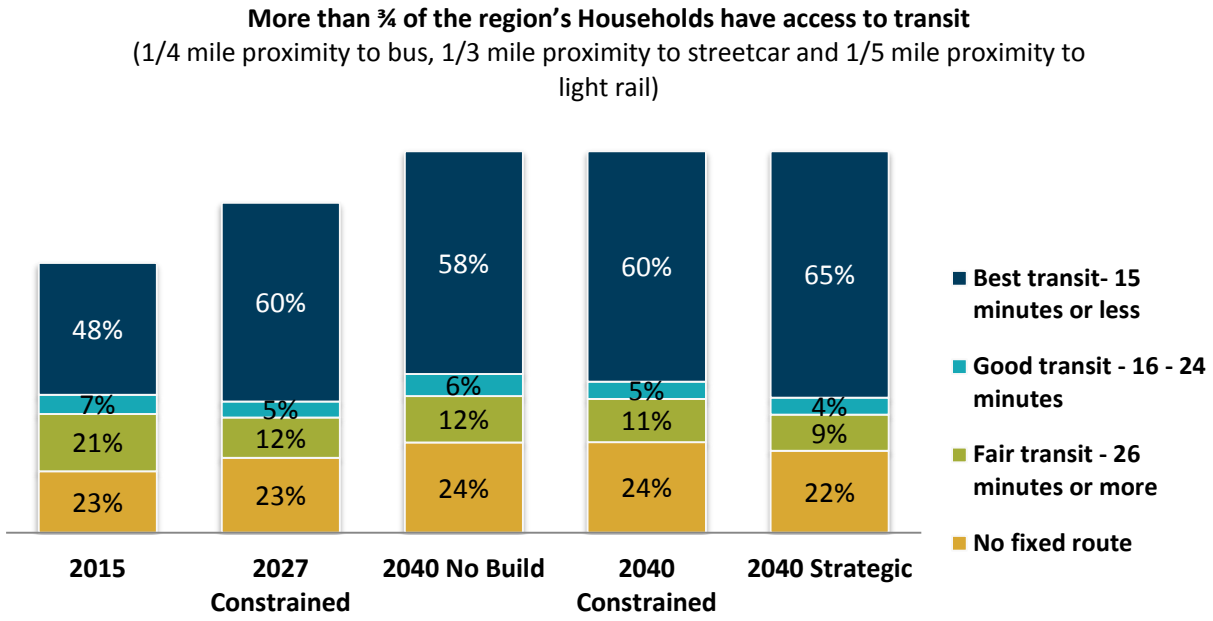
High housing costs are at the center of many conversations around the region. Investment and maintenance of a safe and accessible transit system has the ability to mitigate some of the financial impacts of increased housing costs in our region.

How easily, comfortably and directly can we access jobs and destinations in our region?

- When exploring transit access there are two primary things to consider:
- Time to Destination: This considers whether or not transit use gets people where they need to go in a reasonable amount of time.
- Proximity to Station: This considers the distance people live from transit stations.

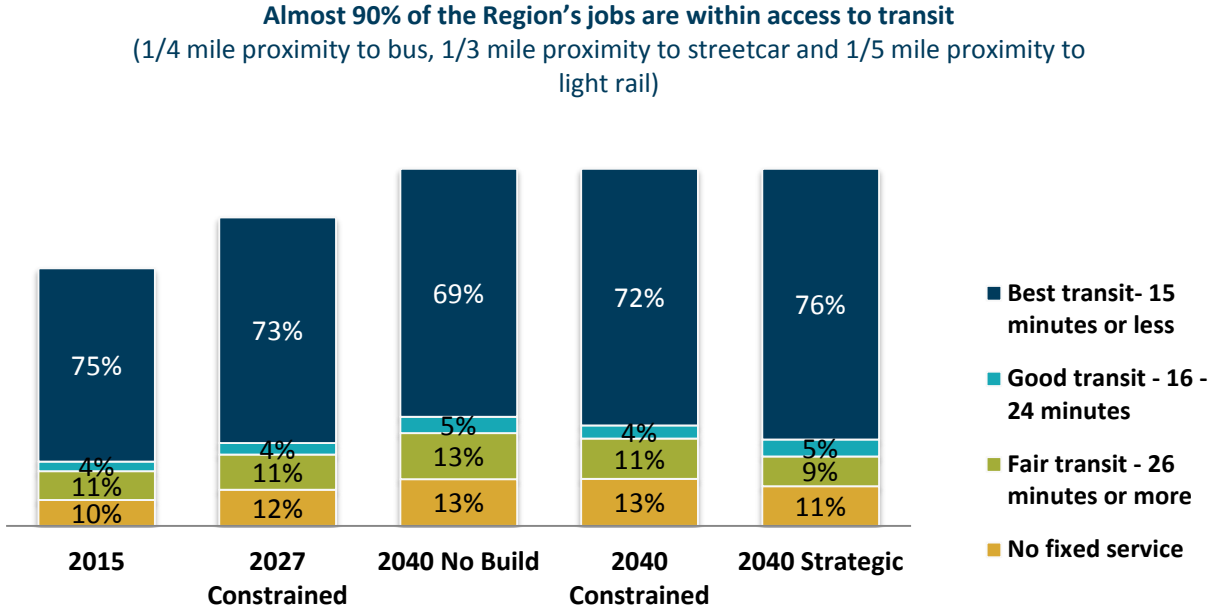
Proximity to stations: There is no motivation to use transit if it's geographically inaccessible, and even if it's geographically accessible there's no point in using it if it doesn't take you where you want to go. Good transit planning considers these concepts of access concurrently. The good news is that the future looks bright for both qualifiers of access. As the graph below highlights we can expect more than 3/4th of the region's households to have access (proximity) to transit by 2040, the majority being classified as "best transit" operating at 15 minute or better intervals.

Figure 12. Number of households with access to transit

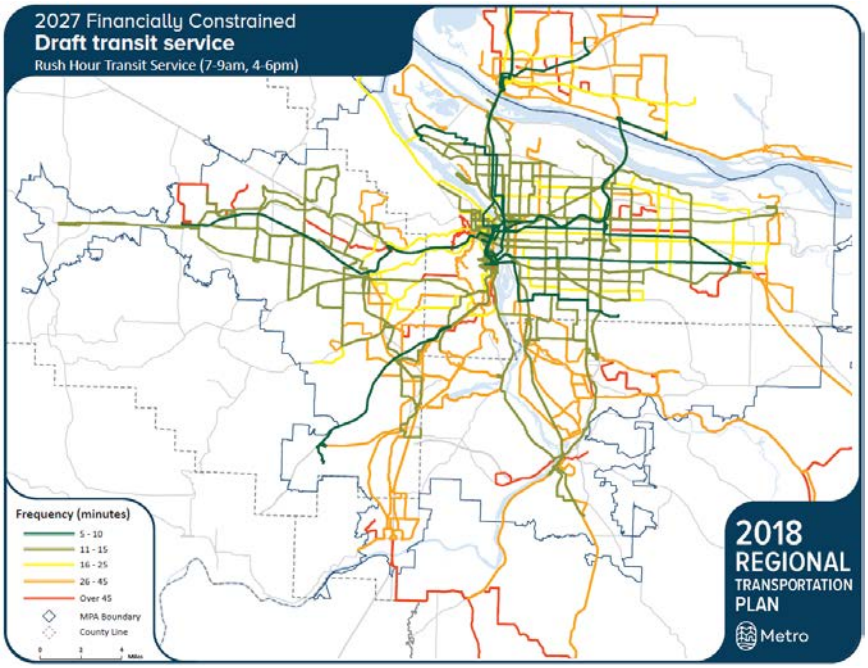


The jobs in our region see even higher rates of transit access (proximity).

Figure 13. Number of jobs with access to transit



The following figures show the jobs and households with access to transit by Investment Strategy.



10-year constrained

Results of projects scheduled in the first 10 years of the draft constrained list

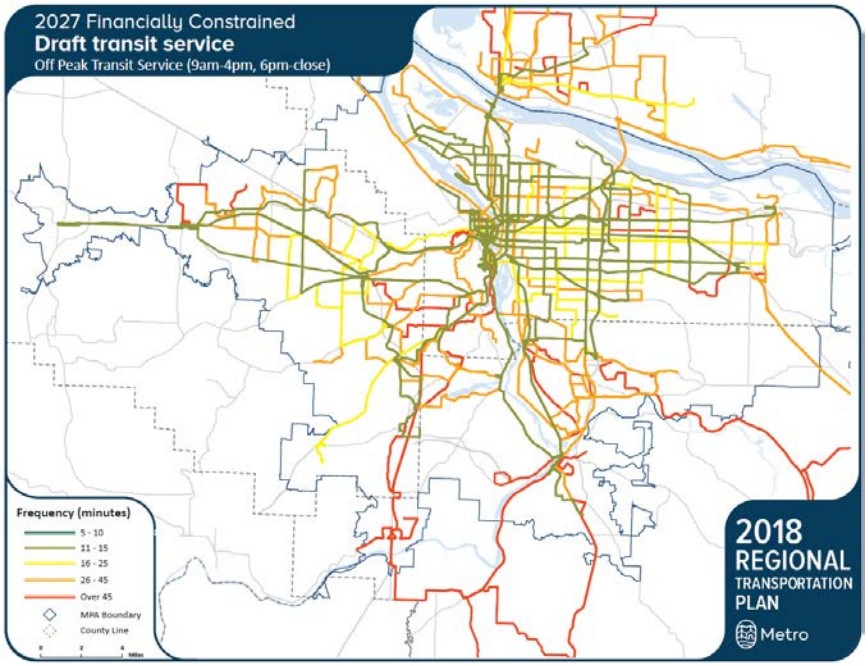
Estimated jobs and households near 15-minute or better rush hour service by 2027:

73% jobs

60% households

69% low-income households

78% low-income households in communities of color



10-year constrained

Results of projects scheduled in the first 10 years of the draft constrained list

Estimated jobs and households near 15-minute or better daytime and evening service by 2027:

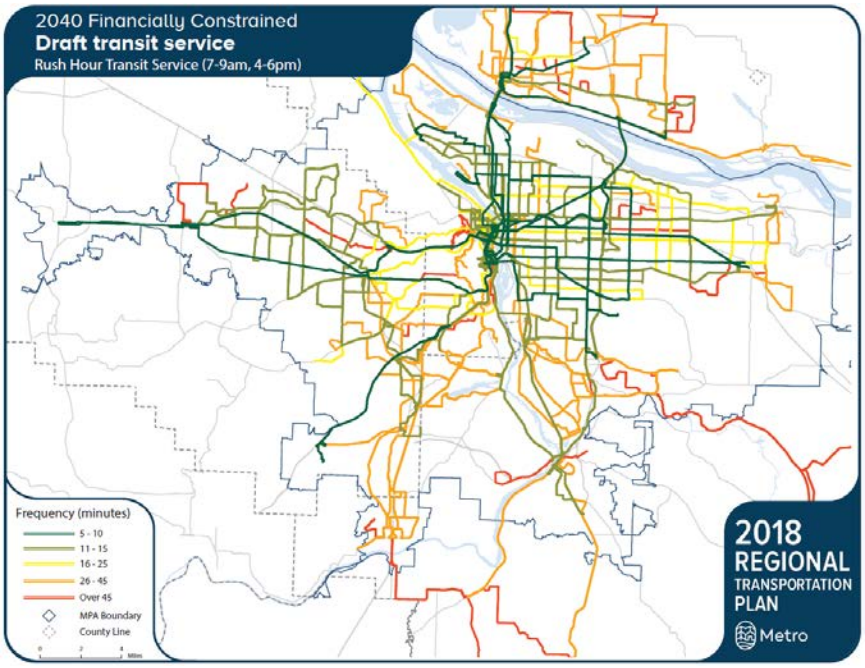
66% jobs

51% households

60% low-income households

69% low-income households in communities of color

Note: These maps are for research purposes and do not reflect current or future policy decisions of the Metro Council, MPAC or JPACT.



2040 constrained

Results of projects in the full draft constrained list

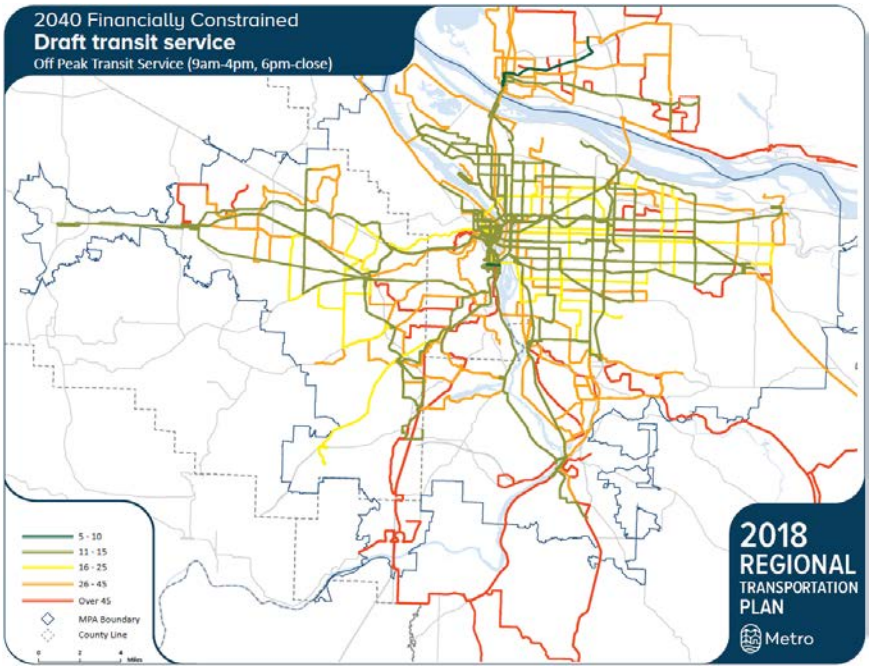
Estimated jobs and households near 15-minute or better rush hour service by 2040:

72% jobs

60% households

69% low-income households

78% low-income households in communities of color



2040 constrained

Results of projects in the full draft constrained list

Estimated jobs and households near 15-minute or better daytime and evening service by 2040:

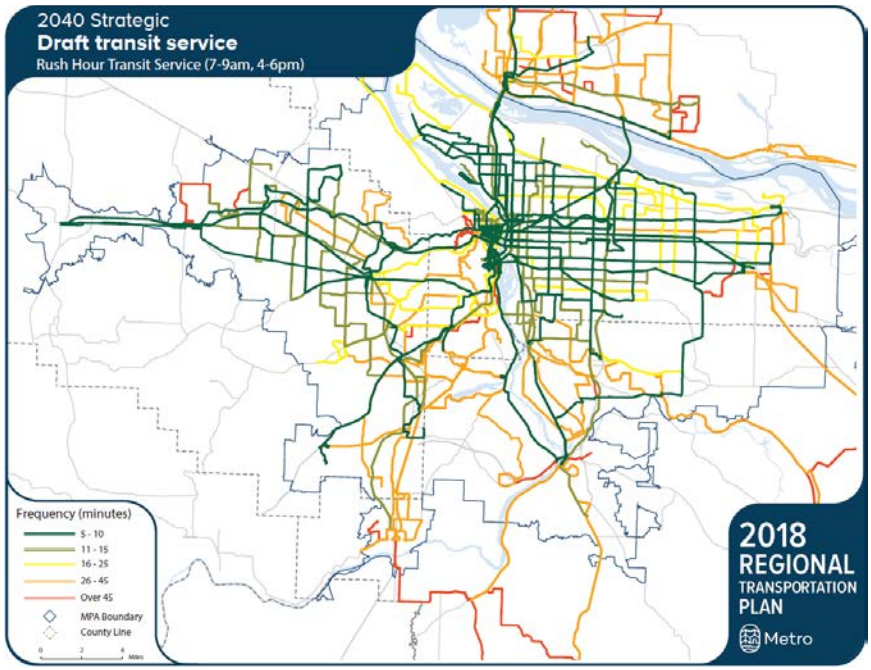
65% jobs

52% households

61% low-income households

70% low-income households in communities of color

Note: These maps are for research purposes and do not reflect current or future policy decisions of the Metro Council, MPAC or JPACT.



2040 strategic

Results of projects in the full draft constrained list and additional strategic priority investments

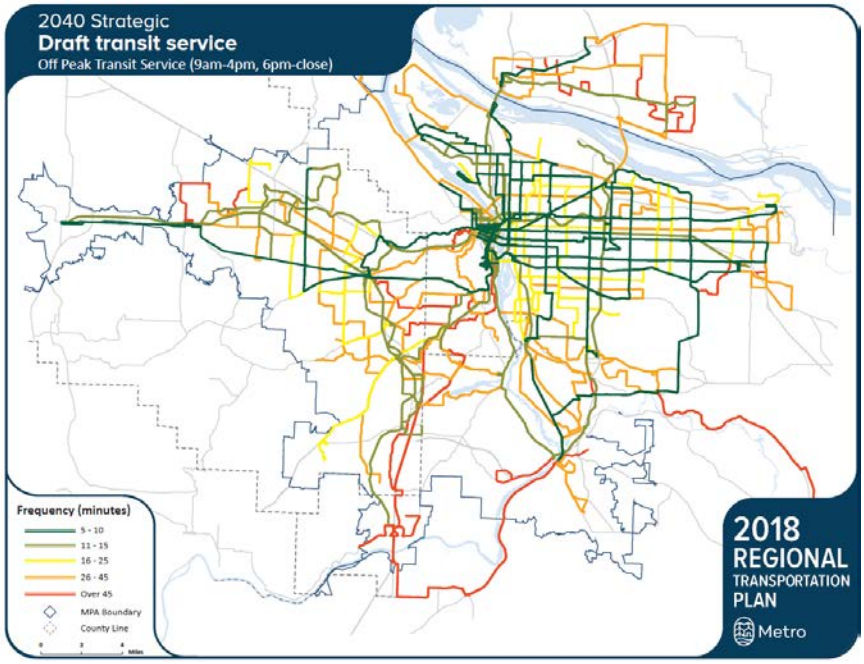
Estimated jobs and households near 15-minute or better rush hour service by 2040:

76% jobs

65% households

73% low-income households

82% low-income households in communities of color



2040 strategic

Results of projects in the full draft constrained list and additional strategic priority investments

Estimated jobs and households near 15-minute or better daytime and evening service by 2040:

69% jobs

56% households

65% low-income households

73% low-income households in communities of color

Note: These maps are for research purposes and do not reflect current or future policy decisions of the Metro Council, MPAC or JPACT.

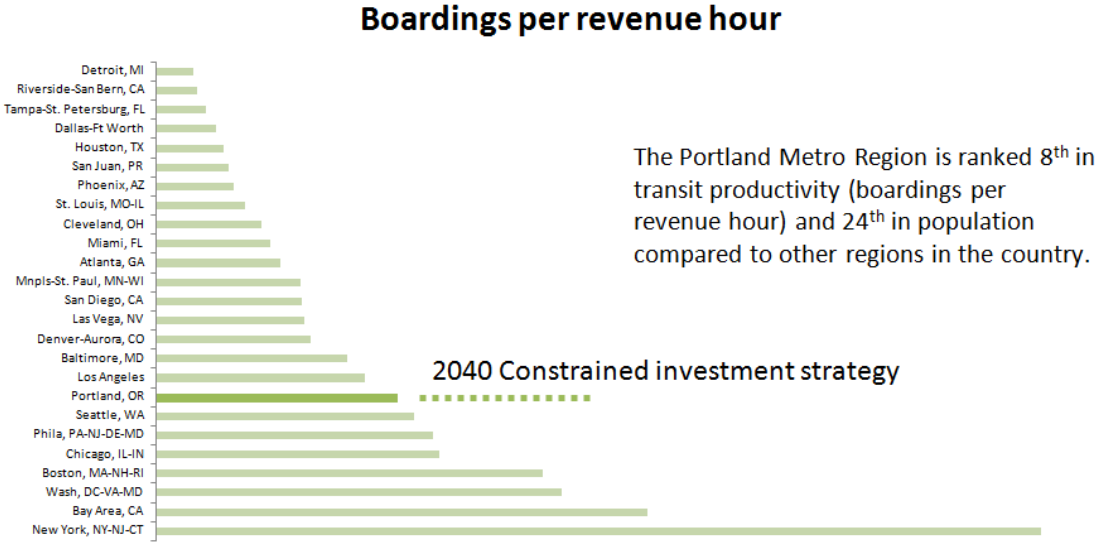
Home and work are important, but they aren't the only places we go. Access to community places like grocery stores and medical service locations are things that should also be served by the regional transit system. Across the 10-year, constrained, and strategic models transit access is expected to increase, further, access for historically marginalized communities and communities of color are expected to outperform the region as a whole, something that puts us one step closer to establishing a more equitable transit system.

Determining the ease, comfortably, and directness of our transit system is no easy task, but our models show that at the very least we are headed in the right direction. Due to social preferences there will always be a percentage of people who purposefully distance themselves from the transit network.

How efficient is travel in our region?

From an operational standpoint, a good indicator of efficiency in transit is boardings per revenue hour. This number reflects the average number of riders per day. Currently the Portland Metro Region is ranked 8th in boardings per revenue hour, but only 24th in size. With the current anticipated investments we are expected to reach a transit productivity level equivalent to what we see in Boston or Washington, DC today. While the future is promising, continued efforts must be made if we want to reach our larger goals, for example to triple the transit mode share from 2005. In addition to expanding transit infrastructure accessibility can also be addressed from an operational position. If we can make the end-user processes easier, we can attract more riders.

Boardings per revenue hour are a good determinant of efficiency from an organizational perspective, but for the many prospective transit users efficiency is simply the amount of time saved or lost by choosing transit over automobile travel.



Source: National Transit Database (NTD) 2015 Peer Review Summary

Data on Travel Times by Mode

This section is under development.

Historically, more people means more cars and more congestion however, a robust transit system can help mitigate the negative impacts of population growth. A regional dedication to maintain and expanding a world-class transit system can make a major difference on the lives of people living here.

How will transportation impact climate change, air quality and the environment?

Increasing transit use reduces the number of cars on the road and overall vehicle emissions in the region. Air quality is frequently the lowest in urban areas where traffic congestion is the worst which also means that individuals living in close proximity to major thoroughfares or highways sustain much higher health risks associated with poor air quality.

As mentioned in earlier sections, the Climate Smart Strategy identified key targets to achieving our regions goals of reducing carbon emissions. As we continue to pursue our environmental objectives it will be important to keep the Climate Smart performance measures in mind. Table x compares the Climate Smart monitoring targets to investments strategies.

Table 4. Draft Comparison of Climate Smart monitoring targets by Investment Strategy

Measure	2015 Baseline	2035 Monitoring target	2040 Constrained	2040 Strategic
Daily transit service revenue hours	6,525	**9,400**	8,671	10,332
Share of households within ¼ mile all day frequent service*	38%	**37%**	52%	56%
Share of low-income households with ¼ mile of all day frequent transit *	46%	**49%**	61%	65%
Share of employment within ¼ mile of all day frequent service*	68%	**52%**	65%	69%

*Climate Smart Strategy calculated the access to transit as a ¼ mile from any transit stop or station, the RTP analysis was more tailored and calculated the access for a ¼ mile from bus stop, 1/3 mile from streetcar station and ½ mile from light rail station

Investment in transit projects can also support higher density land development which reduces the distance and time people need to travel from place to place. Less distance means fewer emissions and cleaner air. Transit-oriented development also preserves land for other uses like parks, wildlife preserves, or agriculture.

If preserving the region's natural beauty for generations to come is a shared objective, reducing negative environmental impacts must be collaborative effort. Transit use is a tool proven to work. There is still a lot of work to do if we want to reach our goals but a region wide effort makes the task less daunting.

Targets

This section is under development.

Monitoring process and measures

This section is under development.

CHAPTER 7: IMPLEMENTATION

This chapter is under development and subject to change due to the refinement phase.

This chapter has three parts to it:

1. How is transit funded?
2. What are the local, regional and state transit priorities based on the RTP vision and project lists?
3. How do transit investments get implemented?

How is transit funded?

Transit service is funded through federal, state and local sources.

Federal funding

FTA Funding: This section is underdevelopment.

Since December 2015 and through fiscal year 2020, the Fixing America's Surface Transportation (FAST) Act has authorized several FTA programs to improve public transportation across the United States. Programs established by the Act vary in purpose and competiveness.

FTA Formula, or non-competitive, funds are designated to the region and allocated amongst TriMet, SMART, and C-Tran. These funds are marked as Section 5307 for transit capital, planning, and job commute programs, Section 5339 for bus and bus facilities programs, and 5310 to improve mobility for seniors and individuals with disabilities.

Competitive FTA funding sources include the Low or No Emission Vehicle Program, of which both SMART and TriMet have both been successful. Other competitive funding opportunities include the Transportation Investment Generating Economic Recovery (TIGER) Program for multi-modal and multi-jurisdictional transit projects that will enhance the economy and the Public Transportation Innovation grant for innovative products that assist the transit agency with better meeting customer needs. **FTA's Capital Investment Grant (CIG) Program** is FTA's discretionary funding source for funding major transit capital investments, including heavy rail, commuter rail, light rail, streetcars, and bus rapid transit. It is a discretionary grant program unlike most others in government. Instead of an annual call for applications and selection of awardees by the FTA, the law requires that projects seeking CIG funding complete a series of steps over several years to be eligible for funding. For New Starts and Core Capacity projects, the law requires completion of two phases in advance of receipt of a construction grant agreement – Project Development and Engineering. For Small Starts projects, the law requires completion of one phase in advance of receipt of a construction grant agreement – Project Development. The law also requires projects to be rated by FTA at various points in the process according to statutory criteria evaluating project justification and local financial

commitment. A project can receive up to 50% of federal funding under the FTA Capital Investment Grant Program.

FTA's Capital Investment Grant Program is the primary funding source used by our region in developing our commuter rail, light rail, streetcar and bus rapid transit projects. We have been extremely successful in the past in receiving federal funding through this program. Because of our success, it is not unrealistic that this trend would continue. As previous mentioned, this is a discretionary and competitive grant program and includes projects to be rated at various points.

State funding

Oregon Department of Transportation provides several funding opportunities to support public transportation throughout the state. State funding comes by way of the Special Transportation Fund (STF), the *ConnectOregon* program, planning grants, the statewide transportation improvement fund (STIF) and more. The STF provides revenue in support of transportation need for seniors and people with disabilities. This program is funded through a combination of non-highway use gas tax, cigarette tax, and general funds. The *ConnectOregon* program is a grant initiative funded by lottery-based bonds to promote stronger, more diverse and efficient transportation options throughout Oregon.

Keep Oregon Moving, House Bill 2017 (HB2017),provides a huge boost for transit services and programs across Oregon. Oregon lawmakers passed House Bill 2017(Section 122) the first comprehensive transportation package to receive legislative approval since 2009. At $5.3 billion, the package makes significant investments in transit and many other transportation initiatives across the state. The measure creates a statewide employee payroll tax dedicated to transit improvements.

It is expected to generate $35-$40 million in additional annual revenue for TriMet. TriMet will use these funds to support two key priorities: a low income fare program and expanding bus service.

SMART is expecting receive an additional $1 million in annual revenue to increase transit coverage, increase transit service to weekends, convert their entire fleet to electric vehicles and to eliminate transit fares entirely.

In addition, 9% of the total House Bill revenues will be open to all transit agencies in Oregon in the form of competitive grants for a variety of projects; such as, to promote intercommunity services, enhance technology, and use as a match to obtain other grants.

Regional funding

Metropolitan Transportation Improvement Program (MTIP) - This section is underdevelopment.

Local Funding for transit

A predominant source of funding for both TriMet and SMART are local payroll taxes levied on businesses performing work in their respective transit districts assessed on gross payroll and/or self-employment earnings. SMART utilizes this source of revenue to run operations and leverage state and federal grants. This section is underdevelopment.

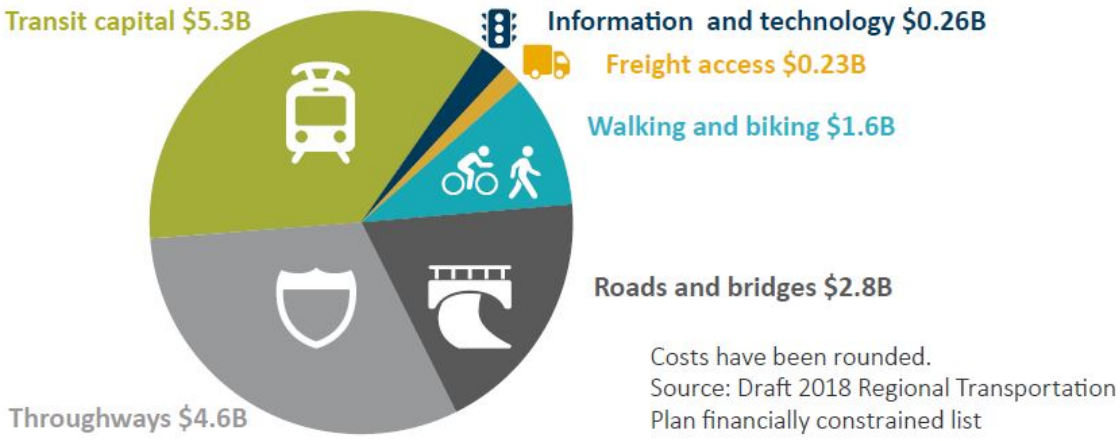
2018 Regional Transportation Plan priorities

The RTP comprises two main parts: the policy section (See Chapter 4 of this report) and the projects lists. The project lists are priority projects from local, regional or state planning efforts that have provided opportunities for public input. The project lists are separated into two categories:

1. The projects that fit within a constrained budget of federal, state and local funds greater Portland region can reasonably expect through 2040 under current funding trends; and
2. Additional strategy priority investments (not constrained to the budget based on current funding trends) that could be built with additional resources.

The RTP draft constrained list represents a $14.8 billion investment in the region's transportation system, with over half of that going to throughways, roads and bridges, not including road and transit operations and maintenance costs, based on round one call for projects.

Figure 20. Types of projects by cost (based on round one call for projects)

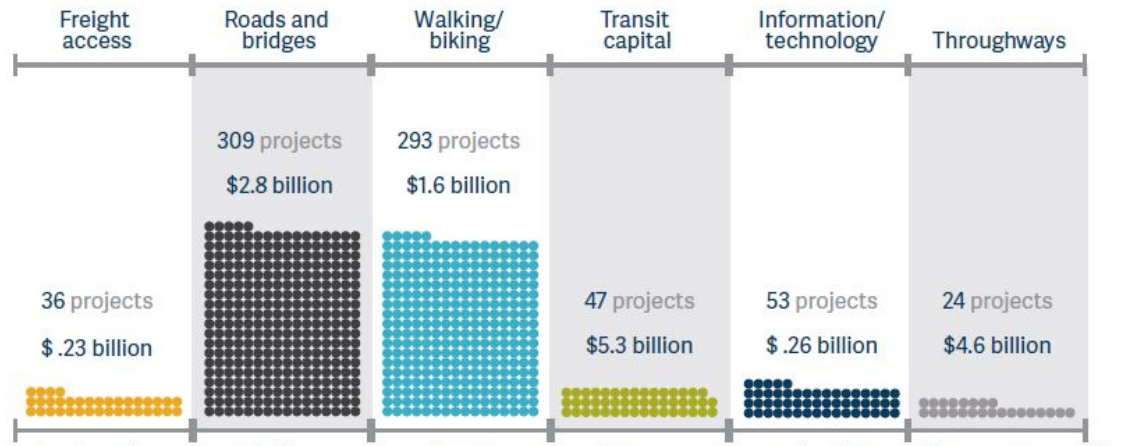


Roads, bridges, and walking and biking connections have the most projects in the draft 2018 Regional Transportation Plan constrained list, though the cost of projects vary greatly.

Types of projects by cost

Projects in the draft 2018 Regional Transportation Plan constraind list range from $1 million to nearly $3 billion, based on round one call for projects.

Figure 21. Types of projects by cost (based on round one call for projects)



Costs have been rounded. Source: Draft 2018 Regional Transportation Plan financially constrained list

Regional Transit Strategy priorities

Improving and expanding our transit service network is key to meeting our regional 2040 Growth Concept Land Use and our Climate Smart Strategy goals.

The following table describes the estimated costs for transit by investment strategy. The table also includes the Climate Smart Strategy for comparison purposes. As shown in **table x,** the RTP 2018 – 2040 financially constrained investment strategy exceeds the Climate Smart Strategy estimates.

Table 5. Transit service provided by Investment Strategy (as a result of round one call for projects)

	Climate Smart Strategy 2010-2035	Financially Constrained 2018-2027	Financially Constrained 2028-2040	Strategic 2018-2040
Daily revenue hours	9,400	8,600	8,700	10,300
Service expansion	44% increase from 2015	31% increase from 2015	33% increase from 2015	58% increase from 2015
Rush hour frequency	32 routes with 10-minute service 75 routes with 15-minute service	9 routes with 10-minute service 50 routes with 15-minute service	16 routes with 10-minute service 51 routes with 15-minute service	30 routes with 10-minute service 60 routes with 15-minute service
	Climate Smart Strategy 2010-2035	**Financially Constrained** 2018-2027	**Financially Constrained** 2028-2040	**Strategic** 2018-2040
Daytime and evening (off-peak) frequency	12 routes with 10-minute service 43 routes with 15-minute service	1 route with 10-minute service 31 routes with 15-minute service	2 routes with 10-minute service 32 routes with 15-minute service	20 routes with 10-minute service 39 routes with 15-minute service
New high capacity transit connections	MAX extension to Vancouver, Wash., WES operates all day with 15-minute service and bus rapid transit in five corridors: Southwest Corridor, Division Street, I-205 South, Tualatin Valley Highway to Forest Grove, and McLoughlin Boulevard to Oregon City	3 high capacity transit projects, including Division Transit, Southwest Corridor and the Red Line extension	2 additional (from 2027 Financially Constrained) high capacity transit projects: connecting Portland to Vancouver, Wash. improvements on the Steel Bridge	5 additional (from over the 2040 Financially Constrained) high capacity transit projects, including WES all day service, connections along Sunset Highway and to Oregon City and Forest Grove, improving bottlenecks downtown Portland
Other service enhancements	4 new streetcar connections, further implementation of locally-developed SMART and TriMet service enhancement plans	5 enhanced transit projects Streetcar extension to Montgomery Park	11 additional (from 2027 Financially Constrained) enhanced transit projects Streetcar extension to Hollywood	5 additional (from 2040 Financially Constrained) enhanced transit projects 3 streetcar projects: Amber Glen, extension on MLK Boulevard, to Johns Landing

Public and private shuttles	More major employers and some community-based organizations work with TriMet to operate shuttles	*To be determined as part of finalizing the Regional Transit Strategy*		
Fares	Reduced fares provided to youth, older adults, people with disabilities and low-income families	Reduced fares provided to youth, older adults, people with disabilities and low-income families	Reduced fares provided to youth, older adults, people with disabilities and low-income families	Reduced fares provided to youth, older adults, people with disabilities and low-income families
	Climate Smart Strategy 2010-2035	**Financially Constrained** 2018-2027	**Financially Constrained** 2028-2040	**Strategic** 2018-2040
Estimated capital cost* (2016$)	$4.7 billion	$3.4 billion	$5.3 billion	$6.8 billion
Estimated service operating costs** (2016$)	$8.5 billion	$4.7 billion	$10.9 billion	$13.1 billion

The following table expands on the high capacity transit and enhanced transit projects. In the first 10 years of the RTP, the region is following through on the commitments to build the Division Transit Project and the Southwest Corridor Transit Project. The Red Line extension to Hillsboro is another HCT investment proposed for the first 10 year period of the plan. The first 10 years also includes several ETC improvements and two streetcar extensions, all located within the City of Portland.

Table x. Transit capital improvements by Investment Strategy (as a result of round one call for projects)

RTP Financially Constrained 2018-2027	RTP Financially Constrained 2028-2040 *(2027 Constrained investments, plus)*	RTP Strategic 2028-2040 *(2018-2040 Constrained investments, plus)*
High Capacity Transit	**High Capacity Transit**	**High Capacity Transit**
• Southwest Corridor • Division Transit Project • Redline extension	• Portland to Vancouver MAX • Steel Bridge Transit Bottleneck	• HCT extension to Oregon City • Expansion of WES to all-day service • Sunset Highway HCT (Sunset transit center to Hillsboro Fairplex) • HCT extension to Forest Grove • Central City capacity planning
Enhanced transit corridors	**Enhanced transit corridors**	**Enhanced transit corridors**
• Central City Portals (downtown Portland bridges) • Martin Luther King Jr. Boulevard ETC • Sandy Boulevard ETC (NE Portland to Parkrose transit center) • 82nd Avenue ETC (in Portland) • Powell Boulevard ETC (SE Portland to I-205) • 122nd Avenue ETC (Lents to Parkrose transit center) • Streetcar to Montgomery Park in NW Portland • Streetcar upgrades on Grand Avenue in Portland	• NW Northrup ETC • Inner North Portland ETC • Caesar Chavez ETC (Sandy to Powell) • Lombard Street ETC (St. Johns to MLK Jr. Boulevard) • 82nd Avenue ETC (Swan Island to Clackamas town center) • Burnside Street ETC (Portland to Gresham) • Hawthorne Boulevard/Foster Road ETC (downtown Portland to Lents town center) • Tualatin Valley Highway ETC from Beaverton to Forest Grove • Beaverton-Hillsdale Highway ETC from Portland to Washington Square • Streetcar on NE Broadway to Hollywood town center in Portland	• Columbia to Clackamas Corridor ETC (Airport Way to Foster Road/172nd Avenue) • Powell Boulevard ETC (extent TBD) • Lombard/Caesar Chavez ETC (St. Johns to Milwaukie town center) • Belmont Street ETC (to Gateway transit center) • Streetcar in AmberGlen in Hillsboro • Streetcar to Johns Landing in SW Portland • Streetcar on Martin Luther King Jr. Boulevard in NE Portland

Implementation of transit investments and service

This section will describe how transit service improvements and expansions are implemented by transit provider. This section will also address how to advance ETC and HCT investments in the future.

Wilsonville's SMART Transit Service Improvements

In order to make positive and impactful changes to the transit system, SMART conducts an annual rider survey to determine current travel trends and demographics of customers. The collected information provides a base for SMART staff to review current services and make adjustments or re-prioritize service improvements on an annual basis.

Long-term service improvements are developed through the transit master planning process. The City of Wilsonville City Council adopted the 2017 Transit Master Plan (TMP) after an extensive, two-year, public involvement process. The TMP highlights future investments, service changes and agency goals for the next four to seven years.

Upon further public outreach, SMART will create an amendment to the TMP to include projects that qualify for House Bill 2017 funding. SMART aligns its service planning with the City fiscal year (July 1-June 30) in order to budget accordingly.

This section is under development. This section will summarize the process that SMART prioritizes transit service improvements and expansions annually.

TriMet's Service Enhancement Plans

This section is under development. This section will summarize the process that TriMet prioritizes transit service improvements and expansions annually.

Enhanced Transit Concept Pilot Program

This section is draft and under development.

Per direction by JPACT at their October 19, 2017 meeting to utilize bond proceed revenues of $5 million to support the funding of an "Enhanced Transit" pilot program. As our region grows and congestion increases, the need to connect people to their jobs, homes and daily activities is becoming more and more important. The goal of the Enhanced Transit concept is to develop strong partnerships between service and capital improvements that provides increased transit capacity and reliability, yet is relatively low-cost to construct, context sensitive and could deployed quickly.

Metro and TriMet worked with local jurisdictions to identify the potential universe for ETC consideration. First, the improvements must support an existing or planned frequent service line. The frequent service lines were assessed using time-point data segments from the bus operations to determine issues with transit reliability, dwell times and ridership per mile. The time point segments were ranked based on these three criteria and

shared with the local jurisdictions. The highest ranking time-point segments were evaluated further in a series of 14 workshops over the winter 2018.

At each of the workshops, the team and project partners assessed the reliability, travel speed data, ridership to diagnosis the transit related problems and locations to help determine the potential solutions. Then using Google Earth and Street View, the team looked at where improvements from the ETC Toolbox could be applied. The discussion and level of interest were captured and shared with the team following each workshop.

After the completion of the workshops, Metro will issue a Request for Interest (RFI) for local jurisdictions to submit projects to advance to concept design, project development and construction. The criteria for the RFI are categorized by eligibility and ranking:

Eligibility:

- Projects must be on an existing or future planned frequent service route;
- Projects must include ETC improvements that will improve transit speed and reliability; and
- Projects must have been assessed at one of the ETC workshops or some other local or regional planning process.

Ranking:

- Projects that can be completed within two years will rank higher; and
- Projects that have the greatest chance of being funded (e.g. there is a potential funding source available).

Transit System Expansion Policy

This section is DRAFT and under development.

The Transit System Expansion Policy (TSEP) provides a framework for the region to prioritize major capital investments in transit. This concept was originally developed in 2009 as part of the Regional High Capacity Transit System Plan. As part of the Regional Transit Strategy, the criteria in which projects were prioritized was narrowed to streamline the process.

This process applies to any projects that are seeking Federal funding through the FTA Capital Investment Grant Program. This information along with local support is meant to help guide the regional decision making process to advance HCT investments identified in the 2009 HCT Plan. The transit system expansion policy would only apply to those investments seeking FTA Capital Investment Grant (CIG) program funding (e.g. New Starts, Small Starts or Core Capacity). Examples of investments that could be considered as part of this program are the Division Transit Project, a corridor based bus rapid transit (BRT), or the Southwest Corridor Transit Project. The purpose of the System Expansion Policy is to:

- Clearly articulate the decision-making process by which future HCT corridors will be advanced for regional investment
- Establish minimum requirements for HCT corridor working groups to inform local jurisdictions as they work to advance their priorities for future HCT
- Define quantitative and qualitative performance measures to guide local land use and transportation planning and investment decisions
- Outlines the process for updating the RTP, including Potential future RTP amendments, for future HCT investment decisions

The proposed evaluation process aligns with recent regional priorities including the six desired outcomes for the Portland metropolitan region, the Climate Smart Strategy outcomes related to transit and the RTP System Performance Measures. It also aligns with the FTA Capital Investment Grant (CIG) program, which provides capital funding for high-capacity transit projects.

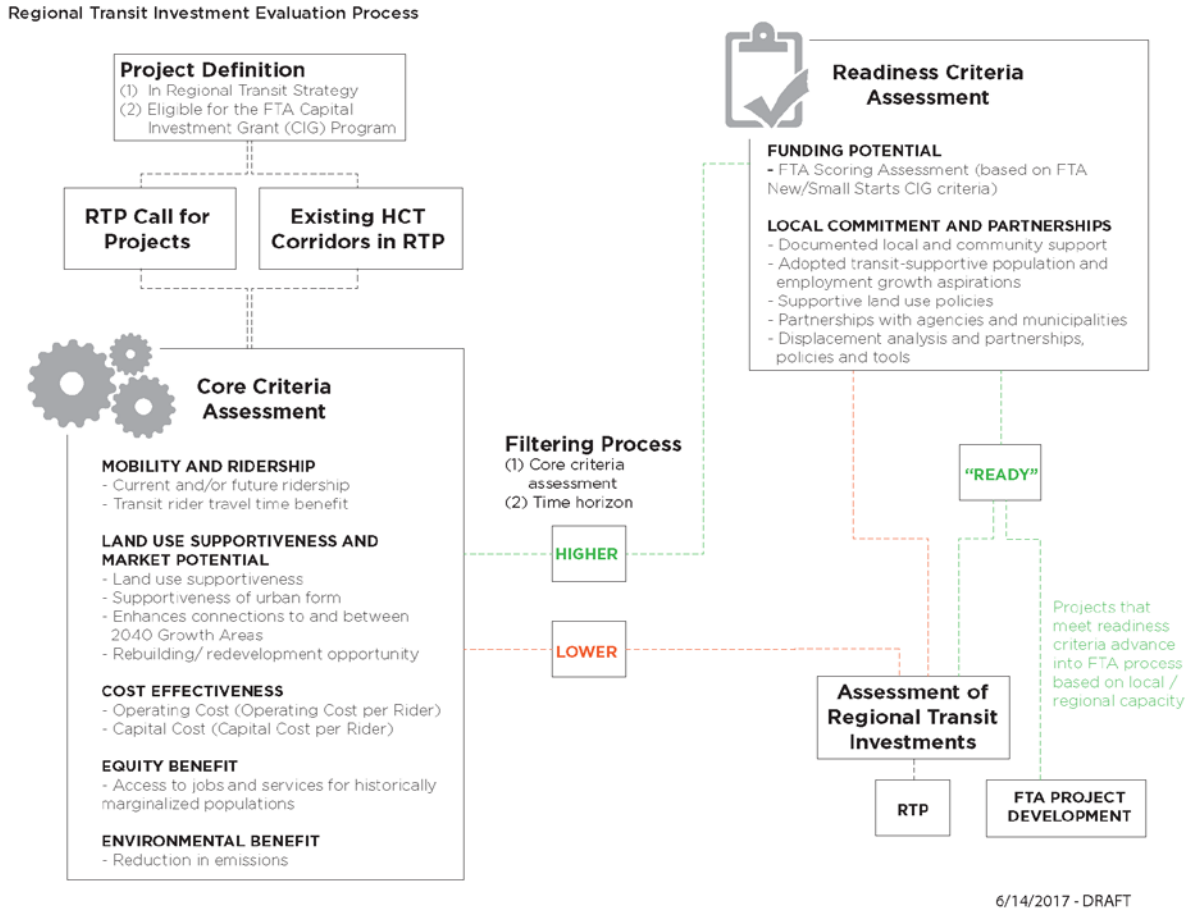
The TSEP evaluation framework aims to identify transit corridor capital projects that best meet regional outcomes and position projects for potential federal and other funding opportunities.

Key elements to the updating the TSEP include:

- **Reduce the number of criteria** by eliminating duplicative measures, those not commonly used in peer processes, and certain qualitative measures that can instead become an element of a project justification narrative section of Metro's process of submitting projects for the Regional Transportation Plan (RTP).
- **Focus the core evaluation measures** on those elements that describe the benefit of the project, consistent with regional values, as well as measures that enhance the competitiveness of projects in the FTA CIG program.
- **Evaluate project readiness** separately for the highest priority projects. Project readiness factors include funding potential (aligned with FTA criteria) and local aspirations (measure local commitment and established agency partnerships to ensure successful project delivery)

Figure 22 below identifies the process, including how projects are defined (e.g., which projects are run through this process), the criteria, and the outcomes of the process.

DRAFT Figure 22 TSEP Corridor Evaluation Process



Source: Nelson\Nygaard Consulting Associates, Inc.

The TSEP would be applied projects that meet the federal CIG program eligibility requirements for Fixed Guideway (including light rail and commuter rail), Fixed Guideway BRT, Corridor-Based BRT, and Core Capacity projects.

The TSEP includes a multi-phased evaluation that includes core criteria as well as readiness criteria. The Core Criteria is comprised of measures that describe the benefit of the projects, consistent with regional values, as well as assess the competitiveness of projects for funding through the FTA CIG program. The Readiness Criteria is the second filter and is evaluated separately from the core criteria assessment for the highest priority projects. Project readiness factors include funding potential (a simulated scoring based on the FTA CIG program criteria) and local aspirations (measure of local commitment and established agency partnerships to ensure successful project delivery).

Key Evaluation Assumptions

- **Assumed Mode.** Not all projects submitted for evaluation will have had sufficient planning completed to define the exact mode of the transit corridor project. An assumed mode is, however, required for including the project in the regional travel model and for several of the proposed criteria that are based on model outputs.

Therefore, project sponsors will be asked to compare their project to the minimum criteria for each of the general FTA project types and to select the most likely type.

- **Travel Time**. A travel time assumption will be based on the project type, level of corridor delay, and amount of the project operating in exclusive right of way. For the regional travel model to evaluate ridership and the travel time benefit of the project, the sponsor will need to define the approximate portion of the project that will operate in an exclusive right of way.
- **Feasibility.** For those projects that advance to the Readiness Criteria evaluation, a feasibility element will include a high-level assessment to identify areas where achieving the proposed amount of dedicated right of way may be challenging and to evaluate if there has been some level of agreement with the owner of the roadway about the stated right of way assumptions.

The Regional Transit Investments evaluation is a quantitative method for identifying which projects are most ready for the region to advance for potential funding by the FTA CIG Program. The outputs of this evaluation will be a visual snapshot illustrating the strengths and weaknesses of each project and will allow project sponsors to understand opportunities to enhance how a given project will score in future evaluations.

Recommended Regional Transit Investments Evaluation Criteria

Table 1 describes the proposed evaluation criteria and identifies the rationale and other notes related to the proposed analytical methods.

DRAFT Table x Transit System Expansion Policy Criteria

Criteria	Rationale/Notes
Mobility and Ridership	
Current and/or future ridership	▪ Ridership is a core measure of transit project benefit. ▪ Consistent with FTA, average existing and future ridership
Transit rider travel time benefit	▪ Travel time benefit to the user demonstrates the effectiveness of the project and is an important part of attracting ridership. ▪ Average travel time benefit per rider
Land Use Supportiveness and Market Potential	
Land use supportiveness	▪ Align with FTA Land Use evaluation measure. ▪ Existing corridor and station area development and character [pop. and empl. as well as urban design characteristics that exist today] ▪ Proportion of existing "legally binding affordability restricted" housing within ½ mile of station areas to the proportion of "legally binding affordability restricted" housing in counties through which the project travels [local or national data]
Supportiveness of urban form	▪ Street and block density impacts transit access. ▪ Measure the comprehensiveness of pedestrian and bicycle networks. Comprehensiveness of existing and planned pedestrian and cycling networks (source: RLIS data and submitted RTP projects). FTA evaluates

	existing station area pedestrian facilities, including access for person with disabilities [direct routes, continuous sidewalks, crossings]
Enhances connections to and between 2040 Growth Areas	▪ Transit is a key component of supporting the 2040 Growth Concept. (Central City, Regional Centers, Town Centers, Freight and Passenger Intermodal facilities, Employment areas, Industrial areas) ▪ Consider adapting measure to evaluate network connections using HCT + frequent network. This approach could illustrate how the corridor investment benefits the major O-D pairs between the growth centers connected.
Rebuilding/ redevelopment opportunity	▪ Catalyzing redevelopment is a benefit of investment in high quality transit. ▪ Consider aligning with existing Metro GIS data sources (e.g., TOD Strategic Plan).
Cost Effectiveness	
Operating Cost (Operating Cost per Rider)	▪ Aligns with FTA Cost-Effectiveness criterion. ▪ If mode and/or operating plan has not been determined, use typical operating cost per hour for a range of potential modes (LRT, BRT, Arterial BRT, Commuter Rail, and Streetcar) and an assumed service plan
Capital Cost (Capital Cost per Rider)	▪ Aligns with FTA Cost-Effectiveness criterion. ▪ If mode has not been determined, use typical capital cost per mile for a range of potential modes (LRT, BRT, Arterial BRT, Commuter Rail, and Streetcar) ▪ Federal measure is only based on federal share; so could have an assumed federal share for the purposes of evaluation.
Equity Benefit	
Access to jobs and services for historically marginalized populations	▪ The equity benefit of transit investments is an important value in the Portland and peer regions and CIG evaluation. ▪ Alignment with RTP system performance measure: The access to jobs and community places system performance measures
Reduction in emissions	▪ Aligning transit service with demand and land use is cost-effective way to reduce emissions. ▪ Model is not sensitive enough to produce this output on a corridor basis.
Funding Commitment/Partnerships/Local Support (Readiness Phase)	
Local Commitment and Partnerships	▪ Local commitment and partnerships between jurisdictions and agencies are essential for the implementation of large regional transit projects. ▪ Qualitative scoring of local interest and ability to deliver project. ▪ Feasibility assessment to evaluate if there has been some level of agreement with the owner(s) of the roadway about the stated right of way assumptions
Funding Potential	▪ For projects that would seek federal funding, assess project strength based on the CIG program criteria. ▪ As identified in the Federal CIG program, includes criteria similar to many of the proposed criteria.

Source: Nelson\Nygaard Consulting Associates, Inc

Projects to be evaluated

Projects to be evaluated through this process include the HCT projects plus streetcar projects that were submitted to Metro as part of the 2018 RTP call for projects in August of 2017. These projects became the project list for initial evaluation using the proposed criteria and evaluation framework.

The 2009 HCT Plan provided a comprehensive analysis of the projects in the HCT system plan and vision. This is not meant to supersede that process, but rather help local jurisdictions interested in moving projects from tier to the next.

Since we don't have the time and resources to model each project separately, these projects were divided into three bundles. Projects were grouped together based on geographies and minimizing overlapping projects or in close proximity, in order to try and capture as much of the project specific benefit as possible. The bundles below show the three bundles of HCT and Streetcar projects from the 2018 RTP project list.

Bundle 1:

- BRT to Oregon City
- Red Line extension
- Streetcar extension to Montgomery Park
- LRT Portland to Vancouver
- TV Highway BRT

Bundle 2:

- Streetcar from Montgomery Park to Hollywood Transit Center
- Steel Bridge Improvements
- Blue Line extension to Forest Grove

Bundle 3:

- Commuter Rail all day service
- Streetcar extension to John's Landing
- Streetcar extension on MLK
- Amberglen Streetcar

This analysis helps inform the conversations regarding advancing a project forward towards implementation. This process is not meant to represent a detailed corridor analysis, but rather a high level assessment of the project based on benefits and readiness. Individual corridor modeling and analysis typically happens when a corridor is defined and there is a planning process for that specific corridor. During the project planning phase, the regional travel demand model, as well as other planning tools, can be utilized at a corridor level to identify specific benefits and tradeoffs.

Investments beyond 2040

The projects in the RTP do not complete the transit system. It is projected that the region will fund the full TriMet Service Enhancement Plan and Wilsonville's Transit Master Plan future service scenarios. The project list does not complete the adopted HCT Plan and does not include high speed rail.

A list of projects included in our transit vision but not included in the RTP is under development.

Conclusion

While our region continues to be leader in the world of transit planning, there are always opportunities to grow, improve, and innovate. If our objective is to continuously improve the quality of life for the wonderful people that call this region home – thoughtful consideration must be placed on our transit system. Exceptional transit planning and investment are critical to a safer, healthier, and happier future.

Successful regional planning requires dedicated effort from a wide range of actors. The region, as a whole needs to come together to help turn our dreams into reality. From community members to elected officials and cyclist to freight truck drivers, a holistic approach must be taken if we hope to see real change.

This strategy offers a great starting point and highlights where the region is doing well and more importantly, several opportunities we have to improve. As a region we have continuously proved our dedication to positive change, a united regional effort toward the continued growth of our transit system and services is an opportunity to continue our legacy of leadership and ingenuity.

The road will certainly prove challenging, but the challenge is well worth the result – a better region for today, tomorrow, and one-hundred years down the dedicated bus lane.

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

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

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

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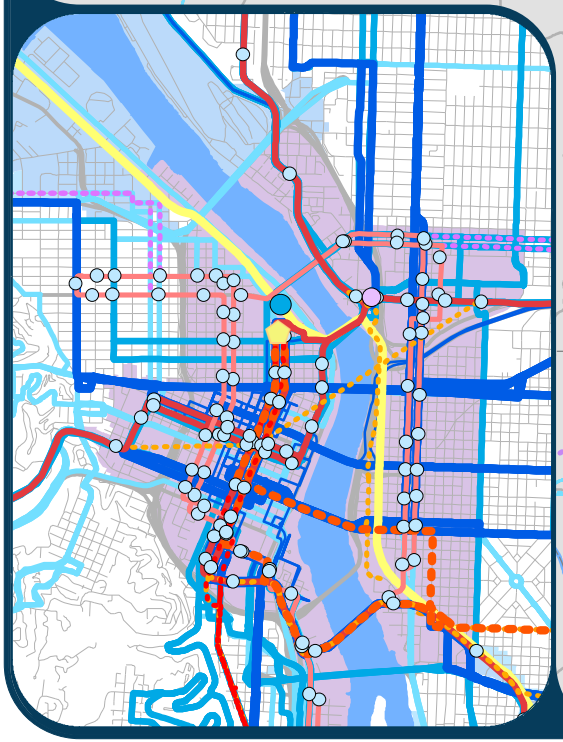
April 2, 2018

Future Regional Transit Network

Revised April 17, 2018

DRAFT



- Intercity rail terminal
- Transit centers
- Rail stations
- Air terminal
- Bus stations
- Existing light rail
- Commuter Rail
- Enhanced transit corridor
- Street Car
- HCT in progress
- Future HCT*
- Intercity high speed rail
- Frequent Bus
- Regional bus
- Urban centers
- Employment land
- Industrial

* includes On-Street Bus Rapid Transit, Bus Rapid Transit, Rapid Streetcar, Light Rail and Commuter Rail. Dotted lines represent future plans.

0 3 6 Miles

2018 REGIONAL TRANSPORTATION PLAN

Metro

Date: 4/17/2018

DRAFT

Regional Transit Vision | **RTP Call for Projects** | **Existing HCT System Map**

To be evaluated a project must be:
(1) In Regional Transit Strategy
(2) Eligible for the FTA Capital Investment Grant (CIG) Program

Core Criteria Assessment

MOBILITY AND RIDERSHIP
- Current and/or future ridership
- Transit rider travel time benefit

LAND USE SUPPORTIVENESS AND MARKET POTENTIAL
- Land use supportiveness
- Supportiveness of urban form
- Enhances connections to and between 2040 Growth Areas
- Rebuilding/ redevelopment opportunity

COST EFFECTIVENESS
- Operating Cost (Operating Cost per Rider)
- Capital Cost (Capital Cost per Rider)

EQUITY BENEFIT
- Access to jobs and services for historically marginalized populations

ENVIRONMENTAL BENEFIT
- Reduction in emissions

Filtering Process
(1) Core criteria assessment
(2) Time horizon

Readiness Criteria Assessment

FUNDING POTENTIAL
- FTA Scoring Assessment (based on FTA New/Small Starts CIG criteria)

LOCAL COMMITMENT AND PARTNERSHIPS
- Documented local and community support
- Adopted transit-supportive population and employment growth aspirations
- Supportive land use policies
- Partnerships with agencies and municipalities, including right-of-way owner
- Displacement analysis and partnerships, policies and tools

"NOT READY"

All projects that go through the Core Criteria Assessment will be included in the "Scorecard"

Assessment of Regional Transit Investments "Scorecard"

"READY"

Projects that meet readiness criteria advance into FTA process based on local / regional capacity

FTA PROJECT DEVELOPMENT

4/18/2018

Metro Transit System Expansion Policy

Presented by:
Oren Eshel
Paul Leitman
Jamie Snook

April 2018

Metro

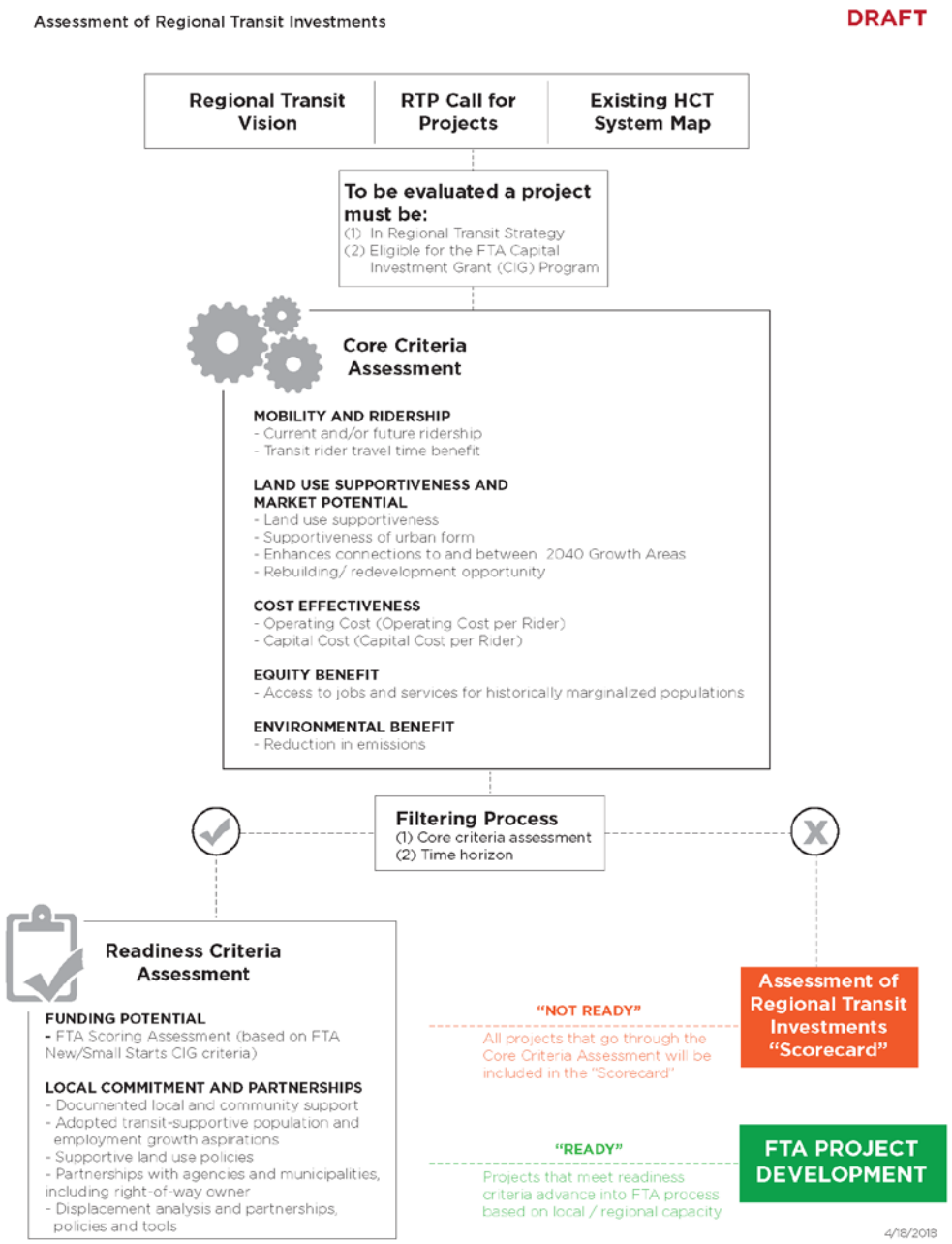
NELSON NYGAARD

Overview

- Review Project Purpose and Proposed Process
- Update on Testing & Validation
  - Assumptions, Results, Sample Preliminary Outputs for Test Project:
    - Red Line Extension / Double-Tracking
  - Modifications to criteria
- Observations/challenges
- TWG Feedback/Discussion

Project Purpose & Proposed Process

- Reduce and simplify the 26 HCT criteria from the 2009 process
- Apply them to a wider range of projects consistent with CIG process
- Align with regional values and CIG process



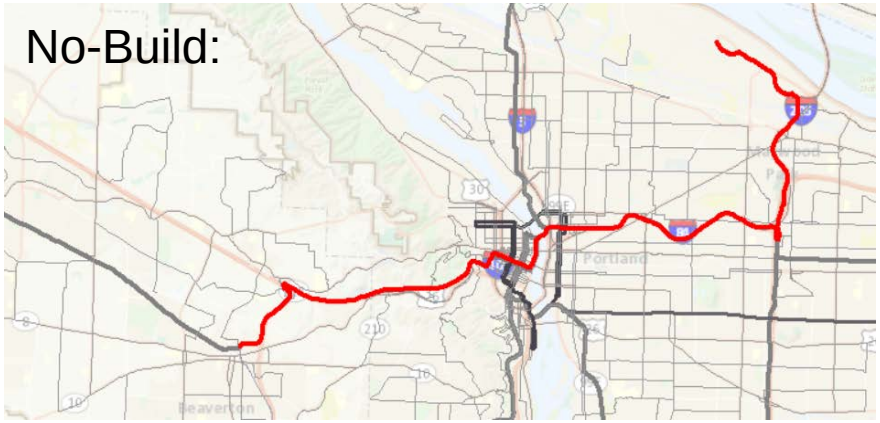
Testing & Validating the Process

- Purpose: validate and refine the process and data inputs, not to assess or compare the projects
- Testing phase limited to fixed-guideway projects (limited modeling resources)

FTA Project Type	Example	Minimum criteria for FTA Funding
Fixed Guideway	Commuter Rail LRT BRT Streetcar	▪ Separate right-of-way for the exclusive use of public transportation. ▪ For fixed guideway BRT, over 50 percent of route must operate in separated right-of-way dedicated for transit during peak periods. Other traffic can make turning movements through the separated right of-way. ▪ Separate and consistent brand identity for stations and vehicles.
Corridor Based BRT	Enhanced bus transit corridors Streetcar	▪ Speed and reliability improvements that provide substantial travel time benefits; separated right-of-way not required. ▪ Provides faster travel through congested intersections using active signal priority in separated guideway if it exists, and either queue-jump lanes or active signal priority in non-separated guideway. ▪ Separate and consistent brand identity for stations and vehicles.
Core Capacity		▪ Substantial corridor-based investments within existing fixed guideway system; in a corridor currently at or over capacity or projected to meet or exceed capacity within five years; ▪ Must increase corridor's capacity by at least 10%; ▪ Cannot include project elements designated for maintaining a state of good repair

Process Testing & Validation

- Test project
  - Red Line to Fair Complex and Double-Tracking
- Key assumptions:
  - Mode, Alignment, dedicated right of way, stop spacing, frequency
- Model outputs: e.g., ridership, travel time, revenue hours
- GIS analysis: e.g., land use, urban form, equity



Output: Draft Scorecard Mockup

PORTLAND METRO TRANSIT CORRIDOR CAPITAL PROJECTS - Assessment of Regional Transit Investments - Sample Output

TYPE	PROJECT	RTP FUNDING TIER	CORE CRITERIA ASSESSMENT										READINESS CRITERIA ASSESSMENT					
			MOBILITY & RIDERSHIP		LAND USE SUPPORTIVENESS & MARKET POTENTIAL				COST-EFFECTIVENESS		EQUITY BENEFIT	ENVIRONMENTAL BENEFIT	FUNDING POTENTIAL	LOCAL COMMITMENT & PARTNERSHIPS				
			Ridership	Travel Time Benefit	Land Use	Urban Form	2040 Growth Areas	Economic Development	Operating Cost per Rider	Capital Cost per Rider	Access to Jobs & Services	Reduction in Emissions	FTA Scoring Assessment	Community Support	Pop & Emp Growth Targets	Land Use Policies	Partnerships	Anti-Displacement Actions
FIXED GUIDEWAY	**Red Line Light Rail:** Extension to Fair Complex and Double Tracking	Financially Constrained	●●○	●●○	●○○	●●○	●●●	●●○	$	$	●●●	Deferred to Future Analysis	●●○					
	Project X BRT																	
	Project X Streetcar																	
	Project X Commuter Rail																	
CORRIDOR-BASED BRT																		
CORE CAPACITY																		

Core Criteria: Mobility and Ridership

- Criteria 1 - Current and future ridership

Planned Evaluation Method	Preliminary Results/Clarifications	Testing Notes
▪ Total existing and future daily ridership for project corridor ▪ Existing ridership can be used in initial evaluation ▪ Future ridership will be incorporated once modeling begins ▪ Consistent w/FTA, average existing and future ridership	▪ 61,000 future total line *boardings* ▪ 21,000 future new project *boardings* (Build – No Build) – Accounts for shifting from Blue to Red lines and fewer transfers ▪ 7,000 – 9,000 future new system *riders* – Shifting from other modes	▪ Designed bundles of projects to minimize influence of parallel lines; bundles make comparisons for individual projects more challenging ▪ Influence of long stop spacing on modeled ridership

Core Criteria: Mobility and Ridership

- Criteria 2 - Transit rider travel time benefit

Planned Evaluation Method	Preliminary Results/Clarifications	Testing Notes
▪ Average travel time benefit per rider	▪ End-to-end travel time reduction ▪ 3.5 to 5.5 minutes per direction (double-tracking and reduced transfer time)	▪ Desirable to have a more robust travel time benefit measure, but analysis intensive ▪ Modeling may not fully capture corridor reliability (additional data) ▪ These would occur through a more detailed planning study

Core Criteria: Land Use Supportiveness & Market Potential

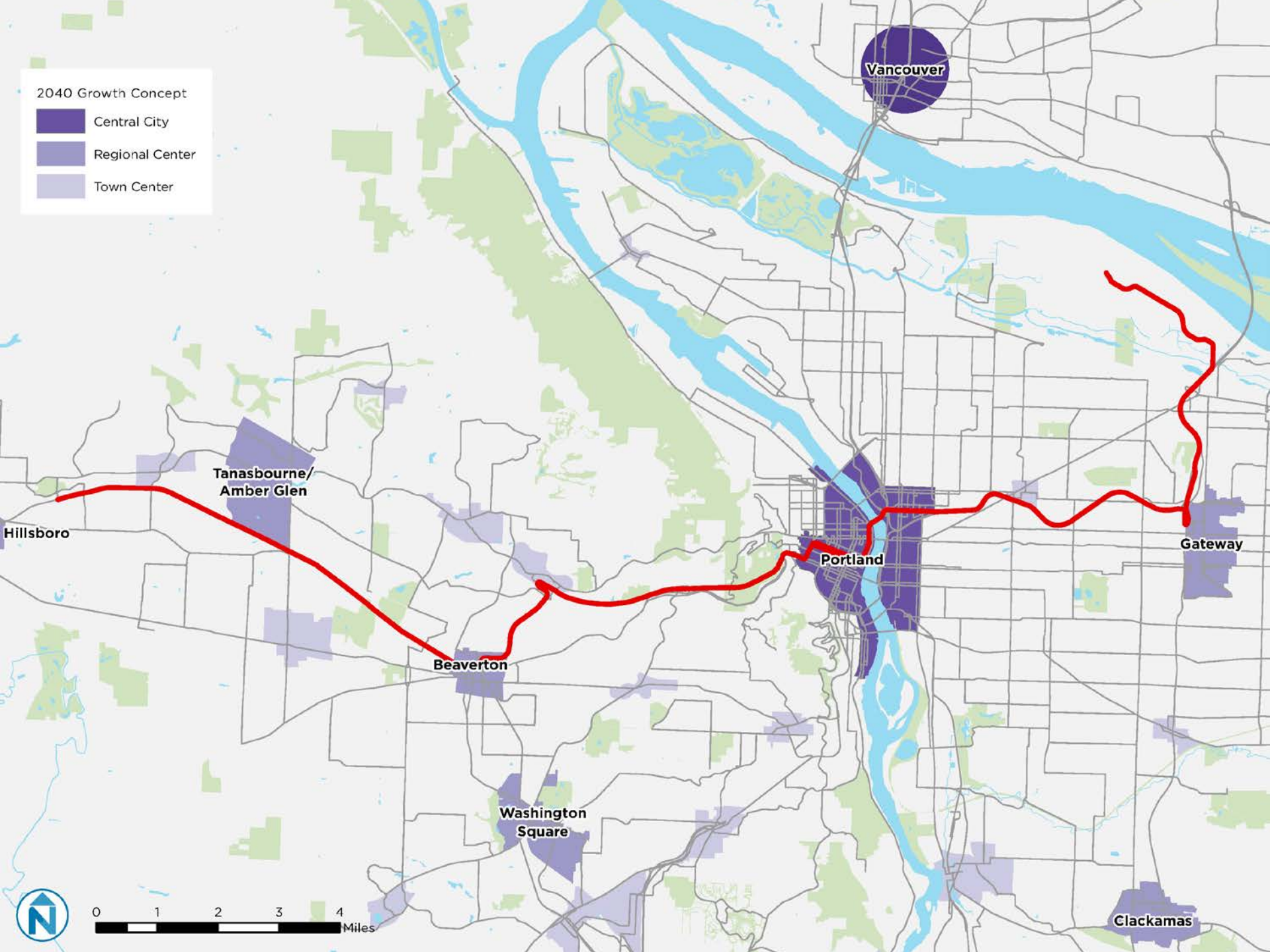
- Criteria 3 – Land Use Supportiveness
- Criteria 4 – Urban Form

Planned Evaluation Method	Preliminary Results/Clarifications	Testing Notes
▪ Density of current and future population and employment, and current community places ▪ Existing affordable housing as a share of county totals (FTA measure) ▪ Existing and projected intersection density		

Core Criteria: Land Use Supportiveness & Market Potential

- Criteria 5 - Enhances connections to and between 2040 Growth Areas

Planned Evaluation Method	Preliminary Results/Clarifications	Testing Notes
2040 Concept Types ▪ Central City, Regional Centers, Town Centers ▪ Freight and Passenger Intermodal Facilities ▪ Employment areas, Industrial areas	▪ Yes/No? ▪ Yes: Connects central cities or regional centers to each other	


2040 Growth Concept
Central City
Regional Center
Town Center
Vancouver
Tanasbourne/
Amber Glen
Hillsboro
Beaverton
Portland
Gateway
Washington
Square
Clackamas
0
1
2
3
4
Miles

Core Criteria: Land Use Supportiveness & Market Potential

- Criteria 6 - Rebuilding/ redevelopment opportunity

Planned Evaluation Method	Preliminary Results/Clarifications	Testing Notes
▪ Area of vacant or redevelopable land	▪ Vacant land or redevelopment opportunity: housing units or employment acres (aligned with Metro market analysis work) (total #)	

Core Criteria: Cost-Effectiveness

- Criteria 7 - Operating Cost (Operating Cost per Rider)
- Criteria 8 - Capital Cost (Capital Cost per Rider)

Planned Evaluation Method	Preliminary Results/Clarifications	Testing Notes
▪ Operating cost per rider (modeled operating plan) ▪ Capital cost per rider (from RTP cost estimates) *If mode or operating plan have not been determined, use typical operating cost per hour and capital cost per mile for a range of potential modes (LRT/BRT, Arterial BRT, Commuter Rail and/or Streetcar)*	▪ Per total project and new system boardings ▪ Operating Cost per total and new system boarding ▪ Capital Cost per total and new system boarding	▪ New system boardings used due to bundled model runs

Core Criteria: Equity Benefit

- Criteria 9: Low-income access to jobs and services

Planned Evaluation Method	Preliminary Results/Clarifications	Testing Notes
▪ Align with RTP System Performance Measures: – Access to Community Places by transit in 30 minutes – Jobs accessible by 45 minutes by public transportation	▪ Revised based on updated RTP equity measures ▪ Access for households and jobs in “modified-focus historically marginalized communities” to service frequency of 10 and 15 minute service, peak and off-peak (total #)	▪ Performance measures not meaningful at project level and with bundled model runs

Core Criteria: Environmental Benefit

- Criteria 10: Reduction in Emissions

Planned Evaluation Method	Preliminary Results/Clarifications	Testing Notes
▪ Change in annual VMT and emission levels for CO2 and other harmful pollutants	▪ Deferred to planning study	▪ Separating out projects challenging with limited modeling runs

Readiness Criteria: Local Commitment and Partnerships

- Criteria 11: Local Commitment and Partnerships

Evaluation Method	Clarifications/Testing Notes
▪ **Community and local support** for the transit project ▪ **Adopted population and employment growth aspirations** in support of the transit project ▪ **Plans to update land use policies** in support of the project	▪ Include planned station area pedestrian and bicycle facilities as part of readiness phase

Readiness Criteria: Local Commitment and Partnerships

- Criteria 11: Local Commitment and Partnerships (cont'd)

Evaluation Method	Clarifications/Testing Notes
▪ **Partnerships** between agencies & municipalities that will need to be involved to implement the project ▪ **Feasibility: E**valuate if there has been some level of agreement with owner(s) of roadway about stated right-of-way assumptions ▪ **Equity**: Is a corridor currently at risk of gentrification and displacement? And are partnerships, policies, & tools in place to prevent displacement of local residents and businesses.	

Readiness Criteria: Funding Commitment

- Criteria 12: Funding Potential

Evaluation Method	Changes or Clarifications	Discussion Items
▪ Simulated scoring of projects that are likely to seek FTA funding in the near term (e.g., within this RTP cycle), e.g. cost-effectiveness, mobility improvements, congestion relief, etc.	▪ Evaluated for (1) highest scoring projects in core criteria assessment that are seeking federal funds (2) and based on time horizon	

Output: Draft FTA Scoring Assessment Mockup

PORTLAND METRO TRANSIT CORRIDOR CAPITAL PROJECTS - FTA Scorecard - Sample Output

TYPE	PROJECT	RTP FUNDING TIER	READINESS CRITERIA ASSESSMENT: FTA Scoring Assessment								
			Existing Ridership	Mobility	Congestion Relief	Cost Effectiveness	Environmental Benefit	Land Use			Economic Development
			Warrants Eligibility	Annual Trips (double weight for Transit Dependent)	New Weekday Transit Trips	Annualized Federal Share per Annual Trip	Monetized Value of Benefits	Employment	Population Density	Affordable Housing	
FIXED GUIDEWAY	**Red Line Light Rail**: Extension to Fair Complex and Double Tracking	Financially Constrained	●●●	●●●	●●○	●●●	Deferred to Future Analysis	●●●	●●○	●○○	●●●
	Project X BRT										
	Project X Streetcar										
	Project X Commuter Rail										
CORRIDOR-BASED BRT											
CORE CAPACITY											

Observations/Challenges

- Goal is to reduce the number of measures and make it easier to assess project readiness
- Challenges with data sources and measures, despite attempt to streamline
- RTP assumptions are not always adequate to fully analyze early-stage projects
- Analysis of early-stage projects is inherently “sketch-level” – project options would need to be studied in more detail through a planning/investment area study (e.g., alternative stop spacing, alignments, modes, etc.)
- Anticipate difficulty to compare projects of different scale, e.g., line extension vs. new line vs. infrastructure upgrade

Questions/Discussion

Next Steps

Next Steps

- Recommended criteria (Tech Memo #5) - Final
- Transit supportive elements (Tech Memo #6) - Final
- Testing and validation (Tech Memo #7)

Thank You!

Oren Eshel
503-467-5415
oeshel@nelsonnygaard.com

Tom Brennan
503-789-2718
tbrennan@nelsonnygaard.com

Jamie Snook
503-797-1751
jamie.snook@oregonmetro.gov

Project Type

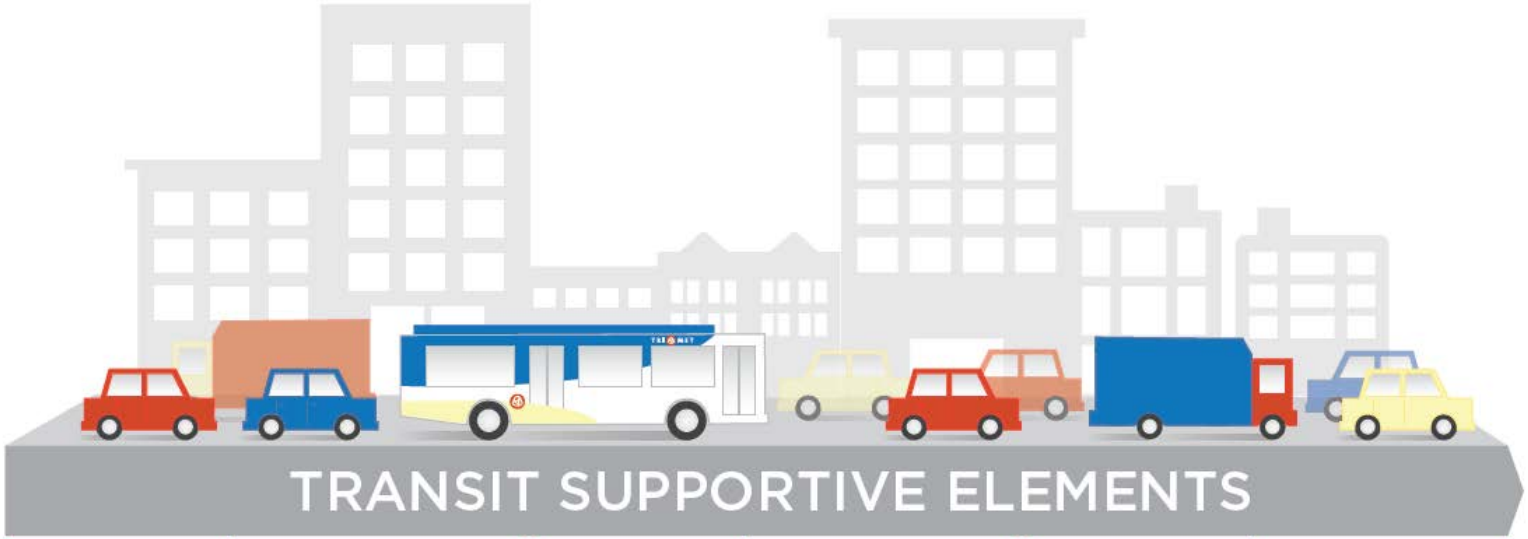
- Criteria 1 (Ridership) – model assumes:
  - Route, mode, dedicated right of way, stop spacing, frequency
- Criteria 7 (Operating Cost) and Criteria 8 (Capital Cost)
  - Based on a determined mode and operating plan for the project, or…
  - Typical operating cost per hour and capital cost per mile for a range of potential modes
    - LRT/BRT, Arterial BRT, Commuter Rail and/or Streetcar
  - Standardized assumptions for service span and frequency
- Feasibility
  - To evaluate if there has been some level of agreement with owner(s) of roadway about stated right of way assumptions

Transit-Supportive Elements

What are Transit Supportive Elements?

- Land Use / TOD
- Affordable and Equitable Housing
- First/Last Mile Connections
- TDM Policies and Programs
- Technology (e.g., Transit Priority, Information, etc.)
- Fare Programs (i.e., Affordability, Convenience)

What are Transit Supportive Elements?



TRANSIT SUPPORTIVE ELEMENTS

LAND USE/TOD	AFFORDABLE AND EQUITABLE HOUSING	SYSTEM ACCESS	TDM POLICIES AND PROGRAMS	TECHNOLOGY	FARE PROGRAMS
• Existing context • Transformation potential • Supportive planning and policies • Commitment to corridor	• Demographic and market trends • Community input and engagement • Small business support • Equity policy • City policies and activities	• Bicycle network completion • Pedestrian network completion • Mobility hubs • Shared mobility options	• Parking policies • Fare/pass/other programs	• Optimize existing system operations and performance	• HOP Pass • Student pass • Low income fare programs

What are Transit Supportive Elements?

- Land Use / TOD
- Affordable and Equitable Housing
- System Access
- TDM Policies and Programs
- Technology (e.g., Transit Priority, Information, etc.)
- Fare Programs (i.e., Affordability, Convenience)

Source: TriMet

When can Transit Supportive Elements be considered?

- Prior to project selection
  - Local actions to improve project readiness and scoring
  - E.g., Zoning, Bike/Pedestrian Network, Parking Policies

When can Transit Supportive Elements be considered?

- Evaluated as part of project selection criteria
  - Land Use / TOD
    - Existing context
      - Criteria 1 (Ridership)
    - Supportive Planning & Policies
      - Criteria 3 (Land use supportiveness)
    - Transformation potential
      - Criteria 6 (Rebuilding/redevelopment opportunity)
    - Commitment to Corridor Investment
      - Criteria 12 (Local Commitment and Partnerships)

When can Transit Supportive Elements be considered?

- Evaluated as part of project selection criteria
  - Affordable and Equitable Housing
    - Analysis of displacement potential and mitigation strategies
      - Criteria 12 (Local Commitment and Partnerships)
    - Existing or planned land uses
      - Criteria 3 (Land Use Supportiveness) incudes Affordable Housing
  - System Access
    - Bicycle and pedestrian network completion
      - Criteria 4 (Urban Form)

When can Transit Supportive Elements be considered?

- Post-Project
  - Locate affordable housing, services, etc., along HCT/frequent service network
  - Other funding processes can prioritize investments that support HCT/frequent service network (e.g., active transportation projects, shared mobility options, mobility hubs)

Transit Supportive Elements

- Affordable and equitable housing
  - Demographic and market trends
  - Community input and engagement
  - Small business support
  - Equity policy
  - City policies and activities

- Criteria 12 (Local Commitment and Partnerships); Readiness phase

Transit Supportive Elements

- First/Last Mile Connections
  - Bike an Pedestrian Network Completion
    - Criteria 3 (Land use supportiveness)
  - Shared Mobility, Mobility Hubs

- TDM Policies and Programs
- Technology /Transit Priority
- Fare Programs

Apply Criteria to Wider Range of Projects

- Corridor Transit Capital Improvement Projects
  - Light rail
  - BRT operating in fixed guideway
  - Streetcar
  - Core Capacity
  - BRT not operating in a fixed guideway (e.g., Arterial BRT)

Consistent with peer findings and eligibility for FTA funding as of 2015 Fixing America's Surface Transportation (FAST) Act

Proposed Evaluation Criteria

- 6 Categories
  - Mobility and Ridership
  - Land Use Supportiveness and Market Potential
  - Cost Effectiveness
  - Equity Benefit
  - Environmental Benefit
  - Funding Commitment/Partnerships/Local Support (Readiness)

- 11 Core Measures + 2 Readiness Measures

Assessment of Regional Transit Investments

Update

Transit Evaluation Criteria	Project Readiness Criteria
Mobility and Ridership ▪ (1) Current and/or future ridership ▪ (2) Transit rider travel time benefit Land Use Supportiveness and Market Potential ▪ (3) Land use supportiveness ▪ (4) Supportiveness of urban form ▪ (5) Enhances connections to and between 2040 Growth Areas ▪ (6) Rebuilding/ redevelopment opportunity Cost Effectiveness ▪ (7) Operating Cost (Operating Cost per Rider) ▪ (8) Capital Cost (Capital Cost per Rider) Equity Benefit ▪ (9) Low income access to jobs and services Environmental Benefit ▪ (10) Reduction in emissions	▪ (11) Funding Potential – FTA Scoring Assessment (based on FTA New/Small Starts CIG criteria) ▪ (12) Local Commitment and Partnerships – Documented local and community support – Adopted transit-supportive population and employment growth aspirations – Supportive land use policies – Partnerships with agencies and municipalities – Displacement analysis and partnerships, policies and tools – Feasibility assessment to evaluate level of agreement with owner(s) of roadway about stated right of way assumptions

Proposed Evaluation Criteria

Figure 2 Proposed Evaluation Criteria

#	Recommended Criteria	Former Criteria #	Rationale for Inclusion	Proposed Change	Data Inputs: Metro Model Output	Data Inputs: Metro Layer	Alignment: 6 Desired Outcomes	Alignment: Climate Smart Policy #2	Alignment: Federal CIG
Mobility and Ridership									
1	Current and/or future ridership	D4. Ridership	▪ Ridership is a core measure of transit project benefit.	▪ Consider allowing existing ridership to be used for the mobility and cost-effectiveness ratings in corridors with strong existing ridership (e.g., similar to warrants in the FTA process).	X		X		X
		C1. Supportiveness of existing land uses (current and/or future population)	▪ Population density is an indicator of ridership potential.	▪ Not a separate criterion. Provided as supporting data, but is captured in the modeled ridership.			X		X
		EC3. Economic competiveness (existing and future jobs)	▪ Quality transit access to jobs supports economic development.	▪ Not a separate criterion. Provided as supporting data, but is captured in the modeled ridership.			X	X	X
2	Transit rider travel time benefit	C13/C14. Transportation efficiency or travel time benefit to individual user/all corridor users	▪ Travel time benefit to the user demonstrates the effectiveness of the project and is an important part of attracting ridership.	▪ Only use C13 which measured travel time benefit per rider and not C14, which measured distribution of benefits across all corridor users.	X		X		X
Land Use Supportiveness and Market Potential									
3	Land use policy supportiveness	N/A	▪ Align land use policy assessment with FTA Land Use evaluation.	▪ New criterion			X		X
4	Supportiveness of urban form	C3. Place-making and urban form	▪ Street and block density impacts transit access.	▪ Propose incorporating C10, which measured the comprehensiveness of pedestrian and bicycle networks. ▪ Re-named criterion to be more intuitive.			X	X	X
5	Enhances connections to and between 2040 Growth Areas	C5. Support of regional 2040 Growth Concept	▪ Transit is a key component of supporting the 2040 Growth Concept.	▪ Re-named criterion to be more explicit in what it measures. ▪ Consider adapting measure to evaluate network connections using HCT + frequent network. This approach could illustrate how the corridor investment benefits the major O-D pairs between the growth centers connected, (e.g., weight by actual travel demand between growth centers rather than counting the number of centers served by the project).	X		X		X
6	Rebuilding/ redevelopment opportunity	EC4. Rebuilding/redevelopment opportunity	▪ Catalyzing redevelopment is a benefit of investment in high quality transit.	▪ Consider aligning with existing Metro data sources (e.g., TOD Strategic Plan).		X	X		X
Cost Effectiveness									
7	Operating Cost (Operating Cost per Rider)	EC1. Transportation efficiency (operator)	▪ Aligns with FTA Cost-Effectiveness criterion.	▪ Maintain EC1 (operating cost per rider). Total operating cost (D3) is no longer a separate measure. This eliminates a duplicative measure.	X				X
8	Capital Cost (Capital Cost per Rider)	EC2. Transportation efficiency (user)	▪ Aligns with FTA Cost-Effectiveness criterion.	▪ Maintain EC2 (capital cost per rider). Total capital cost (D1) and total capital cost per mile (D2) are no longer separate measures. This eliminates duplicative measures.	X				X
Equity Benefit									
9	Low income access to jobs and services	C9. Equity Benefit	▪ The equity benefit of transit investments is an important value in the Portland and peer regions and CIG evaluation.	▪ Revise to consider not only equity populations near project, but also whether a project connects people to jobs and services (similar to Ladders of Opportunity used by Salt Lake City).	X		X	X	X
10	Affordable housing	NA	▪ Prioritize transit access to existing and planned affordable housing.	▪ New criterion.					X

How did we simplify?

Figure 3 **Existing criteria eliminated, consolidated, or moved out of the core prioritization process**

Criteria	Recommendation	Rationale
C4: Ridership Generators	Move to project justification	▪ Ridership is generated by the Metro model and is included as a measure. A list of generators the project will serve as useful background information recommended for inclusion in project justification section of the Regional Transportation Plan call for projects.
EN2: Risk of natural resources disturbance	Move to project justification	▪ Impacts to identified sensitive habitats and/or natural resources is an important local value and should be noted, but is not relevant for evaluating the effectiveness of the transit investment. Impacts are also considered in more detail as part of the environmental process.
EN3: Risk of 4(f) resource disturbance	Move to project justification	▪ No peers have a similar measure related to impacts to school or park lands. Local value that should be noted, but is not relevant for evaluating the effectiveness of the transit investment. Impacts are also considered in more detail as part of the environmental process.
C6: Integration with regional transit system	Move to project justification	▪ Qualitative measure. It is also considered in C5. 'Enhances Connections to and between 2040 Growth Areas.'
C7: Integration with other land uses (freight)	Eliminate	▪ Assessment of freight impacts may be more appropriate during corridor refinement and environmental processes
C8: Congestion avoidance benefit	Eliminate	▪ Measure is related to and somewhat duplicative of C13 (Transportation efficiency or travel time benefit to individual user), both of which are outputs of the ridership modeling.
C11: Safety and security	Eliminate	▪ Measure was adopted to assess personal safety for users of the transit system. The HCT System Plan determined it was more appropriate to address safety in the project design phase.
C12: Housing and transportation benefit	Eliminate	▪ The spirit of this measure is captured in Equity measure C9.
C10. Health (promotion of physical activity)	Consolidate with C3 (Place-making and urban form)	▪ This measure of the comprehensiveness of pedestrian and bicycle networks is combined with the urban form measure (C3).
D1: Total project capital cost (exclusive and nonexclusive right of way options) D2: Capital cost per mile (exclusive and nonexclusive right of way options)	Consolidate with EC2, which will evaluate capital cost	▪ Use capital cost effectiveness as a measure (aligned with FTA scoring). ▪ Total capital cost and capital cost per mile become data points, but cost effectiveness is the measure (measured in EC2), consistent with FTA CIG evaluation criteria.
D3: Operating and maintenance cost[2]	Consolidate with EC1, which will evaluate operating cost (Transportation Efficiency)	▪ Use operating cost effectiveness as a measure. ▪ Total operating and maintenance costs become a data point, but cost effectiveness is the measure (measured in EC1), consistent with FTA CIG evaluation criteria.

Fixed Guideway

- Separate ROW for exclusive use of public transportation.
- For fixed guideway BRT, over 50 percent of route must operate in separated right-of-way during peak periods.
- Separate & consistent brand identity for stations & vehicles.
- Project Types: Commuter Rail, LRT, BRT, Streetcar

Corridor Based BRT

- Separate ROW not required.
- Speed & reliability improvements that provide substantial travel time benefits; faster travel through congested intersections using:
  - active signal priority in separated guideway if it exists
  - queue-jump lanes or active signal priority in non-separated guideway
- Separate & consistent brand identity for stations & vehicles.
- Project Types: Enhanced bus transit corridors, Streetcar

Core Capacity

- Substantial corridor-based investments within existing fixed guideway system
- Corridor currently at or over capacity or projected to meet or exceed capacity within five years
- Must increase corridor’s capacity by at least 10%
- Cannot include project elements designated for maintaining a state of good repair

Regional Transit Strategy

a component of the 2018 RTP

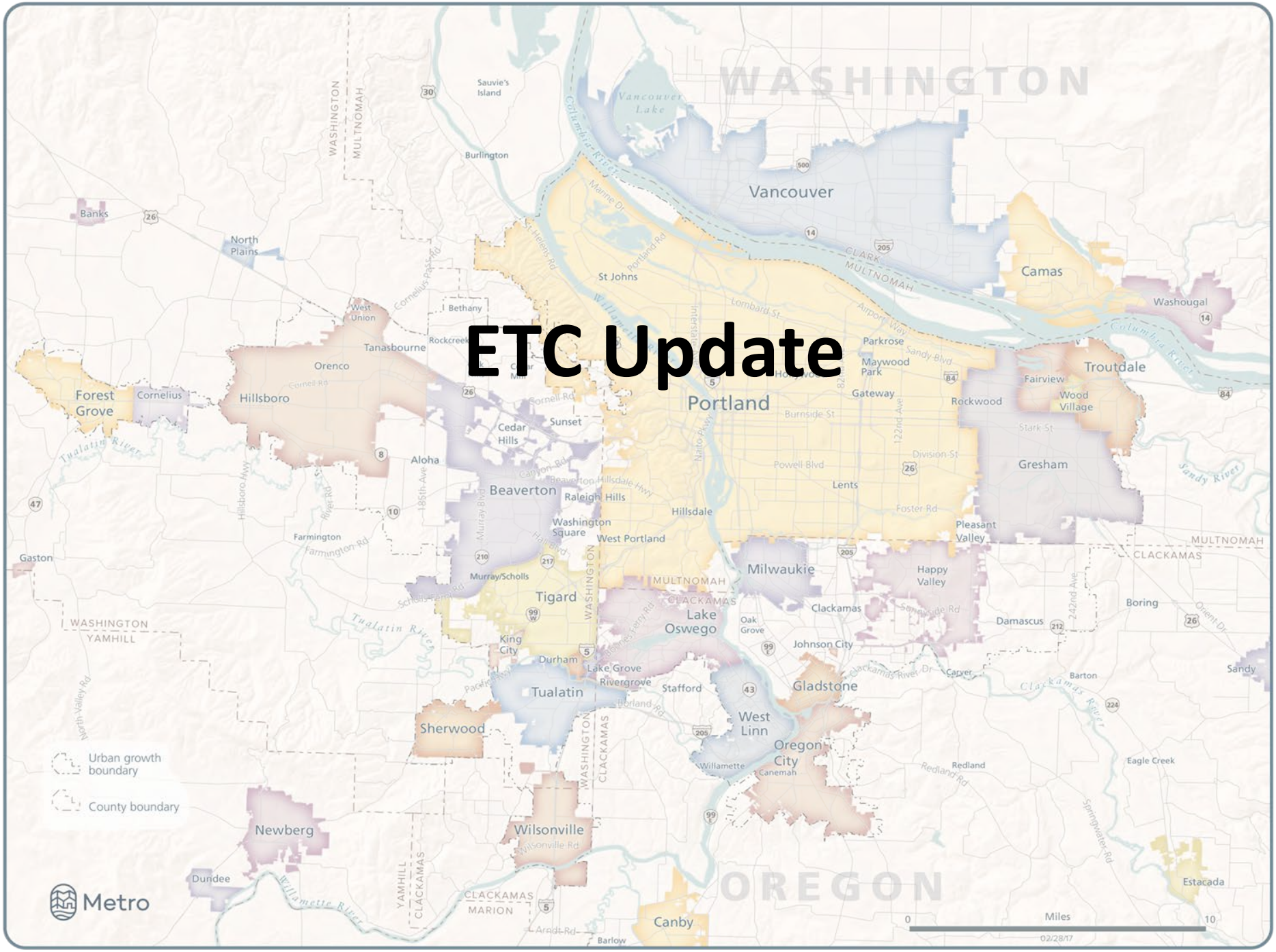
2018 Regional Transportation Plan: Transit Work Group

April 18, 2018

Regional Transit Strategy

Agenda:

- ETC Update
- RTP Project refinement phase
- Transit system expansion policy
- DRAFT Regional Transit Strategy


ETC Update
WASHINGTON
OREGON
Vancouver
Portland
Camas
Washougal
Troutdale
Gresham
Fairview
Wood Village
Parkrose
Maywood Park
Gateway
Rockwood
Sauvie's Island
Burlington
Banks
North Plains
St Johns
Bethany
West Union
Tanasbourne
Orenco
Forest Grove
Cornelius
Hillsboro
Cedar Hills
Sunset
Aloha
Beaverton
Raleigh Hills
Washington Square
West Portland
Hillsdale
Lents
Pleasant Valley
Milwaukie
Happy Valley
Clackamas
Damascus
Boring
Sandy
Tigard
Murray/Scholls
Lake Oswego
Oak Grove
Johnson City
Gladstone
Barton
Carver
King City
Durham
Lake Grove
Rivergrove
Stafford
Tualatin
Sherwood
West Linn
Oregon City
Willamette
Canemah
Redland
Eagle Creek
Estacada
Newberg
Dundee
Wilsonville
Canby
Barlow
Gaston
Farmington
Urban growth boundary
County boundary
Metro
Miles
0
10
02/28/17

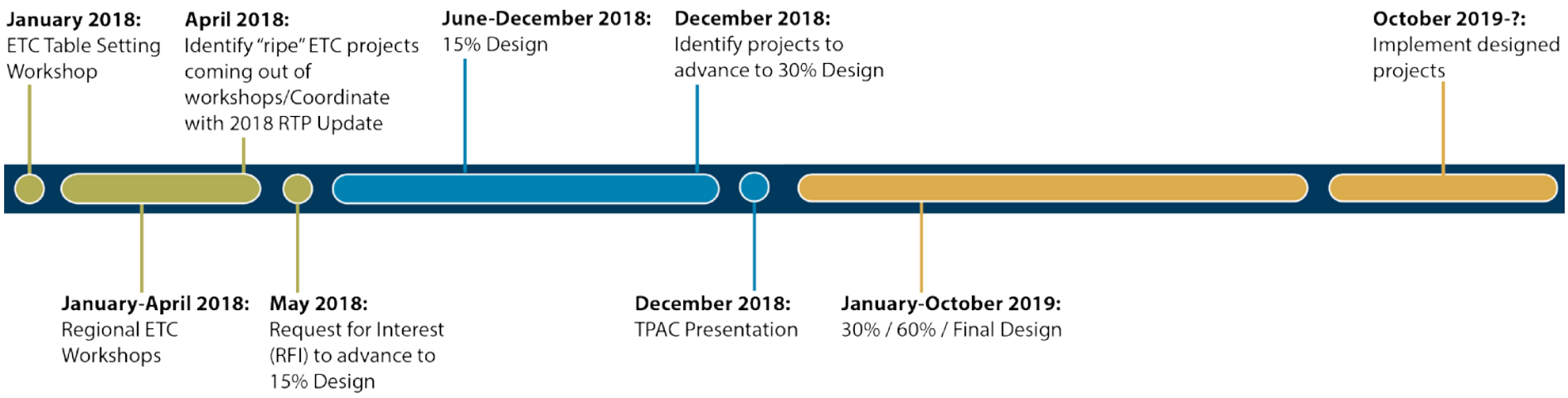
Regional Enhanced Transit Concept Pilot Project

Improve transit reliability, speed and capacity

Identify, design and build a set of enhanced transit projects

Develop a pipeline of enhanced transit projects

Regional ETC Project Schedule




Frequent Service Universe of Project Narrowed List
Current / Planned Frequent Service
Workshops Go / No Go
Not Ready or Regional Project
Request for Interest
Not Ready or Regional Project
0-15% Design
Not Ready or Regional Project
30% Design
Not Ready
Local Lead
Local Lead
PD / Construction
R&D PD / Construction
Regional Transit Vision

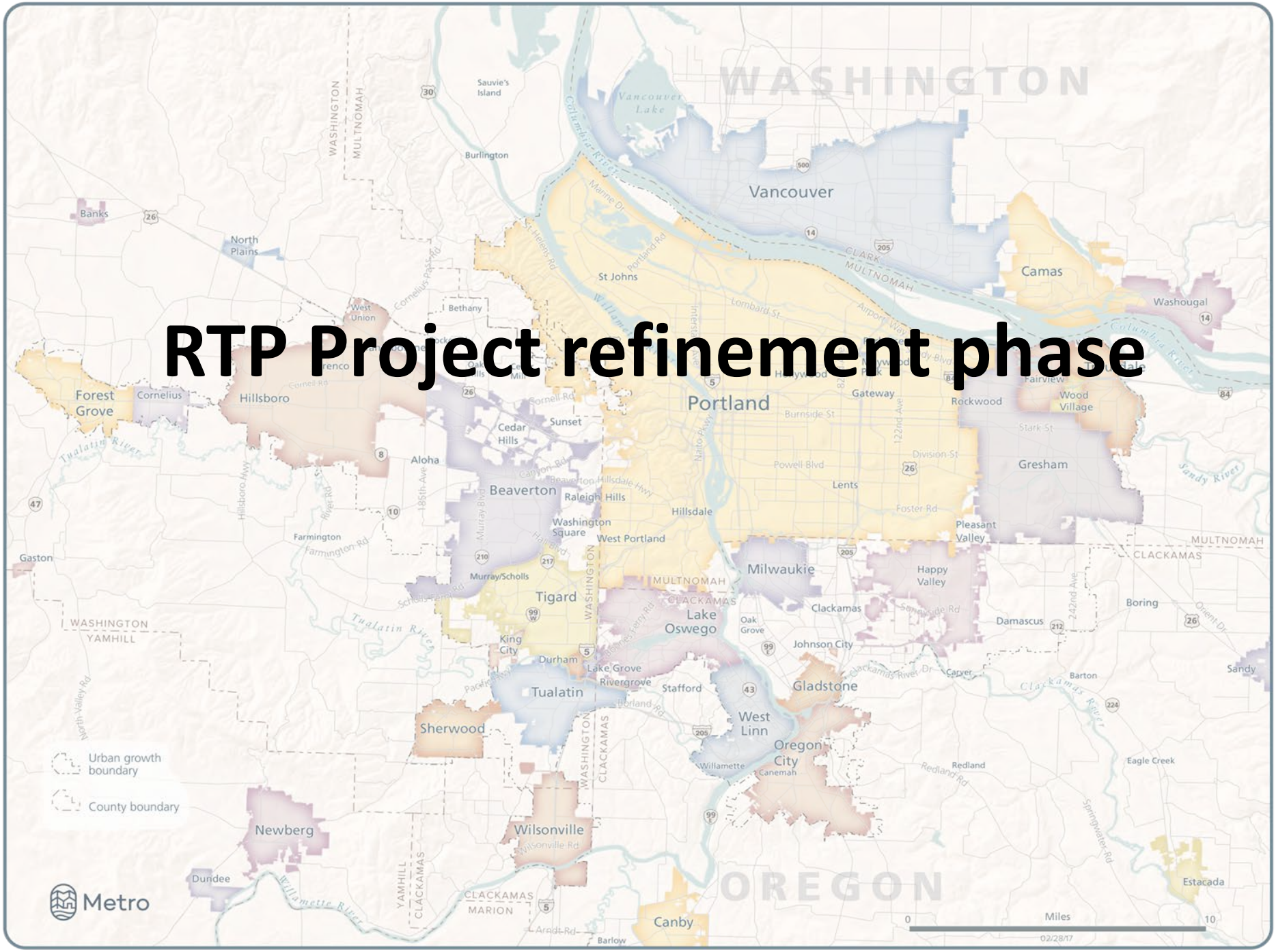
Request for Interest (RFI): DRAFT Criteria

Eligibility:

- Current or planned frequent service bus network
- Project has been "workshopped" or other regional/local process
- Improves transit reliability and/or travel time

Ranking:

- Project can be implemented within two years
- Project has "potential" for implementation funding, including leveraging other projects


RTP Project refinement phase
WASHINGTON
OREGON
Vancouver
Camas
Washougal
Portland
Gresham
Beaverton
Hillsboro
Forest Grove
Cornelius
Tigard
Tualatin
Sherwood
Lake Oswego
Milwaukie
Oregon City
West Linn
Gladstone
Wilsonville
Newberg
Canby
Estacada
Sandy
Boring
Damascus
Happy Valley
Pleasant Valley
Gateway
Rockwood
Wood Village
Fairview
Troutdale
Sauvie's Island
Burlington
Banks
North Plains
St Johns
Bethany
West Union
Cedar Hills
Sunset
Aloha
Raleigh Hills
Washington Square
West Portland
Hillsdale
Lents
Foster Rd
Powell Blvd
Division St
Burnside St
Lombard St
Airport Way
Columbia River
Willamette River
Tualatin River
Sandy River
Clackamas River
Johnson City
Oak Grove
Clackamas
Lake Grove
Rivergrove
Durham
King City
Murray/Scholls
Farmington
Gaston
Dundee
Barlow
Redland
Eagle Creek
Barton
Carver
Stafford
Willamette
Canemah
Urban growth boundary
County boundary
Metro
0
10
Miles
02/28/17

How projects could be improved or refined – by April 27th

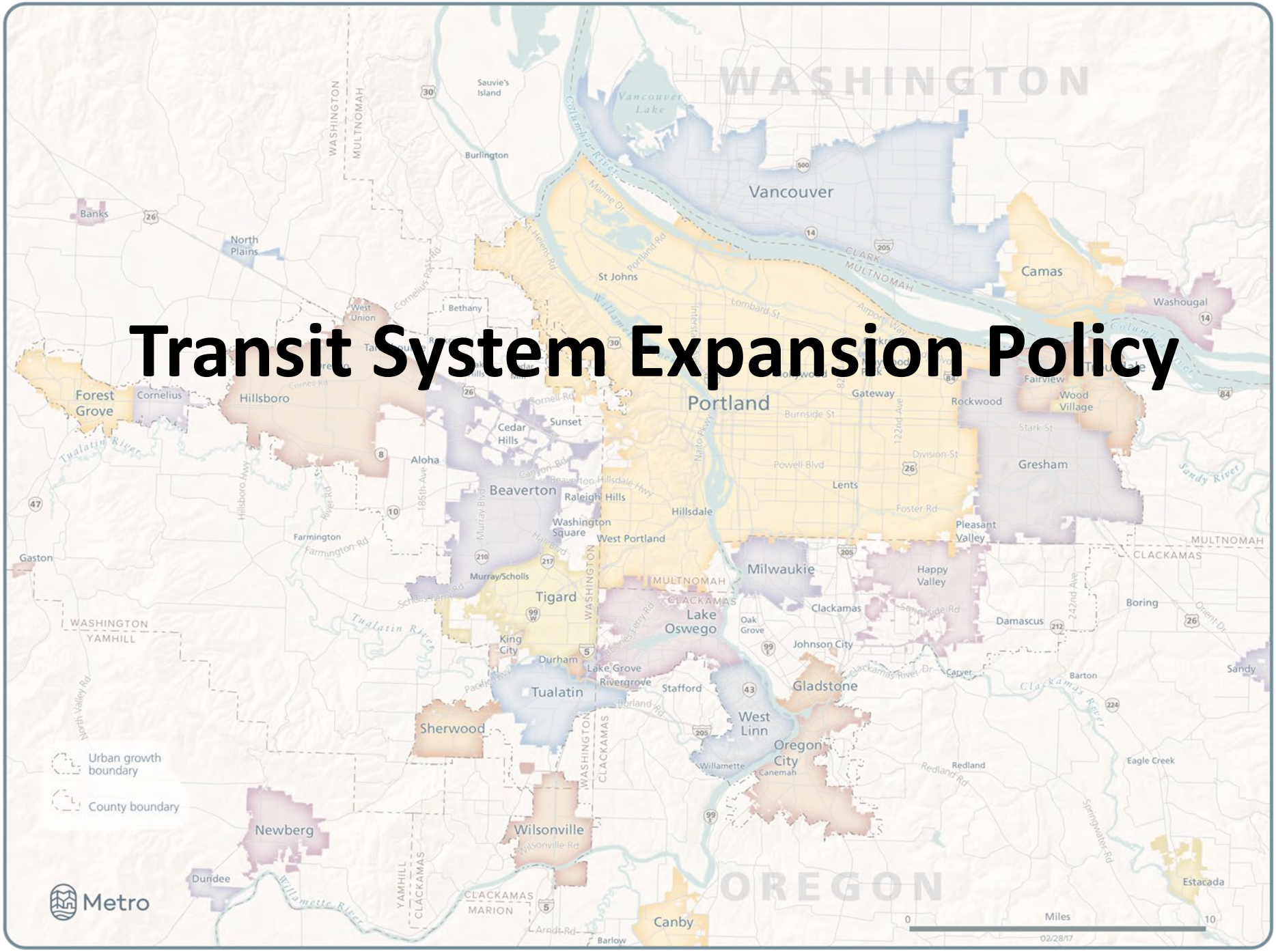
Add projects to Constrained list with new HB 2017 revenues or by shifting project(s) from Strategic to Constrained list

Shift project timing

Update descriptions and intent to specify project features that will improve equity, safety, travel options and congestion

Provide more specificity for bundled projects so they can be evaluated

Transit System Expansion Policy



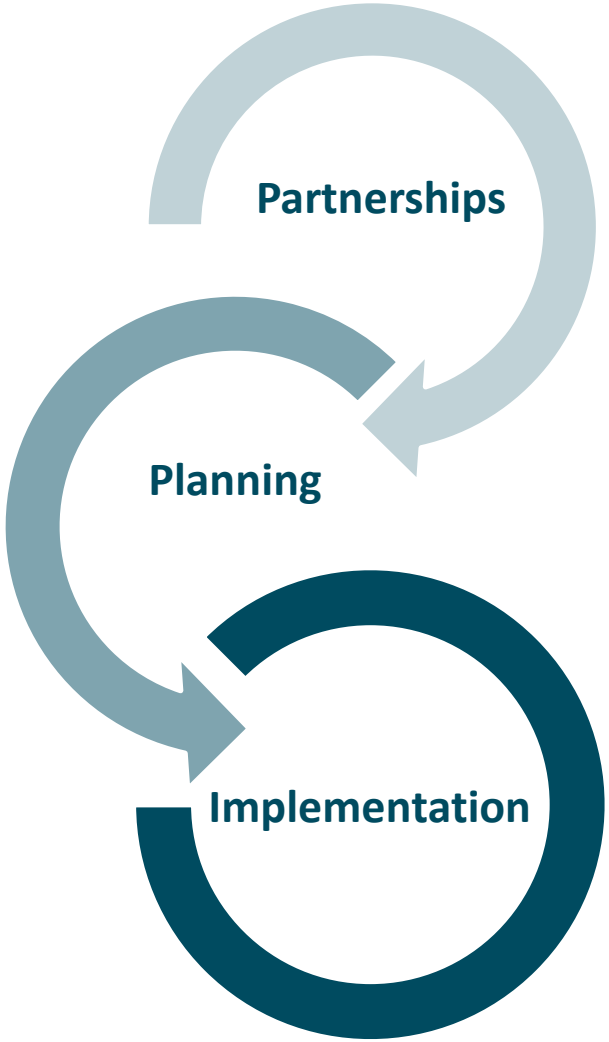
Draft Regional Transit Strategy

Regional Transit Strategy Objectives:

- Implement the 2040 Growth Concept and Climate Smart Strategy
- Update RTP transit-related policies and performance measures
- Update the current Regional Transit Network Map and High Capacity Transit Map
- Update the Transit System Expansion Policy
- Recommend a coordinated strategy for future transit investments and identify potential partnerships, strategies and funding sources for implementation.

Regional Transit Vision

To make transit more frequent, convenient, accessible and affordable for everyone



Transit Policies

4 new policies:

- A seamless transit system
- Preservation and maintaining
- Emerging technology
- Affordability

Transit Policies

3 modified policies:

- Combined local and regional bus service
- Added enhanced transit concept and combined high capacity transit and intercity rail
- Added new first and last mile connections to access to transit

New Concept emerging: Enhanced Transit Concept

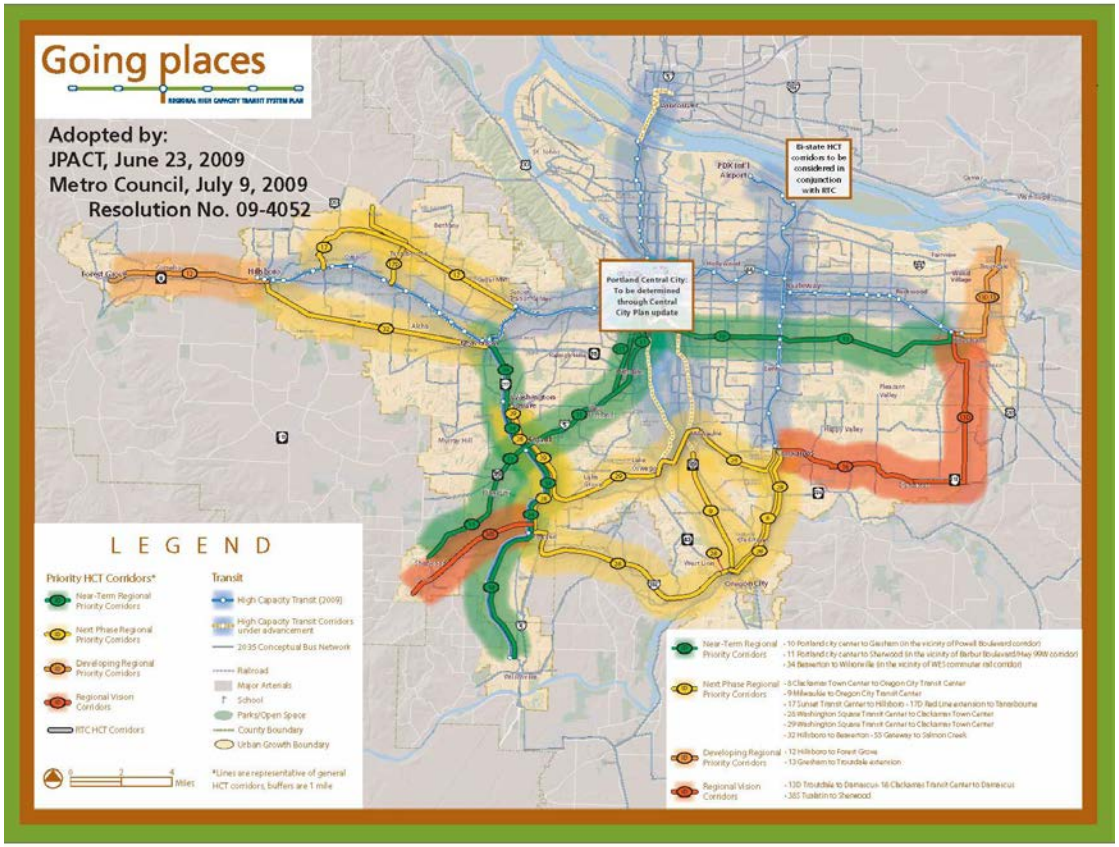
ETC Pilot Program:

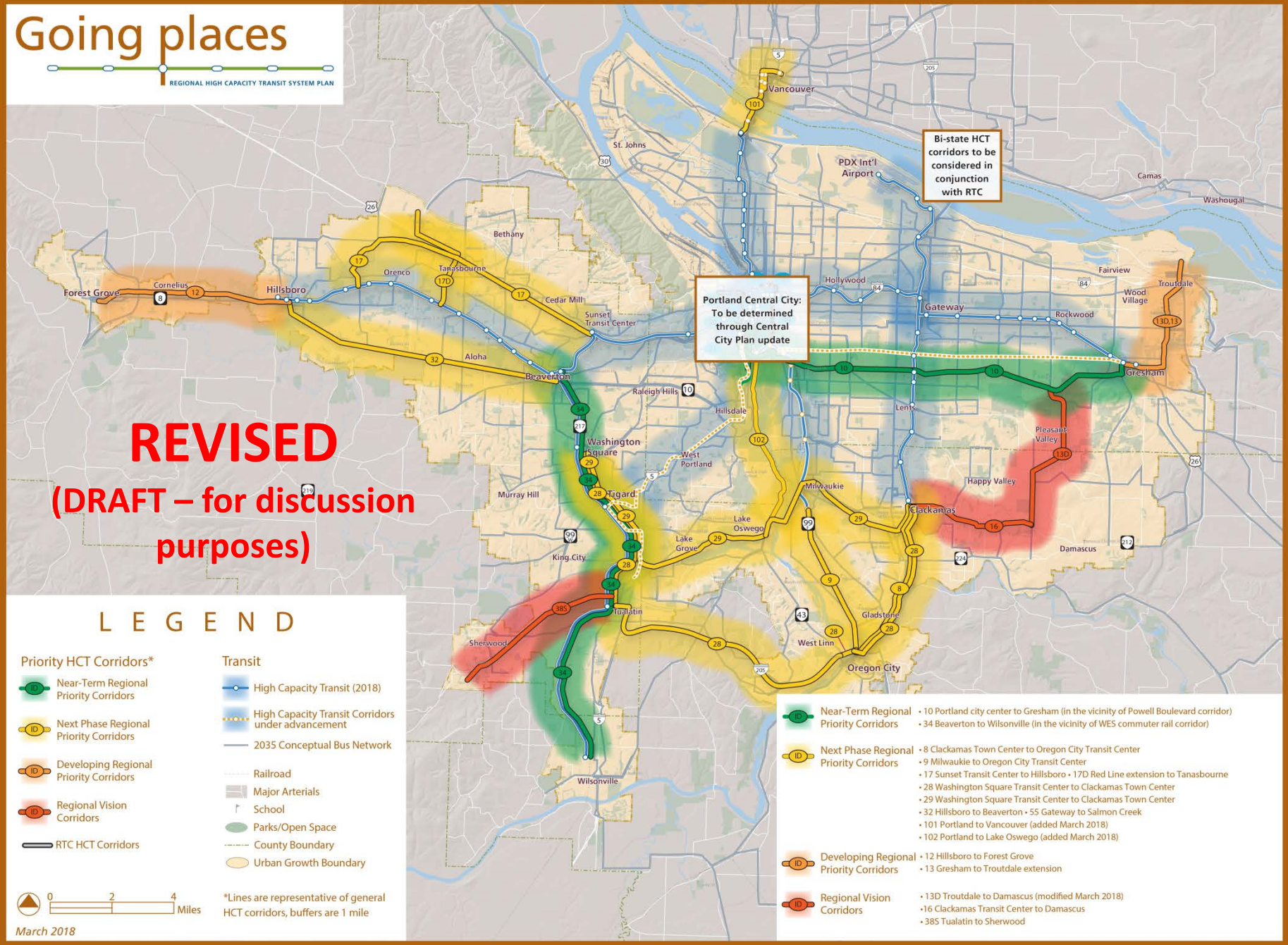
- Improve transit reliability, speed, and capacity
- Identify, design and build a set of Enhanced Transit projects
- Develop a pipeline of Enhanced Transit projects

Updates to the HCT System Map

Add or Revise:

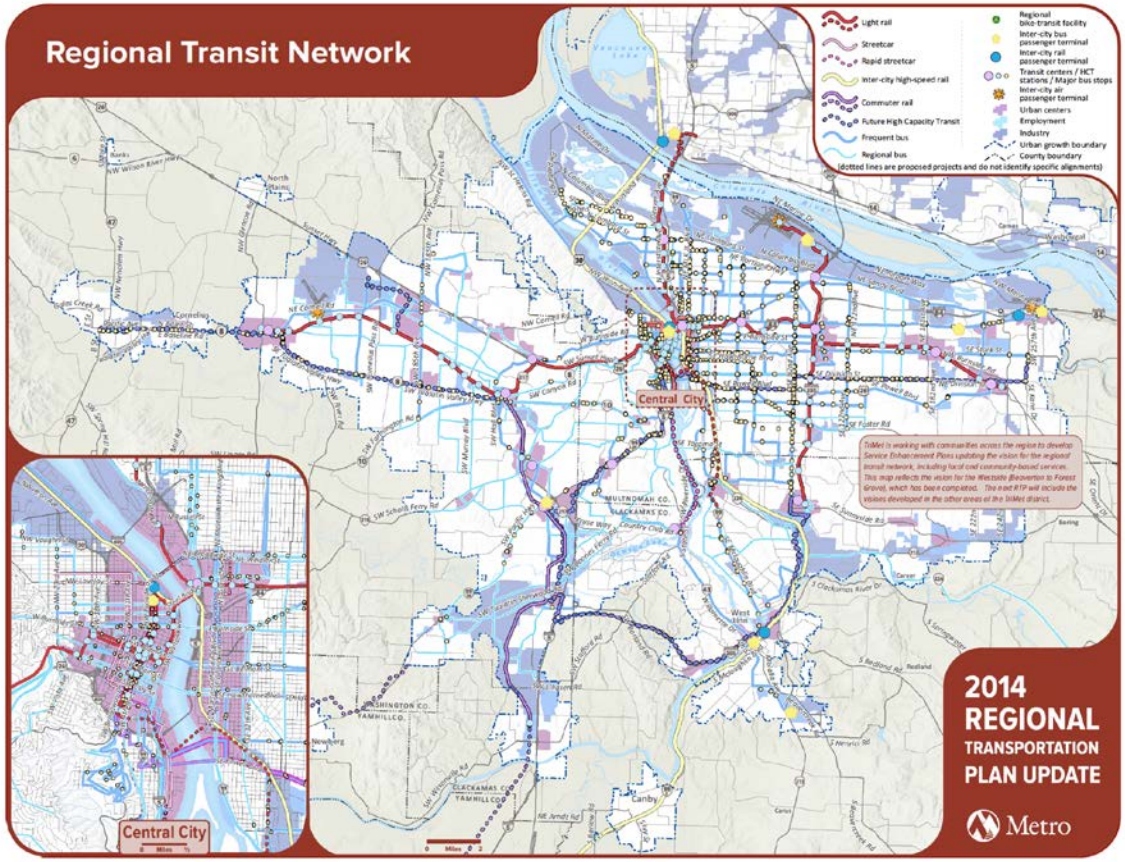
- I-5 HCT corridor
- Portland to Lake Oswego Streetcar project
- Portland to Gresham in the vicinity of Powell Corridor
- Division Transit Project
- Southwest Transit Project
- Columbia to Clackamas




Going places
REGIONAL HIGH CAPACITY TRANSIT SYSTEM PLAN
REVISED
(DRAFT – for discussion purposes)
Bi-state HCT corridors to be considered in conjunction with RTC
Portland Central City: To be determined through Central City Plan update
Vancouver
St. Johns
PDX Int'l Airport
Camas
Washougal
Bethany
Forest Grove
Cornelius
Hillsboro
Orenco
Tanasbourne
Cedar Mill
Sunset Transit Center
Aloha
Beaverton
Hollywood
Fairview
Wood Village
Troutdale
Gateway
Rockwood
Gresham
Raleigh Hills
Hillsdale
Lents
Pleasant Valley
Washington Square
West Portland
Tigard
Murray Hill
Milwaukie
Happy Valley
Clackamas
Lake Oswego
Lake Grove
King City
Damascus
Tualatin
Sherwood
Gladstone
West Linn
Oregon City
Wilsonville
LEGEND
Priority HCT Corridors*
Near-Term Regional Priority Corridors
Next Phase Regional Priority Corridors
Developing Regional Priority Corridors
Regional Vision Corridors
RTC HCT Corridors
Transit
High Capacity Transit (2018)
High Capacity Transit Corridors under advancement
2035 Conceptual Bus Network
Railroad
Major Arterials
School
Parks/Open Space
County Boundary
Urban Growth Boundary
0 2 4 Miles
*Lines are representative of general HCT corridors, buffers are 1 mile
March 2018
Near-Term Regional Priority Corridors
• 10 Portland city center to Gresham (in the vicinity of Powell Boulevard corridor)
• 34 Beaverton to Wilsonville (in the vicinity of WES commuter rail corridor)
Next Phase Regional Priority Corridors
• 8 Clackamas Town Center to Oregon City Transit Center
• 9 Milwaukie to Oregon City Transit Center
• 17 Sunset Transit Center to Hillsboro • 17D Red Line extension to Tanasbourne
• 28 Washington Square Transit Center to Clackamas Town Center
• 29 Washington Square Transit Center to Clackamas Town Center
• 32 Hillsboro to Beaverton • 55 Gateway to Salmon Creek
• 101 Portland to Vancouver (added March 2018)
• 102 Portland to Lake Oswego (added March 2018)
Developing Regional Priority Corridors
• 12 Hillsboro to Forest Grove
• 13 Gresham to Troutdale extension
Regional Vision Corridors
• 13D Troutdale to Damascus (modified March 2018)
• 16 Clackamas Transit Center to Damascus
• 38S Tualatin to Sherwood

Regional Transit Network Map

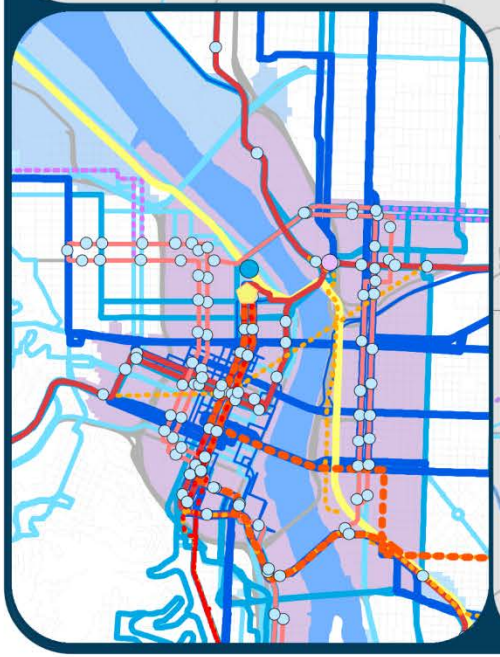
- Update future transit service with TriMet Service Enhancement Plans and Wilsonville's Transit Master Plan
- Add Enhanced Transit Concept corridors
- Add High Capacity Transit
- Includes transit capacity improvements downtown Portland



Future Regional Transit Network

Revised April 17, 2018

DRAFT



- Intercity rail terminal
- Transit centers
- Rail stations
- Air terminal
- Bus stations
- Existing light rail
- Commuter Rail
- Enhanced transit corridor
- Street Car
- HCT in progress
- Future HCT*
- Intercity high speed rail
- Frequent Bus
- Regional bus
- Urban centers
- Employment land
- Industrial

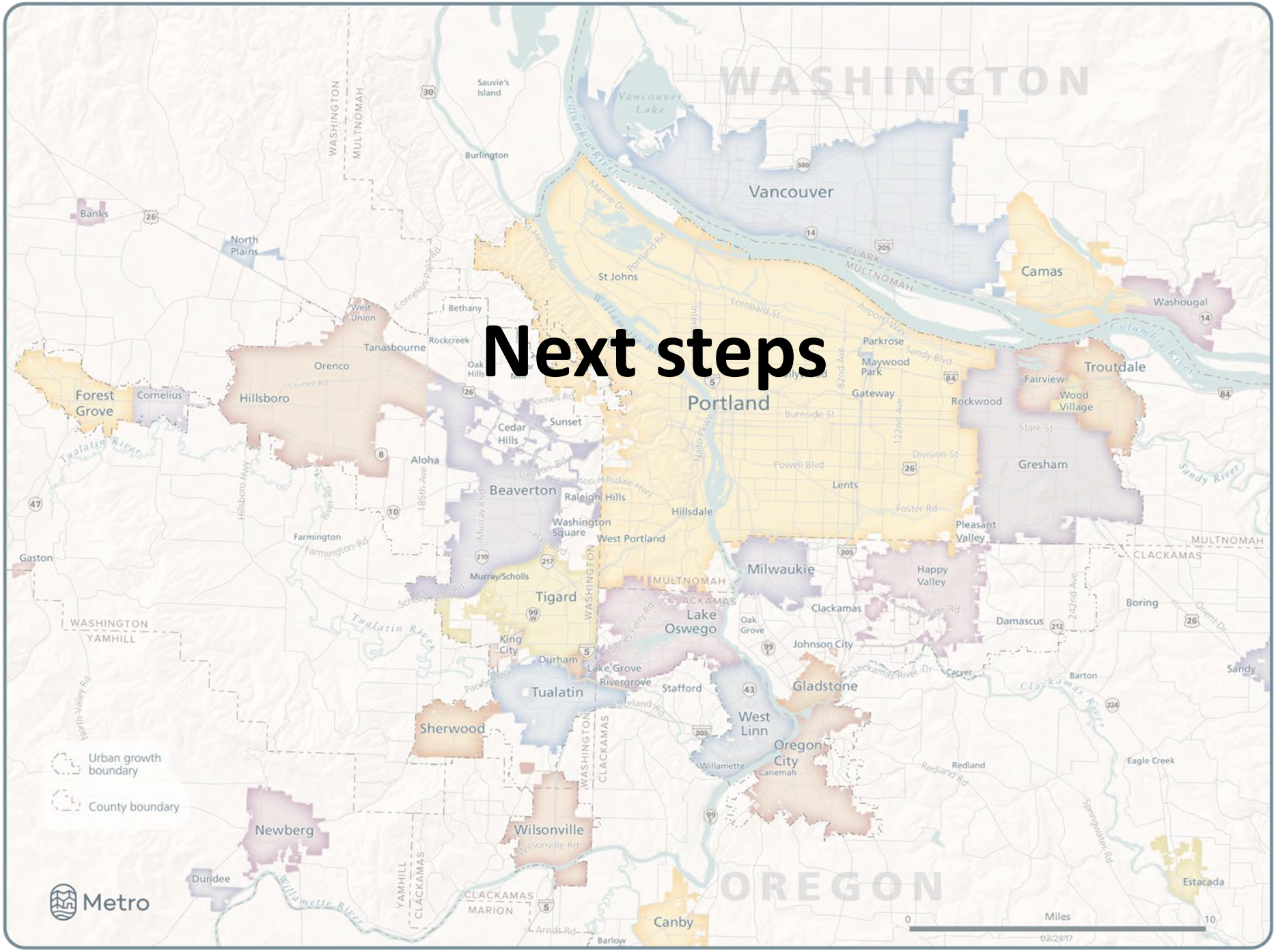
* includes On-Street Bus Rapid Transit, Bus Rapid Transit, Rapid Streetcar, Light Rail and Commuter Rail. Dotted lines represent future plans.

0 3 6 Miles

2018 REGIONAL TRANSPORTATION PLAN

Metro

Date: 4/17/2018


Next steps
WASHINGTON
OREGON
Vancouver
Portland
Camas
Washougal
Troutdale
Gresham
Fairview
Wood Village
Parkrose
Maywood Park
Gateway
Rockwood
Sauvie's Island
Burlington
Banks
North Plains
West Union
Bethany
Rockcreek
Tanasbourne
Orenco
Hillsboro
Forest Grove
Cornelius
Cedar Hills
Sunset
Aloha
Beaverton
Raleigh Hills
Washington Square
West Portland
Hillsdale
Farmington
Gaston
Murray/Scholls
Tigard
King City
Durham
Tualatin
Sherwood
Lake Oswego
Milwaukie
Happy Valley
Clackamas
Damascus
Boring
Johnson City
Gladstone
Stafford
West Linn
Oregon City
Willamette
Canemah
Redland
Eagle Creek
Barton
Carver
Sandy
Estacada
Pleasant Valley
Lents
Foster Rd
Powell Blvd
Division St
Burnside St
Stark St
Lombard St
Airport Way
Sandy Blvd
82nd Ave
122nd Ave
242nd Ave
Naito Pkwy
Columbia River
Willamette River
Tualatin River
Clackamas River
Sandy River
Vancouver Lake
St Johns
Newberg
Dundee
Wilsonville
Canby
Barlow
Arndt Rd
Urban growth boundary
County boundary
Metro
0
10
Miles
02/28/17

Next steps

- ETC Pilot Program – updates to the RTP project list
- Transit System Expansion analysis
- Transit performance measures
- Implementation chapter

Transit performance / implementation chapter

Transit performance:

- Update with the 2018 RTP project list

Implementation chapter:

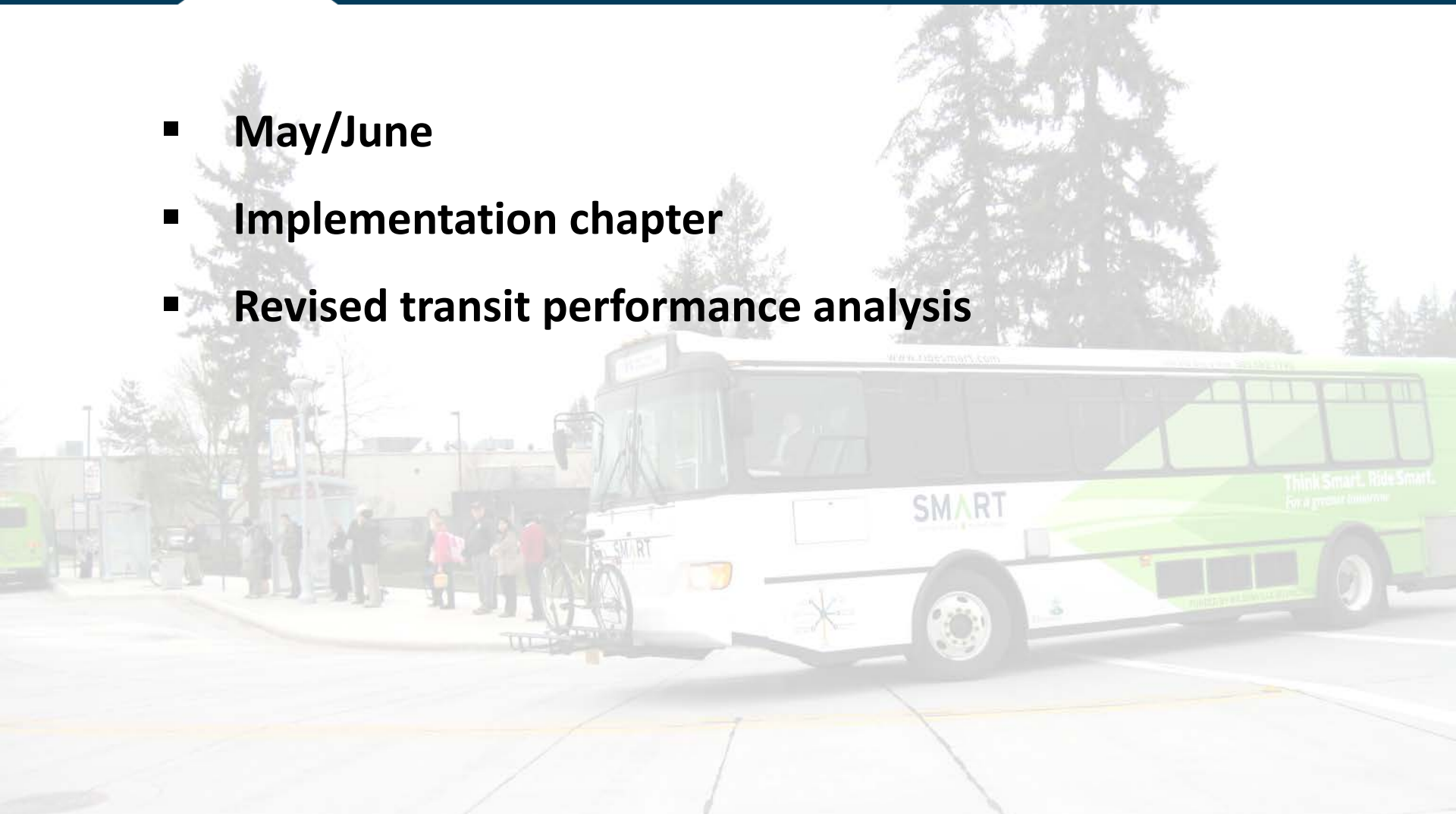
- How are transit investment prioritized
- Clearer picture of funding

Regional Transit Strategy:

- Feedback from regional partners

Next meeting

- **May/June**
- **Implementation chapter**
- **Revised transit performance analysis**



Thank you