



GREAT PLACES
SW Corridor Plan

Appendix B: Purpose and Need

May 28, 2014

PROJECT PARTNERS

Cities of Beaverton, Durham, King City, Lake Oswego, Portland, Sherwood, Tigard and Tualatin, Multnomah and Washington counties, Oregon Department of Transportation, TriMet and Metro

Refinement Phase: Purpose and Need for a High Capacity Transit Project in the Southwest Corridor

Project Purpose

The purpose of the Southwest Corridor Transit project is to interconnect Tualatin, Tigard, Southwest Portland, and the region's central city through a high capacity transit project and appropriate community investments in a congested corridor to improve mobility and create the conditions that will allow communities in the corridor to achieve their land use vision. Specifically, the project aims to:

- Provide transit service that is cost-effective to build and operate with limited local resources
- Increase multimodal transportation options and improve mobility in the corridor
- Serve the existing and projected transit demand in the corridor
- Improve transit service reliability in the corridor
- Improve transit frequency and travel times
- Complete multimodal transportation networks in the corridor
- Advance transportation projects that increase active transportation and encourage physical activity
- Provide options that reduce overall transportation costs
- Improve multimodal access to a range of housing types and business in growing communities
- Improve potential for housing and commercial development in the corridor and encourage development in centers and transit-oriented development at stations along the corridor
- Ensure benefits and impacts promote community equity
- Advance transportation projects that are sensitive to the environment, improve water and air quality, and help reduce carbon emissions
- Catalyze improvements to natural resources, habitat, and parks in the corridor.

Project Need

A high capacity transit project in the Southwest Corridor is needed to address the following issues:

- Transit service to places where people need or want to go is limited
- Limited street connectivity and gaps in pedestrian and bicycle networks create barriers and unsafe conditions for transit access and active transportation
- Travel is slow and is not reliable on congested roadways
- There is increasing unmet demand for transit service in the corridor
- There is a limited supply and range of housing options with good access to multimodal transportation networks
- The corridor is rich in natural resources that need to be protected or enhanced
- Areas of the corridor lack access to parks, trails, and natural areas.

The issues a high capacity transit project in the Southwest Corridor would address are described below.

Transit service to places where people need or want to go is limited. There is a need to connect the region and the corridor to the economic and educational opportunities and services in the corridor. The

corridor has 11 percent of the region's population and 26 percent of the region's employment. There are five colleges or universities in the corridor that serve over 45,000 students. The region's largest shopping destinations are located in the corridor. However, transit options in the corridor are limited because transit service varies in availability and frequency and struggles to serve areas with an incomplete road network with congested bottlenecks. Existing transit service is most frequent along OR-99W to and from downtown Portland, primarily on TriMet lines 94 and 12, and less frequent across the corridor's main OR-99W/I-5 axis. There is a need to improve transit connections to and within the corridor and provide more comprehensive transit access to other destinations in the corridor. Many of the more heavily-traveled areas of the corridor, major employment centers, and industrial areas do not have frequent transit service. Frequent service is most competitive and beneficial to a broad array of riders but can be provided only if it is cost-effective. Taking transit between some of the major destinations in the corridor can take four to six times as long as driving. Many people remain dependent on cars due to a lack of transit options as well as lack of sidewalk and bicycle connectivity, discussed below.

Limited street connectivity and gaps in pedestrian and bicycle facilities create barriers and unsafe conditions for transit access and active transportation. Sidewalks and safe crossings are lacking in many places, which impedes walking to take transit or to meet other needs. The bicycle network also has gaps that hinder connectivity. Travel options are also constrained by the geography and development patterns in the corridor, and roads in much of the corridor are winding and discontinuous. There is not a well-connected street grid that would facilitate transit access, make it easier and safer to make short trips on foot or by bike, or provide travelers alternative routes. A safe and complete pedestrian network is needed in order to maximize transit use.

Travel is slow and is not reliable on congested roadways. A lack of arterials results in traffic funneling onto a few key travel routes, such as OR-99W and I-5. Because of the limited road network, transit operating in mixed traffic is often slowed by congestion, especially at key bottlenecks. Travel times for automobiles are expected to increase by 17 percent with average speeds slowing to 20 mph. Bus trips operating in mixed traffic between the Portland central city and Tigard that take 42 minutes during the peak hour today are projected to take more than 47 minutes in 2035 (in-vehicle times). These times are likely to vary more in the future than they do today due to increases in congestion, incidents, and variation in traffic levels. Travel time reliability is defined as consistency or dependability of travel times from day to day or at different times of day. Lack of reliable travel times means travelers must plan extra time for a trip to ensure they will arrive on time. Sections of OR-99W, the major transit route in the corridor, are among the most unreliable road segments in the corridor. Over a 1.7 mile segment in Portland (north of Multnomah Boulevard) and a 2.8 mile segment in Tigard travelers need to budget more than double the average travel time in the PM peak hour to ensure they arrive at destinations on time. Transit travel times are subject to the same lack of reliability and can be expected to vary significantly from the forecast "average condition" because of unreliable travel conditions on congested roadways.

There is increasing unmet demand for transit service in the corridor. In 2010, there were 85,100 households in the corridor; projections show this number growing to 126,000 households in 2035.

Demand modeling completed for the High Capacity System Plan (2009) estimated 38,000 daily riders in Portland City Center to Sherwood via Barbur/OR-99W corridor, which is the highest ridership of all of corridors studied. The number of transit trips in the corridor is projected to increase by 78 percent in the next 25 years (without significant new transit capital investment). In 2010, there were 100,700 average weekday transit trips in the corridor. The 2035 forecast shows an increase to 178,900 average weekday transit trips. Today eight bus lines serve the corridor with up to 26 buses per hour in each direction in peak periods, with buses arriving approximately every 2 minutes on average in some locations. In 2035, with service adjusted to accommodate projected demand, the number of buses would increase to over 35 per hour.

There is a limited supply and range of housing options with good access to multimodal transportation networks. As the region grows, providing a variety of housing options and increased housing supply in the corridor will be necessary to accommodate the additional residents. Presently, the majority of housing in the project area consists of low density, single family housing. Little or no affordable housing is available, and there is a need for more housing types, such as apartments and condominiums, that provide density and concentrated development that will support and compliment future transit facilities. Providing additional housing options near good jobs and transit access will reduce reliance on automobile travel. Options for lower cost housing are lacking in the areas in the corridor that have better access to educational facilities, employment, and other community assets. Higher land values in the corridor have limited the opportunities to develop affordable housing. The Housing Authority of Portland has approximately 1,350 people on the waiting list for the three affordable housing facilities it owns in the corridor.

The corridor is rich in natural resources that need to be protected or enhanced. Current development and anticipated growth threaten water quality and other natural resources, such as air quality and wildlife habitat. Improving air and water quality and protecting wildlife habitat are primary values for residents and these resources are protected by local, regional, and federal policies.

Areas of the corridor lack access to parks, trails, and natural areas. Only about 45 percent of the residentially zoned land in the corridor is within a 10-minute walk to a park, trail, or natural area compared to approximately 69 percent regionally. The Tigard Triangle and the areas to the north and northeast have very few parks or natural areas. People in the region want to live and work near and have access parks, trails, and natural areas; these amenities increase development potential and can offer opportunities for environmental protection as well.

Purpose and Need Background

This section provides additional information on previous planning and regional policy that led to the proposal for a transit project in the Southwest Corridor.

The Southwest Corridor High Capacity Transit Project proposal is based on extensive regional land use and transportation planning beginning in 1975, and regional policy to make better use of the existing transportation system and provide transportation options, including pedestrian, bike and transit, before adding new motor vehicle capacity. A HCT project in the vicinity of Barbur Boulevard and Oregon Highway 99W emerged as one of three near-term projects in the High Capacity System Plan (2009), a 30-year plan to guide investments in light rail, commuter rail, bus rapid transit and rapid streetcar in the region.

High capacity transit has played a significant role in defining the Portland, Oregon region for almost 40 years. Planning for high capacity transit began following the region's decision to move away from plans for large new freeways in favor of more modest street projects and a network of transitways to meet future travel demand. These plans were codified in the 1975 Interim Transportation Plan and refined in the Light Rail System Plan adopted by the Metro council in 1982. In 1978, the voters in the metropolitan areas of Clackamas, Multnomah and Washington counties made Metro responsible for coordinating the land-use and regional transportation plans of the region's 27 jurisdictions.

In 1995, the Metro Council adopted the 2040 Growth Concept to guide regional growth. The 2040 Growth Concept and the Regional Framework Plan, adopted in 1997 and updated in 2005, encourage growth in centers and corridors within an urban growth boundary and call for high capacity transit to serve the larger regional centers. The Regional Framework Plan requires transportation system management strategies, transit, bicycle and pedestrian system improvements, traffic calming, and land use strategies be considered to meet transportation needs before increasing motor vehicle capacity. The Regional Transportation Plan (RTP) links transportation investments to land use policy to implement the 2040 Growth Concept and sets the course for future transportation decisions. These plans and policies have resulted in over 80 miles of light rail, commuter rail and streetcar lines built or planned for construction by 2016.

Beginning in 2008, working in collaboration with regional partners and the public, Metro developed the High Capacity Transit System Plan (HCT Plan) to guide the next high capacity transit investments, including light rail, commuter rail, bus rapid transit and rapid streetcar. The HCT Plan included supportive land use, transit oriented development, comprehensive parking programs, access for pedestrians and cyclists, park and rides, and feeder bus networks. In 2009, based on and public input and the analysis conducted for the HCT Plan, the Metro council approved the plan and adopted 16 potential high capacity transit corridors in four priority tiers. The Barbur/OR-99W corridor was in the top tier and was included as an element of the 2035 Regional Transportation Plan adopted by the Metro Council in 2010. In response, Metro initiated the Southwest Corridor Plan, a comprehensive transportation and land use planning effort, in 2011.

In July 2013, the Southwest Corridor Plan Steering Committee recommended further study of a set of high capacity transit alternatives, along with community investments in roadway, bicycle, pedestrian, parks, trails and natural area projects that would support the success of a transit project. The recommendations were based on the corridor vision adopted by the Steering Committee, which seeks to:

- balance enhancing employment, housing choices, the environment and quality of life
- use public resources efficiently, thoughtfully and equitably
- stimulate private and public investment.

The combination of transit and community investments is designed to support the land use vision for the Southwest Corridor. The land use vision, which is built on plans developed by the local jurisdictions, prioritizes areas where development would support high capacity transit.

Project partners include:

- City of Beaverton
- City of Durham
- City of King City
- City of Lake Oswego
- City of Portland
- City of Sherwood
- City of Tigard
- City of Tualatin
- Multnomah County
- Washington County
- TriMet
- Oregon Department of Transportation
- Metro