

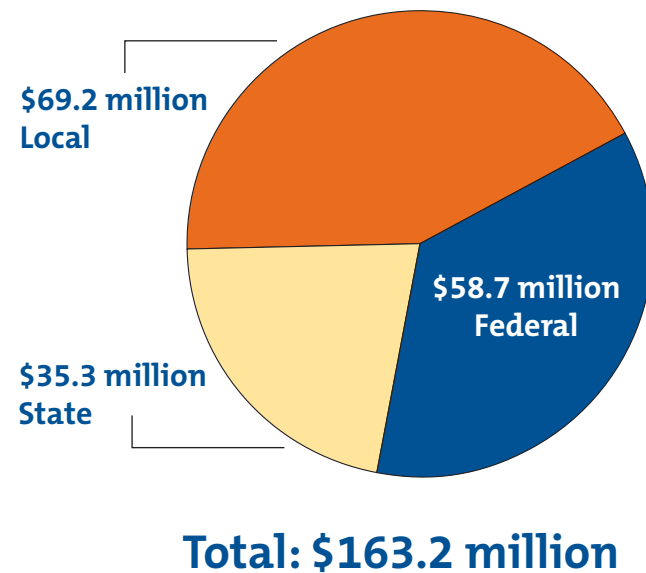
WES Commuter Rail

TriMet's Westside Express Service (WES) Commuter Rail line is one of the few suburb-to-suburb commuter rail services in the United States. Close cooperation among jurisdictions made the 14.7 mile line possible.



Snapshots

Funding



Timeline

- 1996-1999** Preliminary studies
- 1999-2002** Local community and jurisdiction approval
- 2006** Federal approval (FFGA)
- October 2006–January 2009** Construction
- February 2009** WES Commuter Rail service begins

Facilities

- Length** 14.7 miles
- Stations** 5
- Park & Rides** 4, with nearly 700 spaces
- Maintenance facility** Wilsonville

Ridership

An estimated 3,000 to 4,000 weekday trips by 2020, with half of the riders new to transit.

Frequency

Weekdays every 30 minutes during morning and afternoon rush hours.

Travel times

- Beaverton-Wilsonville** 27 minutes
- Beaverton-Tigard** 11 minutes
- Wilsonville-Tigard** 18 minutes

Bus and light rail connections

Connects with 15 TriMet bus lines along the WES route. At Beaverton Transit Center, connects with MAX Red Line and MAX Blue Line light rail service. At Wilsonville, connects with bus lines serving Salem (Cherriots), Canby (CAT) and Wilsonville (SMART).

Available in other formats:

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Background

A unique, historic travel corridor

Over the past 70 years, the route ultimately chosen for the WES Commuter Rail alignment has been used for freight service, but it was once home to two passenger lines. Oregon Electric Railway ran one set of tracks along the alignment from Portland to Salem in 1908 and later expanded service to Eugene. By 1914, Oregon Electric had 26 trains entering and departing Portland daily. The rise of the automobile, however, diminished service and the railway discontinued passenger service by 1933.



An Oregon Electric passenger train on the alignment in the early 20th century.

In 1918, Southern Pacific Railway also operated "The Red Electric" on the route. The steel trains were painted bright red and had three round porthole-like windows across the front. At the

height of operations, "The Red Electric" ran 32 trains entering and departing Portland everyday, but service ended in 1929.

Today, Portland & Western Railroad owns the freight line and, in a groundbreaking agreement, provides contract services to WES.

Transportation limits and pressures

Washington County also is bound by geographic constraints that restrict transportation options. Low

mountains define the east and west sides of the corridor, and the Tualatin River and Fanno Creek run through the area.

Over time, traditional travel patterns have shifted in Washington County. Rather than living in the suburbs and commuting to work in Portland's downtown core, a significant number of people live and work within the I-5/Hwy 217 corridor.

From 1994 to 2000, the number of households in the corridor grew 34 percent faster than the rest of the Portland region, while the number of jobs rose at a rate 55 percent faster than anywhere else in the region. Furthermore, corridor employment is expected to increase by more than 40 percent by 2025.

Collaborating for success

Driven by the desire to improve transit options for residents and employees in the heavily traveled corridor, local officials began to explore various alternatives in 1996.

Washington County and its eastern cities identified a unique opportunity in the 100-year-old rail corridor, which was used primarily for freight transport.

They saw the potential to use this resource for adding a commuter rail line to serve four cities: Beaverton, Tigard, Tualatin and Wilsonville.



In 2001, federal, regional and local representatives gathered to celebrate funding for feasibility studies.



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Together with county leaders, the mayors of Beaverton, Tigard, Tualatin, Wilsonville and Sherwood championed commuter rail. Working with Metro, TriMet and the Oregon Department of Transportation, the team launched a feasibility study to consider commuter rail as a viable alternative. Then Oregon House member Tom Brian took a leadership role to secure funding for follow-up studies.

Obtaining or building a right-of-way in a high growth area is challenging and expensive. This concept took advantage of the existing railroad right-of-way to limit construction impacts.

Despite the array of challenges they encountered over the course of a decade, local leaders persevered by teaming with Oregon Governors John Kitzhaber and Ted Kulongoski, the Oregon State legislature and Oregon's Congressional delegation, including Senator Gordon Smith and Rep. David Wu, to obtain funding for the project.

Construction highlights

Using existing freight tracks in a dedicated corridor meant minimal construction impacts to businesses and resident along most of the new line.



The P811 machine simultaneously dismantled and removed old track while placing new ties and threading new rail.

The first phase of WES construction in 2006 involved the removal and installation of track, ties and ballast between Wilsonville and Beaverton. These necessary improvements allowed trackway upgrades to accommodate

commuter rail train speeds of up to 60 mph. During construction, the project deployed a specialized track rehabilitation machine called the P811 to simultaneously dismantle existing track, pick up existing ties, plow existing ballast, place new concrete ties and thread new rail. The P811 was chosen to speed rail reconstruction, replacing 14 miles of trackway in 30 days.

Although the majority of the WES line uses existing freight alignment, a short section of new track was constructed on Lombard Avenue between Farmington Road and Beaverton Transit Center. State and local agencies simultaneously implemented planned street improvements in order to limit duration of construction.

Community outreach

Construction crews minimized the impact of noise and road closures to nearby businesses and residences. Advance notice of construction schedules and schedule changes were provided to local jurisdictions, businesses and residences.

The project also worked to capitalize on the line's unique setting. Characterized by parklands, wetlands and flood plains, the WES alignment takes riders through areas seldom seen by commuters. The Tualatin River and Fanno Creek crisscross the route. TriMet, the City of Tigard and Clean Water Services partnered on an 11-acre wetland mitigation project at Tigard's Fanno Creek Park, adjacent to the line. The project also preserved and refurbished a steel truss bridge built in the 1920s.



WES service debuted with four diesel multiple unit (DMU) vehicles.

Project innovations

A new kind of rail car

WES vehicles share the track with freight trains and additional double track was constructed to allow freight and commuter trains to pass each other along the route. In addition, the project team installed a state-of-the-art signal system with computerized dispatch for vehicle coordination and safety.

Diesel multiple unit (DMU) cars were produced for the project, and TriMet maintains the vehicles at the WES Wilsonville Maintenance Facility. The railcars are self-propelled units, and don't require a locomotive engine or overhead electrical wiring. They also can pull a second car. Four cars (three single-powered cars and one trailer car) were purchased to serve the corridor.

Public art

The Commuter Rail Art Advisory Committee, composed of representatives from every station area, guided the public art program. The committee selected Northwest artists Frank Boyden and Brad Rude to develop artwork for the stations. The artwork created consists of a series of interactive sculptures, titled *The Interactivators*, Sited at all five WES stations, each sculpture speaks to the natural environment of the surrounding community, while remaining linked to the other sculptures along the rail line.



The Interactivator sculpture at the Beaverton Transit Center WES platform.

Additionally, a mural at the Tigard Transit Center depicts the diverse flora and fauna of the Tualatin River watershed, through which the line passes.

Safety

To prepare local communities for WES service and an increase of 32 trains per day with the ability to go 60 mph through 29 crossings, TriMet developed a safety outreach campaign. Live safety presentations and printed safety materials were provided to motorists, residents, potential trackway trespassers, K-12 students, law enforcement officials, emergency responders, social service agencies and professional drivers, including delivery and school bus drivers.

Materials containing core safety messages consisted of direct mailings, fact sheets, posters, billboards and two versions of a safety video—one for a general audience and one for middle and high school students. Safety materials were sent to and published by:

- Community newsletters,
- City and county websites
- School newspapers and sports programs
- Parent newsletters
- Local newspapers

Ultimately, more than 50,000 individuals and households received WES safety messaging.



WES safety materials, such as these posters, appeared at schools, libraries, community centers and many other public venues along the commuter rail alignment.