



I-205/PORTLAND MALL MAX GREEN LINE

Background

Since the beginning of light rail planning in the Portland region, transportation planners have worked toward reaching two goals—bringing light rail service to Clackamas County for the first time and creating a north-south light rail alignment in Downtown Portland.

The Portland Mall opened in 1978, providing bus service with a dedicated alignment on several blocks of 5th and 6th avenues in Downtown Portland. Meanwhile, in 1983, the completion of the northern portion of Interstate 205 included a transitway

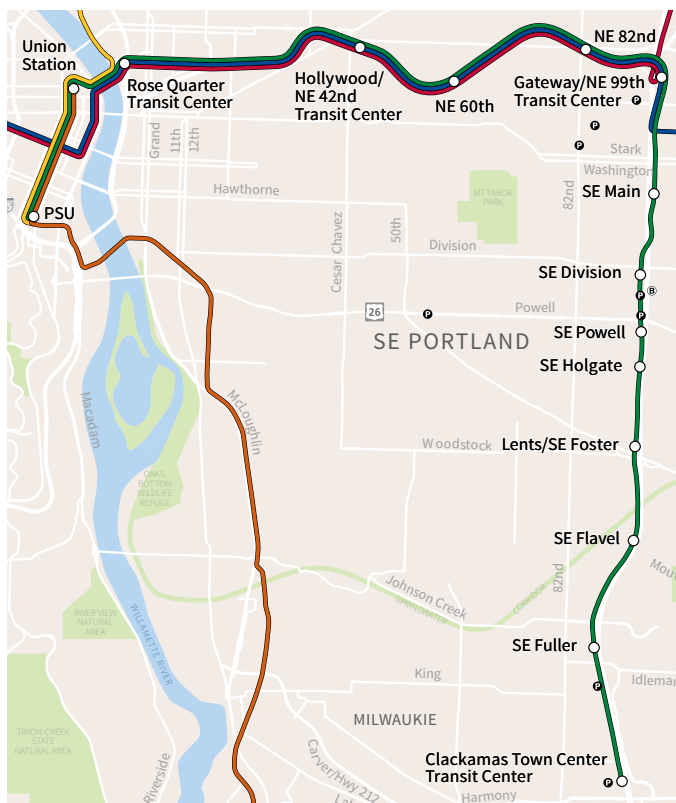
parallel to much of the highway as it passed through Multnomah County. As the years passed, the need for high capacity transit to Clackamas County and on a new downtown alignment only increased. Clackamas County became one of the region's fastest growing areas, while Portland State University (PSU) at the southern end of downtown became the number one destination in the transit system. In addition, the expansion of light rail was identified as a critical part of a growing transportation system as four light rail lines on the one existing east-west downtown alignment had reached capacity, with Metro forecasting an increase in the region's population by 400,000 to 750,000 people by 2035.

Out of discussions between regional growth and transit planners came the innovative idea to combine both alignments into one light rail line via the Banfield, thus providing riders with a multitude of destination, connection and multi-modal possibilities.

Innovative planning

Bringing light rail to the Portland Mall meant that first utility lines had to be relocated before tracks could be laid. Plans also called for aging brick intersections to be refurbished and new ones to be installed. All of this activity meant that buses could not use 5th and 6th avenues during the two-and-a-half years of construction. After conducting extensive public outreach and traffic analysis with the City of Portland, TriMet created a bus relocation plan.

Twenty-eight bus lines that used the Portland Mall were temporarily relocated to other downtown streets, the bulk of them moving to 3rd and 4th avenues. The temporary routes included signage and shelters. When major construction ended in May 2009, buses moved back to the refurbished 5th and 6th avenues, and 3rd and 4th avenues were returned to their previous condition.



MAX Green Line light rail service connects Clackamas, E/SE Portland, Portland City Center and Portland State University.

The downtown community had expressed the desire that both avenues be multi-modal, yet it was simultaneously necessary to prevent private traffic and transit from impeding one another. Buses now travel the entire length of the Mall adjacent to motorists and cyclists, and share transit-only lanes with light rail trains for the first time.

The project developed a unique system that allows buses and trains to move in and out of through transit lanes in order to access and leave scheduled stops at the curb. Transit lanes are located on the right side of both 5th and 6th avenues and are reserved solely for buses, trains and paratransit vehicles. Meanwhile, motor vehicles and bikes have a dedicated lane on the left side of both streets, allowing transit and private vehicles to proceed without affecting one another's travel time.

Taking care of business

Project construction on the Mall alignment took place in the heart of the region's central business district, and innovative methods were employed to minimize disruptions to businesses. Project efforts included

one-on-one support for businesses and property owners, encouragement to buy goods and services downtown, a project website that tracked construction progress and weekly construction updates sent via email to downtown businesses, property owners and residents.

Efficient construction

The project's light rail construction began in February, 2007. On the Portland Mall, TriMet worked closely with its contractors to speed construction and ensure that customers always had access to businesses. Crews worked in three to four block segments for up to eight weeks, then moved to the next work zone to minimize construction impacts on businesses and residents.

The construction of the I-205 segment included a design-build construction approach that allowed the contractor to complete the design while the alignment was being built, making it faster and less expensive.

Portland Mall Business Support Program

The Portland Development Commission, TriMet and Portland State University (PSU) joined together to create the Portland Mall Business Support Program. This program for ground floor, locally owned businesses with less than 50 employees included technical assistance, low interest loans and consulting services. This assistance was designed to help business owners bridge a potential disruption in revenues caused by construction and leverage the improved retail market with the opening of the light rail line.

Portland Mall Management, Inc.

Given the Portland Mall's prominence in the center of the downtown retail and business core, TriMet, the City of Portland, the Portland Business



TriMet worked closely with contractors to speed construction. Crews worked double shifts in three to four block segments for up to eight weeks at a time.

Alliance and PSU provided the funding necessary to support Portland Mall Management, Inc. (PMMI). During the course of the project, PMMI was extensively briefed and provided specific input on all aspects of the design, budget and schedule, particularly engineering and management strategies. Public and private developers, many participating in or guided by PMMI, committed \$1.6 billion to restoring old buildings, renovating storefronts and creating new places to work, live and play. PMMI continues to provide centralized management and stewardship focus for the Portland Mall.

Additionally, downtown property owners elected to tax themselves to fund even more enhancements to the Mall and surrounding blocks.

Block By Block program

As part of construction, the project refurbished or replaced many of the Mall's transit amenities, including brick sidewalks and intersections, bus shelters, trash cans and bike racks. The project and various stakeholders realized, however, that revitalization of 5th and 6th avenues also should include the many business and properties lining both streets to make these properties and businesses more vibrant, economically competitive and inviting.

To address this need, TriMet and the Portland Development Commission created the Block By Block (BBB) program in 2006, an innovative example of a public-private partnership. BBB employed financing assistance, design consultation and city facilitation tools to encourage private investment in façade improvements. The program approached property owners and business along the 117 block faces on 5th and 6th avenues between SW Jackson and NW Irving streets. The BBB program realized a \$9.10 private sector investment for every \$1 granted from PDC. For a number of projects, a PDC grant of \$24,000 leveraged \$400,000 to \$1 million from the property owner.

Expanding bike connections

The U.S. Census Bureau reports that 6.4 percent of Portlanders commuted by bike in 2008, more than



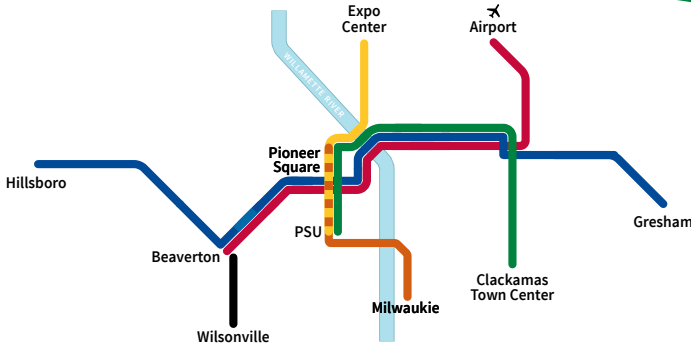
Cyclists ride on the I-205 multi-use path through the Lents Town Center/SE Foster Rd MAX Station.

in any other major U.S. city. In addition to including traditional connections to bus lines and Park & Ride facilities, the Green Line project sought to expand transit options for cyclists.

Each I-205 station has at least eight bike lockers, with a total of 92 bike lockers along the alignment. The project also made improvements to the Oregon Department of Transportation I-205 multi-use path at sites where project construction impacted the path. This included construction of a bridge that carries the path over busy SE Foster Road and Woodstock Boulevard, as well as easily identified connections between the path and each station area. Along and near 5th and 6th avenues in Downtown Portland, the project added 184 bike parking spaces. This includes individual bike staple racks and four bike oases, which provide covered bike parking.

Public art

Working in collaboration with project partners, the Regional Arts and Culture Council and the community, TriMet continued its commitment to public art on the MAX Green Line. Over forty sculptures by fourteen artists were added to the original twelve transit mall sculptures as part of the revitalization of the Portland Mall. Along I-205, seven artists created site-specific artwork at each of the eight light rail stations.



Snapshots

Timeline

1978 Downtown Portland Mall opened with several blocks dedicated to bus service

1983 I-205 completed, with a dedicated transitway along a portion of the highway

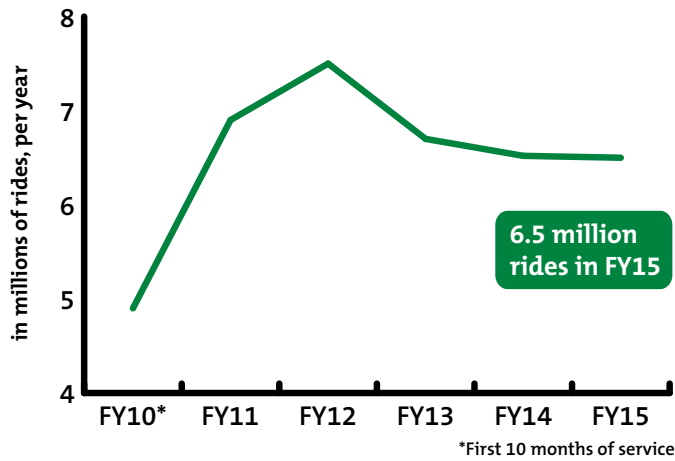
2003–2006 Preliminary studies

November 2006 Federal approval (FFGA)

February 2007–September 2009 Construction

September 2009 MAX Green Line service began

Ridership



Facilities

Length 8.3 miles of new alignment, connected by the previously-built Banfield/I-84 alignment

Stations 20 new stations: 8 along I-205 alignment, and 12 along the Downtown Portland Mall

Park & Ride facilities 5, with 2,300 spaces

Maintenance facility Ruby Junction

Frequency

Approximately every 15 minutes peak hours; approximately every 35 minutes early morning and nighttime service.

Travel times

Clackamas Town Center to Gateway 16 minutes

Clackamas Town Center to Downtown Portland 39 minutes

Clackamas Town Center to Portland State University 48 minutes

Bus connections

Seventeen bus lines connect stations along the I-205 alignment of the Green Line. Thirty-three TriMet bus lines provide service on or near the Portland Mall.

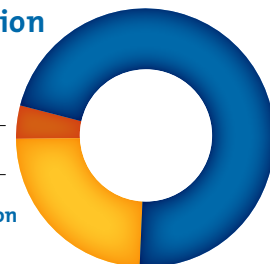
Funding

Total: \$575.7 million

\$23 million
State

\$139.3 million
Local

\$413.4 million
Federal



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