WESTSIDE STORY

By Rich Sampson

The groves of green pines and oft-slate grey skies of Beaverton, Ore. are a sure signal of the city's location in the Pacific Northwest. But beyond these iconic natural features is a more recent addition to the region's identity that equally marks its Pacific Northwest bona fides: a new and innovative passenger rail service, in the form of the Westside Express Service (WES).

Via its location seven miles west of downtown Portland, Beaverton is situated within one of the most dynamic and iconic incubators for passenger rail evolution in the nation. The Blue and Red light rail lines of the region's transit system – TriMet – have called in Beaverton since 1998. Meanwhile, in downtown Portland, Tri-Met's light rail trains mix with the Portland Streetcar and Amtrak's *Cascades* intercity trains present a set of vibrant passenger rail options to mobilize the region and fuel economic development. This environment set the perfect stage for the debut of WES early in 2009, introducing regional rail for the first time to the Pacific Northwest.

Portland: Passenger Rail Incubator

When TriMet opened its first MAX light rail line in 1986 – connecting downtown Portland with Gresham to its east – a pronounced and significant shift had been initiated in how the Portland region viewed not only its transit options, but also how it prioritized values and decisions to build a community that reflected the ideals of its populace. That project substituted light rail trains for an extensive highway project and focused attention and investment in its

theretofore shrinking downtown core.

Over the next two decades, development efforts produced tens of billions of dollars in new economic activity, while civic bodies and community groups pushed for new parks, libraries and neighborhood enhancements. From 1980 to the present, the area's population has almost doubled – reaching nearly 2.2 million in 2007, while its median income and density of development outpaced national averages. Meanwhile, the region's metropolitan government took actions to focus growth in existing districts and development zones rather than encourage new sprawl – decisions, which at the time were unprecedented not only in the region but across the nation, that now are acclaimed as among the most progressive anywhere.

Corresponding with these trends was a similar priority in expanding passenger rail options in the region. TriMet constructed and opened new MAX routes west to Hillsboro in 1998, to Portland International Airport in 2001 and north along Interstate Avenue in 2004. In addition to MAX, the City of Portland initiated the first new streetcar service in the United States in more than a half-century in 2001 to circulate traffic downtown and more carefully target economic development.

Moreover, through the work of state departments of transportation in Oregon and Washington through 1990s and early 2000s, Amtrak gradually expanded the frequency and quality of its *Cascades* trains – establishing a truly regional travel corridor in the Pacific Northwest between Vancouver, B.C., Seattle and Tacoma, Wash. and Salem and Eugene, Ore. with Portland at its center. Collectively, in the span of just two decades, innovative and expanding passenger rail service became deeply ingrained with the region's overall renaissance.

"Around here, passenger rail is the vision of something better," says Fred Hansen, TriMet General Manager. "Its certainly about moving people, but it's also about revitalizing communities."

Restoring the Oregon Electric

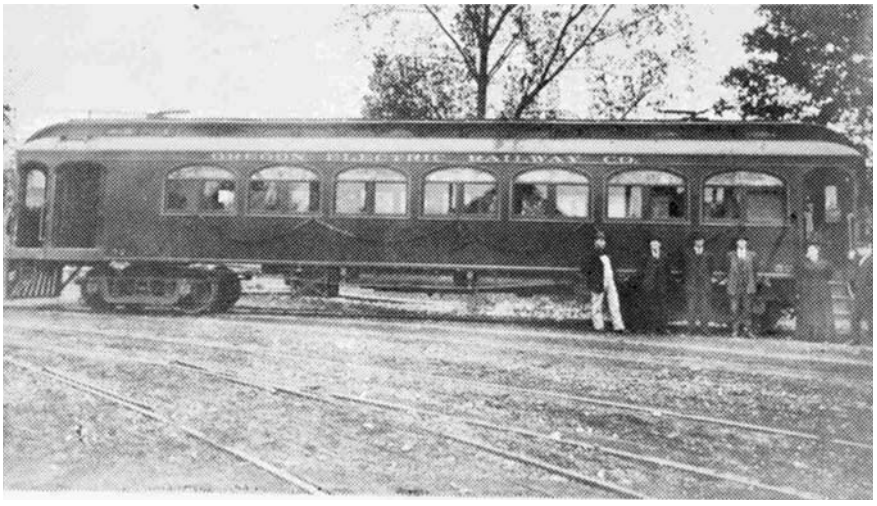
When TriMet opened its MAX extension to Hillsboro in 1998, a substantial portion of its route west of Beaverton utilized the former right-of-way of the Oregon Electric Railway. The Oregon Electric's interurban trains served the line from Hillsboro to downtown Portland until 1933, along with another route which headed due south from Beaverton to reach the state capitol in Salem, as well as Oregon's second-largest city, Eugene. While the Hillsboro line was largely abandoned, the Beaverton to Eugene stretch continued to host steady freight traffic and was ultimately acquired by the regional shortline railroad, the Portland & Western.

As ridership grew steadily on the MAX line through Beaverton – which added direct trains to the airport on the Red Line in 2003 – TriMet planners along with local officials from Beaverton and elsewhere noted the still-active rail line might once again carry passengers from communities along its route such as Tigard, Tualatin and Wilsonville hoping to access the larger region via MAX at Beaverton. The corridor – which parallels the nearby Tualatin River – had grown increasingly tricky to traverse, as Interstate 5 was reaching full capacity during peak periods. While a traditional commuter rail model was likely prohibitive since connections from the line to Union Station in downtown Portland no longer remained, perhaps a new type of rail service could link these communities on the Portland & Western's existing rails with MAX trains in Beaverton. Surely, in an area where new and innovative rail options were achievable, another new approach to passenger rail could be developed.

"We have a fairly unified agenda for supporting transit projects," explains David Bragdon, President of the Metro Regional Government, the entity which conducts planning, policy-making and service provision in Clackamas, Multnomah and Washington counties. "Connecting the Tualatin River communities in the I-5 corridor was a significant regional priority, and the rail line was a ready-made asset to respond to those needs."

While TriMet leaders and local officials were hopeful about prospects for restoring passenger service to the route, before any vehicles could be procured and stations constructed they needed to secure the involvement of the key player in the project – the Portland & Western. As no passenger rail had operated over the route since the shortline acquired the line in _____, their participation was prima facie and would likely require some form of public investment to compensate the railroad for use of their tracks. In 2004, TriMet leaders met with Portland & Western officials

The Oregon Electric's two routes linked Portland with Salem to the south and Hillsboro to the west – both of which are now in use as TriMet's WES and Blue Line MAX trains.



to discuss their ideas. As freight service on the line was steady, but not congested, the railroad's leaders indicated a conceptual willingness to explore the project.

"This was a first for us," says Billy Eason, President of the Portland & Western. "But as our folks looked into it with TriMet, we determined it could be something that could coexist with our operations if the proper investment in infrastructure improvements was made."

Creating a New Form of Rail

After securing the initial involvement from the Portland & Western, TriMet's planning team went to work devising a service concept to utilize the route between Beaverton and Wilsonville. As the MAX system operated a significant transit center in Beaverton – where its Red Line originated trips to the Airport, and the Blue Line headed east to downtown and Gresham and west to Hillsboro, along with more a dozen local TriMet bus routes – the location was an ideal fit as the northern terminus for the new line. However, the Portland & Western's tracks were positioned a quarter mile south of the Beaverton facility and would require a new set of tracks to be constructed. As a result, planners sketched-out a new stretch of street-running rails that would run down the center of Lombard Avenue to connect with the right-of-way south of Farmington Road. The trackage would mark the first new street-running railroad constructed in the United States in more than a half-century.

Beyond creating a connection to the Beaverton Transit Center, the new service would also require several other unique aspects in passenger railroading. Since the Portland & Western required that its freight trains be able to operate on the line at the same time as the service, vehicles would be needed that could safely co-operate on the route according to Federal Railroad Administration (FRA) standards. Although traditional commuter rail equipment – diesel engines and commuter coaches – was readily available to meet the requirements, TriMet planners calculated that the new service would not likely attract the high ridership levels common in commuter rail to justify the operating expenses of a multiple-car, locomotive-hauled consist. Additionally, while self-propelled Rail Diesel Cars (RDC) manufactured by the Budd Company through the 1950s were still in use on other passenger rail operations, the few venerable vehicles that remained would not likely match the level of accessibility and comfort Portland-area residents had come to expect in their passenger rail services.

Cognizant of these unique conditions, in the early 2000s, TriMet officials began searching for appropriate rolling stock that would not only meet their passenger capacity needs, but also satisfy the FRA's safety parameters. Fortunately, at the same time, Colorado Railcar, Inc had recently completed the first self-propelled, FRA-compliant vehicle, the Diesel Multiple Unit (DMU). Each DMU could seat more than 70 passengers and haul an additional unpowered coach car, while safely operating on freight tracks. In 2005, TriMet contracted with Colorado Railcar – which has since been dissolved, and its patents and designs for the DMU recently acquired by US Railcar – to produce four vehicles for the service. The $17 million contract would deliver three self-propelled DMUs and an additional unpowered coach.

"We needed a vehicle that could operate over the rail line, and yet we didn't quite have the demand for a full-fledged commuter rail line," says TriMet's Hansen. "Fortunately for us, the DMU became available at the right time for our project."

With a fleet of vehicles ordered,

WES and the Portland & Western Railroad share the rails between Beaverton and Wilsonville – made possible through DMU technology.

Station bypass tracks – like those installed at the Tigard Station shown here – allow appropriate clearance for the Portland & Western's freight trains to pass the high-level platforms used at WES stations.

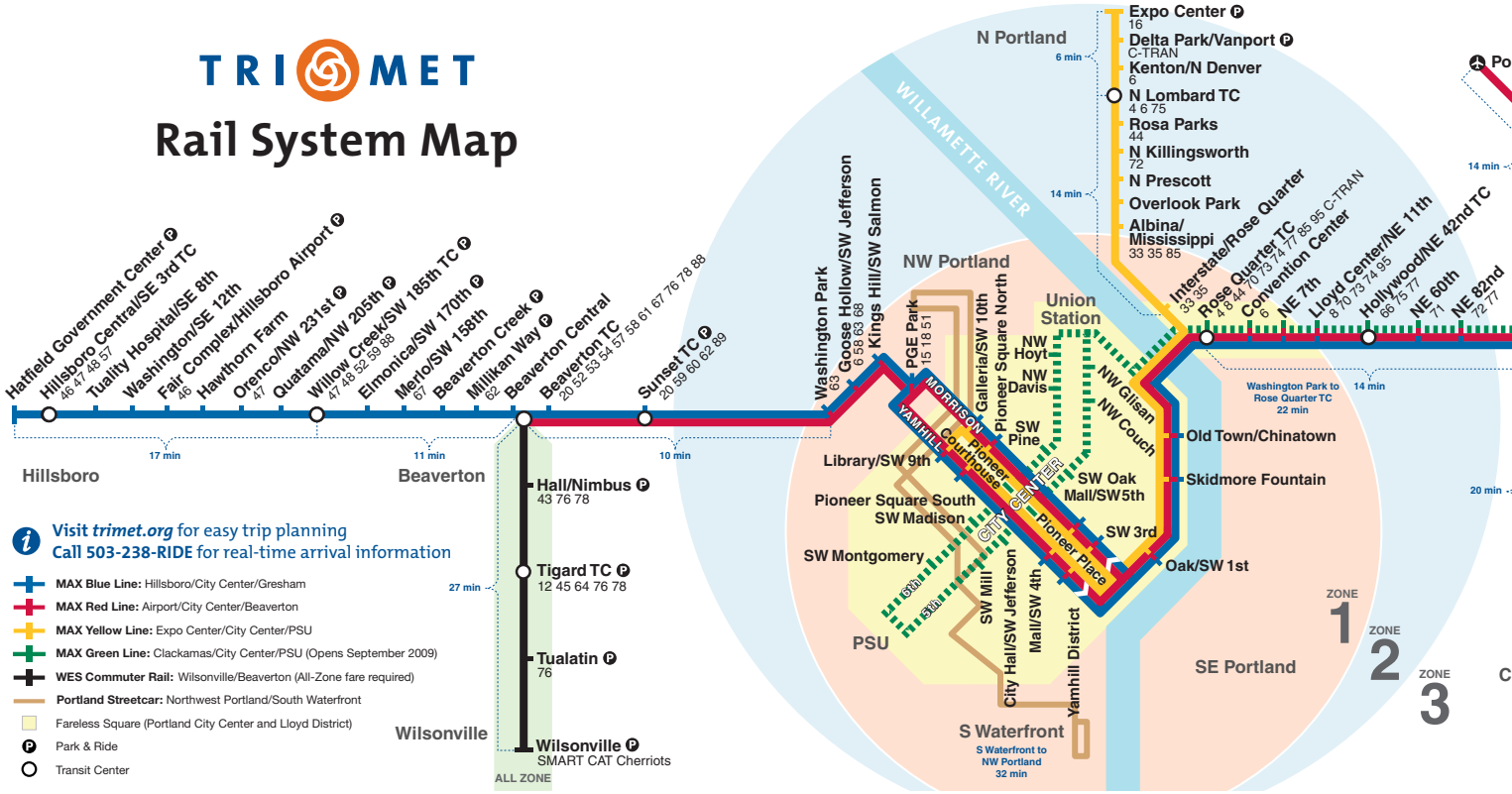
TriMet still faced one additional unique facet of its planned operation on the Portland & Western's rails. The new DMU vehicles would be configured for high-level platform boarding, which presents clearance challenges when freight trains pass within inches of high-level platforms. Instead of reconfiguring the vehicles to accommodate low-level boarding, TriMet and the Portland & Western devised an innovative solution in the form of a platform siding track, or gauntlet track. Using the same technology as a standard railroad interlocking switch, gauntlet tracks simply place a second set of rails located inches apart to allow for the required clearance between the platform and freight train. After clearing the corresponding end of the platform, another interlocking switch returns the outside tracks to their previous position. Amtrak uses similar infrastructure at its New Carrolton, Md. station, where its high-speed *Acela* trains and Norfolk Southern's off-peak freights operate through the high-level station. Since the new station's terminal stations at Beaverton and Wilsonville would be positioned off the active freight tracks, only the intermediate stops at Hall/Nimbus, Tigard and Tualatin would require the bypass tracks.

"It was an innovative concept from a railroading perspective," says the Portland & Western's Billy Eason. "But it's a good example of the partnership worked between us and TriMet."

A Train Named WES

With a distinctive rail approach mapped-out and vehicles in production, local elected officials and TriMet leaders broke ground on the Wilsonville to Beaverton commuter rail project on October 25, 2006. Half of the project's total $133 million cost was made possible by investment from the Federal Transit Administration's New Starts program, while the local region matched that investment through Metro, the Portland region's regional government which has jurisdiction over transportation and land use decisions. In addition to constructing the five new stations and purchasing the DMUs, the project also upgraded the Portland & Western's rail line – improving its 14 miles of track and 14 grade crossings, rebuilding five bridges and constructing another two, and introducing Positive Train Control technology to the railroad's freight locomotives, guiding both passenger and freight trains by advanced signals along the route.

As work continued through the summer of 2008, TriMet engaged the community in preparing for the new service. Town hall meetings were held in communities along the line to introduce the new regional rail format to residents more accustomed to the existing MAX light rail system. Meanwhile, not only were connections readied for TriMet's own bus routes that would serve the new stations, but also with the South Metro Area Regional Transit (SMART), Salem-Keizer Transit and Canby Area Transit bus systems, which would provide service at the Wilsonville station. Additionally, TriMet conducted a contest in 2007 to replace the bulky



Wilsonville to Beaverton Commuter Rail working name, and settled on Westside Express Service – or WES, similar to TriMet's MAX light rail moniker – that November.

On February 2, 2009, many of the same elected officials that had spent more than a decade planning for WES gathered under misty skies at the Tigard Transit Center for the system's official opening. Representatives including TriMet's Hansen, Billy Eason of the Portland & Western, Metro's David Bragdon, the mayors of Beaverton, Tigard, Tualatin and Wilsonville, U.S. Representative David Wu and Oregon state officials christened the new service as the region's latest effort to address mobility needs with innovative passenger rail.

"We have a well-earned reputation for rail development around here," said Tom Brian, Chairman of the Washington County Board of Commissioners. "The communities consistently expressed their support for this project.

Likewise, Beaverton Mayor Dennis Doyle noted that, "this area is a leader in projects like these and we should not forget it. Good public transit is the key to helping our region move forward."

Broadening the WES Impact

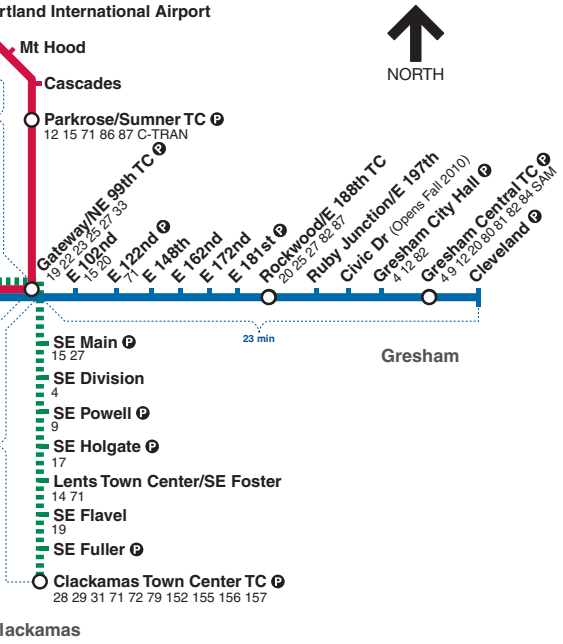
After more than a half year of service, WES is establishing its role as a key facet of the region's transportation network. In June 2009, WES averaged daily ridership of 1,180, which TriMet officials expect to climb to over 2,400 daily passengers by the end of the year. Portland & Western engineers and conductors operate the 16 daily roundtrips between Beaverton and Wilsonville – offering eight trains in both directions during the both morning and evening rush hours – while TriMet mechanics maintain the DMUs at a facility near Wilsonville. WES trains travel the route in about 27 minutes.

At the same time, WES also is continuing the region's tradition for focusing economic development efforts around its transit stations. [NEED MORE]

Still more opportunities exist for WES beyond its economic development influence. The same Portland & Western tracks that WES travels to Wilsonville continue south to Oregon's capital in Salem. Based on the pragmatic partnership already established with TriMet, the railroad considers expansion of WES a viable possibility, provided that such an extension correspond with a service agreement and infrastructure improvements similar to those for the current operation.

"An extension from Wilsonville to Salem is something we'd look into, working with TriMet and local officials," says Eason. "We have a responsibility to our customers to provide efficient and reliable freight service, but fortunately we have a strong relationship already established where additional WES service to the south fits with our needs."

Local and state leaders are exploring potential investment to match future federal dollars to support an expansion to Salem, which would also serve the communities of Keizer and Woodburn. The effort would coincide with many other rail transit expansion projects in the region, including a new MAX route through downtown Portland and reaching Clackamas opening in September 2009 – the Green Line – along with a new Portland Streetcar line planned for east of downtown. For many area officials, a WES extension to Salem represents an achievable option.



TriMet's ever-growing rail system, including the new WES service (black line), will soon add the Green Line between Clackamas and the rebuilt transit mall on 5th and 6th streets downtown.

"Much like the Transcontinental Railroad established a vision for what our nation would be over 150 years ago, WES represents a way of shaping our communities," said Congressman Wu.

"It wouldn't be hard to take [WES] to Salem, because the right-of-way is already there," says Oregon State Representative Mitch Greenlick. "It would probably be easier to take it from Wilsonville to Salem than it was from Wilsonville to Beaverton."

Once Before, and Now Once More

From the early days of the Oregon Electric to the recent emergence of WES as part of a dynamic regional passenger rail network, the travel corridor between Beaverton and Wilsonville has been a key conduit for the area's prosperity. Today, the route not only marks an important path to a more fully connected region, but also a new approach to passenger rail. Beyond its vehicles, railroad infrastructure or even its essential intermodal connections, regional rail routes such as WES are redefining how modern passenger rail shapes communities.

It is in this sense, however, that not all that much has changed from the era when interurban routes like the Oregon Electric first linked towns and villages to city centers almost a century ago. And this is why those involved with WES know it can happen again.

WES introduced new street-running tracks on Lombard Avenue (above) to connect the Beaverton Transit Center with the Portland & Western rail line. Below, the railroad's tracks in Wilsonville continue south to Salem – a future corridor for WES expansion.