

A Proposal for SW Corridor Transit

Public transportation in the SW Corridor is inadequate and has to be upgraded and redesigned if the long-term transportation needs of the public are to be met. **The SW Corridor currently generates less than 9% of TriMet's ridership and yet it consumes 25% of its total bus hours and 22% of all vehicle hours including MAX and WES.**

This poor ridership and inefficient service cannot be blamed entirely on sprawling land development. Much of it has to do with poor system design and operation. The SW Corridor lacks a system of connecting lines able to provide convenient access to and from the entire metro region as well as downtown. Rationalizing the bus service into a **multi-destinational network** and adding a **Rapid Transit Line** as an effective alternative to I-5 would significantly increase transit ridership while reducing traffic demand, especially during peak hours.

Multi-destinational transit

Multi-destinational transit networks provide convenient transit access to and from any destination within the area served by the use of connections or transfers. If a transit system is designed around accommodating only single-seat trips, it will fail to become a serious competitor to the private automobile because most destinations in the metro region are not concentrated in a single location such as the CBD.

To be effective, a Multi-Destinational Transit Network must be there when you need it and must be able to get you to your destination in a reasonable length of time. This requires daily service during most of the day (span of service) with frequent service lines that connect directly to major regional destinations and to each other. This can be achieved with two basic routing configurations, namely the grid and the hub and spoke.

Experience at successful transit systems has shown that a grid of transit lines running frequently (**Frequent Service Transit***) is the most efficient way to attract ridership. The routes are direct and the transfers are fast and reliable. The hub and spoke configuration, with less frequent local service, can be an effective way to provide access between more isolated suburban neighborhoods and to the grid network if their schedules are timed for convenient transfers.

On a regional scale, a hub and spoke configuration cannot provide fast and convenient multi-destinational service because it requires out-of-direction travel for many trips. An exception is where higher speeds on rapid transit lines can compensate for some out-of-direction travel.

The SW Corridor is currently served by a hub and spoke system oriented to the CBD. It has routes of insufficient span of service and frequency, and with no rapid transit. Its only cross-town grid service is provided by the #76 Tualatin, #78 Lake Oswego and WES, none of which provides **FTS**.

Grid Network for the SW Corridor

Following is an example of a basic grid network of **Frequent Service Transit** that would provide direct access to the entire metro region and would connect to other lines. They may replace or incorporate parts of some existing lines.

- A new **FST** line between Lake Oswego and Sherwood via Country Club Road, Boones Ferry Road and Tualatin Sherwood Road. (Major connections at Lake Oswego TC, Tualatin and Sherwood)
- A new north-south **FST** line between Sherwood and PCC Rock Creek via Elsner road, Roy Rogers Drive and 185th Avenue. (Major connections at Sherwood, TV Highway, Willow Creek TC, Tanasbourne, and PCC Rock Creek)
- A new east-west **FST** line between Washington Square and Clackamas Town Center via Taylors Ferry Road, Sellwood Bridge, Tacoma Street, Johnson Creek Blvd. and 92nd Avenue. (Major connections at Washington Square, Barbur TC, #35 on Macadam, Sellwood/Moreland, Tacoma MAX Station, #75, #71, #72 and Clackamas TC)
- Retain the #12 Barbur Line. (Major connections at CBD, Barbur TC, Tigard TC and Sherwood)
- Retain the #76 Beaverton/Tualatin Line and upgrade it to **FST**. (Major connections at Beaverton TC, Washington Square, Tigard TC, Bridgeport Village and Tualatin)

Local Transit

Local bus routes with service frequencies no greater than 30 minutes should be established where needed. They should connect to the grid bus system and rapid transit. Where two or more local buses connect at a station or other exchange point, their schedules should be coordinated to avoid long connecting delays.

A North-South Rapid Transit MAX Line

(Between Vancouver and Tualatin along the I-5 Corridor)

MAX currently provides a rapid transit alternative to I-84, Highway 26, portions of I-5 north, portions of I-205 and, soon, the Milwaukie MAX Line in the 99E Corridor. Unfortunately it does not have rapid transit at its core. The accepted concept is to develop a radial rapid transit system with lines on surface streets in the central city that converge on Pioneer Square in downtown Portland. Slow operating speeds through the central city resulting from traffic, bridge lifts, concern for pedestrian safety, train congestion and frequent stops result in a disincentive for commuters to chose MAX for long interregional trips.

If the **east-west** MAX lines are expected to function with the speed and efficiency of true rapid transit, they will someday have to be connected through the central city in a subway with minimal stops. In the meantime, the SW Corridor Planning process provides an excellent opportunity to provide true **north-south** rapid transit. It could provide a viable alternative to I-5, greatly reducing traffic demand while not getting bogged down on downtown streets.

This proposal extends the North Portland Yellow Line south on the eastside from the Rose Garden to OMSI and then across the Willamette River on the new light rail bridge to South Waterfront. While not going through the CBD, this alignment provides excellent connections to and from the CBD with direct transfers to the Blue, Red, Green and Orange MAX Lines. It also connects to numerous downtown **FST** bus lines at four inner eastside stations.

From the South Waterfront Station, the line could enter a tunnel under Marquam Hill with stations at OHSU and Hillsdale. It could also be extended as a subway with stations at Multnomah Village, Barbur TC and PCC Sylvania. The line could then extend to the Tigard TC via tunnel, structure and on the surface where it could follow the WES alignment to Tualatin on a second (electrified) track.

Note: Building a tunnel for light rail is not necessarily more expensive than building it on the surface. Land values can greatly increase the cost of surface construction. The 2.9-mile Robertson light rail tunnel through the West Hills, with one subway station, opened in 1998 at a cost of \$184 million. That underground work would be about \$290 million or **\$100 million per mile** in today's dollars. Compare this to the 7.3-mile Milwaukie Line, now under construction above ground, costing \$1.5 billion or **\$200 million per mile**.

This 15-mile line between the Rose Quarter and Tualatin and the six-mile Yellow Line from the Rose Quarter to downtown Vancouver** would combine to become a 21-mile regional rapid transit line. There would be at least 20 stations providing connections to four other MAX Lines, many frequent service bus lines and the streetcar system. It would have an end-to-end running time of approximately one hour and would draw many regional commuters off I-5, thus **eliminating any need for further freeway expansion**. (See attached map)

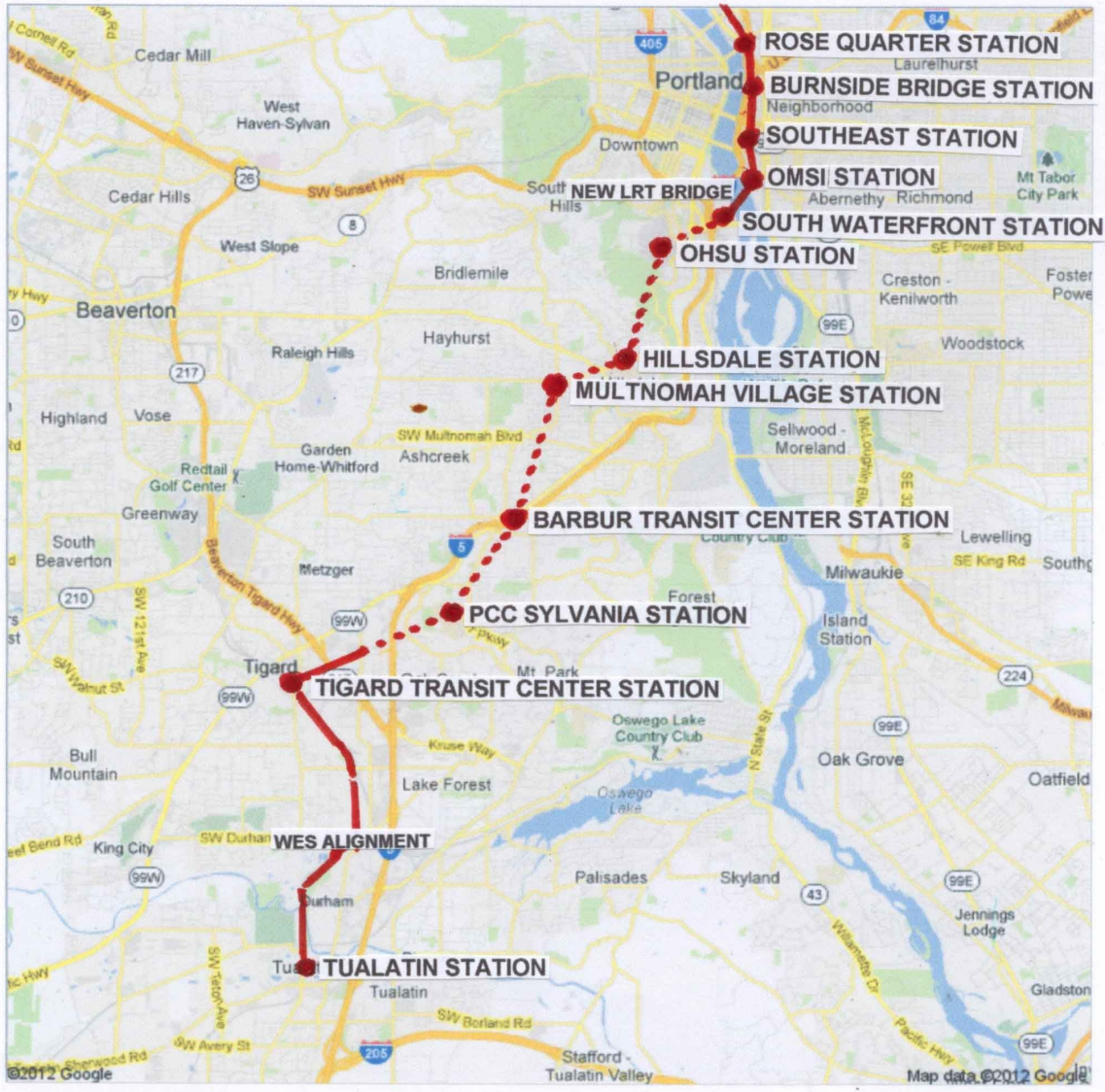
* **Frequent Service Transit** (As defined by Tri-Met – Oct. 2005)

** Assumes MAX will serve Hayden Island and extend at least to a terminal station in Downtown Vancouver.

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Map follows.



ABOVE GROUND
 UNDERGROUND

MAX YELLOW LINE EXTENSION SOUTH TO TUALATIN
(6.5-MILES UNDERGROUND 8.5-MILES ABOVE GROUND)