

# Burlington Northern Santa Fe (BNSF) Eastside Corridor Commuter Rail Feasibility Study

## Background

In 2008, the state legislature directed Sound Transit and the Puget Sound Regional Council (PSRC) to complete a feasibility study to "determine whether commuter rail service between eastern Snohomish County and eastern King County ... can be a meaningful component of the region's future transportation system." The study also developed a cost estimate for a parallel passenger rail and bicycle/pedestrian trail.

The BNSF Railway Company Eastside Corridor runs 34 miles from north Renton, through Bellevue and Woodinville, and on to Snohomish. The

corridor also includes a 7-mile spur from Woodinville to Redmond. It includes 24 bridge crossings, 97 curves and 107 at-grade crossings.

The Port of Seattle intends to purchase the corridor from BNSF in early 2009. King County then intends to acquire an easement along a portion of the corridor for a bicycle and pedestrian trail.

Potential future uses of the corridor, or certain segments, may include passenger rail, excursion trains, short haul freight service, and a regional trail.

## Study findings:

- Operating passenger/commuter rail on the corridor is feasible but significant capital improvements are needed to achieve higher speeds and improve the safety of the track, structures, and roadway crossings.
- The corridor has the potential for significant transit ridership connecting the regional growth centers of Renton, Bellevue, Kirkland/Totem Lake and Redmond, with as many as 6,000 trips per day.
- The capital cost estimate for passenger rail is within the range for other lines in the US. However, the costs are at the high end of that range because of the condition of the corridor and its current lack of safety and communication systems.
- A pedestrian/bike trail could fit within the existing right-of-way throughout much of the corridor. In some locations, property acquisition would be needed.
- The estimated capital cost for a fully improved pedestrian/bike trail parallel to the rail line ranges from \$297 million to \$432 million, depending on the width of the trail.
- The capital cost of passenger rail on the entire corridor is estimated at between \$1.0 and \$1.3 billion.

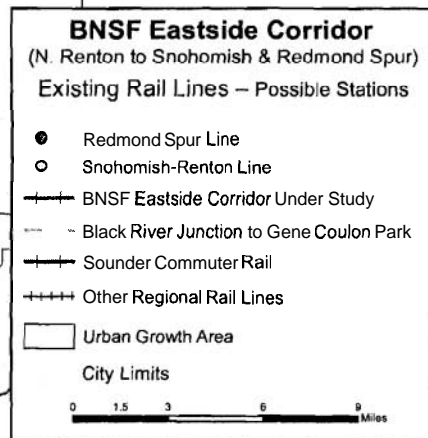
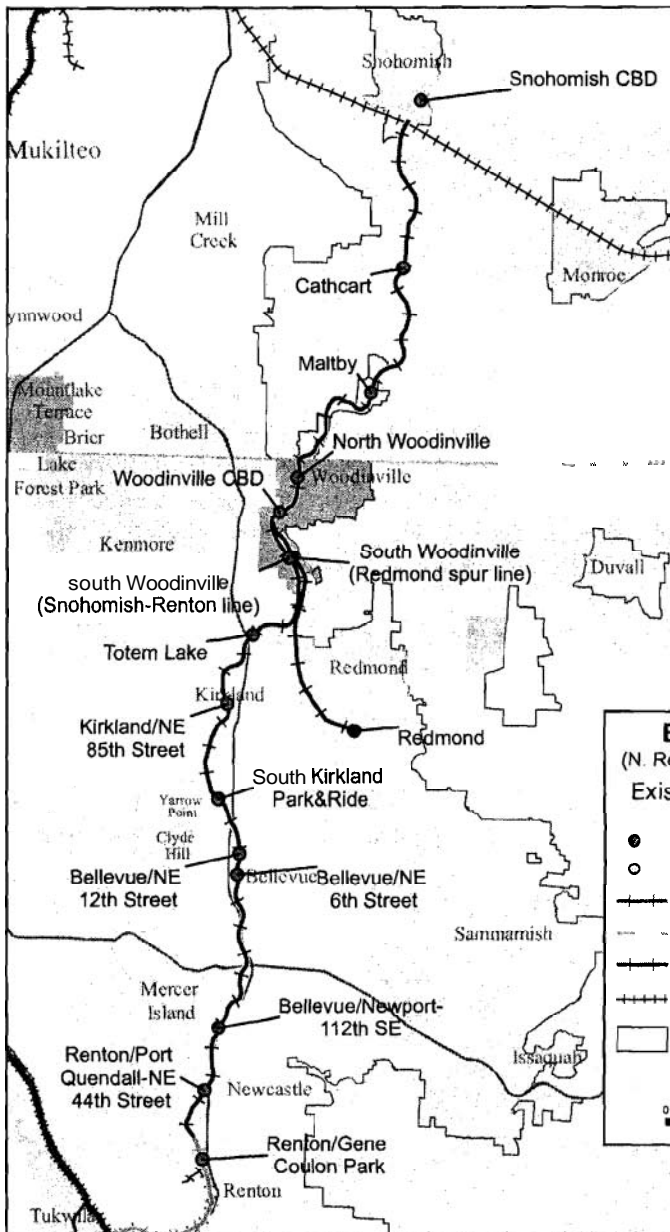
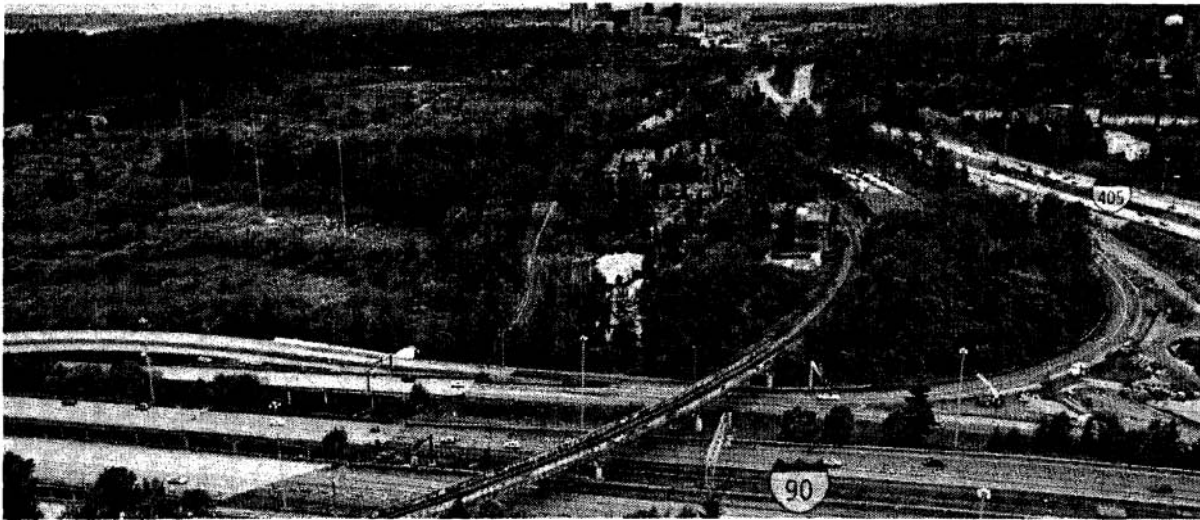


Exhibit "I"  
Port Commission Special  
Meeting of Feb. 10, 2009

Burlington Northern Santa Fe (BNSF)  
Eastside Corridor



Burlington Northern Santa Fe (BNSF) Eastside Corridor crossing I-90 south of downtown Bellevue

### Feasibility study assumptions

The feasibility study builds on previous studies of passenger or commuter rail on the corridor and used the following general assumptions:

- Upgrades were identified and costs were estimated at permanent passenger rail infrastructure standards including full replacement of the track, ties and rail bed (a demonstration project or project implemented by private entities could be accomplished differently with potentially lower costs)
- Either diesel locomotives with bi-level coaches (Sounder-type vehicles) or diesel multiple units (DMUs) could be used
- Complete signal/communication for train detection and control along with centralized train control were provided
- All public and private grade crossings were upgraded
- No new grade-separated crossings were included
- The condition of all 24 existing bridges was not evaluated
- One small yard and shops facility is needed
- The train speed, including stops, would average 24 mph
- Service would run two ways for 16 hours a day on weekdays. Trains would run every 30 minutes.

The study did not identify an optimal solution, preferred alternative, or the lowest cost or most cost-effective option. That information would be developed in the future by an agency or group proposing passenger rail on the corridor.

### Capital Costs

The capital costs for passenger rail on the entire corridor are estimated at \$1.0 to \$1.3 billion (in 2008\$). The capital cost

estimates include broad assumptions for track and trackbed, rail bridges, signals/train control/crossings, stations and right-of-way; and soft costs such as administration, design and environmental review and construction management. The cost estimates include significant contingencies based on the conceptual level of analysis. It is possible that passenger rail could be implemented in a different manner with a possible lower cost, but the costs in this report were estimated using methods developed by Sound Transit for its Sound Transit 2 Plan and approved by an independent review panel.

### Operating costs

Operating costs are estimated at \$24 to \$32 million per year based on two-way service on the corridor with trains operating every 30 minutes in each direction, 16 hours per day weekdays, along with track and vehicle maintenance costs.

### Sound Transit 2

Sound Transit 2, the mass transit package approved by voters in November 2008, includes a \$50 million capital contribution to a potential passenger rail partnership. If a partnership is not in place by the end of 2011, the funds will be re-directed to HOV/bus rapid transit in the 1-405 corridor. Sound Transit 2 does not include any additional funds for commuter or passenger rail on the Eastside BNSF corridor. For more information about the Sound Transit 2 Plan and requirements related to the \$50 million capital contribution, please refer to the Sound Transit Web site at: [http://future.soundtransit.org/documents/ST2\\_Plan\\_web.pdf](http://future.soundtransit.org/documents/ST2_Plan_web.pdf).



The feasibility study materials and reports are available on the PSRC Web site, at [www.psrc.org/projects/bnsf/reports.htm](http://www.psrc.org/projects/bnsf/reports.htm)

For questions and additional information regarding ST2 please refer to the Sound Transit Web site at: [future.soundtransit.org/documents/ST2\\_Plan\\_web.pdf](http://future.soundtransit.org/documents/ST2_Plan_web.pdf).