



Tacoma Link Integration with Central Link

Sound Transit Long-Range Plan – Time for an Update

Sound Transit’s Long-Range Plan update is being supported by two efforts: a Supplemental Environmental Impact Statement (SEIS), which updates the 1993 EIS, and several issue papers addressing specific long-range planning issues. These issue papers provide a level of detail beyond what is considered in the EIS, and are designed to help the Sound Transit Board and the region identify any needed additions to the existing Long-Range Plan. All of this information will be reflected in a draft Long-Range Plan, scheduled for public review in late spring this year. For a list of all the Long-Range Plan issue papers, please see the reverse.

to address the differences in vehicles and operating characteristics such as; different station platform requirements, turning areas, service intervals, and storage and maintenance facilities.

The issue paper evaluated several scenarios for where and how the two systems could integrate, and how that integration might be phased. The paper considers the fact that while 2030 daily ridership between Seattle and Federal Way is projected to be quite high, ridership from Federal Way south to Tacoma is projected to be somewhat lower. Thus, while two-car trains could serve demand from Tacoma to Federal Way, four-car trains would be needed in 2030 to handle Federal Way to Seattle riders. The paper also considers the effect on planning that another Long-Range Plan option – extension of Tacoma Link to the west – could have on system integration questions.

What is the question?

Sound Transit’s Long-Range Plan includes future light rail service between Tacoma and Seattle. In the first phase of construction, the Central Link light rail line is currently being built from downtown Seattle, south to the airport. In Pierce County, the Tacoma Link light rail system was completed in 2003. Connecting these two systems to offer a continuous light rail line from Tacoma to downtown Seattle is a future goal. This paper explores issues associated with how the two systems might be integrated, considering ridership along the route and the differences between the two systems.

What was studied?

Tacoma’s riders board single rail cars that are 60 feet long, arrive every 10 minutes and have a top speed of 42 miles per hour. Central Link light rail vehicles, by comparison, are 90 feet long, will run in four-car trains and can reach a top speed of 55 miles per hour. An integrated system would need



Tacoma Link arrives at Union Station.



Illustration of SODO Station (formerly Lander Station).

What did we learn?

- Running two-car trains within Tacoma is possible. Some platforms would need to be extended and wider turning areas for the track may be needed in some locations. Existing trolley-style vehicles are not designed to link together, though it might be possible. If 90-foot Link-style vehicles are used, Tacoma stations could be modified to accommodate two cars, while the Tacoma Dome Station may need more extensive revisions.
- Major revisions would be needed along the existing Tacoma Link line to accommodate 4-car trains. Instead light rail from Seattle to Tacoma could terminate at the Tacoma Dome Station, where riders could transfer to Tacoma Link and other transit services.
- Limitations of the single track in Tacoma mean that service intervals are difficult to reduce below 10 minutes, though extending light rail west of downtown Tacoma could increase frequency.
- Additional storage and maintenance facilities would be needed to address the extra cars added to provide this service, exceeding the existing Tacoma Link facility's capacity.
- Demand between Seattle and Federal Way will require 4-car trains. Because completion of Central Link to Tacoma may take many years, some have suggested an interim step extending Tacoma Link north to Federal Way. Under this "golden spike" alternative, the Tacoma-Federal Way segment could be served with 2-car trains. However, demand between Federal Way and Seattle requires 4-car trains. Therefore, the southern segment will need to be designed to handle 4-car trains or will need a future retrofit.

As issue papers are presented to the Sound Transit Board, they will be available at: www.soundtransit.org/projects/longrange/issuepapers.asp

See other Long-Range Plan Issue Papers

- Convertibility of BRT to Light Rail
- I-90 Corridor/East King County High Capacity Transit Analysis
- BRT in the SR-99 Corridor
- I-5 Corridor Northgate to Everett HCT Assessment
- SR-522 Corridor HCT Assessment
- Seattle Streetcar Options
- HCT System Development Issues in the South Corridor
- Potential Rail Extensions to Frederickson and Orting
- Potential Tacoma Link Extension - East
- Potential Tacoma Link Extension - West
- Rail between Burien and Renton