

Motion No. M2024-39

A motion of the Board of the Central Puget Sound Regional Transit Authority directing the chief executive officer to (1) expand the geographic scope of Sound Transit's At-Grade Crossing Program to include all Link light rail at-grade crossings, as well as Sound Transit-owned Sounder, and T Line at-grade crossings; (2) accelerate the execution of current at-grade crossing projects underway to improve near-term safety and expand current projects as needed; (3) incorporate at-grade crossing safety into existing environmental planning to ensure safety elements are included in upcoming system expansion projects; and (4) integrate at-grade crossing safety planning into all long range planning efforts, including assessing the costs and benefits of at-grade crossings as it relates to light rail system service and operations.

Background

Public transportation plays a critical role in increasing mobility, especially for individuals and families who lack a private means of transportation, have no- or low-income, live in communities without essential goods and services, and must travel for school, work, and other opportunities.

Light rail transit technology allows Sound Transit's Link Light Rail network to be designed to partially operate on streets. Commuter rail, including Sound Transit Sounder service, gives individuals a dependable, congestion-free commute using dedicated heavy rail tracks. Modern streetcar technology, such as the T Line in Pierce County, with its low-floor boarding means it can operate in curbside or a median right of way, as well as in mixed traffic, or in dedicated right-of-way.

At-grade crossings, also known as Highway-rail grade crossings, are the intersection of two or more modes of transportation with very different physical and operational characteristics.

Sound Transit's Link light rail includes 49 at grade light rail crossings, its commuter rail Sounder service has 16 at-grade crossings on the Sound Transit-owned Lakewood subdivision, and T Line includes 47 crossings. According to the WSDOT Design Manual, operations at roadway intersections located near grade crossings can present significant challenges for grade crossing safety.

Train safety is an important issue in the U.S. where every three hours in the U.S. a person or vehicle is hit by a train, and more than 60% of collisions occur at crossing equipped with lights and/or gates. Since opening in 2009, there have been 11 fatalities on Link light rail service that involved the train striking a car or pedestrian. Of those, 8 were incidents that occurred in the Rainier Valley at-grade segment.

The at-grade segment in the Rainier Valley has 27 at-grade vehicle and pedestrian crossings. This section of track is the largest source of variability in the Link light rail system due to delays and service disruptions caused by traffic signals and collisions. The variability in the Rainier Valley can result in "train bunching," which can cause crowding and other operational challenges, up and down the alignment, including the interlining of trips for both the 1 and 2 Lines between International District Station and Lynnwood City Center. In addition, variability can result in needing more light rail fleet to accommodate slower travel times. Having improved reliability in the Rainier Valley will assist in Sound Transit's ability to meet federal grant commitments related to service levels as the system expands.

In light of safety issues related to at-grade crossings in August of 2021, Sound Transit formalized work taking place across the agency into one multi-disciplinary work group that focuses on at-grade crossing safety.

Sound Transit's At-Grade Crossing Program is focused on Link light rail at-grade crossings and works to reduce the safety risk to the lowest practical level as defined by the Federal Transit Administration (FTA) on the existing operational system and voter approved projects currently under construction. While the Sounder and T Line are not currently within the program's scope they are planned to be incorporated.

Sound Transit in partnership with SDOT has completed work on the Rainier Valley Corridor, including pavement markings, LED signs, traffic signals, and additional studies on treatments, and analysis on risks and costs. Sound Transit has many active studies, pilot projects, and projects underway in the Rainier Valley Corridor including but not limited to an eye-tracking study/analysis, a signal reprioritization pilot, an audible warning modification pilot, paint to enhance trackway visibility pilot, a pilot for automated pedestrian gates at station locations, and light rail vehicle wig wag headlights, as well as traffic modeling.

In recognition of series of efforts underway, as well as the community concerns related to transportation safety in communities in King, Pierce, and Snohomish Counties where Sound Transit rail service operates, it is important to accelerate the pace and expand the geographic scope of these at-grade safety projects, intensify focus on the short-term safety concerns on existing corridors, and identify medium and long-term issues and opportunities that impact safety, and system operations and reliability of Sound Transit service. The identification of these medium and long-term issues could present significant opportunities for system expansion, as well as future needs for rolling-stock acquisition.

Because Sound Transit-owned at-grade crossings intersect with the rights-of-way of jurisdictions including Seattle, Bellevue, Redmond, Tacoma, Lakewood, and DuPont, it is necessary to ensure strong agency relationships with partner jurisdictions.

Motion

It is hereby moved by the Board of the Central Puget Sound Regional Transit Authority that the chief executive officer is directed to (1) expand the geographic scope of Sound Transit's At-Grade Crossing Program to include all Link light rail at-grade crossings, as well as Sound Transit-owned Sounder, and T Line at-grade crossings; (2) accelerate the execution of current at-grade crossing projects underway to improve near-term safety and expand current projects as needed (3) incorporate at-grade crossing safety into existing environmental planning to ensure safety elements are included in upcoming system expansion projects; and (4) integrate at-grade crossing safety planning into all long range planning efforts, including assessing the costs and benefits of at-grade crossings as it relates to light rail system service and operations.

APPROVED by the Board of the Central Puget Sound Regional Transit Authority at a regular meeting thereof held on _____.

Dow Constantine
Board Chair

Attest:

Kathryn Flores
Board Administrator