

1 PURPOSE AND NEED FOR WEST SEATTLE LINK EXTENSION

1.1 West Seattle Link Extension Project

Central Puget Sound Regional Transit Authority (Sound Transit) is proposing to expand Link light rail transit service from SODO to West Seattle. The West Seattle Link Extension Project (the project) is a 4.1-mile corridor in the City of Seattle in King County, Washington, the most densely populated county of the Puget Sound region (Figure 1-1). The West Seattle Link Extension would include stations at SODO, Delridge, Avalon, and Alaska Junction.

The project is part of the Sound Transit 3 Plan of regional transit system investments, funding for which was approved by voters in the region in 2016. Sound Transit and the Federal Transit Administration (FTA) are preparing this Final Environmental Impact Statement (EIS) for the project. The EIS is a joint National Environmental Policy Act (NEPA) and State Environmental Policy Act (SEPA) document. FTA is the lead federal agency under NEPA, and Sound Transit is the lead agency for SEPA.

The Draft EIS published in January 2022 evaluated both the West Seattle Link Extension and the Ballard Link Extension together as one West Seattle and Ballard Link Extensions Project. The extensions were evaluated together in the Draft EIS because of their location, schedule, and review efficiencies for partner agencies.

In July 2022, the Sound Transit Board directed that further studies be prepared for the Ballard Link Extension, to evaluate additional station options and other refinements (Motion M2022-57). Some of these project options and refinements require additional conceptual engineering and environmental review. Rather than delay completion of the environmental review process for the West Seattle Link Extension while additional review is conducted for the Ballard Link Extension, Sound Transit and FTA have decided to move forward under separate environmental reviews for each extension.

As described in the Draft EIS, the two extensions will operate as separate lines, and the extensions are stand alone projects with independent utility. Proceeding with separate environmental review processes for each extension enables Sound Transit and FTA to minimize delay in delivering the West Seattle Link Extension while further studies are undertaken on the Ballard Link Extension. Accordingly, this Final EIS is for the West Seattle Link Extension only. The Ballard Link Extension will undergo separate environmental review, building on the analysis that has already been completed. This West Seattle Link Extension Final EIS includes responses to comments received on the West Seattle and Ballard Link Extensions Draft EIS that are specific to the West Seattle Link Extension or that would apply to both projects (See Appendix O, Draft EIS Comments). Comments specific to the Ballard Link Extension as well as those that apply to both projects will be responded to as part of the environmental review process for the Ballard Link Extension Project.

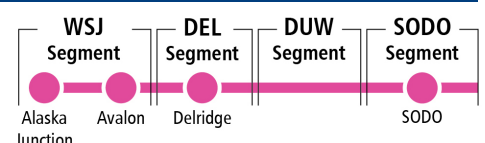
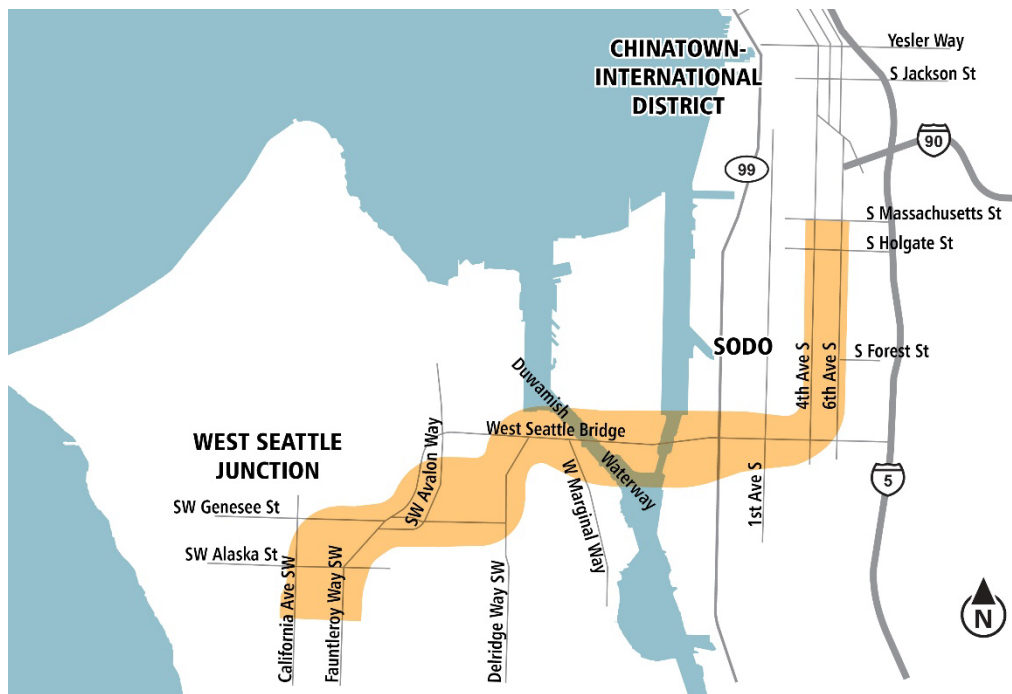


Figure 1-1. West Seattle Link Extension Project Corridor



The West Seattle Link Extension would provide fast, frequent, and reliable light rail in Seattle and connect dense residential and job centers throughout the Puget Sound region. Puget Sound Regional Council (the regional metropolitan planning organization) and the City of Seattle have designated the following Manufacturing/Industrial Center and urban village in the project corridor:

- **Manufacturing/Industrial Center.** The project corridor includes the Duwamish Manufacturing/Industrial Center. SODO Station is in the Duwamish Manufacturing/Industrial Center.
- **Urban Village.** West Seattle Junction is a neighborhood in the project corridor designated by the City of Seattle as an urban village. The West Seattle Junction and Avalon stations are in the West Seattle Junction Urban Village.

Puget Sound Regional Council

Puget Sound Regional Council, the regional metropolitan planning organization, develops policies and coordinates decisions about regional growth, transportation, and economic development planning within King, Kitsap, Pierce, and Snohomish counties. Puget Sound Regional Council is composed of over 80 jurisdictions, including all four counties; cities and towns; ports; state and local transportation agencies; and tribal governments within the region.

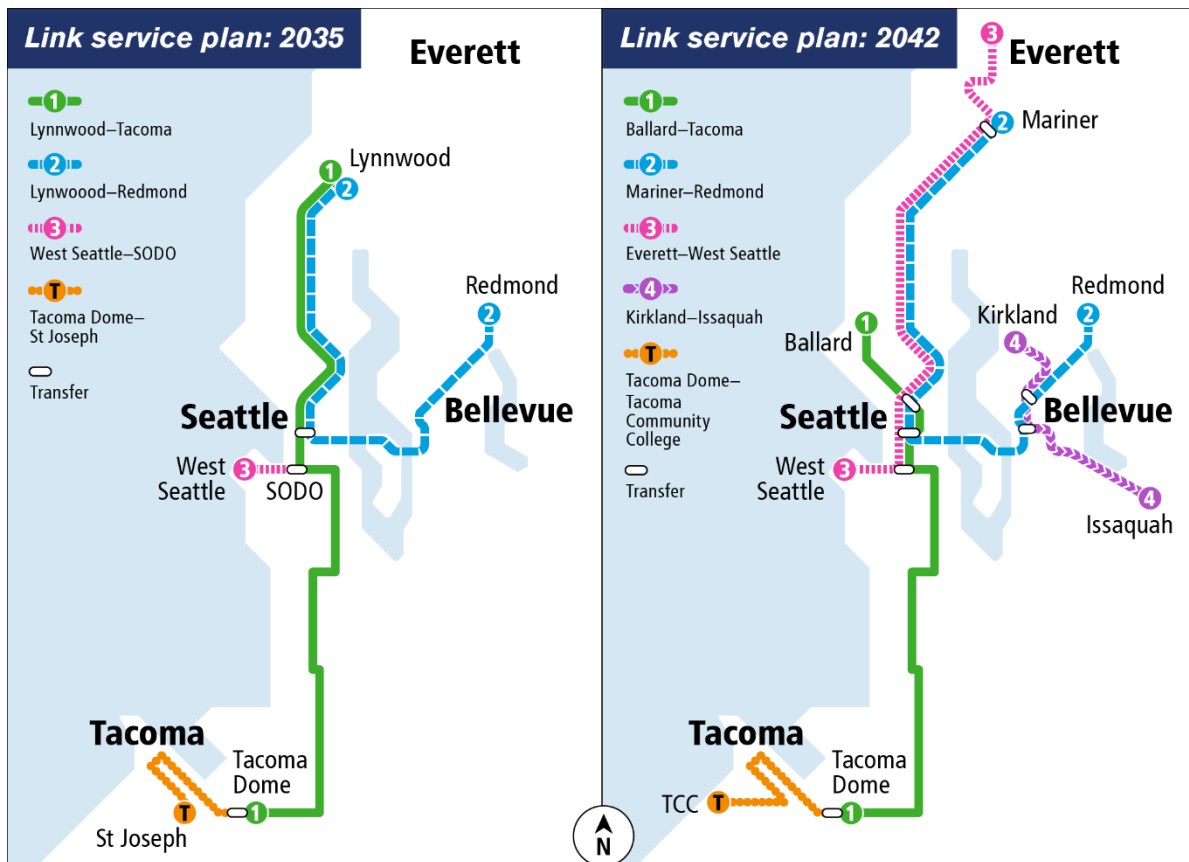
These designations indicate that these areas will continue to increase in residential and/or employment density over the next 30 years.

Existing local transit connections in the project corridor include bus and light rail. The King County Metro Transit (Metro) RapidRide C bus line currently provides service between West Seattle, Downtown Seattle, and South Lake Union. The RapidRide H bus line provides service between Burien and Downtown Seattle via Delridge. Other local bus service also operates in the project corridor.

Regional transit service in the project corridor includes regional bus service, ferry service, light rail, Sounder commuter rail, and Amtrak passenger rail service. Light rail currently operates between the Angle Lake Station in the City of SeaTac and Northgate Station in Seattle, traveling through the Downtown Seattle Transit Tunnel. There is an existing light rail station in SODO in the West Seattle Link Extension Corridor.

Extensions of light rail are under construction north to Lynnwood, east to Bellevue and Redmond, and south to Federal Way, all of which are anticipated to be operational by 2026. Planned light rail extensions would continue south to the Tacoma Dome, expected to begin service in 2035, and north to Everett, planned to begin service between 2037 and 2041. The Ballard Link Extension is scheduled to begin service between SODO and Ballard in 2039. The West Seattle Link Extension is scheduled to open in 2032 and would include a new SODO Station where riders to and from West Seattle could transfer to the existing SODO Station and light rail system until the Ballard Link Extension begins operation. The Ballard Link Extension would permanently connect the West Seattle Link Extension to the existing 1 Line, allowing riders to continue north to Everett. Figure 1-2 shows the full system planned for operation in 2042 under the target schedule.

Figure 1-2. Link Light Rail System Expansion



1.2 Purpose and Need for the West Seattle Link Extension Project

1.2.1 Purpose of the West Seattle Link Extension Project

The purpose of the project is to expand the Sound Transit Link light rail system from SODO to West Seattle, to make appropriate community investments to improve mobility, and to increase capacity and connectivity for regional connections in order to achieve the following:

- Provide high-quality rapid, reliable, and efficient light rail transit service to communities in the project corridor as defined through the local planning process and reflected in the Sound Transit 3 Plan (Sound Transit 2016)
- Improve regional mobility by increasing connectivity and capacity to Downtown Seattle to meet the projected transit demand
- Connect regional centers as described in adopted regional and local land use, transportation, and economic development plans and Sound Transit's Regional Transit Long-Range Plan (Sound Transit 2014a)
- Implement a system that is technically and financially feasible to build, operate, and maintain
- Expand mobility for the corridor and the region's residents, which include transit-dependent people, low-income people, and communities of color
- Encourage equitable and sustainable urban growth in station areas through support of transit-oriented development and multi-modal integration in a manner that is consistent with local land use plans and policies, including Sound Transit's Equitable Transit Oriented Development Policy (Sound Transit 2018) and Sustainability Plan (Sound Transit 2019)
- Encourage convenient and safe non-motorized access to stations, such as bicycle and pedestrian connections, consistent with Sound Transit's System Access Policy (Sound Transit 2013)
- Preserve and promote a healthy environment and economy by minimizing adverse impacts on the natural, built, and social environments through sustainable practices

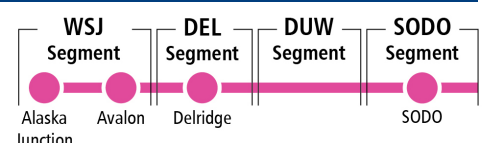
Purpose and Need Statement

The purpose and need section describes why the agency is proposing to develop the project. It clarifies what problems the project is addressing and justifies the expenditure needed. The purpose and need therefore drive the process for alternatives consideration, in-depth analysis, and ultimate project selection.

1.2.2 Need for the West Seattle Link Extension Project

This section describes the need for the project. For each need statement, additional supporting information is provided along with references to sections of this Final EIS where more detailed information can be found. In brief, the need for the project is as follows:

- When measured using national standards, existing transit routes between Downtown Seattle and West Seattle currently operate with poor reliability. Roadway congestion in the project corridor will continue to degrade transit performance and reliability as the city is expected to add about 287,000 people and about 214,000 jobs between 2018 and 2050 (Puget Sound Regional Council 2023).



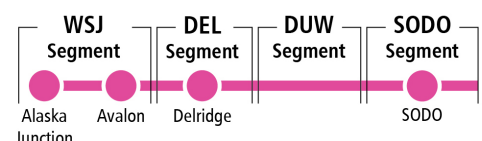
- Increased ridership from regional population and employment growth will increase operational frequency in the existing Downtown Seattle Transit Tunnel, requiring additional transit capacity.
- Puget Sound Regional Council (the regional metropolitan planning organization) and local plans call for high-capacity transit in the corridor consistent with VISION 2050 (Puget Sound Regional Council 2020) and the Regional Transit Long-Range Plan (Sound Transit 2014a).
- The region's people and communities, including transit-dependent people, low-income people, and communities of color, need long-term regional mobility and multi-modal connectivity as called for in the Washington State Growth Management Act (Revised Code of Washington 36.70A.108).
- Regional and local plans call for increased residential and/or employment density at and around high-capacity transit stations, and increased options for multi-modal access. VISION 2050 has a goal for 65 percent of the region's population growth and 75 percent of the region's employment growth to occur in regional growth centers and within walking distance of transit.
- Environmental and sustainability goals of the state and region, as established in Washington state law and embodied in Puget Sound Regional Council's VISION 2050 (2020) and 2022-2050 Regional Transportation Plan (2022), include reducing greenhouse gas emissions by prioritizing transportation investments that decrease vehicle miles traveled.

Sections 1.2.2.1 through 1.2.2.6 explain the need for the project in greater detail.

1.2.2.1 Increasing Roadway Congestion Will Further Degrade Transit Performance and Reliability

Seattle has experienced unprecedented growth over the past two decades, a result of substantial private-sector investment in jobs and housing coupled with major public infrastructure investments. The greater Seattle region is one of the top metropolitan areas for rapid population growth in the United States (Howarth 2023). According to the United States Census Bureau, the population of King County grew by 16.8 percent from 2010 to 2019, while the population of the Seattle-metropolitan area increased by 15.4 percent during the same time (United States Census Bureau 2010 and 2019). In addition to experiencing unprecedented population growth, King County and Seattle are both net importers of workers, meaning that these jurisdictions have more jobs than workers who live in them. From a transportation perspective, this means that a large number of workers travel from cities and counties outside Seattle and King County to jobs in the county and/or city.

Rapid population and job growth has strained transportation resources in the project corridor. Interstate 5, State Route 99, and main arterial streets in the project corridor suffer from chronic congestion, even outside of peak travel periods. Most roadways in the project corridor cannot be expanded to accommodate increasing demand without substantial property acquisitions because of limited right-of-way. Although Downtown Seattle is served by heavily used commuter rail, light rail, bus, and streetcar, the surface transit system is struggling to accommodate more growth because of roadway congestion and the difficulty in acquiring new right-of-way for dedicated transit infrastructure. Seattle's topography and natural barriers, such as hills, valleys, ridges, and waterbodies, have necessitated innovative and engineering-intensive solutions like hill regrading and construction of railroad and transit tunnels, floating bridges, and highways and arterials on elevated structures. Today, congestion adds an average of 7 minutes (47 percent) to p.m. peak hour trips on the RapidRide C Line, which follows the course of the proposed West Seattle Link Extension (Metro 2019). The key role of this corridor in linking communities and activity centers has led Metro, the operator of most buses in the corridor, to identify it as a target for service growth (Metro 2022).



Population and employment growth is forecasted to continue over the next 25 years. According to Puget Sound Regional Council, Seattle expects an increase of about 39 percent in population and 32 percent in employment between 2018 and 2050, which would add about 287,000 people and about 214,000 jobs to the city (Puget Sound Regional Council 2023). The project corridor is projected to grow by 23 percent in population and 46 percent in employment during the same timeframe. Section 4.3, Economics provides additional information on projected growth.

This projected growth is the basis for ridership forecasts, projected vehicle trips and non-motorized activities.¹ Because of the projected population and employment growth and the limitations on expanding the capacity of the surface transportation network due to limited right-of-way, topography, and natural barriers, there is a need for future investments in high-capacity transit systems to serve future transit needs in the project corridor. The project is expected to alleviate the constrained bus network capacity within the corridor to allow for passengers to sit. Existing p.m. peak hour transit travel times from downtown to West Seattle are 22 minutes and are expected to increase to 30 minutes by 2042. In 2042, without the project, transit travel times between Downtown and West Seattle would be 30 minutes. With the project, this would improve by 14 minutes, or 47 percent. Furthermore, transit travel time reliability will greatly improve from unreliable under existing conditions to reliable service on the exclusive light rail right-of-way.

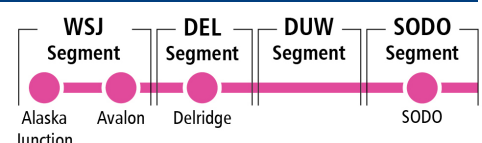
1.2.2.2 Regional Transit Capacity Constraints

Additional transit capacity will be required in Downtown Seattle as operational frequency increases in the Downtown Seattle Transit Tunnel to accommodate increased ridership from regional population and employment growth. The project increases transit capacity in the region and supports the future distribution of passengers using the system through Downtown Seattle planned as part of completion of the Sound Transit 3 Plan.

The project would increase transit capacity and frequency. By 2032, without the project, transit capacity in the project corridor is expected to degrade to standing-room only level conditions in the peak hours on the bus network. Upon opening in 2032, when riders would be required to transfer at the SODO Station to continue on Link light rail, weekday ridership is projected at 5,400 trips. In 2042, with completion of other Sound Transit 3 system expansion projects, ridership at the project stations would exceed 20,000 daily boardings and contribute to a system-wide increase in transit ridership in the Sound Transit service area of between 25,000 and 27,000 daily trips.

The operating assumptions in the Sound Transit 3 Plan included routing light rail extensions to Ballard, Federal Way, and Tacoma through a new downtown tunnel, while extensions to West Seattle, Redmond, Lynnwood, and Everett would use the existing Downtown Seattle Transit Tunnel. Implementing the Sound Transit 3 system expansion plan and distributing passengers into two downtown tunnels will provide additional capacity for the regional light rail system. Opportunities for passengers to transfer between lines running north, south, east, and west will be essential for increasing transit access and capacity. The project provides an important

¹ Puget Sound Regional Council's VISION 2050 anticipates population and employment in the Puget Sound region will continue to grow over the next 30 years. The current long-range growth forecasts from Puget Sound Regional Council inform elements of the Final EIS analyses, such as ridership forecasts, projected vehicle trips, and non-motorized activities. Puget Sound Regional Council acknowledges that the COVID-19 pandemic could alter long-range forecasts, but considerable growth is still projected over the next several decades. This Final EIS uses Puget Sound Regional Council's forecasts adopted at the time the analysis was completed. Since that time, Puget Sound Regional Council has released updated forecasts which project even higher growth along the West Seattle Link Extension corridor by 2042.



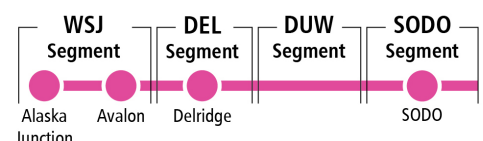
transfer point for passengers at SODO and a connection to the west. In addition, the project would provide direct access to the Operations and Maintenance Facility Central for the line running between Everett and West Seattle when it is complete, as the existing access to the Operations and Maintenance Facility Central would no longer be accessible from this line. This direct access will support maintenance and operation for the future separation of light rail lines needed to support system expansion.

1.2.2.3 Regional and Local Plans Call for High-Capacity Transit

Regional and local agencies have been planning for high-capacity transit in the project corridor for almost 30 years. Table 1-1 lists the plans that have called for high-capacity transit in this corridor since 1996. As the population grows, the need for regional mobility remains vital to maintain a healthy economy.

Table 1-1. History of High-capacity Transit/Light Rail Planning in the West Seattle Link Extension Corridor

Year	History
1996	Voters approve funding for Sound Move, the initial package of high-capacity transit investment. Sound Move identifies West Seattle as a candidate for regional bus service.
2005	Sound Transit publishes the <i>Regional Transit Long-Range Plan Supplemental Environmental Impact Statement</i> and updates the Long-Range Plan, which includes planning studies for high-capacity transit in the project corridor.
2008	Sound Transit adopts and voters approve funding for the Sound Transit 2 plan that designates the Downtown Seattle-West Seattle-Burien corridor for specific high-capacity transit studies.
2010	Puget Sound Regional Council adopts <i>VISION 2040</i> and <i>Transportation 2040</i> . <i>Transportation 2040</i> identifies candidate corridors for additional transportation investments to increase connections between urban centers, including areas in the project corridor.
2012	Puget Sound Regional Council approves Central Puget Sound Regional 2010-2013 Transportation Improvement Program, which includes light rail extensions in the corridor.
2014	Sound Transit publishes the <i>Regional Transit Long-Range Plan Final Supplemental Environmental Impact Statement</i> (2014b) and updates the Long-Range Plan, which continue to identify light rail extensions in the West Seattle Link Extension corridor. This update adds the West Seattle to Downtown high-capacity transit corridor. Sound Transit completes the <i>South King County Corridor High-Capacity Transit Corridor Study</i> .
2005	Sound Transit publishes the <i>Regional Transit Long-Range Plan Supplemental Environmental Impact Statement</i> and updates the Long-Range Plan, which include planning studies for high-capacity transit in the project corridor.
2008	Sound Transit adopts and voters approve funding for the Sound Transit 2 plan that designates the Downtown Seattle-West Seattle-Burien corridor for specific high-capacity transit studies.
2010	Puget Sound Regional Council adopts <i>VISION 2040</i> and <i>Transportation 2040</i> . <i>Transportation 2040</i> identifies candidate corridors for additional transportation investments to increase connections between urban centers, including areas in the project corridor.
2012	Puget Sound Regional Council approves Central Puget Sound Regional 2010-2013 Transportation Improvement Program, which includes light rail extensions in the corridor.
2014	Sound Transit publishes the <i>Regional Transit Long-Range Plan Final Supplemental Environmental Impact Statement</i> (2014b) and updates the Long-Range Plan, which continue to identify light rail extensions in the West Seattle Link Extension corridor. This update adds the West Seattle to Downtown high-capacity transit corridor. Sound Transit completes the <i>South King County Corridor High Capacity Transit Corridor Study</i> .



Year	History
2016	Metro publishes an update to the 2011-2021 Strategic Plan recognizing the need for the bus system to adapt to high-capacity transit investments (Metro 2016a). City of Seattle publishes an update to the City's <i>Transit Master Plan</i> that identifies extension of light rail to West Seattle as a priority project and includes the project in the long-range high-capacity transit vision. Sound Transit adopts the Sound Transit 3 Plan, which outlines the next phase of high-capacity transit improvements for central Puget Sound including the West Seattle Link Extension Project; funding is approved by voters. Metro's METRO CONNECTS plan outlines a network of services designed around high-capacity transit routes, including light rail.
2018	The City of Seattle Comprehensive Plan identifies light rail as a critical transportation resource and includes policies and goals aimed at enhancing connections between neighborhoods and existing or future light rail stations. Puget Sound Regional Council's Regional Transportation Plan is adopted, which promotes sustainable transportation to support the region's growing population and economy and encourages transit-oriented communities in areas of high-capacity transit. The plan includes the West Seattle Link Extension.
2019	In anticipation of this project, the City of Seattle Comprehensive Plan was updated to encourage transit-oriented development and enhance connections between neighborhoods and existing or future light rail stations.
2020	Puget Sound Regional Council adopts VISION 2050, which identifies light rail in the project corridor and incorporates a renewed focus on locating growth near current and future high-capacity transit facilities.
2022	Puget Sound Regional Council adopts Regional Transportation Plan 2022-2050, which is the long-range transportation plan for the central Puget Sound region, designed to implement VISION 2050.

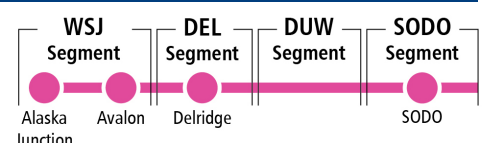
1.2.2.4 Long-term Regional Mobility and Multi-modal Connectivity for the Region's People and Communities Including Transit-Dependent People, Low-Income People, and Communities of Color

West Seattle is an important access point to the city of Seattle from more affordable areas south of the project corridor such as High Point, Highland Park, and the unincorporated King County neighborhood of White Center. These communities were identified as containing environmental justice populations during the City of Seattle's Racial Equity Toolkit (RET) process. Higher concentrations of people of color are found in High Point (65 percent), South Delridge (54 percent), Highland Park (44 percent), Westwood (59 percent), and White Center (60 percent). These concentrations are higher than those in the West Seattle Link Extension study area (27 percent), City of Seattle (36 percent), and the Sound Transit service district (40 percent). These communities also have higher concentrations of low-income people.

Low-Income

A low-income person is identified as a person whose median household income is at or below two times the federal Health and Human Services poverty level. This is a local standard that reflects the high cost of living in the region.

Data show 45 percent of High Point's population, 25 percent of South Delridge's population, 29 percent of Highland Park's population, 26 percent of Westwood's population, and 35 percent of White Center's population are low-income. These percentages of low-income people are higher than those found in the West Seattle Link Extension study area (13 percent), City of Seattle (20 percent), and the Sound Transit service district (21 percent). The project's Delridge Station, Avalon Station, or West Seattle Junction Station would be a transit access or transfer point for people in these communities traveling to or through downtown to access regional education, employment, and activity centers.



The project would provide regional light rail connections to large education and employment centers such as Downtown Seattle, the University of Washington, Northgate, Bellevue, Redmond, and Sea-Tac Airport. The project would provide light rail access to Seattle professional sports stadiums such as Lumen Field; which hosts the Seattle Seahawks football team, the Seattle Sea Dragons football team, the OL Reign soccer team, and the Seattle Sounders FC soccer team; and T-Mobile Park, which hosts the Seattle Mariners baseball team. These venues also host other large events throughout the year. The project would also provide access to Downtown Seattle's Westlake area, which is a principal shopping area, the Washington State Convention Center, and Seattle Center, which hosts arts organizations and cultural events throughout the year, and Climate Pledge Arena, which hosts the Seattle Kraken hockey team and the Seattle Storm basketball team. The project would improve access to these regional destinations for all populations.

West Seattle is a peninsula, geographically isolated from the rest of the City of Seattle. The 2.5-year West Seattle Bridge closure between March 2020 and September 2022 due to safety concerns has highlighted the need for transportation redundancy to get to and from West Seattle. The repaired West Seattle Bridge is not a permanent solution and is anticipated to be replaced by 2060. An alternative route and/or method of transportation on and off the peninsula would likely be necessary to provide access from West Seattle and points south to regional education, employment, and activity centers.

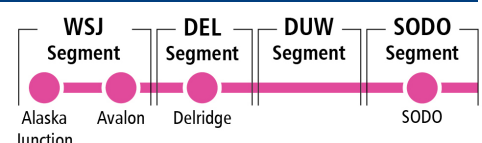
As an additional burden to low-income populations, transportation costs continue to rise. Tolls are being implemented on major freeways in the region, such as State Routes 99, 520, and 167 and Interstate 405. While the price of fuel fluctuates, it generally increases over time. Parking in the downtown core of Seattle is also a substantial transportation cost. During a typical work day, parking costs range from about \$15 per day to about \$35 per day. All these expenses increase burdens on low-income residents and impede access to employment opportunities, educational opportunities, and health-care services. Effective transit can help avoid or reduce the expense of automobile ownership and provide critical access to economic opportunities for core riders.

Core Riders

Core ridership notes transit-dependent people including essential workers, service workers, and those reliant on transit as their main mode of transportation. These are often people of color and/or low income.

1.2.2.5 Increased Density at High-Capacity Transit Stations and Increased Multi-modal Access

Regional and local plans call for increased residential and/or employment density at and around high-capacity transit stations, and increased options for multi-modal access. The City of Seattle Comprehensive Plan (2018), King County's METRO CONNECTS plan (2021), and Puget Sound Regional Council's VISION 2050 (2020) call for increased densities in the city and multi-modal access. These plans are described below.



1.2.2.5.1 City of Seattle Comprehensive Plan

The City of Seattle Comprehensive Plan (2018) outlines the City's growth and development strategy. The plan envisions the creation of urban centers and urban villages with commercial centers connected via transit, pedestrian and bicycle networks, and streets. The City desires to increase densities, create public spaces, and make transit and public services more convenient.

Within the project corridor, West Seattle Junction is identified as a Hub Urban Village. The Duwamish area (including SODO) is identified as a Manufacturing/Industrial Center.

Public transportation features prominently in many of the comprehensive plan's goals. The plan specifies Urban Villages as strategic locations in the local and regional transportation network, with 15-minute or better peak hour transit headways and the possibility of improved connections to future high-capacity transit stations.

While the plan does not identify the project specifically, it identifies light rail as a critical transportation resource for its ability to move people and leverage other land use goals to support increased development and land intensification. The plan includes policies and goals aimed at enhancing connections between neighborhoods and existing or future light rail stations.

City of Seattle Comprehensive Plan Urban Centers

The plan identifies four types of urban centers, defined as follows:

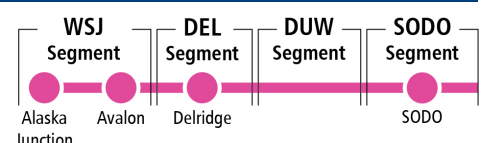
- **Urban Centers:** As the densest city neighborhoods, Urban Centers act as both regional centers and local neighborhoods, offering a mixture of land uses including housing, retail commercial, and employment opportunities.
- **Hub Urban Villages:** These communities offer a balance between housing and employment but are generally less dense than urban centers. These areas provide goods, services, and employment to nearby neighborhoods.
- **Residential Urban Villages:** These are areas of lower-density residential development than Hub Urban Villages and have limited employment opportunities.
- **Manufacturing/Industrial Centers:** These areas are the industrial cores of the city.

1.2.2.5.2 King County METRO CONNECTS Plan

The METRO CONNECTS plan (Metro 2021) is a 25-year vision for improved transit service for all of King County. The plan emphasizes the goals of frequent, reliable, and fast service all day every day throughout King County. The plan outlines a network of frequent, express, local, and flexible services designed around a system of high-capacity transit routes including light rail transit and bus rapid transit (such as RapidRide) services that extend north, south, and east of Downtown Seattle.

1.2.2.5.3 Puget Sound Regional Council VISION 2050

VISION 2050 (Puget Sound Regional Council 2020) identifies Seattle as one of five metropolitan cities in the region that are focal points for population and employment growth. These metropolitan cities are expected to accommodate the largest share of their respective county's population and employment growth, such as Seattle is expected to do for King County. VISION 2050 encourages this growth to take place near high-capacity transit stations.



1.2.2.6 State and Regional Environmental and Sustainability Goals

Environmental and sustainability goals of the state and region, as established in Washington state law and embodied in Puget Sound Regional Council's VISION 2050 (2020) and Regional Transportation Plan (2022), include reducing greenhouse gas emissions by decreasing vehicle miles traveled.

Washington has the goal of reducing overall greenhouse gas emissions in the state to 95 percent below 1990 levels and achieving net zero emissions by 2050.

Washington state Executive Order 14-04 calls on state agencies to assist regional and local jurisdictions in implementing “measures to improve transportation efficiency, and to update their comprehensive plans to produce travel and land use patterns that maximize efficiency in movement of goods and people, and reduce costs and greenhouse gases.” With 74 percent of regional transportation greenhouse gas emissions coming from passenger vehicles (Cascadia Consulting Group 2018), Puget Sound Regional Council's VISION 2050 (2020) calls for developing a more sustainable transportation system. The greenhouse gas strategy in VISION 2050 calls for reducing greenhouse gas by investing in multi-modal transportation improvements, including light rail, to create a transit network as identified in the Regional Transportation Plan, which includes the West Seattle Link Extension. Washington state law sets goals to decrease the annual per capita vehicle miles traveled by 30 percent by 2035 and 50 percent by 2050.

Greenhouse Gases

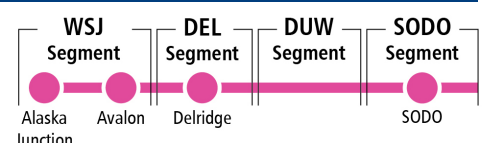
Greenhouse gases are gaseous compounds (such as carbon dioxide) that absorb infrared radiation, trap heat in the atmosphere, and contribute to the greenhouse effect and climate change.

The West Seattle Link Extension is expected to reduce dependency on single-occupancy vehicles, slow down growth in vehicle miles traveled, conserve energy, and reduce greenhouse gas emissions. As detailed in Section 3.3, Regional Context and Travel, the project is anticipated to reduce daily vehicle miles traveled by approximately 17,000 by 2042, helping to achieve Washington state's greenhouse gas emissions goals.

1.3 Planning History of West Seattle Link Extension Corridor

Regional and local agencies have been planning for high-capacity transit in the West Seattle Link Extension corridor for over 30 years (see Section 1.2.2.3). The transportation mode and corridor served by the project was identified through the multi-year planning process for Sound Transit's *Regional Transit Long-Range Plan* (2014a) and Sound Transit 3 (2016). The *Regional Transit Long-Range Plan* represents Sound Transit's goals, policies, and strategies to guide the long-term development of the high-capacity transit system. It is based on years of intensive planning, environmental analysis, and public outreach. It is intended to guide how the Sound Transit system can best address the region's mobility needs and support growth management objectives. Sound Transit periodically updates the *Regional Transit Long-Range Plan* and used the updated 2014 plan as the basis for developing the current phase of high-capacity transit system investments documented in Sound Transit 3.

The City of Seattle has been coordinating with Sound Transit and planning for an expanded light rail system to support anticipated economic and population growth. The City has been planning for the expansion of high-capacity transit and studying potential land use changes in areas where high-capacity transit improvements are anticipated.



Sound Transit's *South King County High-Capacity Transit Corridor Study* evaluated several candidate corridors in central and south King County, including West Seattle, for high-capacity transit improvements (Sound Transit 2014d). Three high-capacity transit improvement options carried into the final study phase included extending light rail transit to the Alaska Junction area of West Seattle, and a fourth option would extend bus rapid transit to Alaska Junction. The South King County study did not recommend an alignment but did forecast that light rail transit ridership would be higher than bus rapid transit ridership. This study also informed the definition of the project included in the 2014 *Regional Transit Long-Range Plan* and in Sound Transit 3.

1.4 Applying the Purpose and Need to the Project

The purpose and need statement has helped Sound Transit define the alternatives for the Draft EIS and helped refine these alternatives for the Final EIS, described in Chapter 2, Alternatives Considered. In Chapter 6, Alternatives Evaluation, Sound Transit and the FTA evaluate how well the alternatives would serve the purpose and need and compare other factors such as environmental impacts, costs, and constructability.

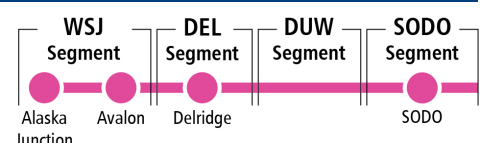
1.5 Next Steps and Schedule

1.5.1 Final Environmental Impact Statement and Project Decision

After considering the analysis in the Final EIS, including public and agency comments on the Draft EIS, the Sound Transit Board will decide on the project alternative to be built. FTA is also anticipated to publish a Record of Decision (ROD) for the project, which will document its findings that the project has met the requirements of NEPA and related environmental regulations. The ROD will describe FTA's environmental determination on the project, the alternatives considered, the basis for the decision to approve the project, and the required mitigation measures. Issuance of the ROD completes FTA's NEPA process and is a prerequisite for federal funding or approvals.

FTA is directed to issue a combined Final EIS and ROD document where possible pursuant to Code of Federal Regulations Title 23, Part 771, Section 771.124. For this project, the EIS is a joint NEPA and SEPA document that will support decision-making by Sound Transit, FTA, and other agencies. Because SEPA requires that the Board's final decision on the project be informed by the Final EIS, the Final EIS must be issued independent of the ROD, so that Sound Transit's decision can later be incorporated into the ROD. As a result of these regulatory requirements under SEPA, it will not be practical to issue a combined Final EIS and ROD, and they will be issued as separate documents.

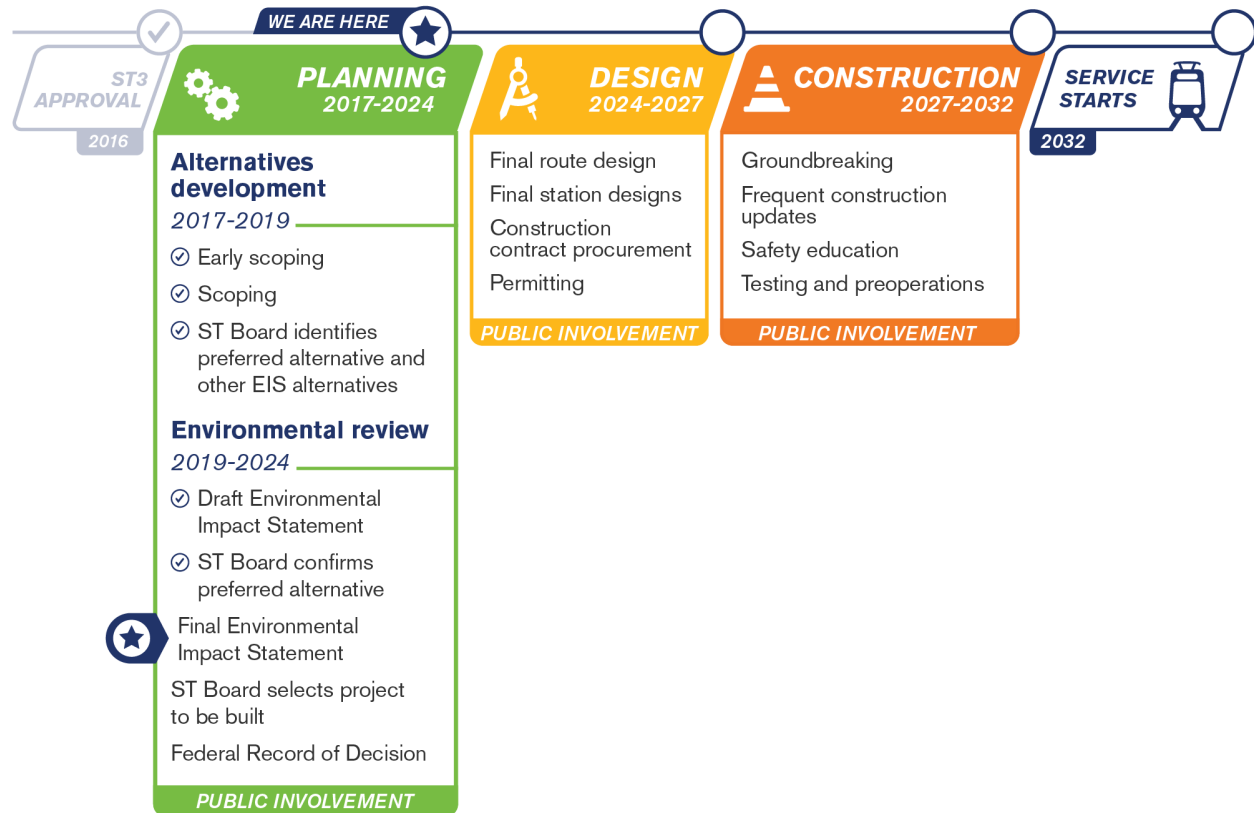
After the Sound Transit Board selects the project to be built and the FTA issues a ROD, Sound Transit will initiate final design, begin property acquisition, construction planning, and apply for permits and approvals needed to construct and operate the project. During final design, project elements will be further defined, including, but not limited to, guideway and station height and location of bus facilities, traction power substations, stormwater facilities, bicycle storage, utility relocations, and staging areas. Local and state jurisdictions issuing permits for the project may rely on the Final EIS to satisfy their SEPA requirements.



1.5.2 Project Schedule

Figure 1-3 shows the anticipated schedule milestones for the project from early scoping and Alternatives Development through the start of service.

Figure 1-3. Project Milestones



1.5.3 Benefits and Disadvantages of Delaying Implementation

As required by SEPA, this section discusses the benefits and disadvantages of delaying the proposed project instead of approving it now.

Delaying the project would postpone impacts associated with project construction but would also postpone realizing a major component of the region's long-range plans for managing growth and transportation and the opportunity to link neighborhoods with Puget Sound regional employment centers. Delay would limit economic development from the movement of people and goods and allow projects to develop that might preclude or increase the cost of the West Seattle Link Extension.

A substantial delay in implementing the West Seattle Link Extension would inhibit the region's ability to accommodate growth, as articulated in local and regional plans. This would lead to several other consequences, including changed development patterns, steadily increasing corridor roadway congestion, and deteriorating transit performance and reliability. Increased congestion and deteriorating transit performance would result in increased air pollutant emissions and higher energy usage.

1.5.4 The Coronavirus Pandemic and the Continuing Importance of Transit

FTA and Sound Transit acknowledge the impacts of the social response to the Coronavirus Disease 2019 (COVID-19) pandemic and the resulting decline in travel demand that began in March 2020. While post-pandemic travel demand is increasing, it is difficult to predict future changes to the project purpose and need, schedule, and impacts that may result from the COVID-19 response. Should substantial changes in the planning assumptions, project schedule, project scope, or surrounding project environment result, FTA and Sound Transit will consider additional project evaluation and public input consistent with NEPA and SEPA.

Puget Sound Regional Council also acknowledged the impacts of the pandemic in VISION 2050 (Puget Sound Regional Council 2020, page 124), stating:

Over the last decade, transit ridership has experienced robust growth, with the central Puget Sound region being one of only four regions across the country with consistent growth in transit boardings. While COVID-19 has caused sudden and dramatic drops in transit ridership and revenue and has perhaps accelerated the acceptance of remote work environments, transit will continue to be a critical element for mobility as the region grows over the next 30 years.

The region's historic investment in transit, and continued investments across modes, are critical due to the increases in congestion and travel delay seen in the region over the past decade. Since 2010, the region has grown by over 440,000 residents and 381,000 jobs. Prior to the COVID-19 pandemic, delay on the region's freeway corridors had increased more than 50% since 2014, and the average travel time to work had continued to steadily increase across all modes, averaging around 30 minutes. Notably, the share of commuters with travel times over 60 minutes increased steeply and was higher than the share of commuters with travel times less than 10 minutes.

Puget Sound Regional Council's Regional Transportation Plan 2022 – 2050 (Puget Sound Regional Council 2022) also acknowledges the pandemic's effect on ridership along with the continuing need to serve growth:

The COVID-19 pandemic will continue to have near-term impacts on regular transit boardings. However, jurisdictions and transit agencies in the region are continuing to plan for growth in a way that will increase ridership and meet long-term projections of transit boardings.