

# TITLE VI SERVICE MONITORING REPORT

## Executive Summary

Sound Transit is required by the Federal Transit Administration (FTA) to measure the quality of service delivered to communities and to demonstrate that resources are distributed in a way that does not discriminate on the basis of race, color, or national origin. The FTA is responsible for ensuring the distribution of federally supported transit services and related benefits by applicants and recipients of FTA assistance in a manner consistent with Title VI, Section 601 of the Civil Rights Act of 1964.

The Title VI Service Monitoring Report documents Sound Transit's compliance with FTA Circular 4702.1B by reporting results of performance monitoring and distribution of amenities across all modes of service (ST Express, Link light rail, Tacoma Link, and Sounder commuter rail)<sup>1</sup>. The purpose of the Title VI service monitoring requirement is to ensure that prior decisions related to the distribution of fixed route transit service and facilities have not resulted in a disparate impact or disproportion burden on protected populations. The report provides an overview of Title VI requirements as well as context for Title VI in Sound Transit's service area, details the methodology for analysis of demography, corridor descriptions, standards, and policy, and offers proposed next steps for Sound Transit to take. This document fulfills FTA's Title VI Program requirements for service quality monitoring of Sound Transit's published standards and policies.

This analysis includes all regular fixed routes and uses data from the winter 2021 to winter 2024, which is the most recent and representative data of transit demand and typical service levels.

Sound Transit monitors the service standards and service policies shown in the following table to evaluate results for minority or low-income populations compared to non-minority and non-low-income populations.

Service Standards Monitoring	Service Policy Monitoring
<ul style="list-style-type: none"><li>• Passenger Load (Crowding)</li></ul>	<ul style="list-style-type: none"><li>• Escalator and Elevator Conveyance</li></ul>
<ul style="list-style-type: none"><li>• On-Time Performance</li></ul>	<ul style="list-style-type: none"><li>• Bike Rack Distribution</li></ul>
<ul style="list-style-type: none"><li>• Customer Complaints</li></ul>	<ul style="list-style-type: none"><li>• Bike Cage/Lockers Distribution</li></ul>
<ul style="list-style-type: none"><li>• Trips Operated as Scheduled</li></ul>	<ul style="list-style-type: none"><li>• Shelter Distribution</li></ul>
<ul style="list-style-type: none"><li>• Span of Service</li></ul>	<ul style="list-style-type: none"><li>• Seating/Bench Distribution</li></ul>
<ul style="list-style-type: none"><li>• Frequency</li></ul>	<ul style="list-style-type: none"><li>• Vehicle Assignment</li></ul>
<ul style="list-style-type: none"><li>• Service Availability</li></ul>	

Table 1: Service Standards and Measures

## FINDINGS

The Title VI Service Monitoring Report identifies areas of lower service and policy performance impacting Title VI protected populations. Table 2 provides an overview of each policy and standard and summarizes the results. Based on analysis of a variety of data sources, it was determined that ST Express Bus and Link Light Rail routes or stops/stations serving minority and low-income populations had the greatest number of disparate impacts or disproportionate burdens and instances where routes were not meeting service standards. This is a result of impacts from operator shortages, and the structure of the Sound Transit system compared to the requirements of FTA circulars 4702.1B. The circular requires each route to be classified as

<sup>1</sup> Title VI Requirements and Guidelines for Federal Transit Administration Recipients | FTA. (2012). Retrieved June 21, 2022, from Dot.gov website: <https://www.transit.dot.gov/regulations-and-guidance/fta-circulars/title-vi-requirements-and-guidelines-federal-transit>.

minority or non-minority and low-income or non-low-income and then compared across mode and to the service standard to determine disparate impacts or disproportionate burdens among minority and low-income populations. Sound Transit only operates one streetcar route (Tacoma Link); therefore, a comparison cannot be made between routes within the same mode. Because only one route exists for this mode, it can only be compared to the service standard. Additionally, all commuter rail and light rail routes are classified as non-minority routes; therefore, a comparison cannot be made between non-minority and minority routes for these modes. Lastly, it should be recognized there are geographical and operating constraints on Sounder commuter rail as the line is shared among several operators and not owned by Sound Transit.

Standard/ Policy	What does it address?	What are the results?
<b>Passenger Load</b>	Sound Transit's standards for "overloaded" account for seated and standing passengers, differing by route type and vehicle type.	There was no overcrowding on any of the four modes, thus no difference in crowding on minority/low-income routes.
<b>On-Time Performance</b>	Sound Transit measures whether a bus or train was on time by comparing the schedule to the arrival/departure time. ST Express bus service is "on-time" if it departs no more than 3 minutes after its schedule and arrives no more than 7 minutes late. Sounder is "on-time" if it arrives within 6 minutes of the scheduled time. Tacoma Link is "on-time" if it arrives within 3 minutes of scheduled time and departs no later than 3 minutes after its scheduled time. Link is "on-time" when it departs as scheduled and arrives within 3 minutes of scheduled time.	On-time performance was lower for minority routes on ST Express by 5.3% resulting in a disparate impact. Half of the ST Express routes are not meeting the standard of 85% or greater for OTP.
<b>Customer Complaints</b>	Sound Transit measures the complaints per 100,000 boardings.	No disparate impact or disproportionate burden determined.
<b>Trips Operated as Scheduled</b>	Sound Transit tracks the percentage of scheduled trips that are actually operated and things such as traffic conditions, labor shortages, emergencies, and mechanical breakdowns can account for trip cancellation.	No disparate impact or disproportionate burden determined. Only 3 of the 24 ST Express routes are meeting the target of 99.8%.
<b>Span of Service</b>	Sound Transit measures the hours of operations for routes, and span is determined by demand.	On Sundays, ST Express minority routes have a 15% shorter span of service, resulting in a disparate impact. Light rail low-income routes have a 7% to 16% shorter span of service, resulting in a disproportionate burden each day of the week. ST Express has a 11% shorter span on weekdays and 22% shorter on Sundays for low-income routes, resulting in a disproportionate burden.
<b>Headway</b>	Sound Transit measures headways and the intervals in minutes between scheduled trips for a given direction of travel to keep wait times reasonable for passengers.	Disparate impacts were found on ST Express during reduced service hours. Disproportionate burdens were found for ST Express bus and light rail during the peak hours and for light rail during the base. Three ST Express routes do not meet the minimum headway requirements.
<b>Service Availability</b>	Sound Transit measures the amount of service available and its distribution in the service area.	Non-low-income populations have a 9% greater service availability than low-income populations for light rail service, resulting in a disproportionate burden.
<b>Escalator and Elevator Conveyance</b>	Sound Transit measures conveyance uptime targets for elevators and escalators, setting the target for elevators at 97% and escalators at 95%.	No disparate impact or disproportionate burden determined.
<b>Bike Rack Distribution</b>	The <i>Design Criteria Manual</i> states that bike racks must be provided to the extent possible for short-term bike parking.	ST Express minority stations have 14% less access to bike racks than non-minority and light rail stations, 27.3% less, resulting in a disparate impact for both modes.
<b>Bike Lockers/Cages</b>	The <i>Design Criteria Manual</i> states that bike lockers/cages are to be provided to the extent	Light rail minority stations are 22.7% less likely to have bike lockers/cages than non-

Standard/ Policy	What does it address?	What are the results?
	possible for long-term (all day or overnight) bike parking.	minority stations resulting in a disparate impact.
<b>Shelter</b>	Bus stops with higher number of boardings per hour must have shelters/weather protection amenities. The <i>Design Criteria Manual</i> details canopy coverage requirements for light rail and commuter stations	While all stations have some shelters, not all meet the requirements for the amount necessary. Low-income ST Express stations are 30% less likely to meet the requirements, and light rail 7.7% less. Both modes have a disproportionate burden determination.
<b>Seating</b>	Light rail, commuter rail and ST Express Bus seating is detailed by the <i>Design Criteria Manual</i>	Seating that meets standard occurs 13% more at non-minority and 15.9% more at non-low-income light rail stations resulting in a disparate impact and disproportionate burden for light rail. ST Express seating meets the standard 10% more at non-low-income stations resulting in disproportionate burden.
<b>Vehicle Assignment</b>	Sound Transit contracts with partners that replace vehicles at the end of their useful life. Providers assign buses by rotating newer vehicles across all routes--essentially a random bus assignment with the only limitations being that some vehicles are not permitted on routes with clearance restrictions, double-deckers are only used on high ridership routes, and express coach buses must be used for longer routes.	No disparate impact or disproportionate burden determined.

Table 2: Service Monitoring Report Summary Results

## MITIGATION

To mitigate the findings, Sound Transit has implemented initial responses and is planning near-, medium-, and long-term mitigation strategies. Planning will be supported by a commitment to on-going monitoring.

### Service Mitigations In Progress

Sound Transit continues to work closely with other agencies in the region to develop mitigation strategies, including coordinating services on shared corridors between transit agencies. For example, Sound Transit transferred operations of ST Express Route 566 Auburn-Redmond from Pierce Transit to King County Metro. The transfer was completed as part of the March 2022 service change and helped avoid further reductions on already impacted routes. Initial mitigation strategies for ensuring equitable transit service, while recognizing the constraints of regional workforce, focus on making strategic cuts to service to ensure predictable service delivery for passengers.

### Service Reduction Approach

Sound Transit worked closely with operating partners to cut unproductive trips, while working to preserve span and frequency of service. Sound Transit also worked with partners to ensure that Title VI priority populations were least affected while making strategic service reductions. Because workforce impacts were highest for partners serving South King and Pierce Counties, both areas with Title VI priority populations, planning future service restorations with regional service parity was further emphasized.

### Near-Term Mitigations

The East Link extension project in East King County and Federal Way Link extension in South King County will improve service reliability through the regional adoption of rail service. These projects are planned to open in 2026 and end of 2025, respectively. Following these openings, Sound Transit will make changes to the existing ST Express bus network.

## Medium Term Mitigations

Sound Transit has planned long-term investment in high-capacity transit through a series of high-capacity transit projects over the next 10 years that will deliver better service to more places. New stations opening every few years will increase access to frequent and reliable service in low-income and minority communities. In 2028, Sound Transit anticipates expanding service through opening two new bus rapid transit (BRT) lines, with a third one in 2029. In the process, Sound Transit will make changes to the existing ST Express bus network.

## Commitment to On-Going Monitoring

As part of the agency's regular internal data review processes, the agency will monitor performance measures included in this Title VI Service Monitoring Report. This step is to keep the agency informed and to nimbly make changes to address disparate impacts and disproportionate burdens on minority and low-income communities. As new high-capacity transit lines are implemented, Service and Fare Equity Analyses<sup>2</sup> will be performed to understand how the network will evolve and the benefit of enhanced reliability. Additionally, through the annual Service Plan and budget process, Sound Transit will evaluate service performance and propose changes to improve performance as well as respond to ridership trends and on-going operating conditions.

# Introduction to Title VI Service Monitoring

The Federal Transit Administration (FTA) requires Sound Transit to measure the quality of service delivered to communities and to demonstrate the distribution of resources in an equitable manner. This document fulfills FTA's Title VI Program reporting requirements for service quality monitoring. The FTA is responsible for ensuring applicants and recipients of FTA assistance distribute federally supported transit services and related benefits in a manner consistent with Title VI, Section 601 of the Civil Rights Act of 1964, which states:

*No person in the United States shall, on the grounds of race, color or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance.*

Sound Transit generates its own data and gathers data from operating partners monthly to understand the degree to which service aligns with targets outlined in the Board-adopted [Sound Transit Service Standards and Performance Measures](#) document. Pursuant to rules established by the FTA, this data must be analyzed, presented to, and approved by Sound Transit's Board of Directors at least every three years to demonstrate the degree to which there is equitable distribution of services. Due to changing demographics, economic developments, transit expansions, and numerous other factors, this analysis provides the agency with the insight needed to make meaningful adjustments.

## FTA CIRCULAR 4702.1B REQUIREMENTS

- Transit providers shall assess the performance of each minority and non-minority route in the sample for each of the transit provider's service standards and service policies.
- Transit providers shall compare the transit service observed in the assessment to the transit provider's established service policies and standards.

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<sup>2</sup> Pursuant to FTA circular C 4702.1B, transit providers that have implemented or will implement a New Start, Small Start, or other new fixed guideway capital project shall conduct a service and fare equity analysis. Service and fare equity analyses are conducted prior to implementing service and/or fare changes to determine whether the planned changes will have a disparate impact on the basis of race, color, or national origin. Low-income populations are not a protected class under Title VI. However, recognizing the inherent overlap of environmental justice principles in this area, and because it is important to evaluate the impacts of service and fare changes on passengers who are transit-dependent, FTA requires transit providers to evaluate proposed service and fare changes to determine whether low-income populations will bear a disproportionate burden of the changes.

- For cases in which the observed service for any route exceeds or fails to meet the standard or policy, depending on the metric measured, the transit provider shall analyze why the discrepancies exist, and take steps to reduce the potential effects.
- Transit providers shall evaluate their transit amenities policy to ensure the equitable distribution of amenities throughout the transit system.
- Transit providers shall develop a policy or procedure to determine whether disparate impacts exist on the basis of race, color, or national origin, and apply that policy or procedure to the results of monitoring activities.
- Transit providers shall brief and obtain approval from the transit providers' policymaking officials, generally the board of directors or appropriate governing entity responsible for policy decisions regarding the results of the monitoring program.
- Submit the results of the monitoring program as well as documentation (e.g., a resolution, copy of meeting minutes, or similar documentation) to verify the board's or governing entity or official(s) consideration, awareness, and approval of the monitoring results to FTA every three years as part of the Title VI Program.

## **SERVICE STANDARDS**

The FTA requires all fixed route providers to establish quantitative service standards for each mode operated. At a minimum, the standards must include passenger load, headway/frequency, on-time performance, and service availability.

First, the following analysis distinguishes routes where minority and low-income service area populations exceed the Sound Transit District average. These route classifications then receive evaluation by standards included in the Board-adopted *Service Standards and Performance Measures* document.

### **Standards:**

- Passenger load
- On-time performance
- Customer complaints
- Trips operated as scheduled
- Span of service
- Frequency
- Service availability

Where service metrics on routes serving minority or low-income populations perform lower than non-minority or non-low-income routes or do not meet standards, the agency identifies strategies for improving performance. The methodology section titled "Standards" details, in depth, what each of the service standards means, the results of assessments, and mitigation strategies.

## **SERVICE POLICY**

The FTA requires all fixed route providers to establish policies for how transit amenities are distributed for each mode and how vehicle assignment is conducted. Unlike the service standards, which analyze service at the route level, the service policies are analyzed at the modal level. The methodology section titled "Service Policy" details, in depth, what each of the service standards means, the results of assessments, and mitigation strategies. The policies analyzed are derived from the Design Criteria Manual for amenities and operational policies and practices for vehicle assignment.

### **Policies:**

- Escalator and Elevator Conveyance
- Bike Rack Distribution

- Bike Cage/Lockers Distribution
- Shelter Distribution
- Seating/Bench Distribution
- Vehicle Assignment

## REGIONAL CONTEXT

The landscape of the Central Puget Sound region's demographics has been changing rapidly. Among the 15 most populated metropolitan areas in the nation, the Seattle-Tacoma-Bellevue region is growing, which is contrary to the overarching trend of reduction in the country's largest metropolitan areas, gaining 50,400 people over the last year.<sup>3</sup> The region's total population is now 4.5 million. Since 2010, the region has gained more than 640,000 new residents. By 2050 the region is expected to grow by an additional 1.3 million people.<sup>4</sup> Since 2015, the region has added 43,400 new jobs, with the strongest job growth in King County. Forecasts show that by 2050 there will be an additional 1.2 million jobs in the region.

Ridership has been growing steadily each month, with seasonal fluctuations. Before the COVID-19 pandemic, Sound Transit ridership was growing, despite nationwide trends of stagnant or declining ridership experienced by other systems. In May of 2024, monthly ridership exceeded pre-pandemic levels for the first time. Rates of recovery varied based on mode or service and area served. Weekend ridership returned faster than weekdays, driven by event attendance and a wider variety of transit trip-making beyond commuting.



Figure 1: Sound Transit Monthly Ridership Trends

<sup>3</sup> Puget Sound Regional Council. July 2025. Puget Sound Trends: Region Surpasses 4.5 million Residents in 2025. <https://www.psrc.org/media/9755>

<sup>4</sup> Puget Sound Regional Council. 2025. Planning for 2050. <https://www.psrc.org/planning-2050>

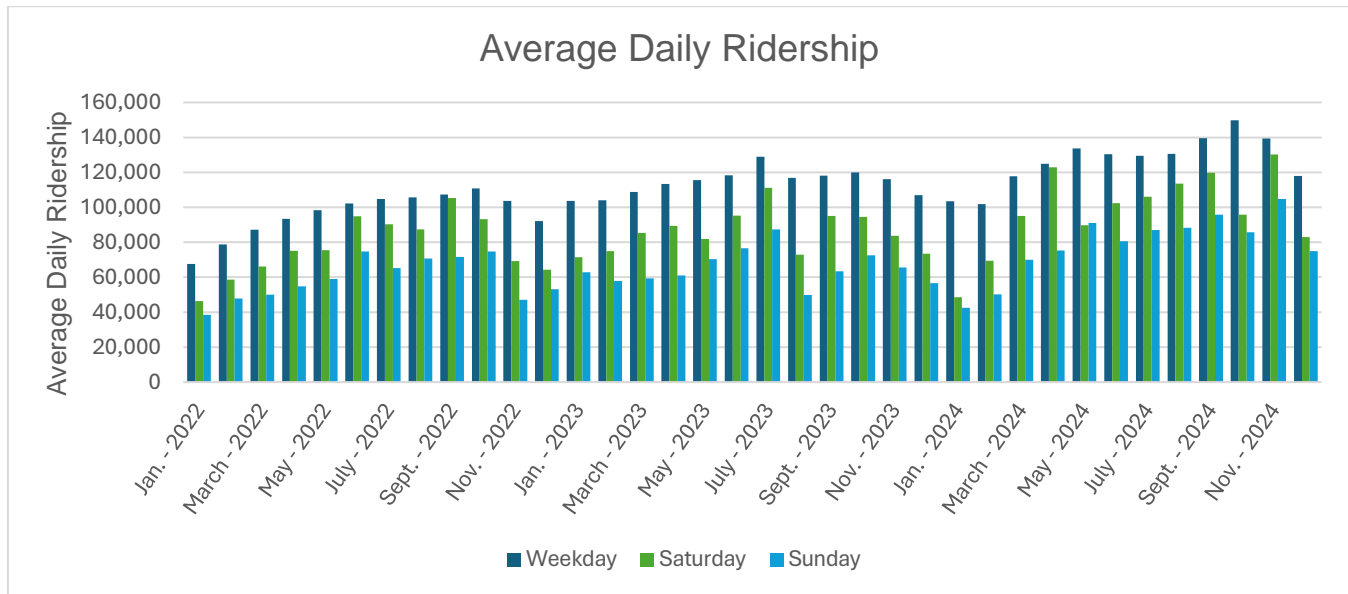


Figure 2: Sound Transit Average Daily Ridership

## ONGOING CHALLENGES WITH WORKFORCE STAFFING

The nationwide shortage of transit operators continues. Sound Transit's operating partners (including Community Transit, King County Metro, and Pierce Transit for ST Express; and King County Rail for Link) face significant staffing shortages in critical operational and technical positions include trainers, bus and light rail operators, light rail vehicle electro-mechanics, facility custodians and electricians, system/signal technicians, and others.

## PLANNING FOR FUTURE SYSTEM EXPANSION

While there are uncertainties surrounding the pandemic, and the constraints posed by operator shortages, it is important for Sound Transit to move forward with the voter-approved Sound Transit 3 ballot measure that provides the next phase of high-capacity transit improvements for Central Puget Sound. With this plan, the light rail system will more than double to 116 miles, with more than 80 stations by 2041. Light rail will expand north to Everett, south to Federal Way and Tacoma, east to south Kirkland and Issaquah, and west to Ballard and West Seattle. Sound Transit 3 will also invest in Bus Rapid Transit (BRT) in the I-405 and SR-522 corridors. The plan also includes a program to improve bus speed and reliability in specific corridors. Finally, the plan will expand Sounder trains to serve Joint Base Lewis-McChord and DuPont.





Figure 3: Sound Transit Future Service Map



## Summary of Adopted 2025 Service Plan

Table 3 summarizes the changes adopted in the 2025 Service Plan. Most of the changes are frequency and span improvements on either minority or low-income routes.

Route	Adopted Change	Title VI Priority Route
<b>2 Line</b>	Extend 2 Line service to serve two new stations at Marymoor Village and Downtown Redmond Stations	Yes, Low-Income Route
<b>577</b>	Restore southbound weekday midday and Sunday service that was temporarily suspended in March 2024.	Yes, Low-Income Route, Minority Route
<b>578</b>	Restore the two weekday trips that were temporarily suspended in March 2024.	No
<b>580</b>	Restore service. This route was temporarily suspended in March 2024.	No
<b>590</b>	Restore segment between 10th & Commerce St and Tacoma Dome Station, along with nine northbound and 13 southbound trips that were temporarily suspended in March 2024	Yes, Low-Income Route
<b>594</b>	Restore the evening weekday trip, and five weekend trips that were temporarily suspended in March 2024	Yes, Low-Income Route, Minority Route

Table 3: Changes Adopted From the 2025 Service Plan

Table 4 summarizes the changes adopted as part of the 2025 Service Plan shown by platform hours by route group (minority, non-minority, low-income, non-low-income) and compares the share of each route group to the district population average to evaluate for potential adverse effects. A platform hour is any hour a transit vehicle is operating, which includes in-service hours, deadhead hours and layover hours. The share of service hour increases accrues at a higher percentage from low-income and non-minority populations than the district average.

Route Group	Existing September 2024 Platform Hours	Proposed 2025 Platform Hours	Change	Percentage Change in Platform Hours	Percentage Share of Change in Platform Hours	District Population Average
<b>Major Service Changes</b>						
Minority	209	274	65	31%	19%	42.6%
Low-income	1162	1499	337	29%	96%	19.5%
Non-Minority	953	1238	285	30%	81%	
Non-Low-income	0	13	13	100%	4%	
System Total	1162	1512	350	30%		
<b>Minor Service Changes</b>						
Minority	781	861	80	10%	95%	42.6%
Low-income	781	861	80	10%	95%	19.5%
Non-Minority	704	708	4	1%	5%	

Non-Low-income	704	708	4	1%	5%	
System Total	1485	1569	84	6%		
<b>All Service Changes</b>						
Minority	990	1135	145	15%	33%	42.6%
Low-income	1943	2360	417	21%	96%	19.5%
Non-Minority	1657	1946	289	17%	67%	
Non-Low-income	704	721	17	2%	4%	
System Total	2647	3081	434	16%		
<i>System total only for routes with service changes, does not include platform hours for routes without service changes in 2025.</i>						

Table 4: Service Plan Changes Platform Hours

## Methodology

### DEMOGRAPHIC ANALYSIS METHODOLOGY AND DATA DEFINITIONS

Sound Transit uses demographic data to identify minority, low-income, and limited English proficiency (LEP) communities for service monitoring from the US Census Bureau. The agency calculates communities' systemwide or mode-specific average representation within the general population. The agency only uses minority or low-income status classifications to determine if it is necessary to mitigate and analyze a disparate impact or disproportionate burden. However, identifying LEP residents helps Sound Transit to ensure that outreach efforts reach diverse customers. Sound Transit uses the Census 2020-designated tracts as the geographic basis for assessing the populations.

Sound Transit uses the most recent five-year demographic estimates available from the American Community Survey (ACS). The ACS dataset identifies minority, low-income, and LEP populations as follows:

- **Minority:** Persons who self-identify as being one or more of the following ethnic groups: American Indian and Alaska Native, Asian, Black or African American, Hispanic or Latino, Native Hawaiian, and Other Pacific Islander.

- **Low-income:** Persons whose household income is at or below 200% of the federal poverty line.

- **Limited English Proficiency (LEP):** Persons who identify a language other than English as their primary language and are not fluent in English.

- **Minority and low-income routes:** FTA Circular

4702.1B generally defines a minority transit route as one in which at least one-third of the revenue miles are located in a census block, census block group, or traffic analysis zone where the percentage of minority population exceeds the percentage minority population in the service area. FTA allows for flexibility in this designation, for example, in the case of commuter-type service there is no explicit guidance concerning the designation of low-income routes. Given the unique service characteristics of Sound Transit service – limited stops connecting regional urban and employment centers – Sound Transit defines minority and low-income routes as having a service area concentration that exceeds the district average by at least five percent. Calculation of the service area is by a radial distance from each stop; the distance varies depending on the nature of the facility served. Table 5 provides details of Sound Transit's service area by stop type.

- **Disparate impact, disproportionate burden:** FTA defines "disparate impacts" as facially neutral policies or practices that disproportionately affect members of a group identified by race, color, or national origin, and the recipient's policy or practice lacks a substantial legitimate justification. If the analysis results indicate a potential for disparate impacts, further investigation is required. Currently, Sound Transit has no explicit definition for disparate

STOP TYPE	SERVICE AREA (MILES)
Bus stop without parking	0.5
Rail station without parking	1.0
Major bus facilities with parking	2.5
Rail station with parking	5.5

Table 5: Service Area by Stop Type

impact/disproportionate burden in the context of service monitoring. Rather the agency applies the Board-approved Resolution No. R2022-19 Updating Sound Transit Policies for Major Service Changes and Fare Changes in 2022 (Appendix O), which defines:

- **Disparate impact:** A facially neutral policy or practice that disproportionately affects members of a group identified by race, color, or national origin pursuant to FTA guidelines.
- **Disproportionate burden:** A policy or practice that disproportionately affects low-income populations more than non-low-income populations pursuant to FTA guidelines.

Unless otherwise noted, the following measures apply to the calendar year 2024.

## Sound Transit Population Estimates

Using the demographic analysis and Title VI definitions previously outlined in this section, percentages for minority, low-income, and LEP populations analyzed for the Sound Transit service area are identified by Census tract and the district overall.

To calculate the population representation for any Census tract, the percentage of area that falls within the district or route's service area is used to estimate the specific number of people that fall within each of the populations analyzed. For example, if a Census tract total is 10 acres and three acres are in the service area, then 30 percent of the tract's total population/respective populations are analyzed to be within the service area. This methodology assumes an even distribution of population throughout the Census tract.

POPULATIONS ANALYZED	PERCENTAGE OF DISTRICT POPULATION
Minority	42.6%
Low-Income	19.5%
Limited English Proficiency	10.6%

Table 6: Minority, Low-Income, and LEP District Percentages

Table 6 shows the minority, low-income, and LEP averages for the Sound Transit district using the 2019 – 2023 American Community Survey dataset. While the FTA does not require consideration of LEP populations, understanding their distribution helps advise outreach strategies.

## CORRIDOR DESCRIPTIONS

### ST Express Bus

- **I-5 North Corridor:** Includes Routes 510, 515, which provide service between Snohomish County and Downtown Seattle. The route 512 and 513 also provides service along the I-5 corridor but are shortened in 2024 to connect with the new Link service at Lynnwood Station. Riders traveling between Snohomish County and Downtown Seattle transfer between bus and rail at Lynnwood station. Routes 510 and 515 continue to connect Everett to Downtown Seattle during rush hour.
- **I-405 North Corridor:** Includes Routes 532 and 535, which provide service between Snohomish County and Downtown Bellevue.
- **SR-522 Corridor:** Includes Route 522, which provides service along SR-522 between Woodinville and Downtown Seattle. In September 2021, Route 522 was shortened to connect with the new Northgate Link service. Riders traveling along the SR-522 corridor to Downtown Seattle transfer between bus and rail at Roosevelt station.
- **SR-520 Corridor:** Includes Routes 542, 545, and 556, which provide service between East King County communities and Downtown Seattle along SR-520. In March 2020, Route 540 was replaced with new Route 544. Due to the impacts of COVID-19, Routes 541 & 544 are suspended.
- **I-90 Corridor:** Includes Routes 550 and 554, which provide service between East King County communities and Downtown Seattle along I-90.

- I-405 South Corridor: Includes Routes 560 and 566, which provide service between South King County and East King County, including Bellevue. Due to the impacts of COVID-19, Route 567 is suspended.
- I-5 South Corridor: Includes Routes 574, 577, 578, 586, 590, 592, 594, and 595, which provide service between South King County, Pierce County, and Downtown Seattle.
- Sounder Connectors: Includes Routes 580 and 596, which provide service between Sounder commuter rail stations and Pierce County communities.

### Sounder Commuter Rail

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- Sounder North: Provides service between Snohomish County and downtown Seattle.
- Sounder South: Provides service between Pierce County and downtown Seattle.

### Link Light Rail

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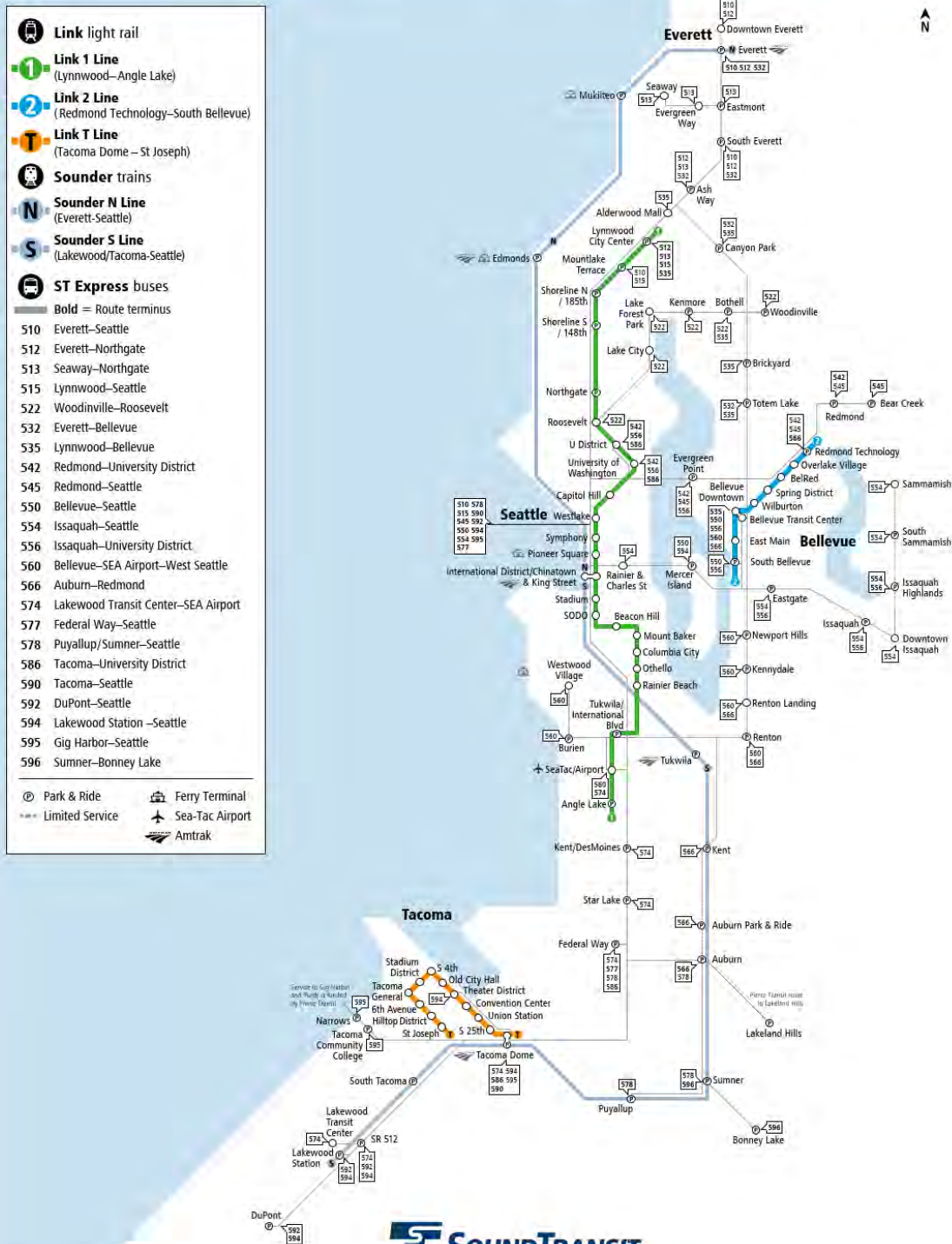
- Link 1: Operates in a 33-mile, mostly grade-separated corridor between Angle Lake in SeaTac and Lynnwood City Center north of Seattle.
- Link 2: Operates in a 6.3-mile corridor between South Bellevue and Redmond serving the east side of Seattle. It is a mix of grade separated, at-grade and tunnel alignment.

### Tacoma Link

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- Tacoma Link: Operates in a 4-mile at-grade corridor connecting Tacoma Dome Station within downtown Tacoma.

# Sound Transit current service



October 2024

Figure 4: Sound Transit System map



## Minority Routes

There are 11 ST Express routes identified as minority routes because the minority population served by the route is 5 percent greater than the district average.

All of the rail modes are classified as non-minority routes, as the percent of the population that is a minority is not five percent or greater than the district average.

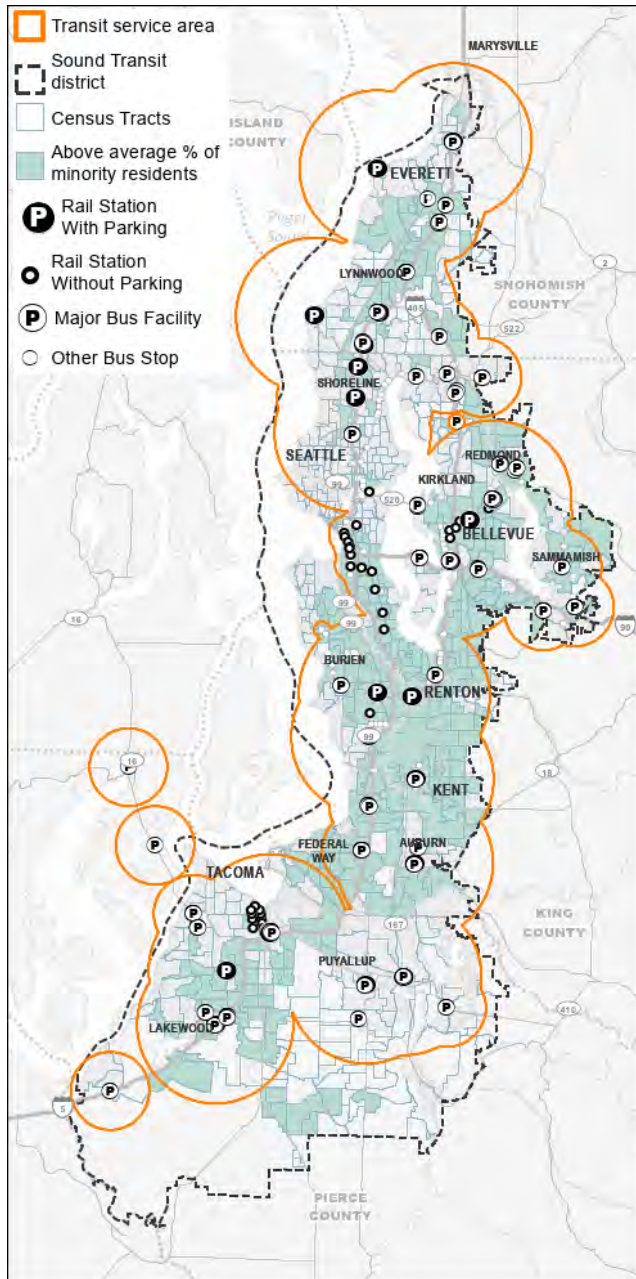


Figure 5: Minority Populations Facilities Served by ST

Mode	% Minority	Minority Route
<b>ST District Average</b>	<b>42.6%</b>	<b>11</b>
<b>Express Bus</b>		
ST Express 510	41.0%	
ST Express 512	38.0%	
ST Express 513	43.9%	
ST Express 515	41.3%	
ST Express 522	32.3%	
ST Express 532	43.4%	
ST Express 535	41.0%	
ST Express 542	49.5%	Yes
ST Express 545	49.3%	Yes
ST Express 550	50.5%	Yes
ST Express 554	49.5%	Yes
ST Express 556	47.3%	
ST Express 560	53.6%	Yes
ST Express 566	55.2%	Yes
ST Express 574	53.7%	Yes
ST Express 577	54.0%	Yes
ST Express 578	45.6%	
ST Express 580	27.9%	
ST Express 586	50.6%	Yes
ST Express 590	46.1%	
ST Express 592	50.2%	Yes
ST Express 594	48.2%	Yes
ST Express 595	37.0%	
ST Express 596	22.0%	
<b>Commuter Rail</b>		
Sounder - North	37.0%	
Sounder - South	47.4%	
<b>Light Rail</b>		
Link 1	43.5%	
Link 2	46.9%	
<b>Streetcar</b>		
Tacoma Link	42.0%	

Table 7: Minority Population Percentage by Route



## Low-Income Routes

There are 6 ST Express routes identified as low-income routes because the low-income population served by the route is 5 percent greater than the district average. These routes are in South King and Pierce Counties. No routes serving East King County or Snohomish County are classified as low-income.

Both the Link Light Rail and Commuter Rail have one route each which are low-income routes. The Tacoma Link Streetcar is a minority route.

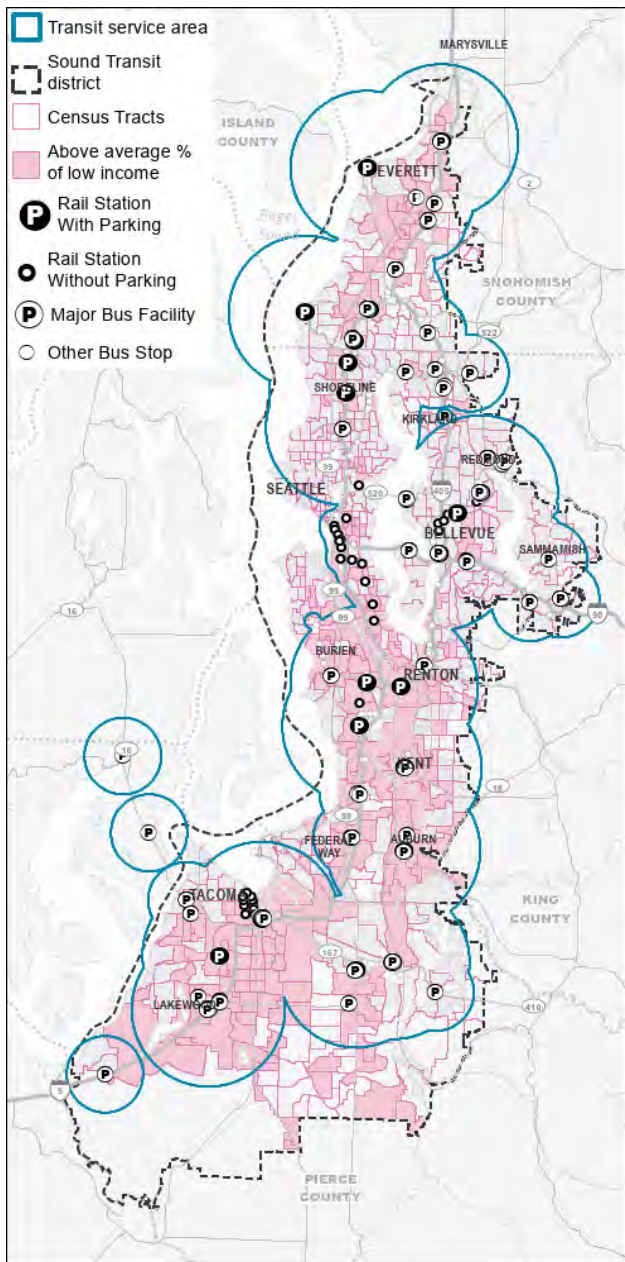


Figure 6: Low-Income Populations for Facilities Served by ST

Mode	% Low Income	Low-Income Route
<b>ST District Average</b>	<b>19.5%</b>	<b>9</b>
<b>Express Bus</b>		
ST Express 510	22.9%	
ST Express 512	19.6%	
ST Express 513	22.1%	
ST Express 515	19.7%	
ST Express 522	14.0%	
ST Express 532	19.8%	
ST Express 535	15.0%	
ST Express 542	15.1%	
ST Express 545	15.4%	
ST Express 550	17.4%	
ST Express 554	14.5%	
ST Express 556	13.9%	
ST Express 560	22.7%	
ST Express 566	21.6%	
ST Express 574	31.2%	Yes
ST Express 577	26.9%	Yes
ST Express 578	24.4%	
ST Express 580	18.9%	
ST Express 586	31.4%	Yes
ST Express 590	26.9%	Yes
ST Express 592	29.8%	Yes
ST Express 594	29.8%	Yes
ST Express 595	22.2%	
ST Express 596	14.2%	
<b>Commuter Rail</b>		
Sounder - North	21.5%	
Sounder - South	24.7%	Yes
<b>Light Rail</b>		
Link 1	20.1%	
Link 2	26.3%	Yes
<b>Streetcar</b>		
Tacoma Link	25.4%	Yes

Table 8: Low-Income Population Percentage by Route

## Limited English Proficiency

Limited English proficiency is shown in Table 9 and Figure 7 for the purpose of understanding outreach approaches, but LEP populations are not included in the upcoming analysis.

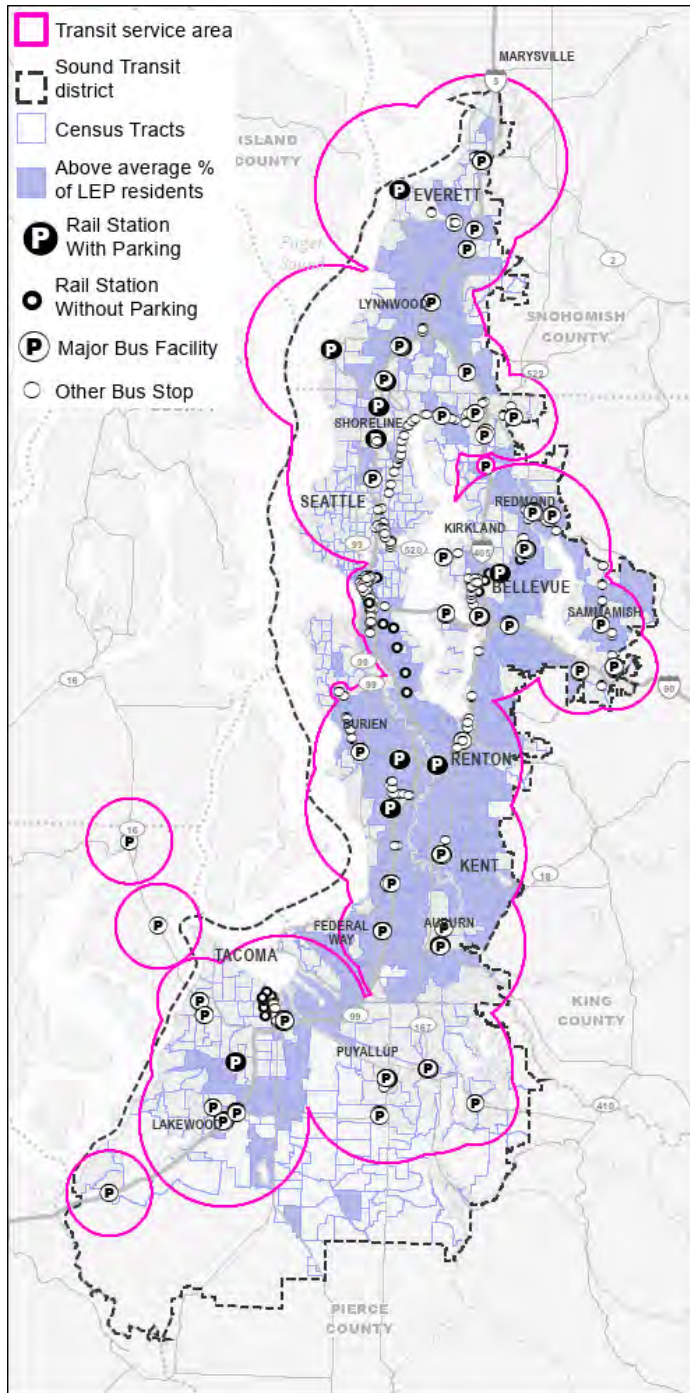


Figure 7: LEP Populations for Facilities Served by ST

Mode	% LEP
<b>ST District Average</b>	<b>10.6%</b>
<b>Express Bus</b>	
ST Express 510	11.8%
ST Express 512	10.8%
ST Express 513	14.7%
ST Express 515	10.7%
ST Express 522	7.5%
ST Express 532	13.4%
ST Express 535	11.4%
ST Express 542	12.3%
ST Express 545	11.5%
ST Express 550	12.5%
ST Express 554	11.6%
ST Express 556	11.5%
ST Express 560	17.8%
ST Express 566	16.8%
ST Express 574	14.6%
ST Express 577	14.1%
ST Express 578	12.2%
ST Express 580	5.7%
ST Express 586	12.9%
ST Express 590	8.4%
ST Express 592	9.8%
ST Express 594	9.5%
ST Express 595	6.1%
ST Express 596	3.7%
<b>Commuter Rail</b>	
Souder - North	11.0%
Souder - South	12.6%
<b>Light Rail</b>	
Link 1	11.2%
Link 2	12.3%
<b>Streetcar</b>	
Tacoma Link	8.5%

Table 9: LEP Percentage by Route

# Service Standards Monitoring Results

The section below describes monitoring results from Sound Transit's Board-approved Service Standards and Performance Measures. The document sets standards to measure the performance and quality of service delivered to customers and is used for assessing impacts on populations. In order to evaluate the degree to which investments were distributed equitably, 2024 service quality indicators were compared for minority and low-income routes. Where adverse effects (which are quantified as anything above 5 percent of the averages for the district) led to a determination of disparate impact or disproportionate burden, mitigation strategies are identified. For the combined summary of the impact results, refer to Appendix A: Disparate Impact Analysis and Appendix B: Disproportionate Burden Analysis.

## RECENT CHANGES TO SERVICE

Between 2021 and 2024, ST Express saw decreases in resource allocations because of reductions. Reductions in platform hours on ST Express were due to a bus route restructuring with the extension of Link 1 and ongoing operator shortages. Routes serving the I-5 corridor were truncated to serve the new light rail stations, instead of traveling to downtown Seattle. This eliminated parallel service along I-5 between light rail and ST Express.

Commuter Rail hours increased slightly by 7 percent. In April 2024 the Link 2 Starter Line opened, resulting in an increase in resources allocated to light rail. In September 2023 the Tacoma Link extended 2.4 miles, resulting in an increase in resources allocated to streetcar. Table 10 and Table 11 summarize the changes in platform hours by mode, and Appendix C: Changes in Service Delivery further details the changes implemented over recent years. For all rail modes, hours reflect multiple cars in operation.

ROUTE	ACTUAL ANNUAL REVENUE HOURS		DIFFERENCE 2021-2024	MINORITY	NON-MINORITY
	2021	2024			
ST Express	454,064	437,316	-16,748	-11,419	-5,329
Commuter Rail	52,209	55,945	3,736	0	3,736
Light Rail	291,735	495,687	203,952	N/A <sup>5</sup>	N/A
Tacoma Link	9,485	21,614	12,129	0	12,129

Table 10: Change in Minority Route Revenue Hours, 2021 - 2024

ROUTE	ACTUAL ANNUAL REVENUE HOURS		DIFFERENCE 2021-2024	LOW-INCOME	NON-LOW-INCOME
	2021	2024			
ST Express	454,064	437,316	-16,748	-11,352	-5,396
Commuter Rail	52,209	55,945	3,736	3,325	411
Light Rail	291,735	495,687	203,952	N/A	N/A
Tacoma Link	9,485	21,614	12,129	0	12,129

Table 11: Change in Low-Income Route Revenue Hours, 2021 - 2024

## STANDARDS

Sound Transit's Service Standards and Performance Measures document outlines a set of measures that are used to design, evaluate, and modify transit service. The document was last adopted by the Sound Transit Board of Directors in 2014. In 2018, formatting and other clarity improvements were published and presented to the Board of Directors in a briefing. Planning and day-to-day management of transit service is based on the established service standards and performance measures in order to obtain efficient and effective service delivered with quality. The guidelines provide a multi-step process to identify the level and type of service that should be provided, as well as a process to implement any changes needed to meet established priorities. Figure 8 summarizes service standards and performance measures by mode.

<sup>5</sup> Revenue hours are not separated out by route for Link Light Rail thus protected vs non protected population platform hour changes cannot be calculated



The Service Standards and Performance Measures document defines the criteria for making major or administrative service changes, as well as guidelines and driving factors for the type of changes needed to ensure Sound Transit services are meeting the demand for regional transit in the Puget Sound region.

Because standards vary by mode, a determination of disparate impact/disproportionate burden is made for routes within the mode rather than between modes.

"The standards and measures establish baselines to obtain optimum efficiency and effectiveness in the system on a short-term basis, while maintaining or improving the quality of service. Planning and day-to-day management of transit services is based on the established service standards and performance measures. The guidelines provide a multi-step process to identify the level and type of service that should be provided, as well as a process to implement any changes needed to meet established priorities. The Service Standards and Performance Measures defines the criteria for making major or administrative service changes, as well as guidelines and driving factors for the type of changes needed to ensure Sound Transit services are meeting the demand for regional transit in the Puget Sound area."









	Productivity				Service Quality			
	 Boardings per Trip	 Boardings per Revenue Hour	 Subsidy per Boarding	 Passenger Miles per Platform Mile	 Passenger Load	 On-Time Performance	 Customer Complaints	 Operated as Scheduled
<b>ST Express</b> FAST, FREQUENT REGIONAL BUS SERVICE	<ul style="list-style-type: none"> <li>Monitored regularly and reported annually with a comparative analysis of each route's performance and a peer comparison analysis</li> <li>Annual targets are adjusted accordingly</li> </ul>				Standing passengers not to exceed 1.23 - 1.5 times total seats and limit standing time to 30 minutes	85% of trips arrive within five minutes of schedule, never early	Less than 15 complaints per 100,000 boardings	99.8% of scheduled trips operated
<b>Sounder</b> HIGH CAPACITY COMMUTER RAIL	<ul style="list-style-type: none"> <li>Monitored regularly and reported annually with a peer comparison analysis</li> <li>Annual targets are adjusted accordingly</li> </ul>				Most riders have a seat, otherwise limit standing time to 30 minutes	95% of trips arrive at route terminals within seven minutes of schedule	Less than 15 complaints per 100,000 boardings	99.5% of scheduled trips operated
<b>Tacoma Link</b> LIGHT RAIL WITH MULTI-MODAL CONNECTIONS	<ul style="list-style-type: none"> <li>Monitored regularly and reported annually with a comparative analysis by time of day and a peer comparison analysis</li> <li>Annual targets are adjusted accordingly</li> </ul>				Standing passengers permitted up to 1.86 times number of seats	98.5% of trips depart/arrive route terminals within three minutes of schedule	Less than 15 complaints per 100,000 boardings	98.5% of scheduled trips operated
<b>Link</b> FREQUENT, RELIABLE HIGH-CAPACITY LIGHT RAIL	<ul style="list-style-type: none"> <li>Monitored regularly and reported annually with a comparative analysis by time of day and a peer comparison analysis</li> <li>Annual targets are adjusted accordingly</li> </ul>				Standing passengers not to exceed two times number of seats and limit standing time to 30 minutes	90% of headways within two minutes of schedule	Less than 15 complaints per 100,000 boardings	98.5% of scheduled trips operated

Figure 8: Sound Transit Service Standards and Performance Measures

## Passenger Load

Bus Type	Number of Seats	Max. Passenger Load	Load Factor
40-foot high floor	42	63	1.50
40-foot low floor	37	55	1.50
45-foot high floor	57	70	1.23
60-foot low floor	56	81	1.45
42-foot double deck	82	101	1.23

Figure 9: ST Express Load Factor by Vehicle Size

Maximum load factor is defined as the ratio as the maximum number of passengers observed on a transit vehicle trip relative to the number of seats. A maximum load factor greater than 1.0 means some passengers will be standing. The threshold for overcrowding varies by mode. Because ST Express, Sounder, and Link are regional services with long trip durations, a limit of 30

minutes of standing load is imposed on trips in addition to peak load factor limits of 1.23-1.5, 2.0, and 2.0, respectively. ST Express peak load factor limits vary according to the vehicle type, with 45-foot-high floor and double decker buses having less space for standing room (Figure 9). Tacoma Link's load factor limit is 1.86, and typically only experiences overcrowding during special events.

One aspect of rider behavior that load factor metrics do not fully account for is self-balancing: during periods of high demand and frequent service, it is common to observe riders declining boarding the first available bus in the expectation that later buses will be less crowded. In this situation, the passenger chooses to wait longer in order to have a seat for the trip.

Systematic passenger overcrowding conditions can occur when the frequency of service supplied is insufficient to meet demand, when poor schedule reliability leads to vehicle bunching, and/or vehicle passenger capacities are insufficient for a scheduled trip. Acute overcrowding can occur during periods of atypical demand (parades, weather events) or during disruptions to regular service.

## Findings

- All modes experienced no overcrowding, thus there is no difference in crowding on minority routes or low-income routes.

For a more detailed representation of the findings please refer to Appendix D: 2024 Passenger Overcrowding Rate by Route.

## Mitigation

- No mitigation is necessary for this measure.

## On-Time Performance

The calculation for on-time performance varies by mode:

- Among ST Express bus routes, "on-time" is defined as arriving no later than five minutes of each fixed mid-point timepoint's scheduled time, departing no more than 3 minutes late from the start, and arriving no more than 7 minutes late to the route terminus. Early departures are not permitted for fixed timepoints. In addition, many ST Express timetables include "estimated" timepoints primarily for situations in which a stop is drop-off only. Estimated timepoints are not included in on-time performance (OTP) reporting. The standard is 85% on-time for mid-point timepoints and 90% on-time for the start and terminus of routes.
- For Sounder "on-time" is defined as arriving at the final station of the route within seven even minutes of the scheduled time. The standard is 95% on-time.
- For Tacoma Link "on-time" is defined as arriving at the final station within three minutes of the scheduled time and departing no later than three minutes of the scheduled time from the first station. The standard is 98.5% on-time.
- For Link light rail "on-time" is defined as departing a station within two minutes of the scheduled time. The standard is 90% on-time.

PASSENGER OVERCROWDING RATE			
MODE	MINORITY	NON-MINORITY	DIFFERENCE
ST Express	0.00%	0.00%	0.00%
Commuter Rail	N/A	0.00%	N/A
Light Rail	N/A	0.00%	N/A
Tacoma Link	N/A	0.00%	N/A

Table 12: Passenger Overcrowding Rate for Minority Routes

PASSENGER OVERCROWDING RATE			
MODE	LOW-INCOME	NON-LOW-INCOME	DIFFERENCE
ST Express	0.00%	0.00%	0.00%
Commuter Rail	0.00%	0.00%	0.00%
Light Rail	0.00%	0.00%	0.00%
Tacoma Link	0.00%	N/A	N/A

Table 13: Passenger Overcrowding Rate for Low-Income

ON-TIME PERFORMANCE			
MODE	MINORITY	NON-MINORITY	DIFFERENCE
ST Express	80.5%	85.8%	-5.3%
Commuter Rail	N/A	96.4%	N/A
Light Rail	N/A	N/A	N/A
Tacoma Link	N/A	99.9%	N/A

Table 14: On-Time Performance for Minority Routes

ON-TIME PERFORMANCE			
MODE	LOW-INCOME	NON-LOW-INCOME	DIFFERENCE
ST Express	80.6%	84.2%	-3.6%
Commuter Rail	96.1%	96.7%	-0.6%
Light Rail	N/A	N/A	N/A
Tacoma Link	99.9%	N/A	N/A

Table 15: On-Time Performance for Low-Income Routes

## Findings

- On-time performance was lower for minority routes on ST Express by 5.3%, resulting in a determination of a disparate impact for this mode.
- On-time performance was lower for low-income routes on ST Express by 3.6% but does not constitute a disproportionate burden for this mode.
- Both commuter rail routes are non-minority routes, and each is meeting the target of 5 percent. The Sounder North is a non-low-income route, and the South is a low-income route. The North route is slightly outperforming the South route, but there is no finding of a disproportionate burden.
- As data collected for the Link light rail is not currently separated by route, an analysis could not be conducted. The joint OTP for the two routes is 82.5%, which is below the target of 90%.
- In total, 12 of the 24 ST Express routes did not meet the standard of 85% for on-time performance. Of those that fell below the standard, four are considered minority but not low-income (542, 554, 560, 566), one is considered low-income-only (590), three are considered both minority and low-income (574, 586, 594), and four are non-protected routes (556, 578, 595, 596). Eight of the 12 that do not serve low-income, or minority areas are meeting the standard.
- The King County Metro (KCM) and Community Transit (CT) operating divisions calculate OTP based on fixed and estimated time points, whereas Pierce Transit (PT) only calculates it based on fixed timepoints. Because of this calculation/methodology difference, it results in routes operating out of PT having artificially lower OTP. Many of the routes out of the PT garage serve areas in the south that have higher percentages of minority and low-income populations.

For a more detailed graph of on-time performance findings for all routes refer to Appendix E: 2024 On-Time Performance by Route.

## Mitigation

- To ensure consistent comparison of performance across operating partners, implement a process change so that the Pierce Transit garage can begin reporting OTP values based on fixed and estimated time points.
- Collect data and monitor OTP for each light rail route and not collectively by mode.
- As traffic congestion increases in the region, run time allotments by route will be monitored regularly.

## Customer Complaints

The customer complaints standard is the same across all modes: no more than 15 complaints submitted to Sound Transit customer service representatives per 100,000 boardings. Complaints can relate to on-time performance, overcrowding and amenities, among other things.

COMPLAINTS PER 100K BOARDINGS			
MODE	MINORITY	NON-MINORITY	DIFFERENCE
ST Express	20.06	28.23	-28.93%
Commuter Rail	N/A	23.55	N/A
Light Rail	N/A	8.55	N/A
Tacoma Link	N/A	4.20	N/A

Table 16: Complaints per 100,000 Boardings, Minority Routes

## Findings

- Customer complaints were lower for minority routes on ST Express by 28.93%, resulting in no disparate impact for this mode.
- Customer complaints were higher for low-income routes on ST Express by 4.2% but does not constitute a disproportionate burden for this mode.

CUSTOMER COMPLAINTS PER 100K BOARDINGS			
MODE	LOW-INCOME	NON-LOW-INCOME	DIFFERENCE
ST Express	25.25	24.23	4.20%
Commuter Rail	14.20	32.90	-56.84%
Light Rail	7.60	9.50	-20.00%
Tacoma Link	4.20	N/A	N/A

Table 17: Complaints per 100,000 Boardings, Low-Income Routes



- Both commuter rail routes are non-minority routes, and the South route is a low-income route while the North is not. The South route meets the target of no more than 15 complaints per 100,000 boardings, the North is not. There is no finding of a disproportionate burden, and a disparate impact cannot be calculated as both routes are non-minority routes.
- Both Link Light Rail routes are non-minority routes and Link 2 is a low-income route while Link 1 is not. Both are meeting the target of no more than 15 complaints per 100,000 boardings. There is no finding of a disproportionate burden, and a disparate impact cannot be calculated as both routes are non-minority routes.
- There is only one route for the Tacoma Link, it meets the target of no more than 15 complaints per 100,000 boardings.
- Fifteen of the 24 ST Express routes are not meeting the targets. Four are both low-income and minority, 4 are minority only, 1 is low-income only, and 6 are neither. Of the 17 routes not meeting the target, six have complaint rates that are two times higher than the standard.

For a more detailed graph of on-time performance findings for all routes refer to Appendix F: 2024 Customer Complaints by Route.

### Mitigation

- No mitigation is necessary for this measure.

### Trips Operated as Scheduled

This metric tracks the percentage of scheduled trips that are operated. The standard for ST Express is 99.8% and 99.5% for rail modes. Traffic conditions, labor shortages, medical emergencies, and mechanical breakdowns can all contribute to the cancellation of a trip.

TRIPS OPERATED AS SCHEDULED			
MODE	MINORITY	NON-MINORITY	DIFFERENCE
ST Express	99.49%	99.54%	-0.05%
Commuter Rail	N/A	99.3%	N/A
Light Rail	N/A	N/A	N/A
Tacoma Link	N/A	99.9%	N/A

Table 18: Trips that Operated as Scheduled, Minority Routes

### Findings

- Trips operated as scheduled were lower for minority routes on ST Express by 0.05% but did not result in a determination of a disparate impact for this mode.
- Trips operated as scheduled were lower for low-income routes on ST Express by 0.07% but did not result in a determination of a disproportionate burden for this mode.
- Both commuter rail routes are non-minority routes, and the South route is a low-income route while the North is not. The North route meets the target of 99.5%, the South is not. There is no finding of a disproportionate burden, and a disparate impact cannot be calculated as both routes are non-minority routes.
- Data collected for the Link light rail is not currently separated by route, an analysis could not be conducted. The percentage of joint trips operated as scheduled for the two routes is 93.5%, which is below the target of 99.5%.
- There is only one route for the Tacoma Link, it meets the target of 99.5%.

TRIPS OPERATED AS SCHEDULED			
MODE	LOW-INCOME	NON-LOW-INCOME	DIFFERENCE
ST Express	99.47%	99.53%	-0.07%
Commuter Rail	98.9%	99.6%	-0.7%
Light Rail	N/A	N/A	N/A
Tacoma Link	99.9%	N/A	N/A

Table 19: Trips that Operated as Scheduled, Low-Income Routes

- Only 3 of the 24 ST Express routes are meeting the target of 99.8%. All three of the routes are neither low-income nor minority routes. No route serving minority or low-income areas is meeting the target.

For a more detailed graph of trips-operated findings for all routes refer to Appendix G: 2024 Trips Operated as Scheduled by Route.

## Mitigation

- No mitigation is necessary for this measure.

## Span of Service

The service span, or the hours of operation of an individual route, should be based on demand and relate to the operating times of the activity centers being served and the service span of the connecting local transit system as well as other Sound Transit modes. ST Express service span may vary between routes based on passenger demand and route performance. Rail modes do not have service span guidelines.

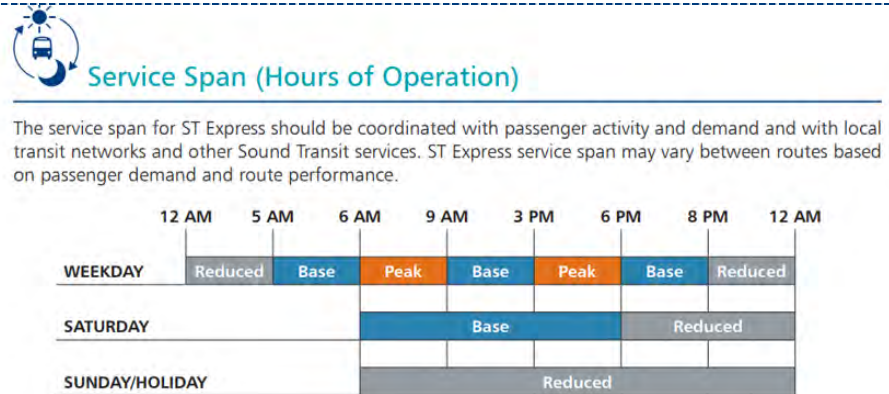


Figure 10: Sound Transit Service Span Guidelines

Once service is in place, headways may be improved to provide more frequent service if route productivity consistently exceeds the system average or if passenger loads exceed Sound Transit's service standards.

Some routes may operate only during weekday peak periods while others may operate all day, seven days a week. Other routes may operate all day on weekdays but provide no weekend service. As a general guide, three levels of service are defined for different operating time periods.

- Peak service is generally between the hours of 6:00 a.m. and 9:00 a.m., and between 3:00 p.m. and 6:00 p.m.
- Base service is provided in the early morning from 5:00 a.m. and 6:00 a.m., in the mid-day period between 9:00 a.m. and 3:00 p.m., and in the early evening period between 6:00 p.m. and 8:00 p.m. on weekdays, and between 6:00 a.m. and 6:00 p.m. on Saturdays.
- Reduced service is between 8:00 p.m. and midnight on weekdays, from 6:00 p.m. to midnight on Saturdays and from 6:00 a.m. to midnight on Sundays. Reduced service is also operated on some holidays.

AVERAGE HOURS OF SERVICE PER DAY				
	DAY TYPE	MINORITY	NON-MINORITY	DIFFERENCE
ST Express	Weekday	15.1	10.7	41%
	Saturday	18.0	19.0	-6%
	Sunday	16.1	18.9	-15%
Commuter Rail	Weekday	N/A	6.30	N/A
Light Rail	Weekday	N/A	19.20	N/A
	Saturday	N/A	19.25	N/A
	Sunday	N/A	17.25	N/A
Tacoma Link	Weekday	N/A	17.88	N/A
	Saturday	N/A	15.50	N/A
	Sunday	N/A	8.83	N/A

Table 20: Hours of Service by Day Type, Minority Routes

AVERAGE HOURS OF SERVICE PER DAY				
MODE	DAY TYPE	LOW-INCOME	NON-LOW-INCOME	DIFFERENCE
ST Express	Weekday	11.7	13.1	-11%
	Saturday	19.0	18.1	5%
	Sunday	14.0	18.0	-22%
Commuter Rail	Weekday	9.5	3.1	206%
Light Rail	Weekday	16.1	19.2	-16%
	Saturday	16.1	19.3	-17%
	Sunday	16.1	17.3	-7%
Tacoma Link	Weekday	17.9	N/A	N/A
	Saturday	15.5	N/A	N/A
	Sunday	8.8	N/A	N/A

Table 21: Avg. Hours of Service by Day Type, Minority Routes

Some routes only operate during the peak period, while others only operate during off-peak times. For this analysis, span was defined as the first trip start time to the time the last trip pulls in. Routes in which no trips started between 11 a.m. and 1 p.m. were considered peak-only; daily total span was calculated as the sum of spans within each peak period.

## Findings

- The average span of service was greater for minority routes compared to non-minority on weekdays than on weekends. The average span for minority routes was shorter on Saturdays by one hour and Sundays by 1 hour 42 minutes compared to non-minority routes. No disparate impact is seen on weekdays, but it does exist on weekend ST Express service.
- The average span of service for low-income routes compared to non-low-income routes was shorter on Weekdays by 1 hour 24 minutes. This resulted in a disproportionate burden. On Saturdays the average span was longer on low-income routes compared to non-low-income routes, resulting in no disproportionate burden. On Sundays the average span for low-income routes was 4 hours shorter than non-low-income routes, resulting in a disproportionate burden.
- For the commuter rail, the low-income route has a longer span than the non-low-income route, resulting in no disproportionate burden. Given that both routes are non-minority routes, it is not possible to compare spans on minority to non-minority.
- Both Link light rail routes are non-minority routes and Link 2 is a low-income route while Link 1 is not. Low-income routes have a shorter span than non-low-income routes for all days of the week. There is a finding of a disproportionate burden on weekdays and weekends. A disparate impact cannot be calculated as both routes are non-minority routes.
- There is only one route for the Tacoma Link, therefore, a comparison or analysis of findings is not feasible for these two modes.
- Four (Routes 577, 586, 590, and 592) of the 6 low-income routes operate mainly during peak periods, driving down the average span length overall. Most of these routes operate in corridors with a complementary all-day route to cover a larger span of service. The two all-day low-income routes have weekday service spans exceeding 18 hours. ST Express Route 574, which services Sea-Tac International Airport, has the longest span due to the 24-hour operational nature of this important regional employment center.
- Of the eight of the 11 minority routes that operate all day, seven have weekday service spans exceeding 18 hours.

Refer to Appendix H: 2024 Span of Service by Day Type by Route for a more detailed look at hours of service provided by route.

## Mitigation

- The 2025 Service Plan's strategy focuses on extending the Line 2 to Downtown Redmond. The extended service would support broadly on increasing frequency and span on Title VI priority routes. With the extension Sound Transit will be expanding service from 5:31 AM - 9:34 PM to 5:00 AM – 12:00 AM.

## Headway

Headways are the time intervals in minutes between scheduled trips for a given direction of travel. Shorter intervals result in better frequencies of service for customers. Sound Transit schedules ST Express headways based on demand, clock-face scheduling and the maximum headway guideline, which is 30 minutes during peak periods and 60 minutes during off-peak periods for ST Express. The guideline is designed to keep waiting times reasonable for passengers who require a transfer. Once service is in place, headways may be improved to provide more frequent service if route productivity consistently exceeds the system average or if passenger loads exceed Sound Transit's service standards. There are no service guidelines for rail headways.

### Findings

- Average headways for Peak and Reduced time periods on minority routes were shorter than their non-minority counterparts on ST Express by 1 minute and 42 seconds and 2 minutes and 24 seconds, respectively. The average headway during the reduced was nearly 12 minutes longer for a minority route. This results in a disparate impact during the reduced but not during the peak or base.
- Average headways for Base and Reduced time periods on low-income routes were shorter than their non-low-income counterparts on ST Express by 18 seconds and nine minutes and 12 seconds, respectively. The average headway during the peak was seven minutes longer for a low-income route. This results in a disproportionate burden during the peak but not during the base or reduced.
- For the commuter rail, the low-income route has a shorter headway than the non-low-income route during the peak, resulting in no disproportionate burden. Given that both routes are non-minority routes, it is not possible to compare the spans on minority to non-minority.
- Both Link light rail routes are non-minority routes and Link 2 is a low-income route while Link 1 is not. Low-income routes have a longer headway than non-low-income routes during the peak and base but a shorter one during the reduced. There is a finding of a disproportionate burden during the peak and base. A disparate impact cannot be calculated as both routes are non-minority routes.
- There is only one route for the Tacoma Link, therefore, a comparison or analysis of findings is not feasible for this mode.
- Rail modes do not have defined service standards for headway.
- ST Express Routes 580, 592 and 595 do not meet the service guidelines for minimum headway during the Peak period for ST Express routes. The 592 is a minority and low-income route, the other two are neither. These routes are scheduled as trip-based, highly targeted peak-only service for very specific travel markets and not based on minimum headways.
- All ST Express routes meet the Base headway requirement for the off-peak period of no greater than 60-minute headways.

AVERAGE HEADWAY				
MODE	TIME PERIOD	MINORITY	NON-MINORITY	DIFFERENCE
ST Express	Peak	20.0	21.7	-8%
	Base	22.6	25.0	-10%
	Reduced	36.0	24.1	49%
Commuter Rail	Peak	N/A	27.1	N/A
	Base	N/A	25.0	N/A
Light Rail	Peak	N/A	8.0	N/A
	Base	N/A	9.0	N/A
	Reduced	N/A	13.0	N/A
Tacoma Link	Peak	N/A	12.0	N/A
	Base	N/A	12.0	N/A
	Reduced	N/A	20.0	N/A

Table 22: Average Headway by Time Period, Minority Routes

AVERAGE HEADWAY				
MODE	TIME PERIOD	LOW-INCOME	NON-LOW-INCOME	DIFFERENCE
ST Express	Peak	26.5	19.5	36%
	Base	23.6	23.9	-1%
	Reduced	23.2	32.4	-29%
Commuter Rail	Peak	24.0	31.0	-23%
	Base	25.0	N/A	N/A
Light Rail	Peak	10.0	8.0	25%
	Base	10.0	9.0	11%
	Reduced	10.0	13.0	-23%
Tacoma Link	Peak	12.0	N/A	N/A
	Base	12.0	N/A	N/A
	Reduced	20.0	N/A	N/A

Table 23: Average Headway by Time Period, Low-Income Routes

Appendix I: 2024 Average Headway by Route compares the average headway of minority and/or low-income routes for the three time periods.

## Mitigation

- The 2026 Service Plan's strategy focuses on extending the Link 2 to downtown Seattle. The extended service would support eight-minute headways, providing the same level of service as Link 1.
- As part of the extension of Link Light Rail in 2026 Sound Transit will be evaluating schedules and routing for 17 of their routes to support the expansion.
- Reimplement service reductions implemented in 2024 on Pierce Transit operated services due to operator shortages. In early 2025 Pierce Transit notified Sound Transit they have enough personnel to restore temporary service reductions made in March 2024.

## Service Availability

This metric tracks the amount of service available and distribution in the service area across modes. ST Express service offers higher capacity, higher speed, frequent bus service using HOV lanes, and priority infrastructure to connect regional population and employment centers. Stops are limited to transit centers, major transfer points, major origins/destinations, and park-and-ride lots where at least 25 daily boardings or alightings occur if the service span is 12 hours or greater and 15 boardings or alightings if less than 12 hours. Given the limited stop nature of ST Express and rail modes, the service area is defined by a radial distance from each stop, and the distance varies based on the nature of each facility. To calculate service availability for each mode, the total population served by each mode was calculated followed by the percentage of each that was minority and non-minority. The percentage minority and non-minority for each mode were then each divided by the systemwide minority average. The same methodology was used for low-income routes.

SERVICE AVAILABILITY			
MODE	MINORITY	NON-MINORITY	DIFFERENCE
ST Express	1.06	0.96	11%
Commuter Rail	1.05	0.96	10%
Light Rail	1.04	0.97	8%
Tacoma Link	0.99	1.01	-2%

Table 24: Service Availability, Minority Routes

SERVICE AVAILABILITY			
MODE	LOW-INCOME	NON-LOW-INCOME	DIFFERENCE
ST Express	1.10	0.98	12%
Commuter Rail	1.23	0.95	30%
Light Rail	0.93	1.02	-9%
Tacoma Link	1.30	0.93	41%

Table 25: Service Availability, Low-Income Routes

## Findings

- Service availability was greater on all modes except the Tacoma Link for minority populations than non-minority populations. For the Tacoma Link minority populations had 2% less service available, which is within the 5% allowable difference. No disproportionate burden was found.
- Service availability was greater on all modes except light rail for low-income populations than non-low-income populations. For light rail, populations had 9% less service available. A disparate impact was found for light rail.

## Mitigation

- Low-income areas are primarily found in the southern part of the service areas. The Federal Way Link 1 extension will add light rail service in the south, to an area currently not serviced by light rail.
- Reimplement service reductions implemented in 2024 on Pierce Transit operated services due to operator shortages. In early 2025 Pierce Transit notified Sound Transit that they have enough personnel to restore temporary service reductions made in March 2024.

## SERVICE POLICY

Sound Transit's Service Standards and Performance Measures and Design Criteria Manual document amenity requirements. These requirements were used to determine if the distribution of amenities is equitable. Per FTA Circular 4702.1B, Sound Transit is only responsible for setting and monitoring the policy for which they have the decision-making authority over the provision of amenities. Different policies can be set for different modes. The first step is determining which stops/stations Sound Transit has decision-making authority over. Table 26 lists the number of stops by mode that meet this requirement. Overall, there are 68 locations for which this occurs, as some locations are served by more than one mode.

MODE	NUMBER OF STOPS WITH DECISION MAKING AUTHORITY
ST Express	19
Commuter Rail	9
Light Rail	28
Tacoma Link	12

Table 26: Number of Stops by Mode Where ST has Decision Making Authority

The next step is to determine if a stop is a low-income or minority stop. Census tracts that have a minority or low-income population percentage that is 5 percent greater than the district average are determined to be minority or low-income. If a stop is in a low-income Census tract it is considered low-income and if in a minority Census tract, it is considered minority. Table 27 outlines the breakdown of the number of stops by mode and minority and low-income status. It should be noted that all Tacoma Link stops are classified as low-income and as such a comparison between low-income and non-low-income is not feasible for this mode.

NUMBER OF STOPS				
MODE	MINORITY	NON-MINORITY	LOW INCOME	NON-LOW-INCOME
ST Express	9	10	10	9
Commuter Rail	4	5	6	3
Light Rail	22	6	13	15
Tacoma Link	1	11	10	2

Table 27: Breakdown by Mode and Minority or Low-Income Status for Stops Where ST has Decision Making Authority

See Appendix J: Sound Transit Stops for a list of stops Sound Transit owns has decision-making authority over for amenities and a map of stops Sound transit is responsible for maintenance of, which includes conveyance.

### Escalator and Elevator Conveyance

Sound Transit has established conveyance uptime targets for elevators and escalators. Elevators are located at Link Stations and parking garages for commuter rail, Link light rail and ST Express. Escalators are only located at Link Stations. The target for elevators is 97 percent uptime and for escalators 95 percent.

CONVEYANCE UPTIME			
MODE	MINORITY	NON-MINORITY	DIFFERENCE
Light Rail – Elevator	94.8%	98.3%	-3.6%
Light Rail – Escalator	93.9%	96.2%	-2.2%
Commuter Rail - Elevator	96.2%	97.7%	-1.5%
ST Express - Elevator	95.3%	96.7%	-1.4%

Table 28: Station and Garage Conveyance Uptime, Minority Stop

### Findings

- No disproportionate burdens or disparate impacts were identified.
- Minority and low-income stations either have a higher conveyance uptime or the difference is within the allowable five percent.

CONVEYANCE UPTIME			
MODE	LOW-INCOME	NON-LOW-INCOME	DIFFERENCE
Light Rail – Elevator	95.7%	96.8%	-1.1%
Light Rail – Escalator	93.2%	96.7%	-3.5%
Commuter Rail - Elevator	96.7%	99.0%	-2.3%
ST Express - Elevator	97.2%	93.0%	4.2%

Table 29: Station and Garage Conveyance Uptime, Low Income Stop



- Nine of the 19 stations with Escalators are not meeting the target of 95%, all but one of these stations (Northgate Station) are both low-income and minority stations. Half of those not meeting the target, were off by 1 percent or less. International District Station was the only one to not have an uptime of 90% or greater.
- 17 of the 40 locations with an elevator are not meeting the target of 97%. Ten of these 17 locations are both minority and low-income, 2 are only low-income, 2 are only minority and 3 are neither.

Refer to Appendix K: 2024 Conveyance Report for a more detailed look at uptime by location.

## Mitigation

- While no mitigation is necessary for this measure, Sound Transit is still working to improve Elevator uptime as several stations are not meeting the target. In 2025 Sound Transit will be replacing the hydraulic jack assembly on elevators.

## Bike Rack Distribution

The *Design Criteria Manual* states that a mix of class one and two bicycle parking must be provided at all facility locations to the extent possible. Bicycle parking facilities are not to be located on a rail platform. Bike racks are considered class 2 bicycle parking and used for short-term bike parking.

BIKE RACK DISTRIBUTION			
MODE	MINORITY	NON-MINORITY	DIFFERENCE
ST Express	55.6%	70.0%	-14.4%
Commuter Rail	100.0%	100.0%	0.0%
Light Rail	72.7%	100.0%	-27.3%
Tacoma Link	0.0%	0.0%	0.0%

Table 30: Bike Rack Distribution, Minority Stop

## Findings

- Bike racks appear 14.4% more frequently at non-minority ST Express stations than minority ones resulting in a disparate impact.
- Bike racks appear 14.4% more frequently at low-income ST Express stations than non-low-income stations. There is no disproportionate burden.
- All Commuter Rail stations have bike racks. There is no disparate impact or disproportionate burden for this mode.
- Bike racks appear 27.3% more frequently at non-minority Light Rail stations than minority ones resulting in a disparate impact.
- Bike racks appear 3.1% more frequently at non-low-income ST Express stations than low-income stations. There is no disproportionate burden.
- The Tacoma Link stations do not have bike racks because these locations are simple at-grade platforms and the guidelines state that bike facilities are not allowed on platforms. There is no disparate impact or disproportionate burden for this mode.
- Seven ST Express do not have bike racks, two are both minority and low-income stations, 2 are minority only, one is low income only, and two are neither.
- All six of the light rail stations without bike racks are minority stations and three are also low-income. One of the six locations is an underground fixed guideway, one is an exclusive grade-separated platform, one is an elevated fixed guideway station, and three are simple at-grade platforms. Stadium Station is an exclusive platform, and Sound Transit only has amenity jurisdiction over the platform and per their policy, bicycle

BIKE RACK DISTRIBUTION			
MODE	LOW-INCOME	NON-LOW-INCOME	DIFFERENCE
ST Express	70.0%	55.6%	14.4%
Commuter Rail	100.0%	100.0%	0.0%
Light Rail	76.9%	80.0%	-3.1%
Tacoma Link	0.0%	0.0%	0.0%

Table 31: Bike Rack Distribution, Low-Income Stop

facilities are not to be placed on rail platforms. There are free bicycle racks on the street outside the station. SeaTac/Airport station does not have bike racks but there are bike lockers. Redmond Technology Station does not have bike racks, but the adjacent parking garage managed by Sound Transit does. Bel-Red 130<sup>th</sup> Station does not have bike parking, but the adjacent park and ride lot does. There are no adjacent bike racks for East Main Station or Pioneer Square Station.

- The *Design Criteria Manual* is constantly being updated, many of the stations missing bike racks were constructed before the guidelines included standards for bike parking and, at the time of their construction, were compliant with the manual.

Refer to Appendix L: 2024 Bike Rack and Cage Distribution Tables.

### Mitigation

- Update the *Design Criteria Manual* guidelines on bike parking, to clarify requirements for streetcar stations.
- As stations are upgraded and improvements implemented, they will be compliant with current *Design Criteria Manual* standards.

### Bike Cage/Lockers Distribution

The *Design Criteria Manual* states that a mix of class one and two bicycle parking must be provided at all facility locations to the extent possible. Bike rooms and lockers are considered type 1 bicycle parking and used for long-term (all-day or overnight) bicycle parking because they are secure and weather-protected. Bike cages can house multiple bikes, whereas lockers are intended for individual bikes. Type 2 bike parking at stations includes bike e-lockers provided and managed by BikeLink.

### Findings

- Bike cages/lockers appear 3.3% more frequently at non-minority ST Express stations than minority ones. There is no disparate impact.
- Bike cages/lockers appear 24.4% more frequently at low-income ST Express stations than non-low-income stations. There is no disproportionate burden.
- All Commuter Rail stations have bike cages/lockers. There is no disparate impact or disproportionate burden for this mode.
- Bike cages/lockers appear 22.7% more frequently at non-minority Light Rail stations than minority ones resulting in a disparate impact.
- Bike cages/lockers appear 4.6% more frequently at non-low-income ST Express stations than low-income stations. There is no disproportionate burden.
- The Tacoma Link stations do not have cages/lockers because these locations are simple at-grade platforms and the guidelines state that bike facilities are not allowed on platforms. There is no disparate impact or disproportionate burden for this mode.

Refer to Appendix L: 2024 Bike Rack and Cage Distribution Tables

BIKE CAGE DISTRIBUTION			
MODE	MINORITY	NON-MINORITY	DIFFERENCE
ST Express	66.7%	70.0%	-3.3%
Commuter Rail	100.0%	100.0%	0.0%
Light Rail	77.3%	100.0%	-22.7%
Tacoma Link	0.0%	0.0%	0.0%

Table 32: Bike Cage Distribution, Minority Stop

BIKE CAGE DISTRIBUTION			
MODE	LOW-INCOME	NON-LOW-INCOME	DIFFERENCE
ST Express	80.0%	55.6%	24.4%
Commuter Rail	100.0%	100.0%	0.0%
Light Rail	84.6%	80.0%	4.6%
Tacoma Link	0.0%	0.0%	0.0%

Table 33: Bike Cage Distribution, Low-income Stop

## Mitigation

- In 2025, per the Sound Transit Adopted Budget and Financial Plan, additional funding was allocated to the bike parking program to provide biking and micromobility parking options at stations.
- Update the *Design Criteria Manual* guidelines on bike parking, to clarify requirements for streetcar stations.
- As stations are upgraded and improvements implemented, they will be compliant with the current *Design Criteria Manual* standards.

## Shelter Distribution

Per Sound Transit's Service Standards and Performance Measures document, bus stops with a high number of boardings per hour should have bus shelters or other weather-protection amenities. The Design Criteria Manual states that for rail a minimum of 30 percent of the platform area should have a canopy for at-grade stations and 65 percent for elevated stations. Bus stops are to have weather protection in the form of canopies and windscreens.

## Findings

- Commuter rail, and Tacoma Link minority and low-income stations have a higher instance of having shelters that meet the standard, resulting in no disparate impact or disproportionate burdens.
- ST Express minority stations have a higher instance of having shelters that meet the standard, resulting in no disparate impact.
- ST Express low-income stations were 30% less likely to meet shelter requirements than non-low-income stations, resulting in a disproportionate burden.
- Light Rail minority and low-income stations are less likely to meet shelter requirements. Minority stations are 4.6% less likely, resulting in no disparate impact. Low-income stations are 7.7% less likely, resulting in a disproportionate burden.
- There are no standards in the *Design Criteria Manual* for Tacoma Link stations so light rail criteria was applied in absence.
- All Sound Transit facilities have a shelter, but not all meet the standard for the amount of shelter required. There are sixteen locations that do not meet the standard; half are street car stations. There is no standard in the *Design Criteria Manual* for Tacoma Link stations so light rail criteria was applied in its absence. Seven are commuter rail stations, of which three also serve ST Express. Only one light rail, Mount Baker, does not meet the requirement.
- The *Design Criteria Manual* is constantly being updated, many of the stations with insufficient shelter were constructed under different guidelines and, at the time of their construction, were compliant with the manual.

Refer to Appendix M: 2024 Shelter Distribution Maps for more details on locations.

## Mitigation

- In 2025 Sound Transit will complete improvements at the Mukilteo commuter rail station to add a second platform. The improvements will follow the *Design Criteria Manual* guidelines for commuter rail.

SHELTER DISTRIBUTION			
MODE	MINORITY	NON-MINORITY	DIFFERENCE
ST Express	88.9%	80.0%	8.9%
Commuter Rail	50.0%	0.0%	50.0%
Light Rail	95.5%	100.00%	-4.6%
Tacoma Link	100.0%	27.3%	72.7%

Table 34: Shelter Distribution, Minority Stop

SHELTER DISTRIBUTION			
MODE	LOW-INCOME	NON-LOW-INCOME	DIFFERENCE
ST Express	70.0%	100.0%	-30.0%
Commuter Rail	33.3%	0.0%	33.3%
Light Rail	92.3%	100.0%	-7.7%
Tacoma Link	40.0%	0.0%	40.0%

Table 35: Shelter Distribution, Low-income Stop

- Update the *Design Criteria Manual* guidelines to clarify shelter requirements for streetcar stations.
- As stations are upgraded and improvements implemented, they will be compliant with the current *Design Criteria Manual* standards for shelter requirements.

## Seating/Bench Distribution

The Design Criteria Manual for light rail states that a minimum of 20 seats must be provided on each side of the platform and 30 seats for center platforms. At least 60 percent of seating should be under the canopy. Seating at on-site bus stops must have at least one 3 linear feet per bus stall.

BENCH/SEATING DISTRIBUTION			
MODE	MINORITY	NON-MINORITY	DIFFERENCE
ST Express	100.0%	90.0%	10.0%
Commuter Rail	75.0%	20.0%	55.0%
Light Rail	36.4%	50.0%	-13.6%
Streetcar	0.0%	0.0%	0.0%

Table 36: Seating Distribution, Minority Stop

## Findings

- ST Express minority stations have a higher instance of having seating that meet the standard, resulting in no disparate impact.
- ST Express low-income stations have a 10% lower instance of having seating that meets the standard, resulting in a disproportionate burden.
- Commuter rail low-income and minority stations have a higher instance of having seating that meet the standard, resulting in no disparate impact or disproportionate burden.
- Light Rail low-income and minority stations have a lower instance of having seating that meets the standard, resulting in a disproportionate burden.
- Tacoma Link is not included in the *Design Criteria Manual*, so the light rail seating requirements were applied. No stations meet these requirements, resulting in no disparate impact or disproportionate burden.
- All light rail stations have some seating but 6 locations do not meet the standard for the amount of seating and 11 for the percentage that is covered. Eight of these locations are low-income and minority stations, six are only minority, one is only low-income, and two are neither.
- Stations not meeting the standards are primarily rail (light rail or commuter rail), but one is served by ST Express as well.
- Many of the commuter rail stations not meeting the standard have side platforms and, on the inbound side towards Seattle, the platform meets the standard but the outbound does not. The inbound stations are primarily used for those boarding heading towards Seattle, while the outbound is primarily used by those alighting.
- The *Design Criteria Manual* is constantly being updated, many of the stations with insufficient seating were constructed under different guidelines and, at the time of their construction, were compliant with the manual.

BENCH/SEATING DISTRIBUTION			
MODE	LOW-INCOME	NON-LOW-INCOME	DIFFERENCE
ST Express	90.0%	100.0%	-10.0%
Commuter Rail	66.7%	0.0%	66.7%
Light Rail	30.8%	46.7%	-15.9%
Tacoma Link	0.0%	0.0%	0.0%

Table 37: Seating Distribution, Low-Income Stop

Refer to Appendix N: 2024 Bench/Seating Distribution Maps for more details on locations and if they meet the standard.

## Mitigation

- Update the *Design Criteria Manual* guidelines to clarify seating requirements for streetcar stations.
- As stations are upgraded and improvements implemented, they will be compliant with the current *Design Criteria Manual* standards for seating requirements.

## Vehicle Assignment

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### ST Express

Vehicle assignment is the process by which vehicles are placed into service throughout the system. Sound Transit contracts with Community Transit, King County Metro, and Pierce Transit to operate bus service. Each of the three operators is assigned vehicles that are replaced when they reach the useful life benchmark. There are garage limitations to consider such as bay door and ceiling heights that may prevent a service provider from being able to store double-decker buses, and other considerations such as fuel type availability at a facility. Providers assign buses to service by rotating newer vehicles across all routes operated out of the facility. Vehicles are parked in line, front-to-back on pull-in, and assigned by pull-out time, according to the vehicle characteristics. This practice provides for a random bus assignment. Bus assignment does consider the operating characteristics of buses of various lengths and heights, which are matched to the operating characteristics of the route (ridership volumes, turn restrictions, height restrictions, type of service, and platform/curb levels). Some of these considerations are: hybrid and double-decker vehicles are not permitted on routes with clearance restrictions, express coach buses are specifically designed for routes that cover longer distances per trip, articulated and double-decker buses are deployed exclusively on routes with supportive ridership volumes.

### Sounder Commuter Rail

The Sounder Commuter Rail operates Bombardier Bi-level cab cars (27) and coaches (40), pulled by EMD and MPI locomotives. Locomotives range in age from 11 to 24 years, and all have been rebuilt to meet EPA Tier 3 emissions standards. The 40 coaches are all 20 to 23 years old, and cab cars are 8 to 26. All are eligible to run on both commuter rail routes, and there are no constraints as to which locomotives can be combined with which coaches and cab cars. All passenger cars are equipped with power outlets and bathrooms. All passenger cars purchased beginning in 2017 are Crash Energy Management (CEM) cars; these are the only passenger cars with wheelchair lifts. Each trainset is assigned a CEM car at the end, as it has the latest crash energy absorption technology. Due to platform lengths, the S Line consists of 1 locomotive and 7 passenger cars, and the north has 1 locomotive and up to 3 cars. Sound Transit's rail yard is located in Lakewood. In addition, there is an outlying storage yard in Everett. The Lakewood yard can hold up to 72 vehicles, and Everett can store 16 vehicles to the north. Locomotives and cab cars are not assigned to a specific yard but are rotated daily based on availability and maintenance.

### Link Light Rail

Each day vehicle maintenance assesses the readiness of each light rail vehicle and provides the list to operations. Operations assign a vehicle to each block based on available ready vehicles. Currently, Sound Transit is in the process of procuring new light rail vehicles for expansion. 144 new vehicles have been delivered, and no restrictions are preventing them from operating on the Link Line 1 or 2, alongside the Kinkisharyo light rail vehicles. (purchased 2006-2008 and 2011). The majority of Siemens light rail vehicles are stored and operated from OMFC. This is due to the nature of new vehicle acceptance testing and track condition requirements which are only available within Line-1. The Series 1 and 2 LRV fleet ratios at each maintenance facility will be balanced upon the opening of the Line-2 connection to Line-1.

### Tacoma Link

Each day vehicle maintenance assesses the readiness of each vehicle and provides the list to operations. Operations assigns a vehicle based on available ready vehicles. The fleet consists of three 2001 Skoda vehicles and five 2023 Brookville Equipment Corporation vehicles, all with the same amenities. Both vehicles are used on the Tacoma Link Streetcar interchangeably. Currently there is only one streetcar line (Tacoma Link), and it is classified as a non-minority and low-income route. As such, it is not possible to compare vehicles assigned to minority or low-income to those assigned to non-minority or non-low-income routes.

# Conclusion & Next Steps

This analysis has highlighted areas of Sound Transit service where scheduled service levels and service performance exhibited a disparate impact or disproportionate burden in 2024. Through the disparate impact analysis process, it was determined that routes serving minority populations greater than the district average did not perform as well in the following categories:

<u>Express Bus</u>	<u>Commuter Rail</u>	<u>Light Rail</u>	<u>Tacoma Link</u>
<ul style="list-style-type: none"> <li>On-time performance</li> <li>Saturday and Sunday span</li> <li>Reduced headway</li> <li>Bike rack distribution</li> </ul>	<ul style="list-style-type: none"> <li>None</li> </ul>	<ul style="list-style-type: none"> <li>Bike rack distribution</li> <li>Bike cage/locker distribution</li> <li>Seating distribution</li> </ul>	<ul style="list-style-type: none"> <li>None</li> </ul>

Additionally, the disproportionate burden analysis determined routes serving low-income populations greater than the district average did not perform as well in the following categories:

<u>Express Bus</u>	<u>Commuter Rail</u>	<u>Light Rail</u>	<u>Tacoma Link</u>
<ul style="list-style-type: none"> <li>Weekday and Sunday span</li> <li>Peak headway</li> <li>Seating distribution</li> <li>Shelter distribution</li> </ul>	<ul style="list-style-type: none"> <li>None</li> </ul>	<ul style="list-style-type: none"> <li>Weekday, Saturday, and Sunday span</li> <li>Peak and base headway</li> <li>Service availability</li> <li>Shelter distribution</li> <li>Seating distribution</li> </ul>	<ul style="list-style-type: none"> <li>None</li> </ul>

Mitigation strategies will focus on near-future improvements (schedule adjustments, changes in vehicle allocation, trip additions, bus assignments, rail expansion) as well as medium term capital projects. As new high-capacity transit lines are implemented, dedicated rights-of-way will provide some relief around the region's congested highway system. The ST Express network will evolve to connect to new high-capacity transit stations, increasing access to the benefits of enhanced reliability.

Sound Transit adopts an updated Service Plan annually, which sets service levels and approves changes to service consistent with the agency's annual budget. Changes to service occur in March and September each year, with a six-month lead-time required to finalize schedules in order to provide operating partners sufficient time to plan staffing assignments and publish printed materials. The next opportunity to make changes to scheduled service will occur with the March 2026 service change. The 2026 Service Plan is currently in development in coordination with the agency's 2026 Budget. The plan will establish priorities for service restoration and improvements to mitigate the findings in this report when operator staffing level allow additional service.

Beyond the short-term, Sound Transit is in the midst of a \$54B bus rapid transit and rail expansion program which will greatly enhance the capacity, speed and reliability of regional transit options. Link light rail will reach Federal Way in South King County around 2025 and Tacoma in Pierce County around 2035. BRT in South King County will also be implemented around 2028. Reliable service in a dedicated right-of-way will help address the lower performance of service in South King and Pierce counties identified in this report and improve access to high-capacity transit in low-income and minority communities.



With the anticipated expansion of service, Sound Transit is developing and implementing protocols to ensure ongoing monitoring and mitigations as part of the agency's normal course of business. The Office of Civil Rights, Equity & Inclusion is responsible for Title VI oversight, the Operations team is responsible for operational oversight and data collection, and the Service Planning team is responsible for the agency's service planning and analysis. These three groups work together on a frequent basis to ensure the agency is assessing service monitoring frequently.

Sound Transit will make a good faith effort to mitigate or reduce the adverse effects of any disparate impact on minorities or a disproportionate burden on low-income individuals through the following actions:

- Inclusion of Title VI service monitoring and mitigation discussion to regularly scheduled partner Operations Business Review meetings.
- Development of a plan to restore service and implement service improvements adopted in the 2025 Service Plan.
- Continued expansion of high-capacity transit to low-income and minority communities in the service area.

Sound Transit will also advance specific tasks associated with how the data and information that informs service monitoring is collected, analyzed, tracked, and reported through:

- Standardizing definitions, data collection, and data collection methodology across partners and operators.
- Refining guidelines across modes, partners, and the service area.
- Adopting *Design Criteria Guidelines* for streetcar stations.
- Expanding amenity database and condition tracking.

## Appendix A: Disparate Impact Analysis

Disparate Impact Analysis	Target	Minority Routes	Non-Minority Routes	Difference	Disp. Impact
<b>Express Bus</b>					
On-Time Performance	85.0%	80.5%	85.8%	-5.3%	Yes
Trips Operated	99.80%	99.49%	99.54%	-0.05%	No
Customer Complaints per 100k ons	15	20.1	28.2	-28.9%	No
Passenger Overcrowding Rate	0.0%	0.0%	0.0%	0.0%	No
Weekday Span (hours)	Variable	15.1	10.7	40.9%	No
Saturday Span (hours)	Variable	18.0	19.0	-5.5%	Yes
Sunday Span (hours)	Variable	16.1	18.9	-14.9%	Yes
Peak Headway (minutes)	30	20.0	21.7	-7.6%	No
Base Headway (minutes)	60	22.6	25.0	-9.6%	No
Reduced Headway (minutes)	60	36.03	24.14	49.3%	Yes
Service Availability	N/A	1.06	0.96	10.7%	No
Elevator Uptime	97%	95.3%	96.7%	-1.4%	No
Bike Rack Distribution	1+	56%	70%	-14.4%	Yes
Bike Cage/locker Distribution	1+	67%	70%	-3.3%	No
Shelter Distribution	1 per bay	89%	80%	8.9%	No
Seating Distribution	3 ft per pay	100%	90%	10.0%	No
<b>Commuter Rail</b>					
On-Time Performance	95.0%	N/A	96.4%	N/A	N/A
Trips Operated	99.5%	N/A	99.3%	N/A	N/A
Customer Complaints per 100k ons	15.0	N/A	23.6	N/A	N/A
Passenger Overcrowding Rate	0.0%	N/A	0.0%	N/A	N/A
Weekday Span (hours)	N/A	N/A	6.3	N/A	N/A
Saturday Span (hours)	N/A	N/A	N/A	N/A	N/A
Sunday Span (hours)	N/A	N/A	N/A	N/A	N/A
Peak Headway (minutes)	N/A	N/A	27.1	N/A	N/A
Base Headway (minutes)	N/A	N/A	25.0	N/A	N/A
Reduced Headway (minutes)	N/A	N/A	N/A	N/A	N/A
Service Availability	N/A	1.05	0.96	9.8%	No
Elevator Uptime	97%	96.18%	97.70%	-1.5%	No
Bike Rack Distribution	1+	100%	100%	0.0%	No
Bike Cage/locker Distribution	1+	100%	100%	0.0%	No
Shelter Distribution	Varies	50%	0%	50.0%	No
Seating Distribution	Varies	75%	20%	55.0%	No
<b>Light Rail</b>					
On-Time Performance	90.0%	N/A	N/A	N/A	N/A
Trips Operated	99.8%	N/A	N/A	N/A	N/A
Customer Complaints per 100k ons	15	N/A	8.6	N/A	N/A

Disparate Impact Analysis	Target	Minority Routes	Non-Minority Routes	Difference	Disp. Impact
Passenger Overcrowding Rate	0.0%	N/A	0.0%	N/A	N/A
Weekday Span (hours)	N/A	N/A	19.2	N/A	N/A
Saturday Span (hours)	N/A	N/A	19.3	N/A	N/A
Sunday Span (hours)	N/A	N/A	17.3	N/A	N/A
Peak Headway (minutes)	N/A	N/A	8.0	N/A	N/A
Base Headway (minutes)	N/A	N/A	9.0	N/A	N/A
Reduced Headway (minutes)	N/A	N/A	13.0	N/A	N/A
Service Availability	N/A	1.04	0.97	8.0%	No
Elevator Uptime	97%	94.77%	98.34%	-3.6%	No
Escalator Uptime	95%	93.94%	96.16%	-2.2%	No
Bike Rack Distribution	1+	73%	100%	-27.3%	Yes
Bike Cage/locker Distribution	1+	77%	100%	-22.7%	Yes
Shelter Distribution	Varies	95%	100%	-4.5%	No
Seating Distribution	Varies	36%	50%	-13.6%	Yes
<b>Tacoma Link</b>					
On-Time Performance	98.5%	N/A	99.9%	N/A	N/A
Trips Operated	99.8%	N/A	99.9%	N/A	N/A
Customer Complaints per 100k ons	15.0	N/A	4.2	N/A	N/A
Passenger Overcrowding Rate	0.0%	N/A	0.0%	N/A	N/A
Weekday Span (hours)	N/A	N/A	17.9	N/A	N/A
Saturday Span (hours)	N/A	N/A	15.5	N/A	N/A
Sunday Span (hours)	N/A	N/A	8.8	N/A	N/A
Peak Headway (minutes)	N/A	N/A	12.0	N/A	N/A
Base Headway (minutes)	N/A	N/A	12.0	N/A	N/A
Reduced Headway (minutes)	N/A	N/A	20.0	N/A	N/A
Service Availability	N/A	0.99	1.01	-2.5%	No
Bike Rack Distribution	1+	0%	0%	0.0%	No
Bike Cage/locker Distribution	1+	0%	0%	0.0%	No
Shelter Distribution	Varies	100%	27%	72.7%	No
Seating Distribution	Varies	0%	0%	0.0%	No

## Appendix B: Disproportionate Burden Analysis

Disproportionate Burden Analysis	Target	Low Income Routes	Non-Low Income Routes	Difference	Disp. Burden
<b>Express Bus</b>					
On-Time Performance	85.0%	80.6%	84.2%	-3.6%	No
Trips Operated	99.8%	99.47%	99.53%	-0.07%	No
Customer Complaints per 100k ons	15	25.3	24.2	4.2%	No
Passenger Overcrowding Rate	0.0%	0.0%	0.0%	0.0%	No
Weekday Span (hours)	Variable	11.7	13.1	-10.7%	Yes
Saturday Span (hours)	Variable	19.0	18.1	5.0%	No
Sunday Span (hours)	Variable	14.0	18.0	-22.0%	Yes
Peak Headway (minutes)	30	26.5	19.5	35.7%	Yes
Base Headway (minutes)	60	23.6	23.9	-1.5%	No
Reduced Headway (minutes)	60	23.2	32.4	-28.6%	No
Service Availability	N/A	1.10	0.98	12.1%	No
Elevator Uptime	97%	97.2%	93.0%	4.2%	No
Bike Rack Distribution	1+	70%	56%	14.4%	No
Bike Cage/locker Distribution	1+	80%	56%	24.4%	No
Shelter Distribution	1 per bay	70%	100%	-30.0%	Yes
Seating Distribution	3 ft per pay	90%	100%	-10.0%	Yes
<b>Commuter Rail</b>					
On-Time Performance	95.0%	96.1%	96.7%	-0.6%	No
Trips Operated	99.5%	98.90%	99.60%	-0.70%	No
Customer Complaints per 100k ons	15.0	14.2	32.9	-56.8%	No
Passenger Overcrowding Rate	0.0%	0.0%	0.0%	0.0%	No
Weekday Span (hours)	N/A	9.5	3.1	206.5%	No
Saturday Span (hours)	N/A	N/A	N/A	N/A	N/A
Sunday Span (hours)	N/A	N/A	N/A	N/A	N/A
Peak Headway (minutes)	N/A	24.0	31.0	-22.6%	No
Base Headway (minutes)	N/A	25.0	N/A	N/A	N/A
Reduced Headway (minutes)	N/A	N/A	N/A	N/A	N/A
Service Availability	N/A	1.23	0.95	29.7%	No
Elevator Uptime	97%	96.7%	99.0%	-2.3%	No
Bike Rack Distribution	1+	100%	100%	0.0%	No
Bike Cage/locker Distribution	1+	100%	100%	0.0%	No
Shelter Distribution	Varies	33%	0%	33.3%	No
Seating Distribution	Varies	67%	0%	66.7%	No
<b>Light Rail</b>					
On-Time Performance	90.0%	N/A	N/A	N/A	N/A
Trips Operated	99.8%	N/A	N/A	N/A	N/A
Customer Complaints per 100k ons	15	7.6	9.5	-20.0%	No

Disproportionate Burden Analysis	Target	Low Income Routes	Non-Low Income Routes	Difference	Disp. Burden
Passenger Overcrowding Rate	0.0%	0.0%	0.0%	<b>0.0%</b>	<b>No</b>
Weekday Span (hours)	N/A	16.1	19.2	<b>-16.4%</b>	<b>Yes</b>
Saturday Span (hours)	N/A	16.1	19.3	<b>-16.6%</b>	<b>Yes</b>
Sunday Span (hours)	N/A	16.1	17.3	<b>-7.0%</b>	<b>Yes</b>
Peak Headway (minutes)	N/A	10.0	8.0	<b>25.0%</b>	<b>Yes</b>
Base Headway (minutes)	N/A	10.0	9.0	<b>11.1%</b>	<b>Yes</b>
Reduced Headway (minutes)	N/A	10.0	13.0	<b>-23.1%</b>	<b>No</b>
Service Availability	N/A	0.93	1.02	<b>-8.8%</b>	<b>Yes</b>
Elevator Uptime	97%	95.7%	96.8%	<b>-1.1%</b>	<b>No</b>
Escalator Uptime	95%	93.2%	96.7%	<b>-3.5%</b>	<b>No</b>
Bike Rack Distribution	1+	77%	80%	<b>-3.1%</b>	<b>No</b>
Bike Cage/locker Distribution	1+	85%	80%	<b>4.6%</b>	<b>No</b>
Shelter Distribution	Varies	92%	100%	<b>-7.7%</b>	<b>Yes</b>
Seating Distribution	Varies	31%	47%	<b>-15.9%</b>	<b>Yes</b>
<b>Tacoma Link</b>					
On-Time Performance	98.5%	99.9%	N/A	<b>N/A</b>	<b>N/A</b>
Trips Operated	99.8%	99.9%	N/A	<b>N/A</b>	<b>N/A</b>
Customer Complaints per 100k ons	15.0	4.2	N/A	<b>N/A</b>	<b>N/A</b>
Passenger Overcrowding Rate	0.0%	0.0%	N/A	<b>N/A</b>	<b>N/A</b>
Weekday Span (hours)	N/A	17.9	N/A	<b>N/A</b>	<b>N/A</b>
Saturday Span (hours)	N/A	15.5	N/A	<b>N/A</b>	<b>N/A</b>
Sunday Span (hours)	N/A	8.8	N/A	<b>N/A</b>	<b>N/A</b>
Peak Headway (minutes)	N/A	12.0	N/A	<b>N/A</b>	<b>N/A</b>
Base Headway (minutes)	N/A	12.0	N/A	<b>N/A</b>	<b>N/A</b>
Reduced Headway (minutes)	N/A	20.0	N/A	<b>N/A</b>	<b>N/A</b>
Service Availability	N/A	1.30	0.93	<b>40.6%</b>	<b>No</b>
Bike Rack Distribution	1+	0%	0%	<b>0.0%</b>	<b>No</b>
Bike Cage/locker Distribution	1+	0%	0%	<b>0.0%</b>	<b>No</b>
Shelter Distribution	Varies	40%	0%	<b>40.0%</b>	<b>No</b>
Seating Distribution	Varies	0%	0%	<b>0.0%</b>	<b>No</b>

## Appendix C: Changes in Service Delivery

Route	Actual Annual Platform Hours		Difference 2021-2024	Minority	Low Income
	2021	2024			
<b>Express Bus</b>	<b>682,899</b>	<b>642,810</b>	<b>-40,089</b>		
ST Express 510	15,376	15,698	322		
ST Express 512	12,137	55,512	43,375		
ST Express 513	63,883	6,240	-57,643		
ST Express 515	5,593	5,736	143		
ST Express 522	57,614	62,045	4,431		
ST Express 532	10,456	10,440	-16		
ST Express 535	18,418	25,707	7,289		
ST Express 542	27,180	27,351	171	Yes	
ST Express 545	69,948	64,644	-5,304	Yes	
ST Express 550	57,194	53,430	-3,764	Yes	
ST Express 554	42,650	41,177	-1,473	Yes	
ST Express 556	1,977	9,825	7,848		
ST Express 560	41,932	43,608	1,676	Yes	
ST Express 566	24,731	16,778	-7,953	Yes	
ST Express 574	47,905	50,214	2,309	Yes	Yes
ST Express 577	22,534	16,021	-6,513	Yes	Yes
ST Express 578	41,672	41,448	-224		
ST Express 580	3,025	286	-2,739		
ST Express 586	9,409	8,658	-751	Yes	Yes
ST Express 590	33,818	17,331	-16,487		Yes
ST Express 592	16,305	13,133	-3,172	Yes	Yes
ST Express 594	51,204	48,645	-2,559	Yes	Yes
ST Express 595	4,245	5,082	837		
ST Express 596	3,694	3,801	107		
<b>Commuter Rail</b>	<b>55,893</b>	<b>12,356</b>	<b>-43,537</b>		
Sounder - North	3,512	1,940	-1,572		
Sounder - South	52,381	10,416	-41,965		Yes
<b>Light Rail</b>	<b>304,966</b>	<b>567,271</b>	<b>262,305</b>		
Link 1 & 2	304,966	567,271	262,305		
<b>Streetcar</b>	<b>9,452</b>	<b>21,869</b>	<b>12,417</b>		
Tacoma Link	9,452	21,869	12,417		Yes



## Changes to Service Implemented by Service Change 2022, 2023, & 2024

Service Change Date	Route	Description of Service Change
Spring 2022	1 Line	<ul style="list-style-type: none"> <li>Add running time to improve OTP, headway adherence and schedule reliability to support more reliable connections between bus &amp; rail. Add 4 minutes to run times for all NB and SB trips</li> <li>Add 2 minutes between downtown Seattle and Northgate Station</li> <li>Add an additional 2 minutes around the Rainier Valley. Actual operating experience following the Northgate Link Extension opening indicates current scheduled run times are insufficient, making scheduled transfers between buses and Link difficult</li> <li>Some crew assignments are currently having trouble getting sufficient break time between trips, leading to unscheduled reliefs. Therefore, the changes outlined here will be implemented on 1/8/22</li> <li>Timed bus connections are being strained</li> </ul>
Spring 2022	510	<ul style="list-style-type: none"> <li>Adjust run times to reflect prolonged pandemic traffic conditions, ridership shift</li> <li>Highlight transition timing of Seattle-direct 510 vs. Link+512 connection times for South Everett and Everett Station riders</li> <li>Align run times with CT 400/800 series routes where time points overlap based on October 2021 data</li> </ul>
Spring 2022	511	<ul style="list-style-type: none"> <li>Adjust run times</li> <li>Maintain meets at Northgate Station</li> <li>Align run times with CT400/800 series routes where time points overlap based on October 2021 data</li> </ul>
Spring 2022	512	<ul style="list-style-type: none"> <li>For post-midnight NB Sunday variant, start trips at Stadium Station to improve meets</li> <li>Start trip at Sodo Busway &amp; S Royal Brougham Way (Metro Stop ID 99267)</li> <li>Shift trip start times 2 minutes earlier to maintain 4th/Jackson departure times at 24:14 and 24:44</li> <li>Adjust run times</li> <li>Maintain meets at Northgate Station</li> <li>Highlight transition timing of downtown Seattle-direct 510 vs. Link+512 connection times for South Everett and Everett Station riders on PDF schedules</li> <li>Align run times with 400/800 series routes where timepoints overlap based on October 2021 data</li> </ul>
Spring 2022	513	<ul style="list-style-type: none"> <li>Drop reference to Eastmont P&amp;R on headsign. Change headsign to scroll "513 to Seaway TC; 513 to Seaway TC; 513 via Lynnwood"</li> <li>Adjust run times</li> <li>Maintain meets at Northgate Station</li> <li>Align run times with 400/800 series routes where timepoints overlap based on October 2021 data</li> </ul>

## Changes to Service Implemented by Service Change 2022, 2023, & 2024

Spring 2022	522	<ul style="list-style-type: none"> <li>Discontinue service at NE 65th St &amp; Oswego PI NE (Green Lake P&amp;R), truncating to Roosevelt Station.</li> <li>Adjust arrival and departure times from Roosevelt Station to reflect later northbound Link arrivals.</li> <li>Allow 7 minutes between scheduled arrival time at Roosevelt Station and southbound Link trains</li> <li>Maintain 6 minutes for northbound transfer window</li> <li>Adjust weekday run times based on October 2021 data</li> <li>Coordinate timing between King County Metro Routes 320, 322, and ST Express 522 on SR-522 where they overlap.</li> </ul>
Spring 2022	532	<ul style="list-style-type: none"> <li>Adjust run times to reflect prolonged pandemic traffic conditions Traffic congestion has remained below pre-pandemic levels for longer than anticipated. Adjusting scheduled run times to more accurately reflect actual conditions will enable more accurate trip planning, improve connections, and potentially allow for more efficient blocking. Conversely, reducing scheduled run times may increase the number of timepoints where the bus arrives late.</li> </ul>
Spring 2022	535	<ul style="list-style-type: none"> <li>Adjust run times to reflect prolonged pandemic traffic conditions Traffic congestion has remained below pre-pandemic levels for longer than anticipated. Adjusting scheduled run times to more accurately reflect actual conditions will enable more accurate trip planning, improve connections, and potentially allow for more efficient blocking. Conversely, reducing scheduled run times may increase the number of timepoints where the bus arrives late.</li> </ul>
Spring 2022	545	<ul style="list-style-type: none"> <li>Adjust weekday run times to reflect current traffic levels</li> <li>Inbound frequency reduction: <ul style="list-style-type: none"> <li>Reduce frequency to every 10 minutes between approximately 6:47 AM to 9:47 AM</li> <li>Reduce frequency to every 15 minutes between approximately 6:02 PM to 6:47 PM</li> </ul> </li> <li>Outbound headway reduction: <ul style="list-style-type: none"> <li>Reduce frequency to every 12 minutes between approximately 8:51 AM to 9:03 AM</li> <li>Reduce frequency to every 15 minutes between approximately 9:18 AM to 10:18 AM</li> <li>Reduce frequency to every 10 minutes between approximately 3:59 PM to 5:49 PM</li> <li>Reduce frequency to every 15 minutes between approximately 5:49 PM 6:19 PM. Pre-Covid frequency on Route 545 was closely matched to demand with the goal of limiting overcrowding. October 2021 observed passenger loads do not warrant headways more frequent than 10 minutes. Making limited, targeted reductions to frequency enables the operation of Route 566 by Metro and will simultaneously ease the need for unplanned trip cancellations due to operator shortages.</li> </ul> </li> </ul>

## Changes to Service Implemented by Service Change 2022, 2023, & 2024

Spring 2022	550	<ul style="list-style-type: none"> <li>• Reduce run times for Weekdays, Saturdays, and Sundays</li> <li>• Inbound frequency reduction: <ul style="list-style-type: none"> <li>◦ Reduce headways to every 10 minutes between approximately 7:00 AM to 9:15 AM</li> </ul> </li> <li>• Outbound frequency reduction: <ul style="list-style-type: none"> <li>◦ Reduce frequency to every 10 minutes between approximately 3:07 PM to 6:00 PM</li> <li>◦ Reduce frequency to every 12 minutes between approximately 6:09 PM to 6:21 PM</li> <li>◦ Reduce frequency to every 15 minutes between approximately 6:36 PM to 6:51 PM</li> </ul> </li> <li>• Add late night service from downtown Seattle to better match span of other all-day regional routes: <ul style="list-style-type: none"> <li>◦ Weekdays: Add 12:26 AM outbound trip from 5th/Union</li> <li>◦ Saturdays: Add 12:20 AM outbound trip from 5th/Union</li> <li>◦ Sundays: Add 12:20 AM outbound trip from 5th/Union. Pre-Covid frequency on Route 550 was closely matched to demand with the goal of limiting overcrowding. October 2021 observed passenger loads do not warrant headways more frequent than 10 minutes. Making limited, targeted reductions to headways enables the operation of Route 566 by Metro and will simultaneously ease the need for unplanned trip cancellations due to operator shortages.</li> </ul> </li> </ul>
Spring 2022	554	<ul style="list-style-type: none"> <li>• Reduce weekday run times, Traffic congestion has remained below pre-pandemic levels for longer than anticipated. Adjusting scheduled run times to reflect actual conditions will enable more accurate trip planning, improve connections, and potentially allow for more efficient blocking. Conversely, reducing scheduled run times may increase the number of timepoints where the bus arrives late.</li> </ul>
Spring 2022	566	<ul style="list-style-type: none"> <li>• Transfer operation of Route 566 from Pierce Transit to King County Metro.</li> <li>• Shifting the 566 to King County Metro helps improve ST Express service to Tacoma &amp; Federal Way. The platform hours assigned to Pierce Transit will get redistributed to equity priority routes listed in the 2022 Service plan.</li> <li>• Route 566 continues to operate at the reduced levels implemented on November 7, 2021, until operator availability improves. This package item formalizes the temporary reductions but adds one trip to better match March Sounder South service.</li> <li>• Instruct northbound trips to hold for late Sounder arrivals up to 5 minutes.</li> </ul>
Spring 2022	577	<ul style="list-style-type: none"> <li>• Route 577 continues to operate at reduced levels during weekday peak periods, however, some trips will be restored and service will also be increased during the reverse peak, late morning, early afternoon, and early evening.</li> <li>• Service will also begin earlier, at 4:35am.</li> <li>• Route 577 trips will continue to be coordinated with King County Metro Route 177 service, which also operates between Federal Way and Seattle.</li> <li>• No changes to weekend service.</li> <li>• Sound Transit will provide Pierce Transit a more detailed proposed schedule of where to insert the new trips.</li> </ul>

## Changes to Service Implemented by Service Change 2022, 2023, & 2024

Spring 2022	578	<ul style="list-style-type: none"> <li>Route 578 will have trips restored.</li> <li>Minor schedule adjustments to coordinate with Route 577 and Sounder service.</li> <li>Add extra roundtrip in the late evening to have the last trip depart Puyallup at 11:08pm and Fairview &amp; Thomas at 11:50pm, extending service by an hour.</li> <li>Add an extra roundtrip in the late evening on Saturdays and Sundays departing Puyallup at 10:01pm, and Fairview &amp; Thomas at 11:43pm, extending weekend service by an hour.</li> <li>Sound Transit will provide Pierce Transit a more detailed proposed weekday schedule of where to re-insert the restored trips.</li> </ul>
Spring 2022	580	<ul style="list-style-type: none"> <li>Route 580 continues to operate at the reduced levels on weekdays until operator availability improves.</li> <li>Add one additional southbound trip between Puyallup Station and South Hill P&amp;R at 4:00pm to coincide with the 3:57pm Sounder arrival.</li> <li>Route 580 continues to operate on its shortened route with the section between Lakewood and South Hill remaining temporarily suspended until operator availability improves.</li> <li>PT Route 400 also provides service between Puyallup Station and South Hill P&amp;R so that every Sounder trip has a timed connection with either a Route 400 or 580 bus.</li> <li>If possible, if Pierce Transit Route 400 northbound trip departing South Hill P&amp;R at 7:18am could be moved 1 minute earlier, this would allow for the 7-minute connection time that we give to Sounder.</li> </ul>
Spring 2022	590	<ul style="list-style-type: none"> <li>Extend all 590 southbound trips to 10th and Commerce</li> <li>Restore some trips and increase frequency during select periods of the late morning, early afternoon to operate every 15 minutes (combined with the 594) between Tacoma and Seattle.</li> <li>Route 590 continues to operate at the reduced levels during the peak periods until operator availability improves.</li> <li>Some trips are restored in March 2022, primarily in the late morning and early evening.</li> <li>Sound Transit will provide Pierce Transit a more detailed proposed schedule of where to insert the new trips.</li> </ul>
Spring 2022	592	<ul style="list-style-type: none"> <li>Route 592 continues to operate at the reduced until operator availability improves. Three trips will be restored in March 2022.</li> </ul>
Spring 2022	594	<ul style="list-style-type: none"> <li>On weekdays Route 594 will be restored with some modifications to the schedule, coordinating with changes on Route 590. Sound Transit will provide Pierce Transit a more detailed proposed schedule of where to insert the new trips on weekdays.</li> <li>In addition, add the following late evening trips: <ul style="list-style-type: none"> <li>Add extra late-night roundtrips on weekdays departing Lakewood at 10:45pm, and Stewart &amp; Yale at 12:30am.</li> <li>Add extra late-night roundtrip on Saturdays and Sundays departing Lakewood at 10:45pm and Stewart &amp; Yale at 12:27am.</li> </ul> </li> </ul>
Spring 2022	596	<ul style="list-style-type: none"> <li>Restore the following trips coinciding with the additional Sounder trains: <ul style="list-style-type: none"> <li>7:20am from Bonney Lake</li> <li>4:56pm from Sumner Station</li> </ul> </li> </ul>

## Changes to Service Implemented by Service Change 2022, 2023, & 2024

Spring 2022	S line	<ul style="list-style-type: none"> <li>Restore the following trains: <ul style="list-style-type: none"> <li>1501 (6:05am from Seattle)</li> <li>1509 (3:15pm from Seattle)</li> <li>1514 (7:20am from Tacoma)</li> <li>1522 (4:30pm from Tacoma).</li> </ul> </li> <li>ST Express Routes 580, 596, and PT 400 would ensure that connections can be made to the trains.</li> </ul>
Fall 2022	510	<ul style="list-style-type: none"> <li>Reduce weekday run times to reflect current traffic conditions. Eliminate SB 6:18AM Trip.</li> </ul>
Fall 2022	511	<ul style="list-style-type: none"> <li>Reduce weekday run times to reflect current traffic conditions. Eliminate SB 4:49AM, 8:07AM trips</li> </ul>
Fall 2022	512	<ul style="list-style-type: none"> <li>Reduce run times for Weekdays, Saturdays, and Sundays to reflect current traffic conditions</li> <li>Saturday <ul style="list-style-type: none"> <li>Add 5 northbound trips between 9AM and 1PM</li> <li>Add 1 southbound trip between 5PM and 6PM</li> </ul> </li> <li>Sunday <ul style="list-style-type: none"> <li>Add 2 trips southbound between 3PM and 4PM. Eliminate SB 9:10, 9:50, 19:43 trips, and NB 5:26, 9:01, and 10:19 trips.</li> </ul> </li> </ul>
Fall 2022	513	<ul style="list-style-type: none"> <li>Reduce weekday run times to reflect prolonged pandemic traffic conditions. Eliminate NB 17:51 and SB 6:41 trip.</li> </ul>
Fall 2022	522	<ul style="list-style-type: none"> <li>Trip Reductions:</li> <li>Eliminate Northbound weekday trips: <ul style="list-style-type: none"> <li>12:26:00</li> <li>12:46:00</li> <li>13:06:00</li> <li>13:26:00</li> </ul> </li> <li>Move Northbound weekday trip: <ul style="list-style-type: none"> <li>Shift 14:56 trip to 15:03</li> </ul> </li> <li>Eliminate Southbound weekday trip: <ul style="list-style-type: none"> <li>13:53:00</li> </ul> </li> <li>Long Term Detour</li> <li>Create long-term eastbound detour to reflect closure of Main St between 101st Ave NE and 102nd Ave NE to vehicle traffic.</li> <li>Stop ID 79295 at Main St/98th Ave NE has closed. A new Stop 79294 has opened at Main St/Bothell Way NE.</li> <li>Stop ID 76298 Main St/103rd Ave NE remains closed. Revise the eastbound alignment of Route 522 in Bothell to operate on SR-522 (Bothell Way NE, Woodinville Dr) instead of Main Street:</li> <li>Create long-term eastbound detour to reflect closure of Main St to vehicle traffic at various points in downtown Bothell. <ul style="list-style-type: none"> <li>Stop ID 79295 at Main St/98th Ave NE has closed. A new nearside stop will open at Bothell Way NE (SR-522)/Bothell Way NE.</li> <li>Stop ID 76298 Main St/103rd Ave NE remains closed.</li> </ul> </li> </ul>
Fall 2022	532	<ul style="list-style-type: none"> <li>Reduce runtimes to reflect prolonged pandemic traffic conditions. Eliminate NB 15:56, and SB 7:05 trip.</li> </ul>



## Changes to Service Implemented by Service Change 2022, 2023, & 2024

Fall 2022	535	<ul style="list-style-type: none"> <li>Reduce run times for Weekdays to reflect prolonged pandemic traffic conditions</li> <li>Increase run times for Saturdays to reflect prolonged pandemic traffic conditions. Eliminate NB 11:15, 13:44, and SB 12:18 trips.</li> </ul>
Fall 2022	542	<ul style="list-style-type: none"> <li>Eliminate Weekday Eastbound 18:06 weekday trip <ul style="list-style-type: none"> <li>Schedule following trips with new start times approximately as: 18:15:00  18:45:00  19:15:00  19:45:00  20:15:00  20:45:00  21:15:00  21:45:00  22:15:00  22:45:00 </li> </ul> </li> <li>Eliminate Westbound 18:54 weekday trip <ul style="list-style-type: none"> <li>Schedule following trips with new start times approximately as: 18:59:00  19:29:00  19:59:00  20:29:00  20:59:00  21:29:00  22:29:00 </li> </ul> </li> <li>Smooth headways before and/or after eliminated trips to reach 30-minute frequencies earlier.</li> </ul>
Fall 2022	545	<ul style="list-style-type: none"> <li>Eliminate Weekday Eastbound 17:11 trip</li> <li>Smooth headways before and after accordingly</li> </ul>
Fall 2022	550	<ul style="list-style-type: none"> <li>Eliminate Weekday morning trips: <ul style="list-style-type: none"> <li>Eastbound 6:54</li> <li>Westbound 6:04</li> <li>Westbound 7:44</li> </ul> </li> <li>Smooth headways before and after accordingly</li> </ul>
Fall 2022	556	<ul style="list-style-type: none"> <li>Eliminate westbound 14:33 trip.</li> </ul>
Fall 2022	560	<ul style="list-style-type: none"> <li>560: Increase run times for all day types. Recent observations have indicated that scheduled travel times within the I-405S and I-5S corridors need to be increased to meet on-time performance targets. This will result in more accurate trip planning.</li> </ul>
Fall 2022	566	<ul style="list-style-type: none"> <li>Southbound: <ul style="list-style-type: none"> <li>Eliminate southbound 16:40 trip</li> <li>Short-turn the following southbound trips at Kent Station 13:42 trip  14:21 and move trip start time 5 minutes earlier to 14:16  14:53 and move trip start time 2 minutes earlier to 14:51 </li> </ul> </li> </ul>

## Changes to Service Implemented by Service Change 2022, 2023, & 2024

Fall 2022	577	<ul style="list-style-type: none"> <li>Routes 577 and 578 can resume stopping at 4th Ave nearside Union (formerly listed as “farside University St”, KCM ID 691, PT ID 2298). The stop closed for construction at the Rainier Tower in 2017. Construction has finished and the bus stop zone has reopened.</li> <li>Route 577 continues to operate at the current reduced levels on weekdays, until operator availability improves.</li> <li>Change two weekday southbound trip times to better coordinate with King County Metro Route 177 schedule changes, which will have some reductions in September 2022: <ul style="list-style-type: none"> <li>Change the 4:02pm trip from Fairview &amp; Thomas to depart 10 minutes earlier, at 3:52pm.</li> <li>Change the 4:18pm trip from Fairview &amp; Thomas to depart 4 minutes later to 4:22pm.</li> </ul> </li> <li>Sound Transit will provide proposed run-time for Routes 577 and 578 separately.</li> </ul>
Fall 2022	578	<ul style="list-style-type: none"> <li>Routes 577 and 578 can resume stopping at 4th Ave nearside Union Street (formerly listed as “farside University Street”, KCM ID 691, PT ID 2298). The stop closed for construction at the Rainier Tower in 2017. Construction has finished and the bus stop zone has reopened.</li> <li>Route 578 continues to operate at the current reduced levels on weekdays until operator availability improves.</li> <li>Sound Transit will provide proposed run-time for Routes 577 and 578 separately.</li> </ul>
Fall 2022	586	<ul style="list-style-type: none"> <li>ST is in discussion about a potential bay change at Federal Way Transit for northbound Route 586. An addendum to this item will be provided if a new bay assignment has been identified.</li> </ul>
Fall 2022	590	<ul style="list-style-type: none"> <li>Increase weekday run times. Recent observations have indicated that scheduled travel times within the I-405S and I-5S corridors need to be increased to meet on-time performance targets. This will result in more accurate trip planning.</li> </ul>
Fall 2022	592	<ul style="list-style-type: none"> <li>Increase weekday run times. Recent observations have indicated that scheduled travel times within the I-405S and I-5S corridors need to be increased to meet on-time performance targets. This will result in more accurate trip planning.</li> </ul>
Fall 2022	594	<ul style="list-style-type: none"> <li>Increase run times for all day types. Recent observations have indicated that scheduled travel times within the I-405S and I-5S corridors need to be increased to meet on-time performance targets. This will result in more accurate trip planning.</li> </ul>
Fall 2022	595	<ul style="list-style-type: none"> <li>Increase weekday run times. Recent observations have indicated that scheduled travel times within the I-405S and I-5S corridors need to be increased to meet on-time performance targets. This will result in more accurate trip planning.</li> </ul>

## Changes to Service Implemented by Service Change 2022, 2023, & 2024

Fall 2022	S Line	<p>Restore the following trips:</p> <ul style="list-style-type: none"> <li>1505 (7:55am from Seattle)</li> <li>1518 (10:16am from Lakewood), scheduled at 10:06AM (to avoid conflict with SB Amtrak service).</li> <li>Restoring these last two trips returns the Sounder S Line to its pre-pandemic schedule.</li> <li>Note: no changes are planned for connecting ST Express Routes 580 or 596.</li> </ul>
Spring 2023	1 Line	<ul style="list-style-type: none"> <li>Add standby assignment to extend gap train scheduled span-of-service at Northgate Station; shift SB 5:21AM departure from Beacon Hill to 5:29AM.</li> </ul>
Spring 2023	510	<ul style="list-style-type: none"> <li>Restore one southbound AM trip.</li> <li>Convert one northbound PM trip to southbound AM to achieve 15 daily trips in each direction.</li> <li>Offset southbound departure times from Route 512 at Everett Station and South Everett Freeway Station.</li> <li>Offset southbound Sounder North departure times at Everett Station.</li> <li>Adjust headways to track recent demand more closely.</li> </ul>
Spring 2023	511	<ul style="list-style-type: none"> <li>Suspend Route 511. Sufficient coverage of existing Route 511 service at Ash Way Park &amp; Ride and Lynnwood Transit Center will be provided by Route 512 and Route 513 during peak periods.</li> </ul>
Spring 2023	512	<ul style="list-style-type: none"> <li>Peak direction every 30 minutes.</li> <li>Reverse peak direction, mid-day, and evening every 15 minutes.</li> <li>Nights every 30 minutes.</li> <li>Maintain 6–10-minute timed connections with northbound train arrival during 30-minute frequency.</li> </ul>
Spring 2023	513	<ul style="list-style-type: none"> <li>Peak direction-only every 30 minutes.</li> <li>Offset every 15 minutes with Route 512 between Ash Way Park &amp; Ride and Northgate Station to create 15-minute combined headways between these points.</li> </ul>
Spring 2023	522	<ul style="list-style-type: none"> <li>Adjust schedule information and maps to reflect the new terminal stop at Roosevelt Station Bay 4 on Roosevelt Way NE at NE 67th St.</li> <li>Reduce run times on weekdays.</li> </ul>
Spring 2023	532	<ul style="list-style-type: none"> <li>Adjust headways to track recent demand more closely.</li> <li>Offset departure times from Route 535 at Bellevue Transit Center.</li> <li>Adjust run times to reflect current traffic conditions.</li> </ul>
Spring 2023	535	<ul style="list-style-type: none"> <li>Add one opportunity trip, using existing operator staffing: <ul style="list-style-type: none"> <li>Southbound: 5:18 AM start time.</li> </ul> </li> <li>Adjust run times to reflect current traffic conditions.</li> </ul>
Spring 2023	542	<ul style="list-style-type: none"> <li>Offset westbound departures to synchronize Route 545 headways.</li> <li>Protected first and last trips.</li> <li>Evaluate run times to determine if adjustments are warranted.</li> </ul>
Spring 2023	550	<ul style="list-style-type: none"> <li>Weekdays: <ul style="list-style-type: none"> <li>Increase run times for westbound trips.</li> <li>Decrease run times on some eastbound trips.</li> </ul> </li> <li>Eliminate additional load time at Bellevue Transit Center Bay 9.</li> </ul>
Spring 2023	554	<ul style="list-style-type: none"> <li>Reduce weekday runtimes.</li> </ul>

## Changes to Service Implemented by Service Change 2022, 2023, & 2024

Spring 2023	560	<ul style="list-style-type: none"> <li>Due to construction, temporarily move the current layover location in Bellevue at 105th Ave NE and NE 2nd St to southbound 110th Ave NE between NE 3rd Pl and NE 2nd Pl. <ul style="list-style-type: none"> <li>Construction at the current layover zone is expected to last about a year. Route 560 will return to its current layover zone once construction is complete.</li> <li>PT to secure comfort station access near this location.</li> <li>Use the same run times to/from new layover zone as the current run time to existing layover zone.</li> <li>Remove 105th Ave NE &amp; NE 2nd St from public schedules until further notice. For this service period, the first and last public stop will be the Bellevue Transit Center.</li> <li>A map and turn-by-turns of the new alignment can be found on the subsequent page.</li> </ul> </li> <li>Adjust run times on weekends to improve on-time performance: <ul style="list-style-type: none"> <li>ST will send PT proposed weekend run times.</li> <li>Continue to have weekend eastbound service arrive at Bellevue Transit Center Bay 7 at HH:17 (17 minutes after the hour) to facilitate transfers to other routes (shift the trip's departure time from Westwood Village accordingly).</li> <li>Continue to have weekend westbound service depart Bellevue Transit Center Bay 6 at HH:47 (47 minutes after the hour) to facilitate transfers from other routes (shift departure time from new layover at 110th Ave NE &amp; NE 3rd Pl and NE 2nd Pl) accordingly.</li> </ul> </li> </ul>
Spring 2023	566	<ul style="list-style-type: none"> <li>Short-turn the following southbound trips at Kent Station: <ul style="list-style-type: none"> <li>2:32 PM trip and move trip start time 2 minutes earlier to 2:30 PM.</li> <li>3:12 PM trip.</li> </ul> </li> <li>Adjust southbound run times. <ul style="list-style-type: none"> <li>Move the 2:16 PM trip start time 10 minutes earlier to 2:06 PM.</li> <li>Move 2:53 PM trip start time 2 minutes earlier to 2:51 PM.</li> <li>Modest decreases for AM trips.</li> <li>Modest increases for PM trips.</li> <li>Increase deadhead time from Kent/Auburn to Overlake Park &amp; Ride.</li> <li>Increase deadhead time for Overlake Park &amp; Ride to Redmond Tech Bay 8 from 4 mins to 5 mins</li> <li>Add 5-7 minutes of pull time to AM blocks deadheading to Auburn and Kent.</li> </ul> </li> </ul>
Spring 2023	574	<ul style="list-style-type: none"> <li>Adjust run times on weekdays to reflect changes in I-5 traffic. <ul style="list-style-type: none"> <li>ST will send PT proposed weekday run times.</li> </ul> </li> </ul>

## Changes to Service Implemented by Service Change 2022, 2023, & 2024

Spring 2023	586	<ul style="list-style-type: none"> <li>Change bay assignment at Federal Way Transit Center: <ul style="list-style-type: none"> <li>Move northbound Route 586 (to U District) from Bay 8 to Bay 2.</li> <li>Southbound service (to Tacoma Dome) remains at Bay 5.</li> <li>Update any Route Book information with new northbound bay assignment.</li> </ul> </li> <li>Remove 7th Ave NE &amp; NE 47th St stop (PT stop code #4068) from public facing schedule information (primarily in GTFS). <ul style="list-style-type: none"> <li>This is a layover zone and not a bus stop, and passengers are not allowed to board at this location.</li> <li>Stop should be removed from PT GTFS to avoid passengers inadvertently trying to plan trips with this stop.</li> </ul> </li> <li>Adjust run times in both directions to reflect changes in traffic conditions. ST will follow up with PT on proposed run times.</li> </ul>
Spring 2023	S Line	<ul style="list-style-type: none"> <li>Southbound Train 1505 will depart Tacoma Dome 2 minutes earlier at 8:50am (currently at 8:52am), from South Tacoma at 8:59am (currently at 9:01 am) to better reflect actual travel times between stations. The arrival of Train 1505 at Lakewood will continue to be 9:11am.</li> <li>Train 1518's departure from Lakewood will be 5 minutes later at 10:11am (currently at 10:06am) to help simplify the operating schedule, effective March 20, 2023.</li> <li>Note: No changes are planned for connecting ST Express Routes 580 or 596.</li> </ul>
Spring 2023	T Line	<ul style="list-style-type: none"> <li>Service state date still to be determined. Tacoma Link's extension to the Hilltop neighborhood (HTLE) is anticipated to commence revenue service sometime within the Spring 2023 service change. Extend the Tacoma Link to the Hilltop Neighborhood with six new stations: <ul style="list-style-type: none"> <li>Old City Hall.</li> <li>S 4th Street.</li> <li>Stadium District.</li> <li>Tacoma General.</li> <li>6th Avenue.</li> <li>Hilltop District.</li> <li>St Joseph.</li> </ul> </li> <li>Permanently close the legacy Theater District Station near S 8th Street.</li> <li>Rename Commerce Street Station "Theater District Station."</li> <li>Increase frequency to 10 minutes on weekdays and Saturdays and 20 minutes on Sundays.</li> <li>Instate a new fare of \$2.00.</li> <li>Opening date planned for Q1 2023 (Actual: Q3 2023).</li> </ul>



## Changes to Service Implemented by Service Change 2022, 2023, & 2024

Spring 2023	1 Line	<ul style="list-style-type: none"> <li>Revenue Service <ul style="list-style-type: none"> <li>Sundays</li> <li>Shift southbound trip departing from Beacon Hill Station from 5:21 AM to 5:29 AM.</li> </ul> </li> <li>Non-Revenue <ul style="list-style-type: none"> <li>Weekdays</li> <li>Add standby assignment to extend gap train scheduled span of service at Northgate Station to approximately midnight.</li> <li>Saturdays and Sundays</li> <li>Extend block on one early evening pull-in to approximately midnight at Northgate Station.</li> </ul> </li> </ul>
Fall 2023	2 Line	<ul style="list-style-type: none"> <li>Begin pre-revenue testing of East Link Starter Line (subject to approval by the Sound Transit Board of Directors, anticipated in August 2023).</li> <li>Pre-revenue testing includes two phases: <ul style="list-style-type: none"> <li>Operator training phase</li> <li>Simulated service phase</li> </ul> </li> <li>The span of service will be identified this fall as part of the Sound Transit Board of Director's decision on the East Link Starter Line. Sound Transit will provide an update with more detailed service levels as a supplemental package item.</li> <li>During this time, the vehicle schedule shall replicate the schedule for revenue service on East Link Starter Line. <ul style="list-style-type: none"> <li>Redmond Technology Station <ul style="list-style-type: none"> <li>Primary layover/recovery location</li> <li>Security sweep location</li> <li>Primary train cleaning location</li> </ul> </li> <li>Turn trains via "Live-Loop" at South Bellevue Station <ul style="list-style-type: none"> <li>Minimal turn time</li> <li>No sweep of passengers</li> <li>No cleaning</li> </ul> </li> </ul> </li> <li>For budgeting and hiring processes, span of service of up to approximately 20 daily hours represents the upper limit of what could operate: <ul style="list-style-type: none"> <li>First pull-out from OMF-E approximately 4:30AM</li> <li>Last pull-in to OMF-E approximately 12:30AM</li> <li>Same vehicle schedule for all day types</li> <li>Trains would operate every 10 minutes before 10 PM and every 15 minutes after 10 PM</li> <li>Two-car consist length</li> </ul> </li> </ul>
Fall 2023	510	<ul style="list-style-type: none"> <li>SB AM: increase run times average around 3 mins per trip avg</li> <li>NB PM: increase run times averaging to &lt;0.5 mins per trip</li> </ul>
Fall 2023	512	<ul style="list-style-type: none"> <li>SB AM peak: reduce run times averaging around 3 mins per trip</li> <li>SB early evening: increase run times averaging 3 mins per trip</li> <li>NB AM peak: increase run times averaging around 2 mins per trip</li> <li>NB PM peak. increase run times averaging around 6 mins per trip</li> <li>NB PM late night: reduce run times around 2 mins per trip</li> </ul>
Fall 2023	513	<ul style="list-style-type: none"> <li>SB AM: increase run times average around &lt;0.5 mins per trip avg</li> <li>NB PM: increase run times averaging to &lt;1.5 mins/trip</li> </ul>

## Changes to Service Implemented by Service Change 2022, 2023, & 2024

Fall 2023	522	<ul style="list-style-type: none"> <li>To serve the goal of enhancing reliability and improving passenger experience</li> <li>Balance eastbound and westbound headways to an even 15 minutes in both directions during off-peak hours</li> <li>Maintain existing 16 minutes peak headways to meet every other trip on 1-Line</li> <li>During peak periods, reduce deadhead from Ravenna Blvd/I-5 layover by one minute to avoid early departures from first eastbound stop (match off-peak run time)</li> <li>Reduce weekend runtimes on trips where excessive holding at timepoints occurs while still maintaining on-time performance. <ul style="list-style-type: none"> <li>Saturday, Eastbound</li> <li>Saturday, Westbound</li> <li>Sunday, Westbound</li> </ul> </li> <li>Base runtimes on Hastus ATP module starting from Fall 2022 Service Change through present</li> </ul>
Fall 2023	532	<ul style="list-style-type: none"> <li>SB AM: increase run times average around 1 min per trip avg</li> <li>NB PM: increase run times averaging to &lt;0.5 mins/trip</li> </ul>
Fall 2023	535	<ul style="list-style-type: none"> <li>SB AM peak: reduce run times averaging around 5 mins per trip</li> <li>SB midday: increase run times averaging around 1 min per trip</li> <li>SB early PM peak: reduce run times averaging around 2 mins per trip</li> <li>SB early evening: increase run times around 2 mins per trip</li> <li>NB midday: reduce run times averaging to 2 mins per trip</li> <li>NB early evening: reduce run times averaging to 2 mins/trip.</li> <li>For all day types: <ul style="list-style-type: none"> <li>Adjust departure times at Lynnwood and Bellevue to better meet local CT routes at Lynnwood</li> <li>Move southbound departures to every :10 and :40 after the hour</li> <li>Move northbound departures to every :20 and :50 after the hour</li> <li>Check for compatibility with 532 schedule to avoid new creating conflicts</li> </ul> </li> </ul>
Fall 2023	545	<ul style="list-style-type: none"> <li>Route 545 currently takes a different eastbound routing in the AM weekday peak to serve a stop on Bellevue Ave &amp; E Olive St, referred to as pattern B. For the rest of the day, eastbound Route 545 operates on Olive Way directly to northbound I-5. This routing is called pattern A.</li> <li>For eastbound trips, reroute Route 545's pattern B (weekday AM variant) to continue along Olive Way (to I-5 north). Remove the Bellevue Ave &amp; E Olive St stop from pattern B, replacing it with a temporary stop on Olive Way on the far side of Boren Ave. The temporary stop will provide existing riders an alternative stop within ¼ mile of the eliminated stop. <ul style="list-style-type: none"> <li>Both pattern A and B will continue to serve the Olive Way &amp; Terry Ave stop (stop ID 1070).</li> </ul> </li> <li>This stop would be utilized starting in September 2023 through at least 2025. Future plans assume Route 545 is eliminated with the opening of Downtown Redmond Link (subject to approval by Sound Transit Board of Directors).</li> <li>The Pike Pine Renaissance program will result in streetscape changes to Pike and Pine Streets, with the one-way street configuration downtown (from 1st Ave) extended to Bellevue Ave. Pine St will become one-way westbound.</li> </ul>

## Changes to Service Implemented by Service Change 2022, 2023, & 2024

Fall 2023	550	<ul style="list-style-type: none"> <li>Reduce excess layover time in Seattle on Saturdays.</li> <li>Reinvest savings to increase service on Sundays so that the frequency is every 15 minutes midday (approximately between 9:00 AM and 7:00 PM).</li> <li>Move 7:18 trip PM one minute back to 7:17 PM.</li> </ul>
Fall 2023	556	<ul style="list-style-type: none"> <li>Re-block and shift trip times on PM weekdays to decrease peak pull/required number of operators from five to four.</li> <li>Shift eastbound (Issaquah) and westbound (University District) bay assignments at Bellevue Transit Center so that assignments align with Route 271, which also serves Issaquah to University District. <ul style="list-style-type: none"> <li>Bay 5 will switch from Route 556 (University District) to Route 556 (Issaquah).</li> <li>Bay 8 will switch from Route 556 (Issaquah) to Route 556 (University District).</li> </ul> </li> </ul>
Fall 2023	560	<ul style="list-style-type: none"> <li>Adjust run times on Route 560 to address recent on-time performance issues on the I-405 corridor.</li> <li>Sound Transit will send Pierce Transit proposed run times.</li> </ul>
Fall 2023	566	<ul style="list-style-type: none"> <li>Move service back into the bus loop at Redmond Technology Station (RTS) <ul style="list-style-type: none"> <li>Stops Southbound (to Bellevue)</li> </ul> </li> <li>Move first revenue stop from 156th Ave NE &amp; Redmond Technology Station - Bay 8 (Stop ID 68498) to 156th Ave NE &amp; Redmond Technology Station - Bay 4 (Stop ID 71345). <ul style="list-style-type: none"> <li>Northbound (from Bellevue)</li> </ul> </li> <li>No change. Maintain State Route 520 &amp; NE 40th St (Stop ID 71336) as the final stop. <ul style="list-style-type: none"> <li>Layover</li> <li>For trips requiring layover in Redmond, use east lane of RTS transit loop. Eliminate layover at Overlake Village Station. Reinvest deadhead saving into longer layover at RTS.</li> </ul> </li> </ul>
Fall 2023	574	<ul style="list-style-type: none"> <li>Add one additional roundtrip on Route 574 on weekdays, Saturdays, and Sundays at approximately the following times: <ul style="list-style-type: none"> <li>Depart Lakewood TC at 10:53 PM.</li> <li>Depart SeaTac/Airport Link Station at 12:33 AM.</li> </ul> </li> <li>Delete weekday northbound trip at 2:13 AM.</li> <li>Move weekday northbound 2:28 AM trip to 2:18 AM and move the 2:48 AM weekday northbound trip to 2:38 AM.</li> </ul>
Fall 2023	577	<ul style="list-style-type: none"> <li>Make 4th &amp; Union an estimated time point 2 minutes before 4th &amp; Pine to clarify stopping pattern on Route 577 and 578.</li> <li>Note the opportunity trip additions proposed in the preliminary package are no longer being requested based on feedback from Pierce Transit</li> </ul>
Fall 2023	578	<ul style="list-style-type: none"> <li>Make 4th &amp; Union an estimated time point 2 minutes before 4th &amp; Pine to clarify stopping pattern on Route 577 and 578.</li> </ul>
Fall 2023	580	<ul style="list-style-type: none"> <li>Change bay assignment at South Hill Park-and-Ride to improve operations. <ul style="list-style-type: none"> <li>Route 580 will use Bay 2.</li> </ul> </li> </ul>

## Changes to Service Implemented by Service Change 2022, 2023, & 2024

Fall 2023	586	<ul style="list-style-type: none"> <li>Remove 7th Ave NE &amp; NE 47th St stop (PT stop code #4068) from public facing schedule information (primarily in GTFS and HASTUS). This is a layover zone for southbound service and not a bus stop, and passengers are not allowed to board at this location: <ul style="list-style-type: none"> <li>Redefine in HASTUS stop 7th Ave NE &amp; NE 47th St as a layover zone.</li> <li>Make 45th St NE &amp; Roosevelt Way NE the first stop in the southbound direction.</li> <li>Define travel from 7th Ave NE &amp; NE 47th St to 45th St NE &amp; Roosevelt Way NE as a deadhead instead of revenue service.</li> </ul> </li> </ul>
Fall 2023	590	<ul style="list-style-type: none"> <li>To provide more options for reverse peak riders, add the following trips on weekdays by using a vehicle that would otherwise be deadheading: <ul style="list-style-type: none"> <li>Southbound leaving Yale &amp; Stewart to 10th &amp; Commerce at 7:00 AM, 7:30 AM</li> </ul> </li> <li>The following trips mentioned in the service change package will not be added: <ul style="list-style-type: none"> <li>The northbound opportunity trip leaving 10th &amp; Commerce to Eastlake &amp; Stewart at 3:38 PM, 4:08 PM</li> <li>A southbound trip at 2:00 PM, replacing a Route 594 trip that was deleted in that time period</li> </ul> </li> </ul>
Fall 2023	592	<ul style="list-style-type: none"> <li>Move the 2:28 PM and 2:40 PM southbound trips to depart earlier, at 2:07 PM and 2:37 PM respectively.</li> </ul>
Fall 2023	594	<ul style="list-style-type: none"> <li>Delete weekday northbound trip at 11:50 AM.</li> <li>Move 12:10 PM trip to 12:00 PM to rebalance frequencies to every 30 minutes during that time.</li> <li>Delete the weekday 2:05 PM southbound trip. A Route 590 trip will replace this trip at approximately at the same time.</li> <li>Move the weekday 2:20 PM southbound trip earlier to depart Stewart &amp; Yale at 2:15 PM.</li> </ul>
Fall 2023	596	<ul style="list-style-type: none"> <li>Add paddle note about Sounder connections: <ul style="list-style-type: none"> <li>Operators should wait for train arrival. If the train is late, operators should contact a transit supervisor or dispatch before proceeding.</li> </ul> </li> </ul>
Fall 2023	T Line	<ul style="list-style-type: none"> <li>Open Hilltop Tacoma Link Extension for revenue service. <ul style="list-style-type: none"> <li>Additional 3 minutes of scheduled run time added in each direction to make the terminal-to-terminal run time 23 minutes each way</li> <li>Peak hour headways now 12 minutes (formerly planned for 10 minutes)</li> <li>The revenue start date was updated from September 4, 2023, to September 16, 2023</li> </ul> </li> </ul>

## Changes to Service Implemented by Service Change 2022, 2023, & 2024

Spring 2024	1 Line	<ul style="list-style-type: none"> <li>Adjust 1 Line service to accommodate pre-revenue activities which will occur at a later date during the service change period.</li> <li>Adjust early morning, evening, and late-night service to accommodate on-line storage of light rail vehicles. For all day types, build schedule to park 9 trains (each with 4-car consists for 36 cars total) on-line overnight.</li> <li>Eliminate the late evening turnback at Stadium Station. Northbound trains destined for OMF-C will instead end revenue service at Beacon Hill Station. Work with KC rail and bus scheduling staff to coordinate end of Link service with late night Metro bus service at Beacon Hill Station (e.g., Route 36).</li> <li>Increase headways between the hours of approximately 8pm and 10pm from current schedule of 10 minutes (6 trains per hour per direction) to 12 minutes (5 trains per hour per direction)</li> <li>Start pre-revenue testing of the Lynnwood Link Extension between Northgate and Lynnwood, which includes two phases: first a 60-day operator training phase, followed by a 60-day simulated service phase</li> <li>Operate 1 Line trains in revenue service between Angle Lake and Northgate Stations, and in pre-revenue service not carrying passengers between Northgate and Lynnwood City Center Stations</li> </ul>
Spring 2024	2 Line	<ul style="list-style-type: none"> <li>Start revenue operations of 2 Line between South Bellevue and Redmond Technology stations</li> <li>Operate the same schedule 7 days a week with trains every 10 minutes for an approximately 16-hour span on weekdays, Saturdays, and Sundays with two-car trains</li> <li>Sweep trains at South Bellevue and Redmond Technology</li> <li>Use run times developed from observations collected on 12/13/23 indicating 20-minute terminal to terminal run times + 1 minute load time in each direction</li> <li>Run times will be closely monitored during simulated service and possible updates to planned schedule and service levels will be considered</li> </ul>
Spring 2024	510	<ul style="list-style-type: none"> <li>Adjust runtimes in response to traffic conditions by about 1-3 minutes per trip.</li> </ul>
Spring 2024	512	<ul style="list-style-type: none"> <li>The 1-Line revenue schedule for March 2024 will change from September 2023 in order to accommodate Lynnwood Link Extension pre-revenue testing and overnight station storage requirements <ul style="list-style-type: none"> <li>Parking trains overnight at Northgate station will allow for more capacity for riders during peak travel demand and requires adjustments to the current 1 Line schedule, including fewer opportunity trips from Northgate to the OMF-C</li> <li>The last southbound 1 Line departure from Northgate will now leave at 24:23 compared with 24:28 in the current schedule.</li> </ul> </li> <li>The Route 512 schedule is tightly integrated with Link since most passengers from Route 512 continue their journey using Link</li> <li>Moving the last trip of the night earlier helps ensure that transferring riders will be able to make a connection with Link and avoids missed connections at Northgate Station</li> </ul>
Spring 2024	535	<ul style="list-style-type: none"> <li>To improve connections with Community Transit routes at Lynnwood Transit Center, shift southbound departures to 0:20 and 0:50 minutes after the hour on weekdays.</li> </ul>



Changes to Service Implemented by Service Change 2022, 2023, & 2024		
Spring 2024	513	<ul style="list-style-type: none"> <li>Adjust runtimes in response to traffic conditions by about 1-3 minutes per trip.</li> </ul>
Spring 2024	577	<ul style="list-style-type: none"> <li>Service suspension <ul style="list-style-type: none"> <li>Weekdays: Suspend southbound midday service (11AM – 2PM)</li> <li>Sundays: Suspend all trips, except a northbound 6:15AM trip in response to ongoing operator shortages.</li> </ul> </li> </ul>
Spring 2024	578	<ul style="list-style-type: none"> <li>Suspend two weekday evening trips and start 60-minute headways earlier in the evening. <ul style="list-style-type: none"> <li>Northbound 7:38 PM trip</li> <li>Southbound 9:20 PM trip in response to ongoing operator shortages.</li> </ul> </li> </ul>
Spring 2024	580	<ul style="list-style-type: none"> <li>Suspend service (weekday only route), in response to ongoing operator shortages.</li> </ul>
Spring 2024	590	<p>Due to ongoing operator shortages:</p> <ul style="list-style-type: none"> <li>Revise Route 590 routing to begin and end service for all trips at Tacoma Dome Station, rather than at 10th &amp; Commerce.</li> <li>Offset departures of Routes 590 and 595 to create 20–30-minute headways between Tacoma Dome and Downtown Seattle.</li> <li>Further synchronize 590 &amp; 595 with Sounder to maximize opportunities, and minimize service duplication, enabling service every 10 minutes from Tacoma Dome Station to Downtown Seattle.</li> <li>Assign coaches to blocks according to highest anticipated demand trips.</li> </ul>
Spring 2024	594	<p>In response to ongoing operator shortages:</p> <ul style="list-style-type: none"> <li>Suspend service to DuPont for the following weekday trips: <ul style="list-style-type: none"> <li>Southbound 6:36PM</li> <li>Northbound 5:00PM</li> </ul> </li> <li>Suspend following weekday trips: <ul style="list-style-type: none"> <li>Southbound 11:45PM Correction: 11:15PM</li> <li>Northbound 9:30PM</li> </ul> </li> <li>Begin 60-minute headways earlier in the evening</li> <li>Suspend five roundtrips in the morning &amp; late evening on Sundays <ul style="list-style-type: none"> <li>Southbound 8:12AM, 9:12AM, 10:42AM, 10:12PM, 11:12PM</li> <li>Northbound 6:30AM, 7:30AM, 8:30AM, 8:30PM, 9:30PM</li> <li>This adjusts headways on Sunday to 60 minutes in the morning and evening</li> </ul> </li> </ul>
Fall 2024	1 Line	<ul style="list-style-type: none"> <li>Begin revenue service between Lynnwood City Center and Angle Lake. Continue on-line overnight storage plan as outlined in the March 2024 Final Service Change Package</li> </ul>
Fall 2024	2 Line	<ul style="list-style-type: none"> <li>Adjust 2 Line schedule to accommodate pre-revenue activities and simulated service between Downtown Redmond and Redmond Technology Stations, which will occur at a later date during the service change period.</li> </ul>
Fall 2024	510	<ul style="list-style-type: none"> <li>Update schedule to coordinate with new Sounder N Line trips by offsetting morning southbound departures at Everett Station and afternoon northbound departures from 4th &amp; Jackson.</li> </ul>
Fall 2024	512	<ul style="list-style-type: none"> <li>After the 1 Line reaches Lynnwood shorten Route 512 to operate between Everett and Lynnwood City Center Station with a connection to the 1 Line. Operate similar service levels as Spring 2024, with buses arriving as often as every 15 minutes throughout the day in both directions on weekdays and weekends.</li> </ul>

## Changes to Service Implemented by Service Change 2022, 2023, & 2024

Fall 2024	513	<ul style="list-style-type: none"> <li>After 1 Line reaches Lynnwood, shorten Route 513 to operate between Seaway Transit Center and Lynnwood Transit Center. Continue to operate service every 30 minutes during peak periods, traveling southbound from Seaway Transit Center in the morning and northbound from Lynnwood in the afternoon.</li> </ul>
Fall 2024	515	<ul style="list-style-type: none"> <li>Begin new temporary route, providing supplemental capacity to Link, beginning at Lynnwood and using the same service pattern as Route 510, starting at Mountlake Terrace.</li> </ul>
Fall 2024	532	<ul style="list-style-type: none"> <li>To be implemented December 2024: Schedules to revert to Spring 2024 timetables on 7 December, 2025; Schedules were changed unintentionally by CT; with all trips impacted.</li> </ul>
Fall 2024	535	<ul style="list-style-type: none"> <li>To be implemented December 2024: Schedules to revert to Spring 2024 timetables on 7 December, 2025; Schedules were changed unintentionally by CT; with all trips impacted.</li> </ul>
Fall 2024	550	<ul style="list-style-type: none"> <li>Change location of layover at western terminus from current layover location at Convention Place to new layover locations at Union St &amp; 6th Ave, and 7th Ave &amp; Union St. This layover avoids changes to Route 550's revenue alignment, and allows route to continue serving all stops with minimal impacts on runtime.</li> </ul>
Fall 2024	554	<ul style="list-style-type: none"> <li>In response to a long-term WSDOT construction project which closes the Eastgate P&amp;R HOV ramp (I-90 &amp; 142nd PI SE), formalize the 26 February, 2024 Eastgate construction detour, exiting I-90 at 148th Ave SE / 150 Ave SE as part of the standard routing, pending project completion.</li> </ul>
Fall 2024	556	<ul style="list-style-type: none"> <li>In response to a long-term WSDOT construction project which closes the Eastgate P&amp;R HOV ramp (I-90 &amp; 142nd PI SE), formalize the 26 February, 2024 Eastgate construction detour, exiting I-90 at 148th Ave SE / 150 Ave SE as part of the standard routing, pending project completion.</li> </ul>
Fall 2024	574	<ul style="list-style-type: none"> <li>Change southbound head sign and GTFS from "Lakewood" to "Lakewood Transit Center"</li> </ul>
Fall 2024	577	<ul style="list-style-type: none"> <li>Change southbound head sign and GTFS from "Lakewood" to "Lakewood Station". Consistent with agreement between Pierce Transit and King County Metro, Pierce Transit operators may access the new comfort stations at the newly opened King County Metro Eastlake Layover Facility.</li> <li>The new comfort station is located on the eastside of Eastlake Ave, north of Republican St.</li> <li>For some trips, layover time will be increased to 20 minutes to accommodate additional walk time to new comfort station location.</li> <li>Pierce Transit-operated Sound Transit Express coaches will continue to layover at the same on-street location on northbound Eastlake Ave, south of Harrison St.</li> <li>Pathways from northbound revenue service to begin southbound revenue trips will remain the same as current.</li> <li>Pierce Transit and Sound Transit operations will continue to coordinate with King Country Metro.</li> </ul>

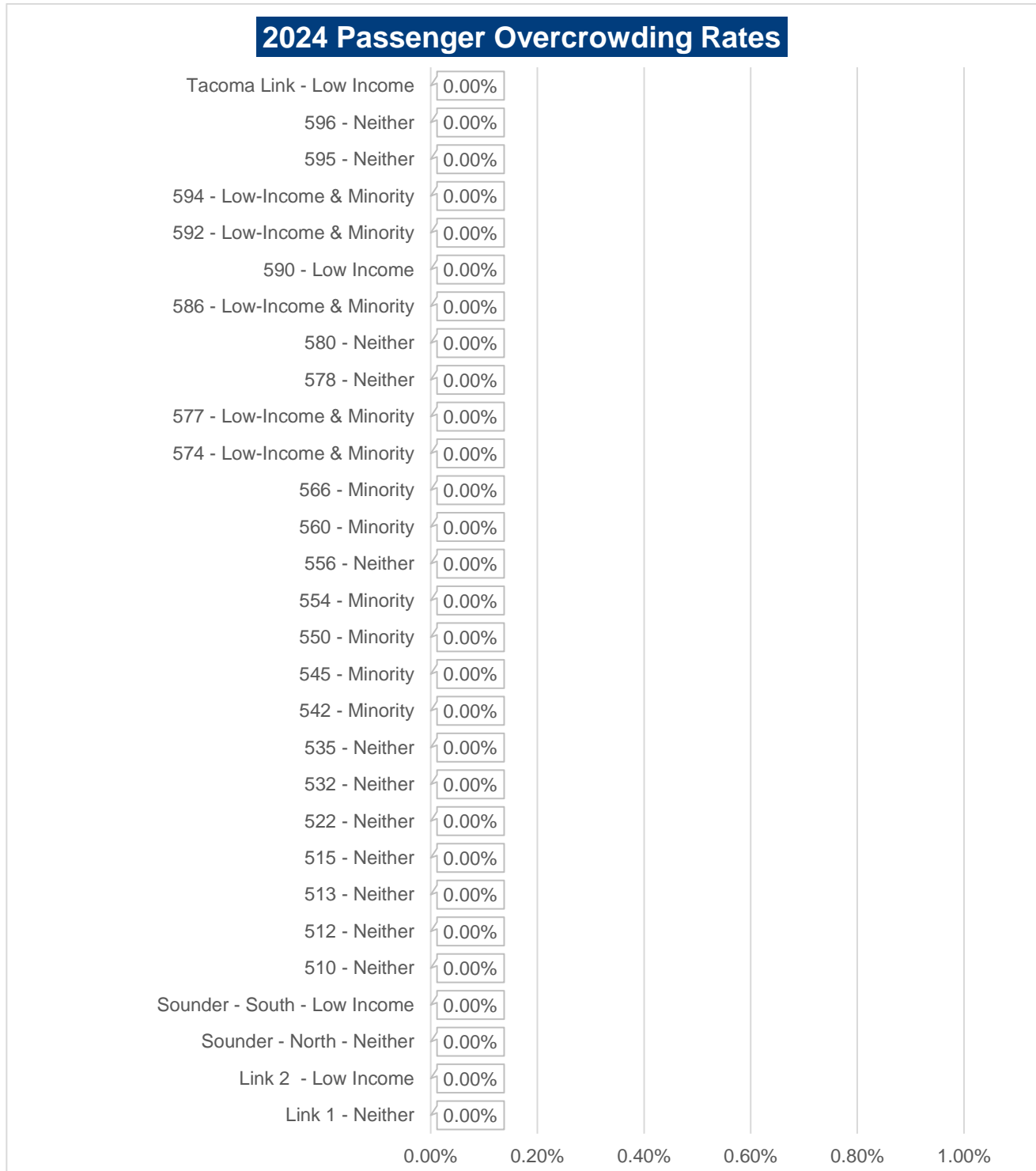
## Changes to Service Implemented by Service Change 2022, 2023, & 2024

Fall 2024	578	<ul style="list-style-type: none"> <li>Change southbound mid-route head sign from “Puyallup” to “Sumner/Puyallup”. Consistent with agreement between Pierce Transit and King County Metro, Pierce Transit operators may access the new comfort stations at the newly opened King County Metro Eastlake Layover Facility.</li> <li>The new comfort station is located on the eastside of Eastlake Ave, north of Republican St.</li> <li>For some trips, layover time will be increased to 20 minutes to accommodate additional walk time to new comfort station location</li> <li>Pierce Transit-operated Sound Transit Express coaches will continue to layover at the same on-street location on northbound Eastlake Ave, south of Harrison St.</li> <li>Pathways from northbound revenue service to begin southbound revenue trips will remain the same as current.</li> <li>Pierce Transit and Sound Transit operations will continue to coordinate with King Country Metro</li> </ul>
Fall 2024	590	<ul style="list-style-type: none"> <li>Respond to rider feedback and observed crowding by adjusting the morning northbound schedule as follows:</li> <li>Shift timing of some existing northbound morning peak trips to better match observed ridership patterns</li> <li>Prioritize higher capacity vehicles on busiest trips</li> <li>Restore one early morning trip in Downtown Tacoma to provide service to Tacoma Dome and Downtown Seattle before T Line begins operations. Consistent with agreement between Pierce Transit and King County Metro, Pierce Transit operators may access the new comfort stations at the newly opened King County Metro Eastlake Layover Facility</li> <li>The new comfort station is located on the eastside of Eastlake Ave, north of Republican St.</li> <li>For some trips, layover time will be increased to 20 minutes to accommodate additional walk time to new comfort station location</li> <li>Pierce Transit-operated Sound Transit Express coaches will continue to layover at the same on-street location on northbound Eastlake Ave, south of Harrison St.</li> <li>Pathways from northbound revenue service to begin southbound revenue trips will remain the same as current</li> <li>Pierce Transit and Sound Transit operations will continue to coordinate with King Country Metro</li> </ul>
Fall 2024	592	<ul style="list-style-type: none"> <li>Consistent with agreement between Pierce Transit and King County Metro, Pierce Transit operators may access the new comfort stations at the newly opened King County Metro Eastlake Layover Facility</li> <li>The new comfort station is located on the eastside of Eastlake Ave, north of Republican St.</li> <li>For some trips, layover time will be increased to 20 minutes to accommodate additional walk time to new comfort station location.</li> <li>Pierce Transit-operated Sound Transit Express coaches will continue to layover at the same on-street location on northbound Eastlake Ave, south of Harrison St.</li> <li>Pathways from northbound revenue service to begin southbound revenue trips will remain the same as current</li> <li>Pierce Transit and Sound Transit operations will continue to coordinate with King Country Metro.</li> </ul>

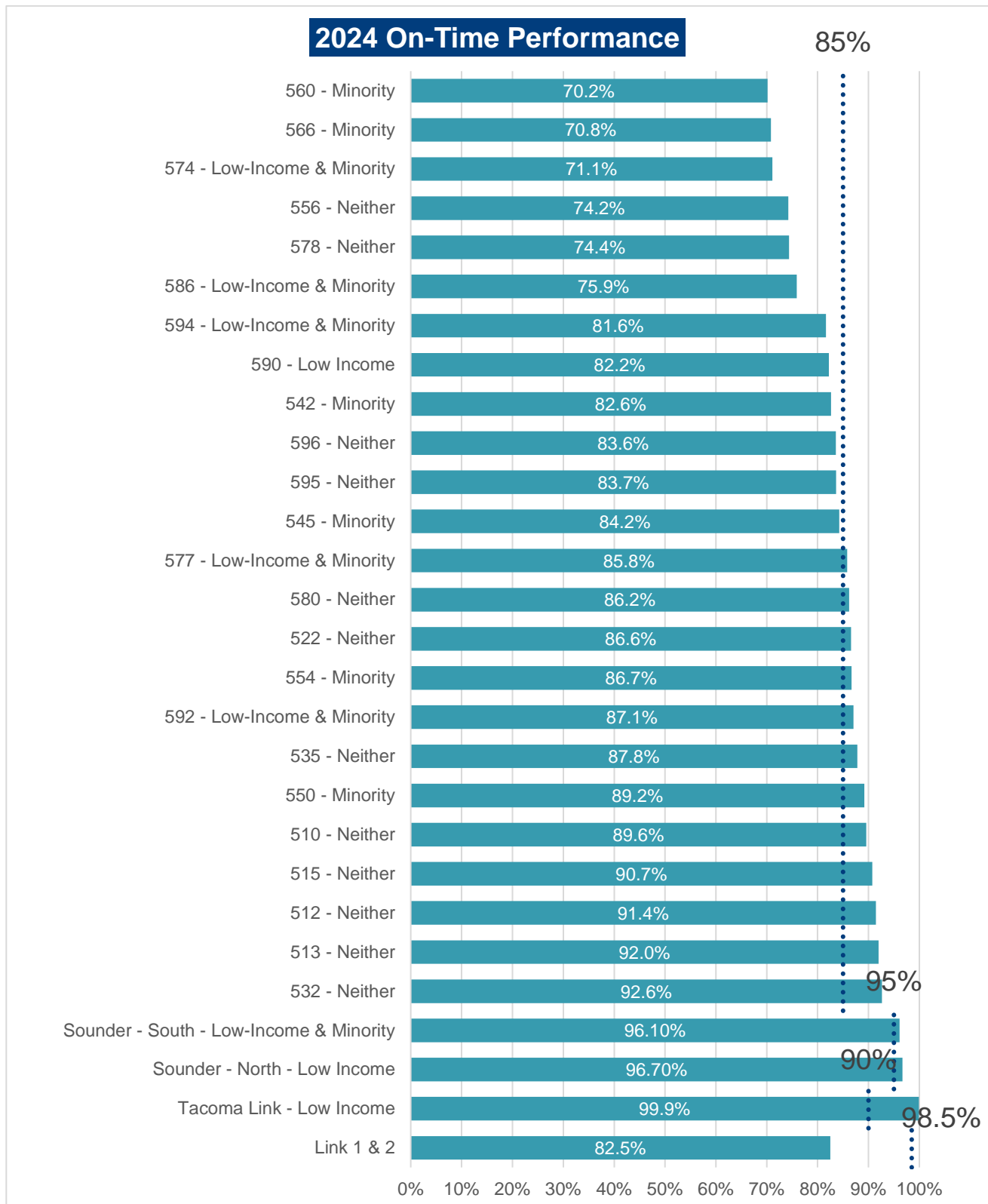
## Changes to Service Implemented by Service Change 2022, 2023, & 2024

Fall 2024	594	<ul style="list-style-type: none"> <li>Consistent with agreement between Pierce Transit and King County Metro, Pierce Transit operators may access the new comfort stations at the newly opened King County Metro Eastlake Layover Facility</li> <li>The new comfort station is located on the eastside of Eastlake Ave, north of Republican St.</li> <li>For some trips, layover time will be increased to 20 minutes to accommodate additional walk time to new comfort station location</li> <li>Pierce Transit-operated Sound Transit Express coaches will continue to layover at the same on-street location on northbound Eastlake Ave, south of Harrison St.</li> <li>Pathways from northbound revenue service to begin southbound revenue trips will remain the same as current</li> <li>Pierce Transit and Sound Transit operations will continue to coordinate with King Country Metro</li> </ul>
Fall 2024	595	<ul style="list-style-type: none"> <li>Consistent with agreement between Pierce Transit and King County Metro, Pierce Transit operators may access the new comfort stations at the newly opened King County Metro Eastlake Layover Facility</li> <li>The new comfort station is located on the eastside of Eastlake Ave, north of Republican St.</li> <li>For some trips, layover time will be increased to 20 minutes to accommodate additional walk time to new comfort station location</li> <li>Pierce Transit-operated Sound Transit Express coaches will continue to layover at the same on-street location on northbound Eastlake Ave, south of Harrison St.</li> <li>Pathways from northbound revenue service to begin southbound revenue trips will remain the same as current</li> <li>Pierce Transit and Sound Transit operations will continue to coordinate with King Country Metro</li> </ul>
Fall 2024	N Line	<ul style="list-style-type: none"> <li>Restore two round trips on Sounder N Line, fully restoring route to Pre-Pandemic service levels.</li> </ul>

## Appendix D: 2024 Passenger Overcrowding Rate by Route

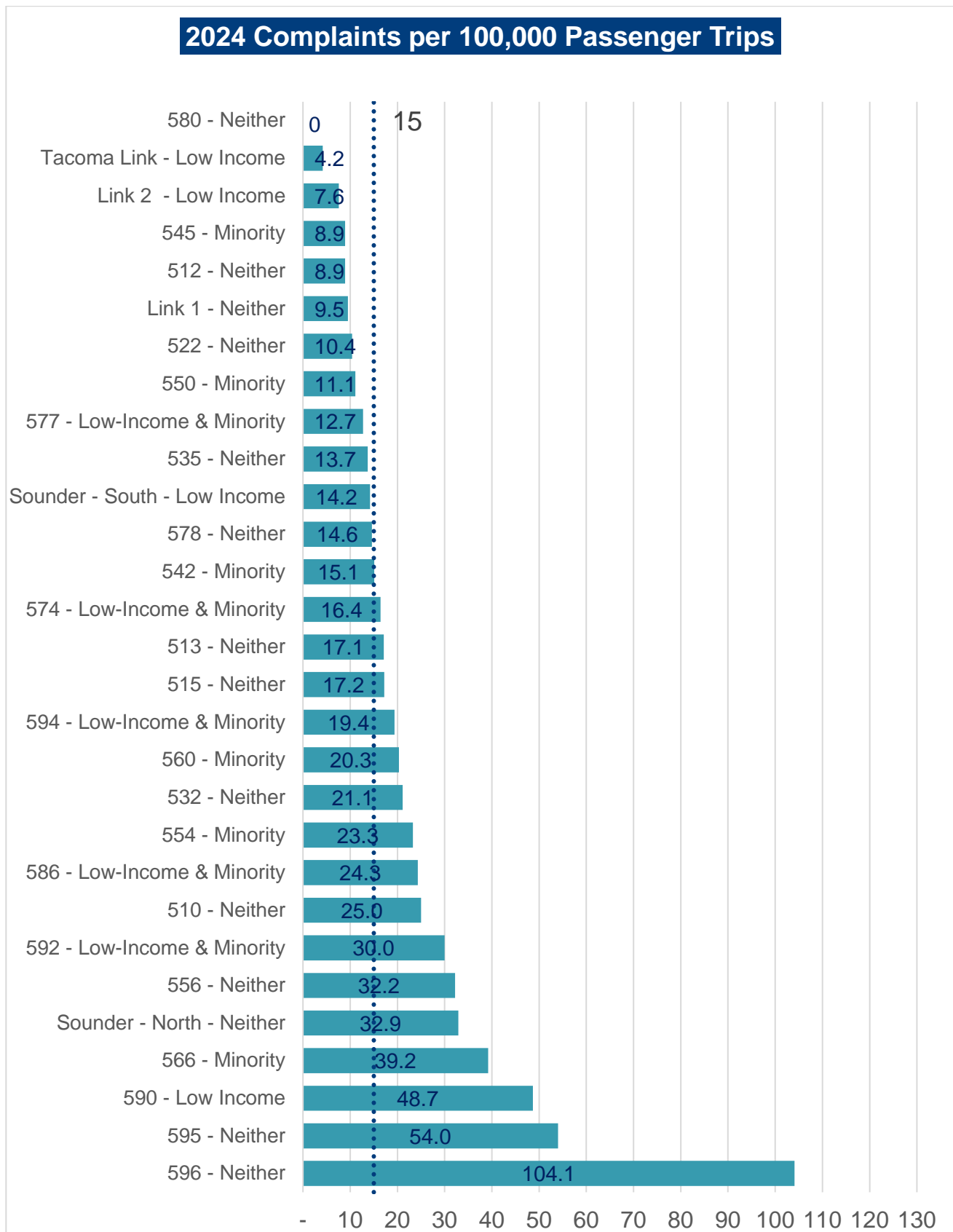


## Appendix E: 2024 On-Time Performance by Route

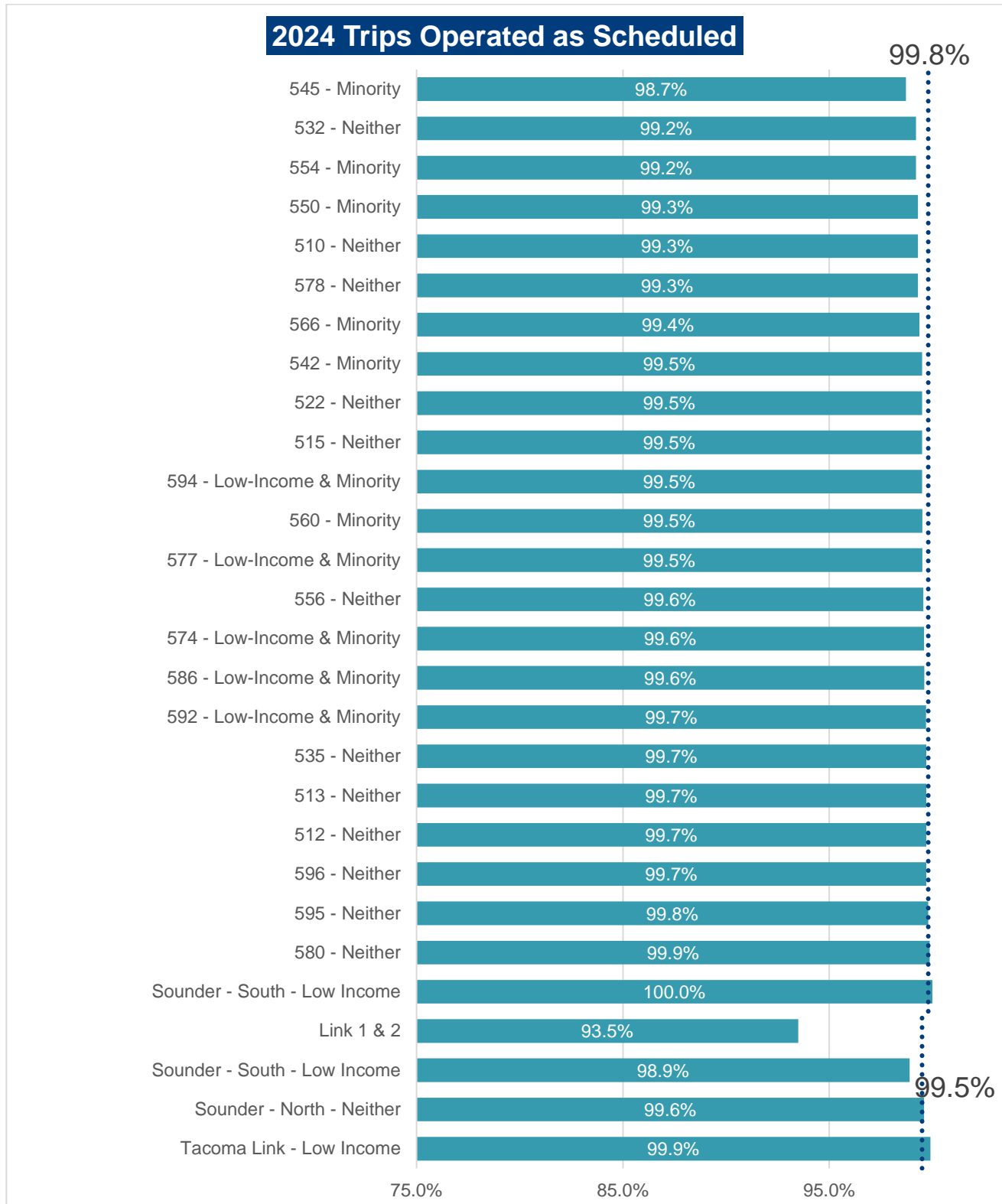




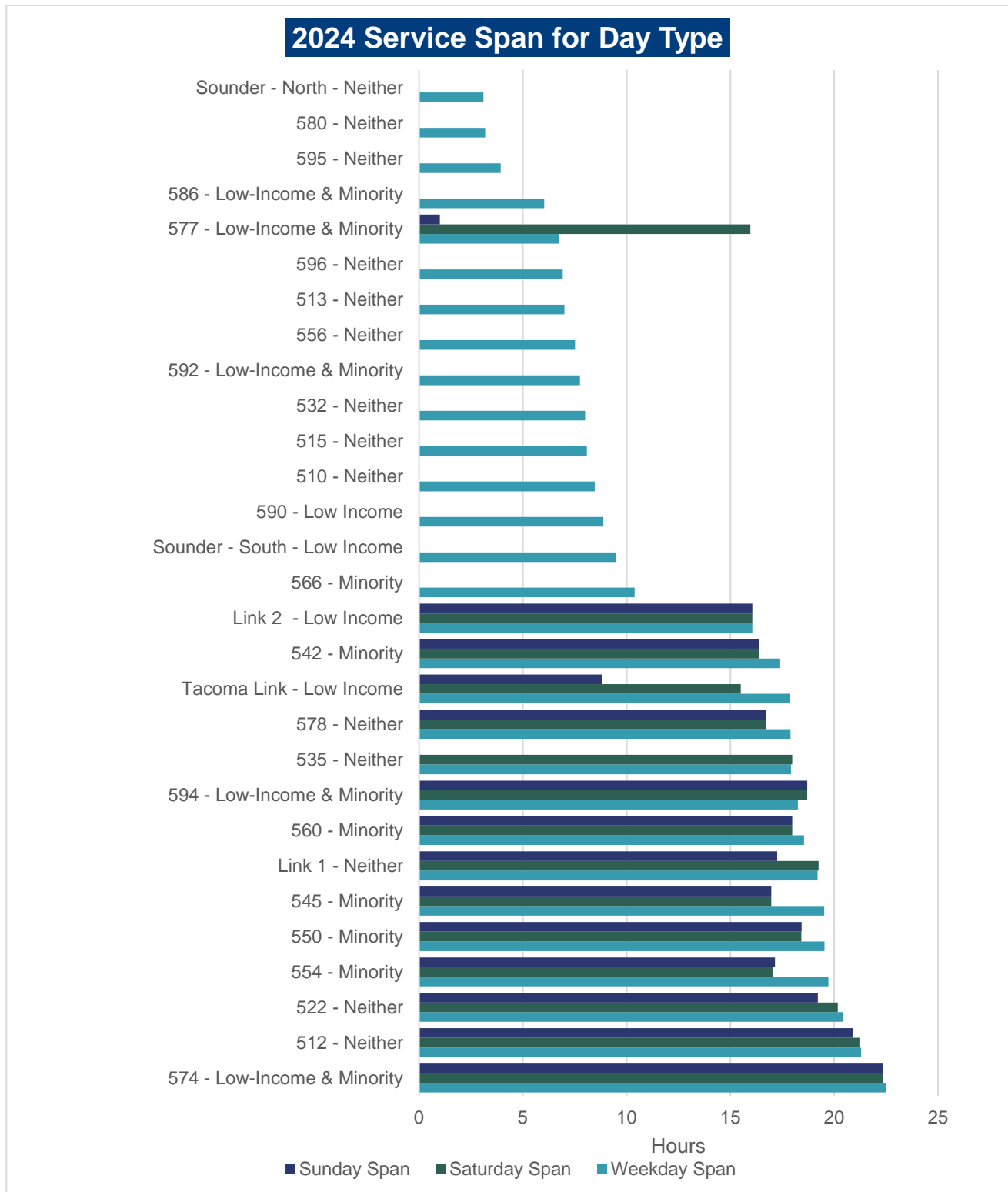
## Appendix F: 2024 Customer Complaints by Route



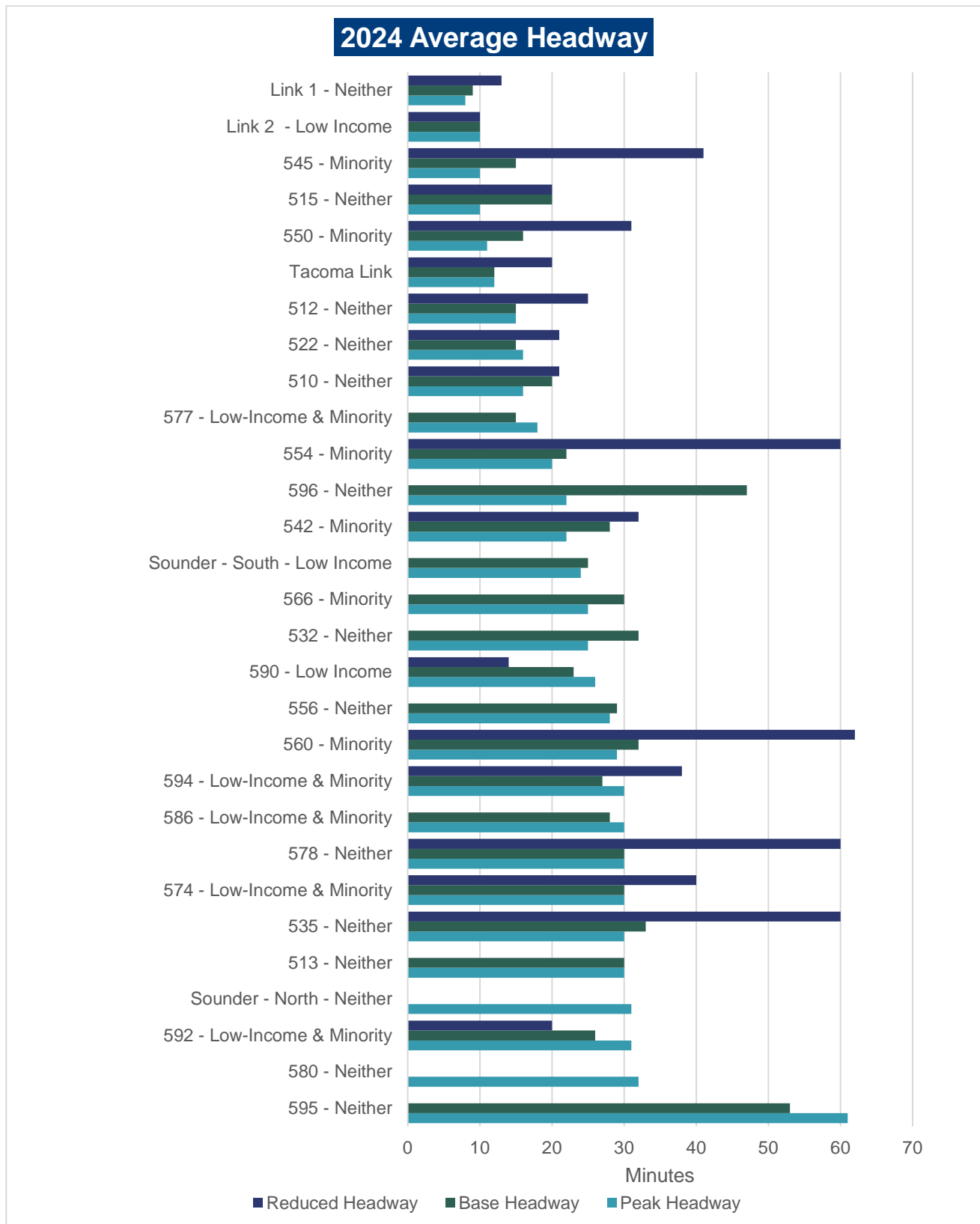
## Appendix G: 2024 Trips Operated as Scheduled by Route



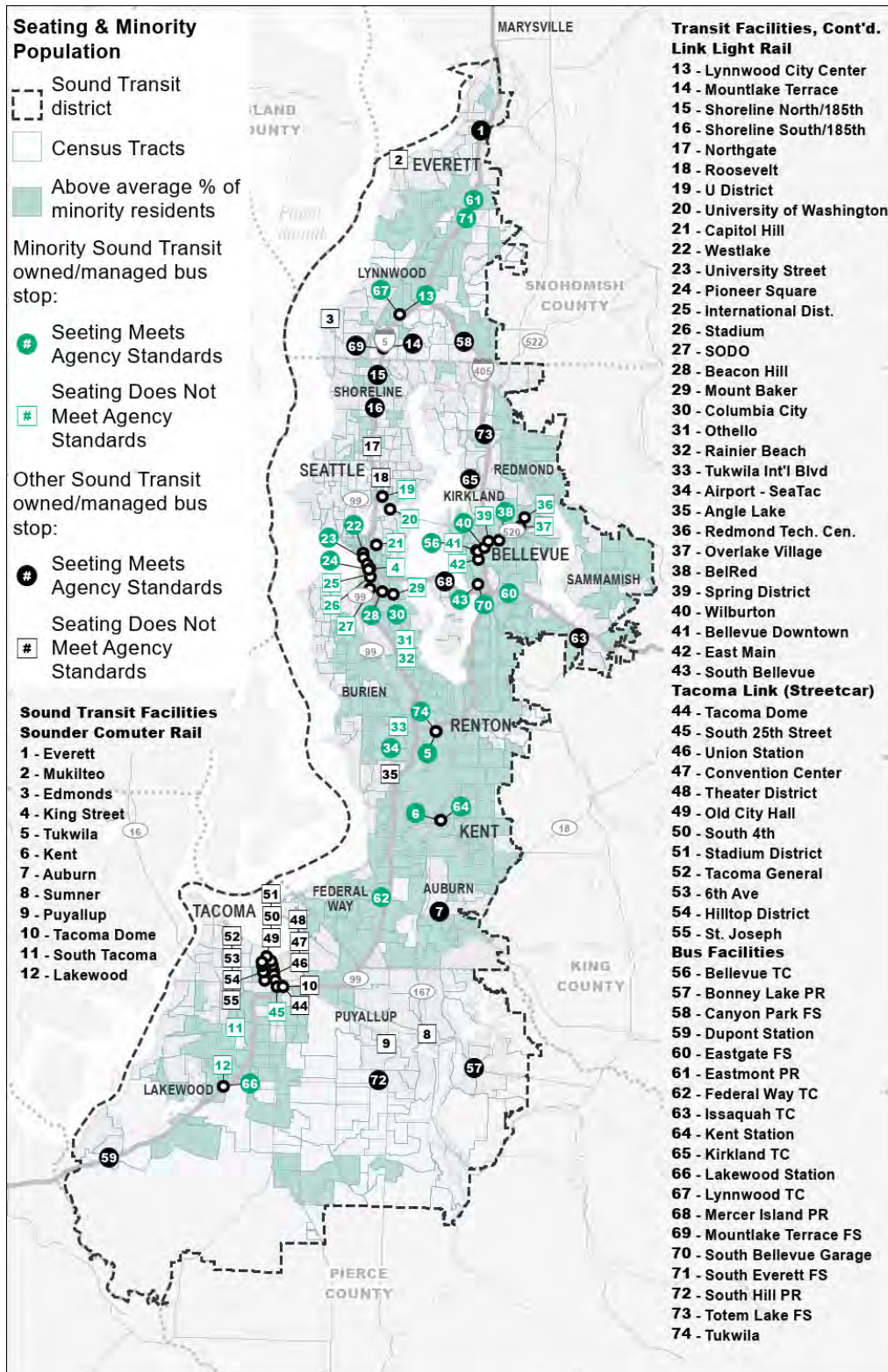
## Appendix H: 2024 Span of Service by Day Type by Route



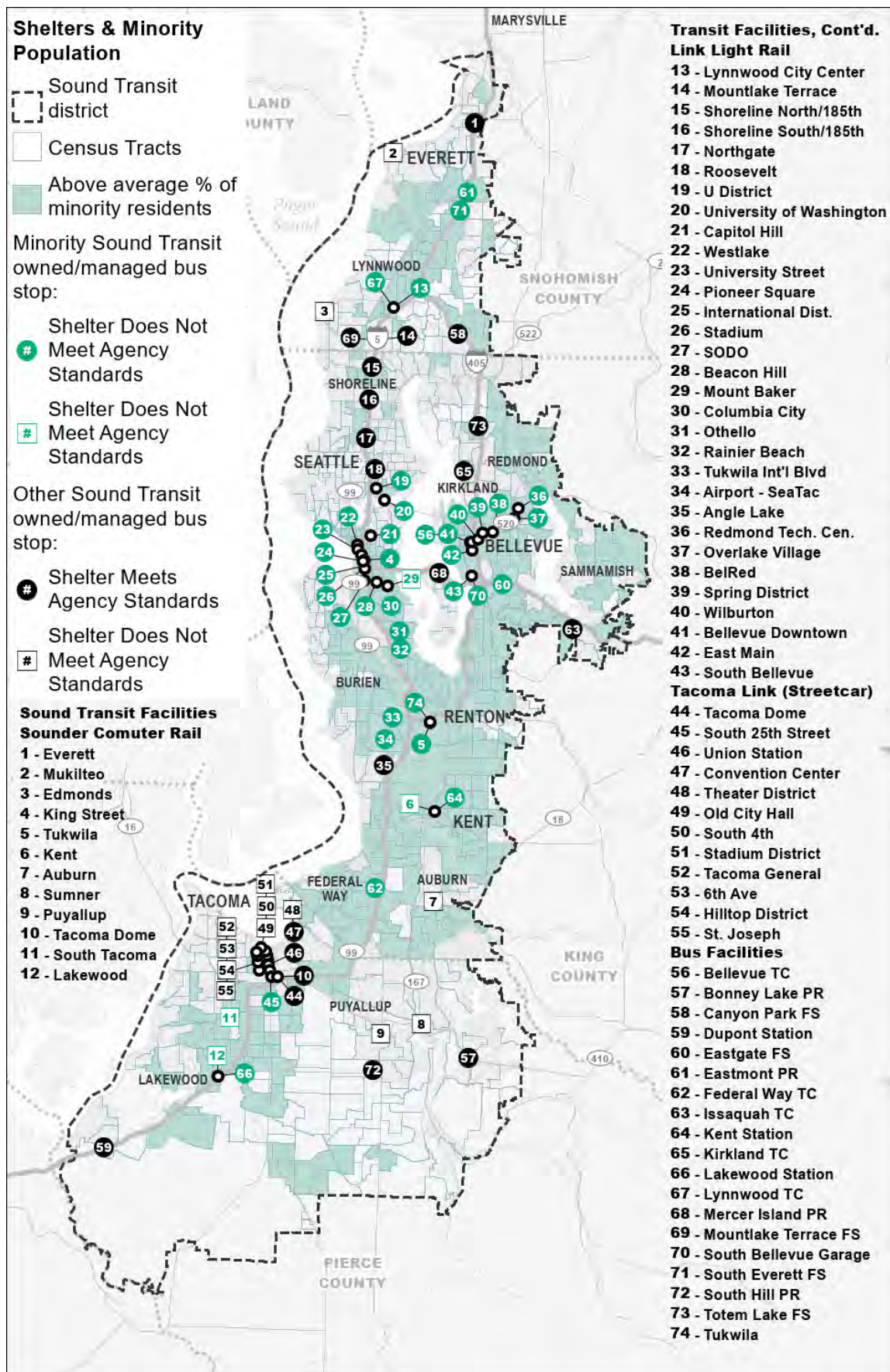
## Appendix I: 2024 Average Headway by Route



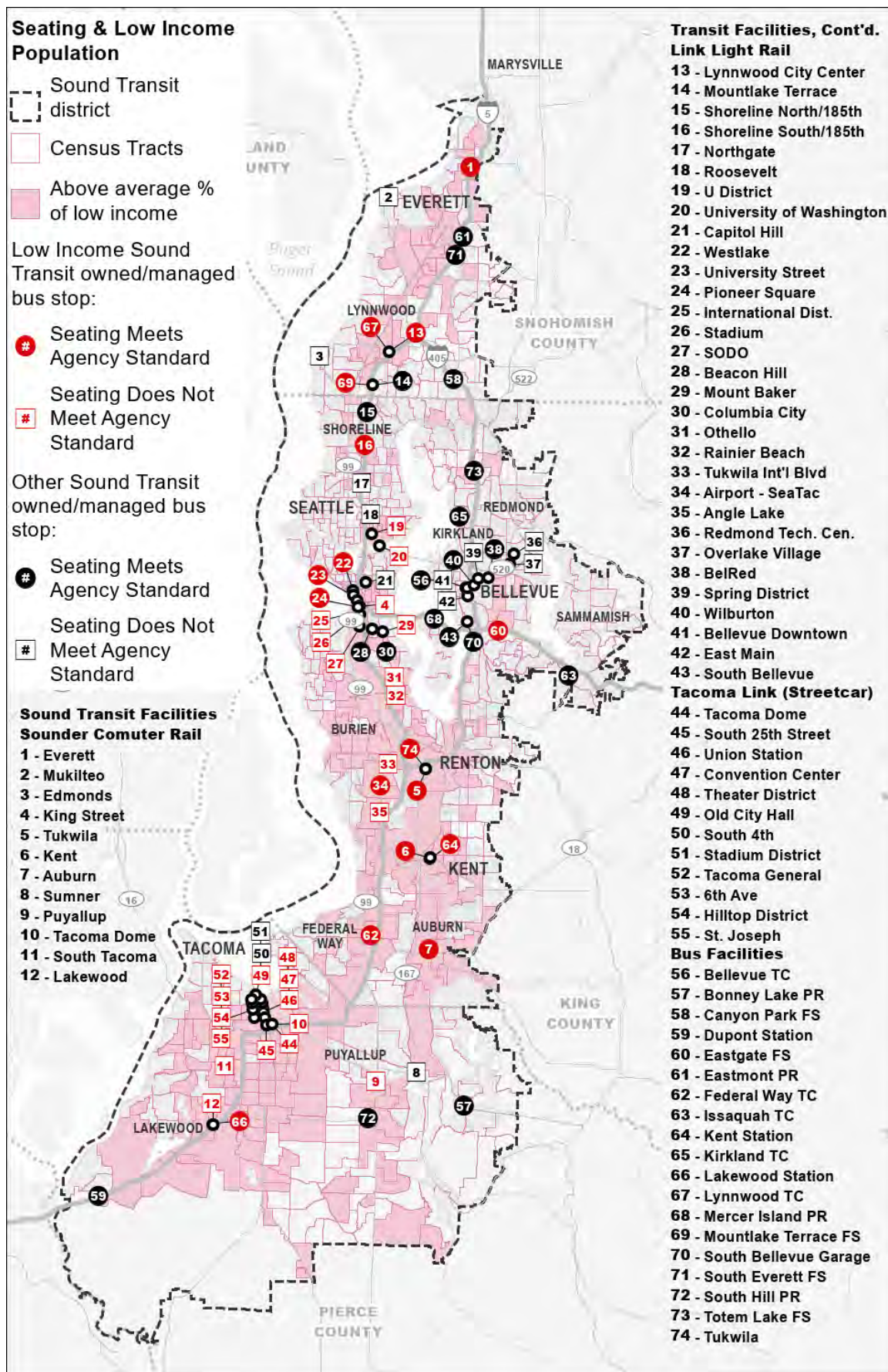
# Appendix J: Sound Transit Stops



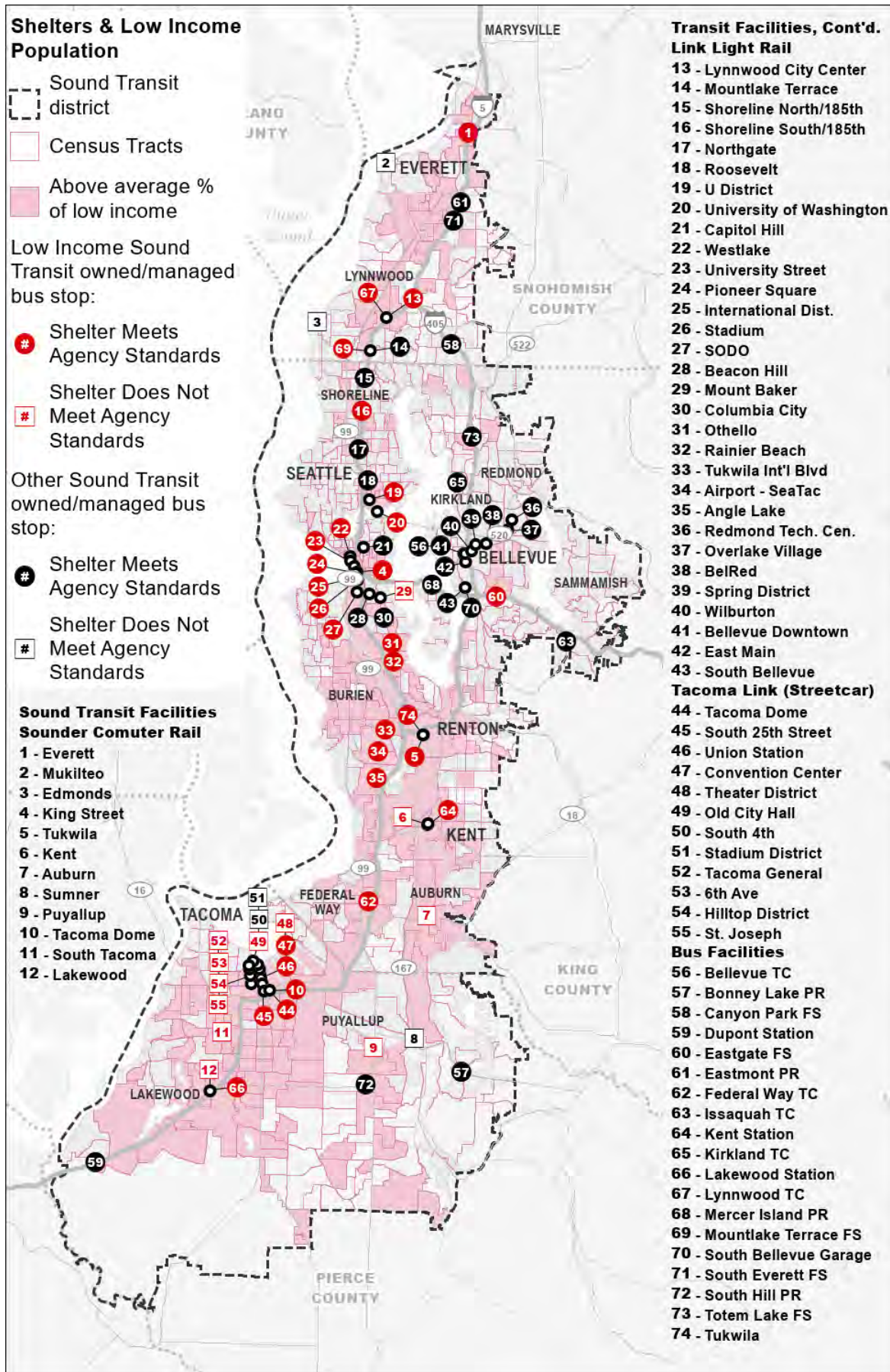












## Sound Transit Owned Facilities

Facility Name	Facility Type
Angle Lake Station	Elevated Fixed Guideway Station
Auburn Station	At-Grade Fixed Guideway Station
Beacon Hill Station	Underground Fixed Guideway Station
Bellevue Transit Center	Bus Transfer Center
Bel-Red 130th Station	Simple At-Grade Platform Station
Bonney Lake Park & Ride	Surface Parking Lot
Canyon Park Freeway Station	Bus Transfer Center
Capitol Hill Station	Underground Fixed Guideway Station
Columbia City Station	Exclusive Grade-Separated Platform Station
Downtown Bellevue Station	Elevated Fixed Guideway Station
DuPont Station	Bus Transfer Center
East Main Station	Simple At-Grade Platform Station
Eastgate Freeway Station	Bus Transfer Center
Eastmont Park & Ride	Surface Parking Lot
Edmonds Station	At-Grade Fixed Guideway Station
Federal Way Transit Center	Bus Transfer Center
Issaquah Transit Center	Bus Transfer Center
Kent Station	At-Grade Fixed Guideway Station
Lakewood Station	At-Grade Fixed Guideway Station
Lynnwood City Center Station	Elevated Fixed Guideway Station
Lynnwood Transit Center	Bus Transfer Center
Mercer Island Park & Ride	Bus Transfer Center
Mount Baker Station	Elevated Fixed Guideway Station
Mount Lake Terrace Station	Elevated Fixed Guideway Station
Mountlake Terrace Freeway Station	Exclusive Grade-Separated Platform Station
Mukilteo Station	At-Grade Fixed Guideway Station
Northgate Station	Elevated Fixed Guideway Station
Othello Station	Simple At-Grade Platform Station
Overlake Village Station	Simple At-Grade Platform Station
Pioneer Square Station	Underground Fixed Guideway Station
Puyallup Station	Exclusive Grade-Separated Platform Station
Rainier Beach Station	Simple At-Grade Platform Station
Redmond Technology Center Station	Simple At-Grade Platform Station
Roosevelt Station	Underground Fixed Guideway Station
SeaTac Airport Station	Elevated Fixed Guideway Station
Shoreline North Station (185th)	At-Grade Fixed Guideway Station
Shoreline South Station (145th)	Elevated Fixed Guideway Station
SODO Station	Exclusive Grade-Separated Platform Station
South Bellevue Station	Elevated Fixed Guideway Station
South Hill Park & Ride	Surface Parking Lot
South Tacoma Station	Exclusive Grade-Separated Platform Station
Spring District & E. 120th Station	Simple At-Grade Platform Station
Stadium Station	Exclusive Grade-Separated Platform Station
Sumner Station	Exclusive Grade-Separated Platform Station
Tacoma Link 6th Ave. Station	Simple At-Grade Platform Station
Tacoma Link Convention Center Station	Simple At-Grade Platform Station
Tacoma Link Hilltop District Station	Simple At-Grade Platform Station
Tacoma Link Old City Hall Station	Simple At-Grade Platform Station
Tacoma Link S. 25th St. Station	Simple At-Grade Platform Station
Tacoma Link S. 4th St. Station	Simple At-Grade Platform Station
Tacoma Link St. Joseph Station	Simple At-Grade Platform Station
Tacoma Link Stadium Station	Simple At-Grade Platform Station

Facility Name	Facility Type
Tacoma Link Tacoma Dome Station	Simple At-Grade Platform Station
Tacoma Link Tacoma General Station	Simple At-Grade Platform Station
Tacoma Link Theater District Station	Simple At-Grade Platform Station
Tacoma Link Union Station	Simple At-Grade Platform Station
Totem Lake Freeway Station	Bus Transfer Center
Tukwila Int'l Blvd Station	Elevated Fixed Guideway Station
Tukwila Station	At-Grade Fixed Guideway Station
U District Station	Underground Fixed Guideway Station
University of Washington Station	Underground Fixed Guideway Station
Wilburton Station	Elevated Fixed Guideway Station

# Appendix K: 2024 Conveyance Report

## Elevators

Station	Minority	Low Income	Light Rail	Commuter Rail	ST Express	Average Uptime	Meeting 97% Target
Angle Lake Garage	No	Yes	Yes			95.20%	No
Auburn Station	No	Yes		Yes		97.90%	Yes
Auburn Station Garage	No	Yes		Yes	Yes	98.80%	Yes
Beacon Hill Station	Yes	No	Yes			94.40%	No
Bellevue Downtown Station	No	Yes	Yes			99.90%	Yes
Canyon Park FS	No	No			Yes	94.20%	No
Capitol Hill Station	Yes	No	Yes			98.00%	Yes
Everett Station	No	Yes		Yes	Yes	94.50%	No
Federal Way TC	Yes	Yes			Yes	99.40%	Yes
International District/Chinatown Station	Yes	Yes	Yes			91.90%	No
Issaquah TC	No	No			Yes	94.20%	No
Kent Station	Yes	Yes		Yes	Yes	95.20%	No
Kent Station Garage	Yes	Yes		Yes	Yes	94.80%	No
King Street Station	Yes	Yes		Yes	Yes	97.90%	Yes
Lakewood Station	Yes	Yes		Yes	Yes	97.30%	Yes
Lynnwood City Center	Yes	Yes	Yes			93.30%	No
Mount Baker Station	Yes	Yes	Yes			98.40%	Yes
Mountlake Terrace FS	No	No			Yes	99.60%	Yes
Mountlake Terrace Station	No	No	Yes			99.10%	Yes
Mukilteo Station	No	No		Yes		99.00%	Yes
Northgate Garage	No	Yes	Yes		Yes	97.40%	Yes
Northgate Station	No	No	Yes			98.00%	Yes
Pioneer Square Station	Yes	Yes	Yes			93.10%	No
Puyallup Garage	No	Yes		Yes	Yes	98.30%	Yes
Roosevelt Station	No	No	Yes			95.00%	No
SeaTac Airport Station	Yes	Yes	Yes		Yes	98.40%	Yes
Shoreline North 185th Station	No	No	Yes			99.90%	Yes
Shoreline North Garage	No	No	Yes			99.80%	Yes
Shoreline South 148th Station	No	Yes	Yes			99.20%	Yes
Shoreline South Garage	No	Yes	Yes			99.90%	Yes
South Bellevue Garage	Yes	No	Yes		Yes	83.90%	No
South Bellevue Station	Yes	No	Yes			98.90%	Yes
Spring District & E. 120th Station	Yes	No	Yes			98.70%	Yes
Symphony Station	Yes	Yes	Yes			90.90%	No
Tukwila Int'l Blvd Station	Yes	Yes		Yes		95.70%	No

Station	Minority	Low Income	Light Rail	Commuter Rail	ST Express	Average Uptime	Meeting 97% Target
U District Station	Yes	Yes				94.90%	No
University St. Station	Yes	Yes	Yes			100.00%	Yes
University of Washington Station	Yes	Yes	Yes			94.60%	No
Westlake Station	Yes	Yes	Yes			88.10%	No
Wilburton Station	Yes	No	Yes			99.00%	Yes

## Escalators

Station	Minority	Low Income	Average Uptime	Meeting 95% Target
Angel Lake Station	No	Yes	96.60%	Yes
Bellevue Downtown Station	Yes	No	97.20%	Yes
Capitol Hill Station	Yes	No	97.80%	Yes
International District/Chinatown Station	Yes	Yes	85.30%	No
Lynnwood City Center Station	Yes	Yes	94.90%	No
Mount Baker Station	Yes	Yes	94.10%	No
Mount Lake Terrace Station	No	No	96.70%	Yes
Northgate Station	No	No	94.10%	No
Pioneer Square Station	Yes	Yes	90.30%	No
Roosevelt Station	No	No	96.90%	Yes
SeaTac/Airport Station	Yes	Yes	91.90%	No
Shoreline South 148th Station	No	Yes	96.50%	Yes
South Bellevue Station	Yes	No	97.30%	Yes
Symphony Station	Yes	Yes	90.50%	No
Tukwila Int'l Blvd Station	Yes	Yes	95.80%	Yes
U District Station	Yes	Yes	94.80%	No
UW Station	Yes	Yes	96.30%	Yes
Westlake Station	Yes	Yes	91.70%	No
Wilburton Station	Yes	No	97.20%	Yes



## Appendix L: 2024 Bike Rack and Cage Distribution Tables

Facility Name	Facility Type	Minority Station	Low-Income	Light Rail	Streetcar	Commuter Rail	ST Express	Bike Racks	Bike Cages/ Lockers
Angle Lake Station	Elevated Fixed Guideway Station	No	Yes	Yes				Yes	Yes
Auburn Station	At-Grade Fixed Guideway Station	No	Yes			Yes	Yes	Yes	Yes
Beacon Hill Station	Underground Fixed Guideway Station	Yes	No	Yes				Yes	Yes
Bellevue Transit Center	Bus Transfer Center	Yes	No				Yes	No	No
Bel-Red 130th Station	Simple At-Grade Platform Station	Yes	No	Yes				No	No
Bonney Lake Park & Ride	Surface Parking Lot	No	No				Yes	Yes	Yes
Canyon Park Freeway Station	Bus Transfer Center	No	No				Yes	No	No
Capitol Hill Station	Underground Fixed Guideway Station	Yes	No	Yes				Yes	Yes
Columbia City Station	Exclusive Grade-Separated Platform Station	Yes	No	Yes				Yes	Yes
Downtown Bellevue Station	Elevated Fixed Guideway Station	Yes	No	Yes				Yes	Yes
DuPont Station	Bus Transfer Center	No	No				Yes	Yes	Yes
East Main Station	Simple At-Grade Platform Station	Yes	No	Yes				No	Yes
Eastgate Freeway Station	Bus Transfer Center	Yes	Yes				Yes	No	No
Eastmont Park & Ride	Surface Parking Lot	Yes	No				Yes	No	No
Edmonds Station	At-Grade Fixed Guideway Station	No	No			Yes		Yes	Yes
Federal Way Transit Center	Bus Transfer Center	Yes	Yes				Yes	Yes	Yes
Issaquah Transit Center	Bus Transfer Center	No	No				Yes	Yes	Yes
Kent Station	At-Grade Fixed Guideway Station	Yes	Yes			Yes	Yes	Yes	Yes
Lakewood Station	At-Grade Fixed Guideway Station	Yes	Yes			Yes	Yes	Yes	Yes
Lynnwood City Center Station	Elevated Fixed Guideway Station	Yes	Yes	Yes				Yes	Yes
Lynnwood Transit Center	Bus Transfer Center	Yes	Yes				Yes	Yes	Yes
Mercer Island Park & Ride	Bus Transfer Center	No	No				Yes	Yes	Yes
Mount Baker Station	Elevated Fixed Guideway Station	Yes	Yes	Yes				Yes	Yes
Mount Lake Terrace Station	Elevated Fixed Guideway Station	No	No	Yes				Yes	Yes
Mountlake Terrace Freeway Station	Exclusive Grade-Separated Platform Station	No	Yes				Yes	No	No

Facility Name	Facility Type	Minority Station	Low-Income	Light Rail	Streetcar	Commuter Rail	ST Express	Bike Racks	Bike Cages/ Lockers
Mukilteo Station	At-Grade Fixed Guideway Station	No	No			Yes		Yes	Yes
Northgate Station	Elevated Fixed Guideway Station	No	No	Yes				Yes	Yes
Othello Station	Simple At-Grade Platform Station	Yes	Yes	Yes				Yes	Yes
Overlake Village Station	Simple At-Grade Platform Station	Yes	No	Yes				Yes	Yes
Pioneer Square Station	Underground Fixed Guideway Station	Yes	Yes	Yes				No	No
Puyallup Station	Exclusive Grade-Separated Platform Station	No	Yes			Yes	Yes	Yes	Yes
Rainier Beach Station	Simple At-Grade Platform Station	Yes	Yes	Yes				Yes	Yes
Redmond Technology Center Station	Simple At-Grade Platform Station	Yes	No	Yes				No	No
Roosevelt Station	Underground Fixed Guideway Station	No	No	Yes				Yes	Yes
SeaTac Airport Station	Elevated Fixed Guideway Station	Yes	Yes	Yes			Yes	No	Yes
Shoreline North Station (185th)	At-Grade Fixed Guideway Station	No	No	Yes				Yes	Yes
Shoreline South Station (145th)	Elevated Fixed Guideway Station	No	Yes	Yes				Yes	Yes
SODO Station	Exclusive Grade-Separated Platform Station	Yes	Yes	Yes				Yes	Yes
South Bellevue Station	Elevated Fixed Guideway Station	Yes	No	Yes				Yes	Yes
South Hill Park & Ride	Surface Parking Lot	No	No				Yes	Yes	Yes
South Tacoma Station	Exclusive Grade-Separated Platform Station	Yes	Yes			Yes		Yes	Yes
Spring District & E. 120th Station	Simple At-Grade Platform Station	Yes	No	Yes				Yes	No
Stadium Station	Exclusive Grade-Separated Platform Station	Yes	Yes	Yes				No	No
Sumner Station	Exclusive Grade-Separated Platform Station	No	No			Yes		Yes	Yes
Tacoma Link 6th Ave. Station	Simple At-Grade Platform Station	No	Yes		Yes			No	No
Tacoma Link Convention Center Station	Simple At-Grade Platform Station	No	Yes		Yes			No	No
Tacoma Link Hilltop District Station	Simple At-Grade Platform Station	No	Yes		Yes			No	No
Tacoma Link Old City Hall Station	Simple At-Grade Platform Station	No	Yes		Yes			No	No
Tacoma Link S. 25th St. Station	Simple At-Grade Platform Station	Yes	Yes		Yes			No	No
Tacoma Link S. 4th St. Station	Simple At-Grade Platform Station	No	No		Yes			No	No
Tacoma Link St. Joseph Station	Simple At-Grade Platform Station	No	Yes		Yes			No	No
Tacoma Link Stadium Station	Simple At-Grade Platform Station	No	No		Yes			No	No
Tacoma Link Tacoma Dome Station	Simple At-Grade Platform Station	No	Yes		Yes			No	No
Tacoma Link Tacoma General Station	Simple At-Grade Platform Station	No	Yes		Yes			No	No

Facility Name	Facility Type	Minority Station	Low-Income	Light Rail	Streetcar	Commuter Rail	ST Express	Bike Racks	Bike Cages/ Lockers
Tacoma Link Theater District Station	Simple At-Grade Platform Station	No	Yes		Yes			No	No
Tacoma Link Union Station	Simple At-Grade Platform Station	No	Yes		Yes			No	No
Totem Lake Freeway Station	Bus Transfer Center	No	No				Yes	No	No
Tukwila Int'l Blvd Station	Elevated Fixed Guideway Station	Yes	Yes	Yes				Yes	Yes
Tukwila Station	At-Grade Fixed Guideway Station	Yes	Yes			Yes	Yes	Yes	Yes
U District Station	Underground Fixed Guideway Station	Yes	Yes	Yes				Yes	Yes
University of Washington Station	Underground Fixed Guideway Station	Yes	Yes	Yes				Yes	Yes
Wilburton Station	Elevated Fixed Guideway Station	Yes	No	Yes				Yes	Yes

# Appendix M: 2024 Shelter Distribution Maps

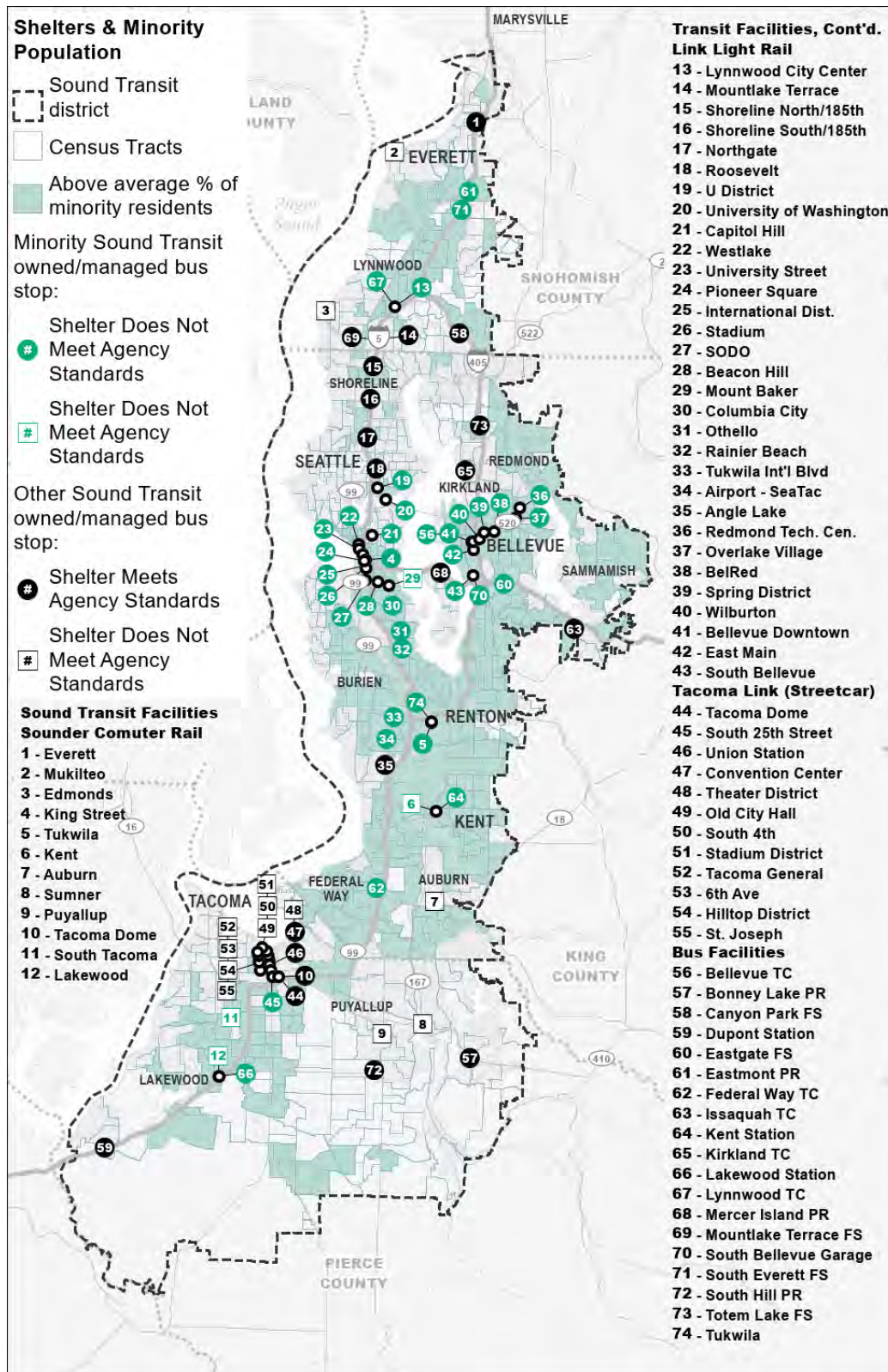


Figure 18: Minority Shelter Distribution Map



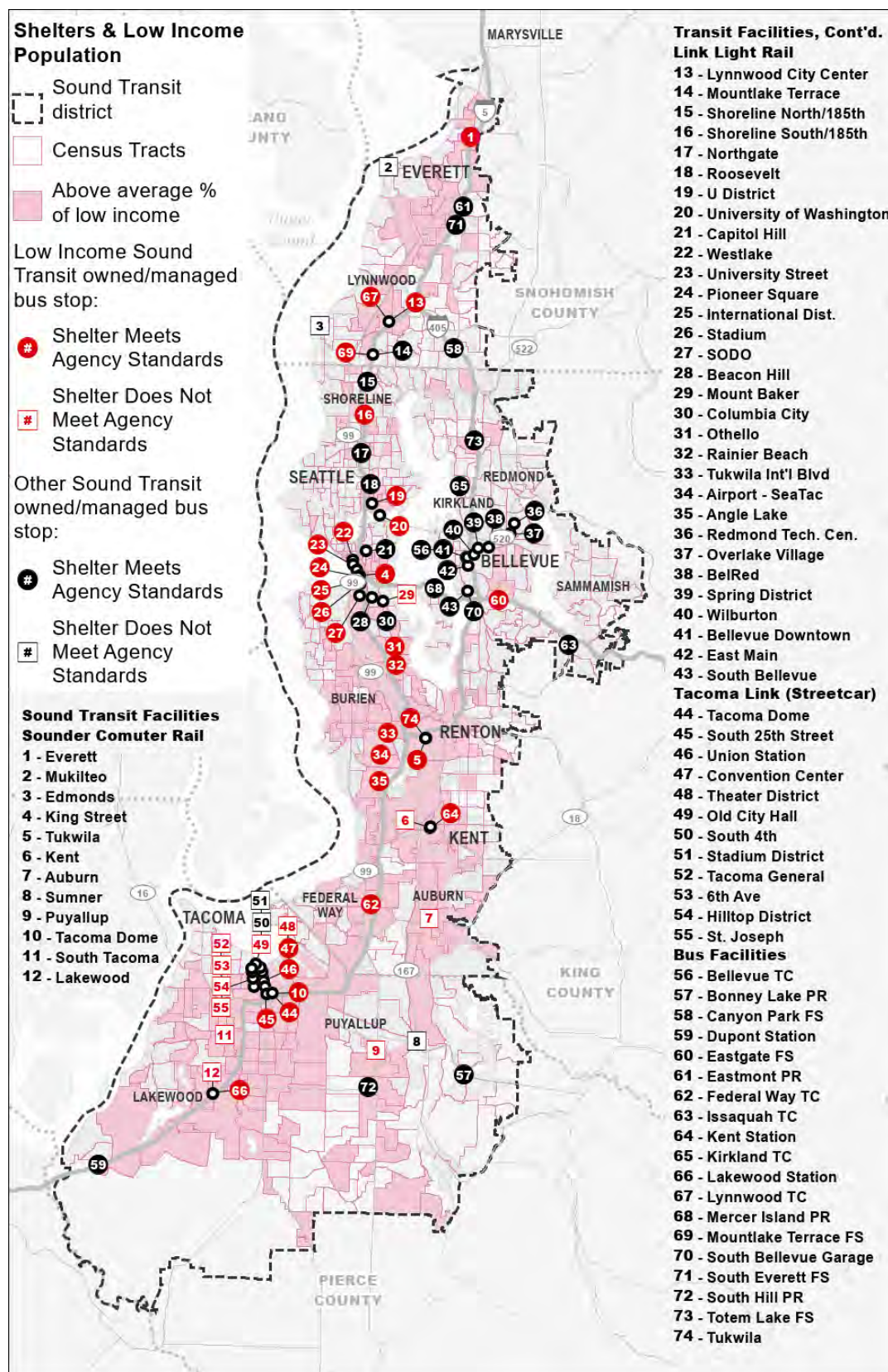


Figure 19: Low-Income Shelter Distribution Map

# Appendix N: 2024 Seating/Bench Distribution Maps

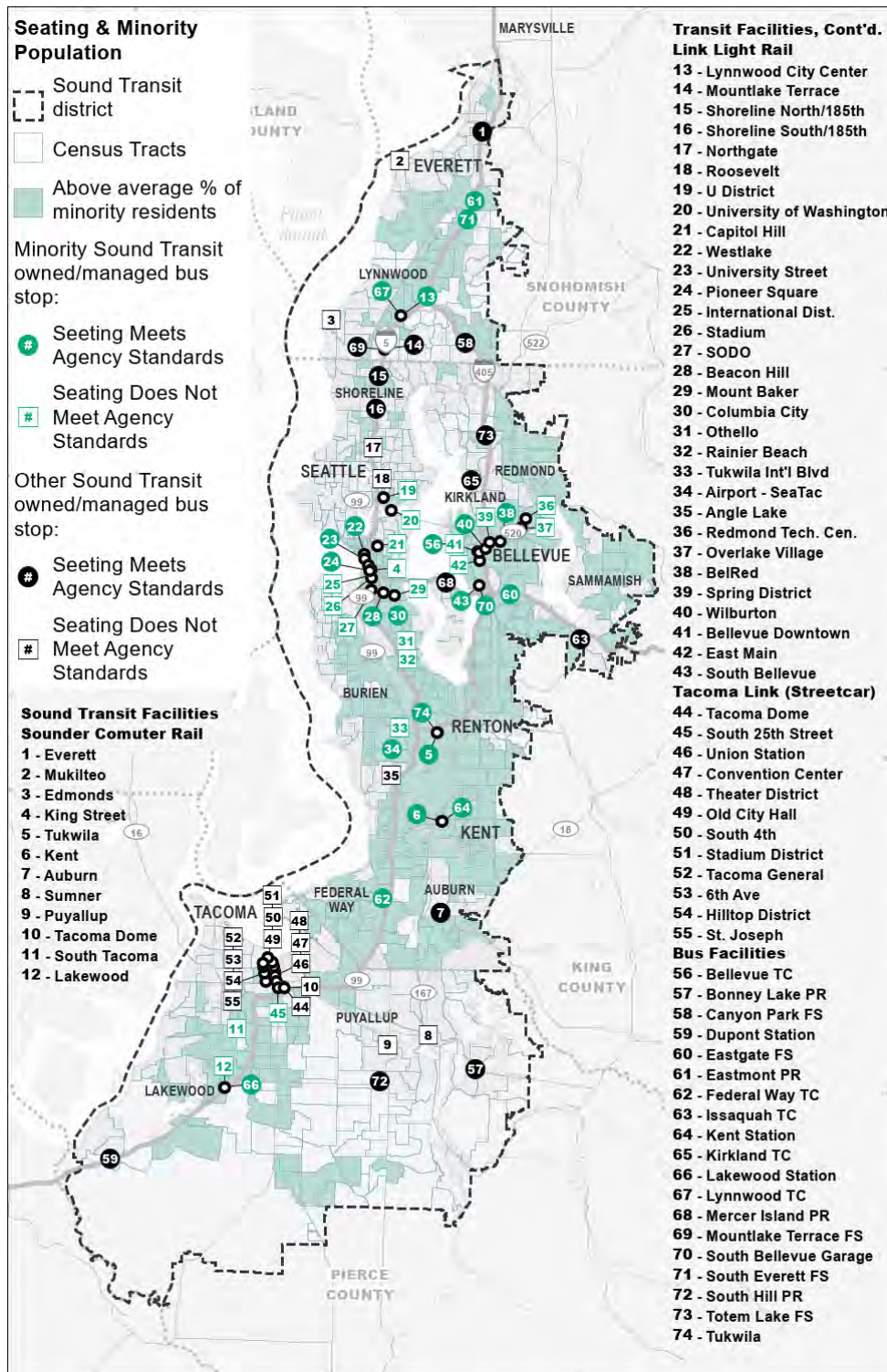


Figure 20: Minority Seating Distribution Map



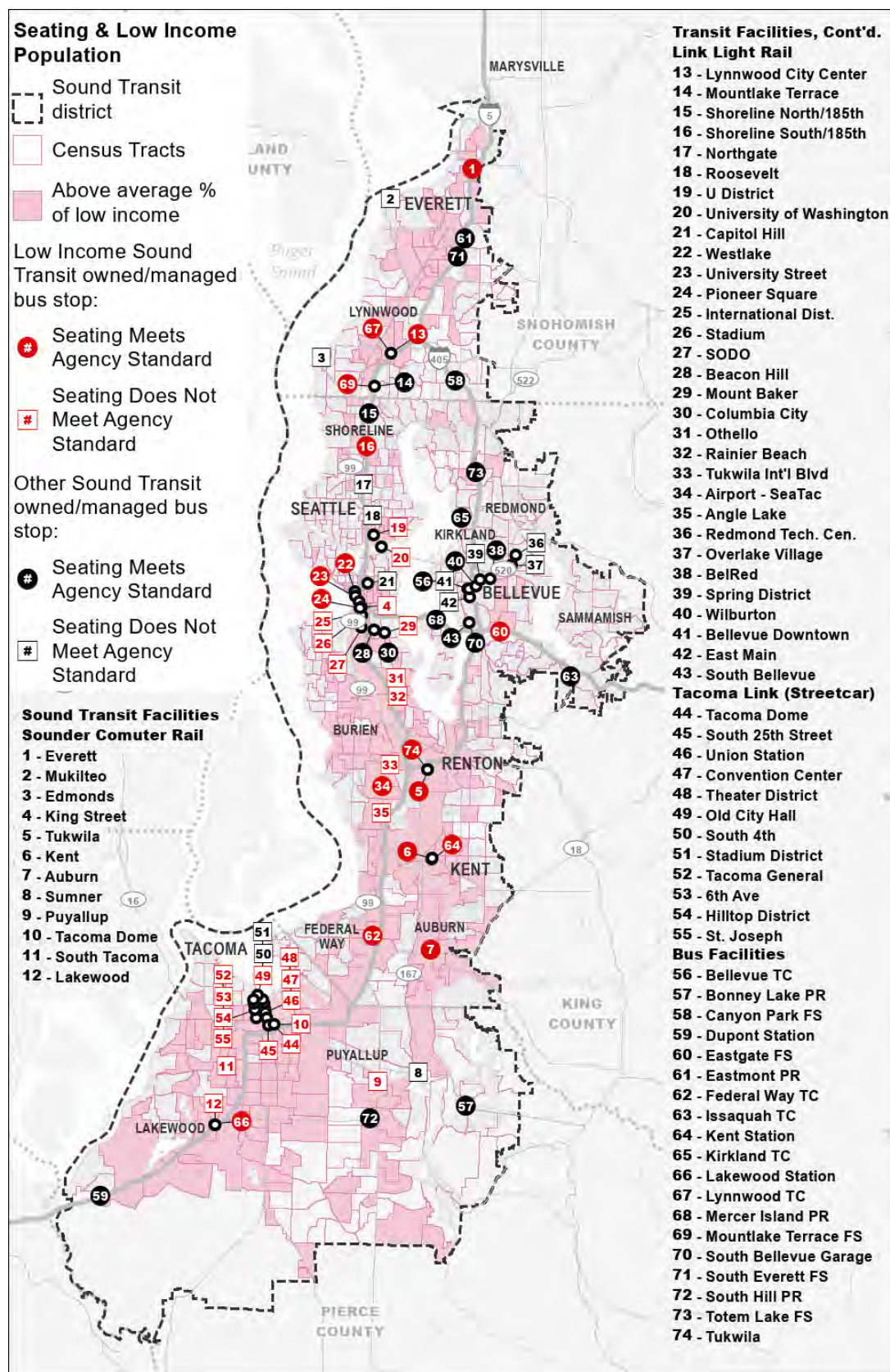


Figure 21: Low-Income Seating Distribution Map

## ***Appendix O: RESOLUTION NO. R2022-19***



## Resolution No. R2022-19

### Updating Sound Transit's Major Service Change and Fare Change Policies

Meeting:	Date:	Type of action:	Staff contact:
Executive Committee	07/07/2022	Recommend to Board	Jonté Robinson, Chief Diversity, Equity & Inclusion Officer
Board of Directors	07/28/2022	Final action	<b>Nicole Hill, Deputy Director – Equity &amp; Social Responsibility</b> <b>Michael Couvrette, Deputy Director – Service Planning</b>

### Proposed action

Adopts a Disparate Impact and Disproportionate Burden Policy and supersedes Resolution Nos. R2013-18 and R2013-19.

### Key features summary

- This policy establishes when the agency conducts equity analyses as required by the FTA and applies to major service changes, fare changes and siting of maintenance facilities.
- The policy requires the agency to perform an equity analysis to determine if service changes, fare changes, and the location selection of a maintenance facility will cause a disparate impact to minority populations. The policy also requires an equity analysis to determine if service and fare changes will create a disproportionate burden on low-income populations.
- Changes to the policy include:
  - Updating the service data used to define a major service change from “platform service hours” to “revenue service hours” to better measure changes in the amount of service delivered to riders.
  - Reducing the distance a bus stop can be moved from ½ mile to ¼ mile before causing a major service change to help highlight changes to rider experience and access when evaluating potential stop location changes.
  - Aligning the threshold for evaluating potential service changes with industry standards by establishing a 5% threshold for changes to a single line or route.
  - Adding a new system-wide analysis to determine the cumulative impacts of past and potential service changes by establishing a 20% threshold for service improvements and service reductions. This threshold is a ratio that compares the percentage of the populations affected by all service changes.
  - Updating fare change evaluation to be consistent with new system-wide analysis threshold of 20% to identify impacts for fare changes. The fare threshold is a ratio similar to systemwide service change threshold. Also adding criteria for evaluating fare media changes.
  - Establishing a facility equity analysis policy that applies to selecting the location of maintenance facilities and establishes threshold at 5%, meaning that a disparate impact



occurs when the percentage of the minority population adversely affected by a maintenance facility location exceeds the percentage of the minority population of the Sound Transit district by at least five percent.

- Revising the definition of low-income to align with poverty guidelines utilized by ORCA to determine low-income reduced fare eligibility.

## Background

When Sound Transit considers making significant changes to its transit service, fares or the location of a new maintenance facility, the agency follows Federal Transit Administration (FTA) requirements to make changes in a nondiscriminatory manner, consistent with Title VI of the Civil Rights Act of 1964 (Title VI). FTA requires all transit agencies to measure if impacts of potential changes disproportionately affect minority and low-income populations. Equity is core to Sound Transit's values and a key element of future system expansion.

In order to conduct an equity analysis, the agency first determines the population within the service area impacted by the potential change. Using Census data, staff calculates what percentage of people within this impacted service area self-identify as people of color/minority and how many people live in households earning below 200% of the federal poverty line.

The equity analysis then compares the percentage of Title VI protected populations in the impacted service area to the average percentage of Title VI protected populations across the Sound Transit District to determine if a potential disparate impact or disproportionate burden may be caused by the service change.

- A Disparate Impact is defined as, "A facially neutral policy or practice that disproportionately affects members of a group identified by race, color or national origin".
- A Disproportionate Burden is defined as, "A policy or practice that disproportionately affects low-income populations more than non-low-income populations".

In 2013, Sound Transit established policies for conducting equity analyses of Major Service Changes and Fare Changes impacting minority or low-income populations via Resolution No. R2013-18 and Resolution No. R2013-19. The policies establish when an equity analysis is required and also establish thresholds to identify potential situations where changes may disproportionately impact minority and low-income populations.

This resolution proposes a new policy that would consolidate, update, and replace Resolution No. R2013-18 and Resolution No. R2013-19. The new policy will better reflect our growing region and network of transit services. Future system expansion will bring significant changes as we open new Link and Stride stations and adjust existing bus service to better connect communities with new stations. The updated policies will better prepare the agency for evaluating potential changes in the next few years.

## Fiscal information

The proposed policy has no budget or financial impact.

### **Small business participation and apprenticeship utilization**

Not applicable to this action.

### **Public involvement**

The following public engagement efforts were conducted beginning in March 2022.

- Presentation to the Transportation Access Coalition
- Presentation to the Citizens Accessibility Advisory Council
- Dedicated public website with information about the proposed DIB Policy.
- A short survey to solicit feedback was translated into Sound Transit's top six Title VI languages and available via the website.
- Traffic to the website driven by social media posts and press release.

### **Time constraints**

The proposed Disparate Impact and Disproportionate Burden (DIB) Policy will be included in the Sound Transit 2022 Title VI submittal to the FTA. The Board is scheduled to take final action to approve the submittal at the August 2022 Board of Directors meeting. Submittal is to be sent to the FTA by October 1, 2022. FTA regulations prevent the policy from being changed between triennial program submissions.

### **Prior Board/Committee actions**

Resolution No. R2013-18: Established policies for conducting equity analysis of Major Service Changes impacting minority and low income populations.

Resolution No. R2013-19: Established policies for conducting equity analysis of Fare Changes impacting minority and low income populations.

Resolution No. R2011-15: Adopted an inclusive public participation policy to ensure meaningful access to public involvement and community outreach programs for minority, low income and limited English proficient populations.

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**Environmental review** – KH 6/16/22

**Legal review** – MT 7/1/22



## **Resolution No. R2022-19**

### **Disparate Impact and Disproportionate Burden Policy**

A RESOLUTION of the Board of the Central Puget Sound Regional Transit Authority adopting a Disparate Impact and Disproportionate Burden Policy and superseding Resolution Nos. R2013-18 and R2013-19.

WHEREAS, the Central Puget Sound Regional Transit Authority, commonly known as Sound Transit, was formed under chapters 81.104 and 81.112 of the Revised Code of Washington (RCW) for the Pierce, King and Snohomish Counties region by action of their respective county councils pursuant to RCW 81.112.030; and

WHEREAS, Sound Transit is authorized to plan, construct and permanently operate a high-capacity system of transportation infrastructure and services to meet regional public transportation needs in the Central Puget Sound region; and

WHEREAS, in general elections held within the Sound Transit district on November 5, 1996, November 4, 2008 and November 8, 2016, voters approved local funding to implement a regional high-capacity transportation system for the Central Puget Sound region; and

WHEREAS, Sound Transit has made a commitment to the people within its three-county region to seek community involvement as it plans, designs, builds and operates a regional transit system; and

WHEREAS, Sound Transit is a recipient of federal funding primarily from the Federal Transit Administration (FTA); and

WHEREAS, consistent with Title VI of the Civil Rights Act of 1964, Sound Transit is committed to providing services without regard to race, color or national origin, promoting the full and fair participation of affected populations in transit decision-making and preventing denial, reduction or delay in benefits related to programs and activities that benefit minority or low-income populations; and

WHEREAS, in accordance with Title VI requirements and FTA guidelines, the Sound Transit Board established policies in 2013 to conduct analyses of and set analysis thresholds for disparate impacts and disproportionate burden for major service changes and fare changes and take all reasonable steps to remove, explore alternatives or otherwise mitigate and reduce any disparate impacts on minority populations or disproportionate burden on low-income populations; and

WHEREAS, the agency has determined the need to update the disparate impact and disproportionate burden analysis thresholds and expand the policy's scope to address the siting of maintenance facilities; and

WHEREAS, the agency has conducted public outreach to receive input on this proposed policy.

NOW, THEREFORE, BE IT RESOLVED by the Board of the Central Puget Sound Regional Transit Authority that Resolution Nos. R2013-18 and R2013-19 are hereby superseded with a Disparate Impact and Disproportionate Burden Policy, which is hereby adopted as follows:

#### **1.0 Scope**

- 1.1 This policy establishes when the agency conducts equity analyses as required by the FTA and applies to major service changes, fare changes and siting of maintenance facilities.



## 2.0 Definitions

- 2.1 Disparate impact: A facially neutral policy or practice that disproportionately affects members of a group identified by race, color or national origin pursuant to FTA guidelines.
- 2.2 Disproportionate burden: A policy or practice that disproportionately affects low-income populations more than non-low-income populations pursuant to FTA guidelines.
- 2.3 Fare change: A change in fare, regardless of the amount of the increase or decrease and including changes in payment type or payment media and availability or duration of paper or electronic transfers, except for promotional periods where Sound Transit has declared that all passengers will ride free, temporary fare reductions that are mitigating measures for other actions and promotional or temporary fare reductions lasting no more than six months.
- 2.4 Low-income population: A population whose household income is at or below the poverty guidelines set by the Department of Health and Human Services level utilized by the regional transit fare program to determine low-income reduced fare eligibility.
- 2.5 Major service change: Any single change in service on an individual bus or rail route that would add or eliminate more than 25 percent of the route's weekly revenue service hours, permanently move the location of a bus stop by more than a quarter mile or rail station by more than a half mile and/or close or eliminate a bus stop or rail station without a replacement of any kind within a quarter mile for bus stops or a half mile for rail stations. A major service change excludes:
  - 2.5.1 Replacement of an existing transit service by a different route, mode or contractor providing a service with the same headways, fare, transfer options, span of service and stops, so long as an analysis is completed that provides evidence that the replacement level service is equal to or better than the existing Sound Transit service; or
  - 2.5.2 Changes to route numbers without any other changes to the route characteristics; or
  - 2.5.3 Changes to service or new services considered to be temporary, where temporary is defined as less than 12 months in duration.
- 2.6 Maintenance facility: A bus or rail operations and maintenance facility, maintenance of way facility or any other standalone facility necessary to support the agency's transit operations, excluding traction power substations.
- 2.7 Minority population: A population who self-identifies as American Indian/Alaska Native, Asian, Black or African American, Hispanic or Latino and/or Native Hawaiian/Pacific Islander.

## 3.0 Policy

- 3.1 The agency measures adverse effects that could cause a disparate impact and/or disproportionate burden before any proposed major service change, fare change or siting of a maintenance facility.
- 3.2 Major service changes
  - 3.2.1 The agency conducts an equity analysis of all proposed major service changes to determine adverse effects and equitable distribution of benefits. For major service changes:
    - 3.2.1.a Adverse effects are a geographical or time-based reduction in service, which includes, but is not limited to, span of service changes, frequency of service changes, route segment elimination and rerouting or route elimination, and
    - 3.2.1.b Benefits are a geographical or time-based addition of service, which includes, but is not limited to, an increase in span, frequency and service coverage.



- 3.2.2 **Changes to a single line or route.** When a proposed major service change to a single line or route creates a potential adverse effect, a disparate impact or disproportionate burden occurs when the percentage of the adversely affected minority or low-income population in the service area of the line or route exceeds the percentage of the minority or low-income population within the Sound Transit district by at least five percentage points (e.g., 15 percent of the population adversely affected is low-income compared to a district low-income population of 10 percent).
- 3.2.3 **Systemwide service reductions.** When a systemwide potential adverse effect occurs due to major service changes on more than one line or route, the agency determines if the collective service reductions create a disparate impact or disproportionate burden by comparing the percentage of the service area's minority or low-income population adversely affected by the major service reductions to the percentage of the district's non-minority or non-low-income population adversely affected.
- 3.2.3.a If the percentage of the minority or low-income population adversely affected is 20 percent or greater than the percentage of the non-minority or non-low-income population adversely affected (e.g., 12 percent or more of the minority population is adversely affected while 10 percent or less of the non-minority population is adversely affected), the reductions create a disparate impact or disproportionate burden.
- 3.2.3.b Collective service reductions include both service reductions under consideration for the next year and implemented service reductions in the past two years, both major and minor service changes.
- 3.2.4 **Systemwide service additions.** When a systemwide potential adverse effect occurs due to major service changes on more than one line or route, the agency determines if the collective service additions create a disparate impact or disproportionate burden by comparing the percentage of the minority or low-income population who benefit from the major service additions to the percentage of the district's non-minority or non-low-income population who benefits from the service additions.
- 3.2.4.a If the percentage of the minority or low-income population benefited is 80 percent or less than the percentage of the non-minority or non-low-income population benefited (e.g., eight percent or less of the minority population benefits while 10 percent or more of the non-minority population benefits), the changes create a disparate impact or disproportionate burden.
- 3.2.4.b Collective service additions include both service additions under consideration for the next year and implemented service additions in the past two years, both major and minor service changes.

### 3.3 Fare changes


- 3.3.1 The agency conducts an equity analysis of all proposed fare changes, as identified in section 2.3, to determine any potential disparate impact or disproportionate burden.
- 3.3.2 **Fare increases.** When considering a fare increase, if the agency's analysis indicates that the average percentage fare increase experienced by minority or low-income riders is 20 percent or greater than the average percentage fare increase experienced by non-minority or non-low-income riders, the change creates a disparate impact or disproportionate burden.

- 3.3.3 **Fare decreases.** When considering a fare decrease, if the agency's analysis indicates the average percentage fare decrease experienced by non-minority or non-low-income riders is 20 percent or greater than the average percentage fare decrease experienced by minority or low-income riders, the change creates a disparate impact or disproportionate burden.
- 3.3.4 **Change in payment type or fare media.** When considering a change in payment type or fare media, if the agency's analysis indicates that the impact on minority or low-income riders is 20 percent or greater than the impact on non-minority or non-low-income riders, the change creates a disparate impact or disproportionate burden. To the extent a change to fare media has any impact on the cost to ride transit, the incremental costs associated with the change are considered as part of a fare increase or decrease analysis.
- 3.4 **Siting of maintenance facilities**
  - 3.4.1 The agency conducts an equity analysis to determine any disparate impact for maintenance facilities that require the acquisition of land.
  - 3.4.2 A maintenance facility location creates an adverse effect when both direct costs, such as residential and business displacements, and indirect costs, such as construction impacts and public health risks, are greater than the benefits to the surrounding community associated with the proposed facility location. The measurement of the costs and benefits of the facility location alternatives may include quantitative data and qualitative inputs from potentially impacted communities.
  - 3.4.3 A disparate impact occurs when the percentage of the minority population adversely affected by a maintenance facility location exceeds the percentage of the minority population of the Sound Transit district by at least five percent.
- 3.5 **Findings of disparate impact or disproportionate burden**
  - 3.5.1 If the agency's analyses find that a major service change or fare change results in a potential disparate impact or disproportionate burden or a maintenance facility location results in a disparate impact, then the agency must consider steps to avoid, reduce and/or mitigate the potential adverse effects and reanalyze the modified proposal to determine if potential effects were removed or lessened.
  - 3.5.2 The agency conducts public outreach regarding major service changes, fare changes and maintenance facility location selections, including the agency's steps to avoid, reduce and/or mitigate any adverse effects and the modified proposal to determine if potential effects were removed or lessened.
  - 3.5.3 If the equity analysis reveals a major service change or fare change creates a disparate impact or disproportionate burden or a facility location creates a disparate impact, the agency may only proceed if it has a substantial legitimate justification for implementing the proposal and the selected proposal is the least discriminatory under consideration.
- 4.0 **References**
  - 4.1 Resolution No. R2011-15 Inclusive Public Participation and Community Outreach (Title IV) Policy

ADOPTED by the Board of the Central Puget Sound Regional Transit Authority at a regular meeting thereof held on July 28, 2022:

  
\_\_\_\_\_  
Kent Keel  
Board Chair

Attest:

  
\_\_\_\_\_  
Kathryn Flores  
Board Administrator