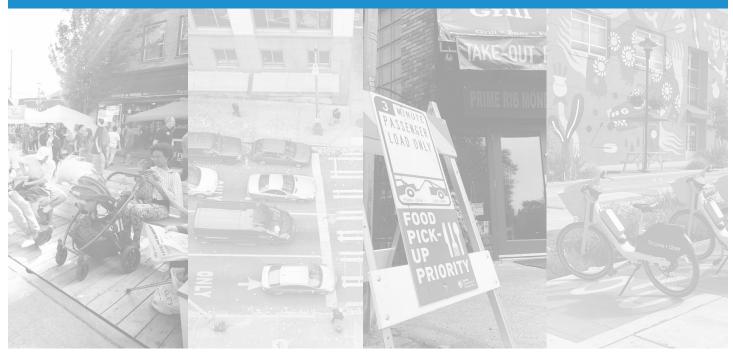


# **Transit Element**



Seattle Transportation Plan May 2024



## TABLE OF CONTENTS

Introduction
How Transit Advances the STP T-2
Relationship to STP Goals T-5
Delivering the Key Moves
Setting The Context
Opportunities, Emerging Trends and Challenges T-15
Community Engagement
Transit In Seattle
SDOT's Role in Advancing Transit
Transit Network
Programmatic Activities
Access to Transit T-54
Transportation Technology and Innovation T-57
Transit Asset Maintenance T-60
Defining Success
Measurable Outcomes
Relevant TEF Tactics T-66
Appendix A: Frequent Transit Network Update Methodology T-68
Appendix B: Transit Street Classification
Glossary

## LIST OF FIGURES

Figure 1: 2030 Projected Service Impacts and Needs with Climate Analysis Mode Shifts	T-18
Figure 2: Transit-Specific Comments Provided for Locations throughout the City	T-20
Figure 3: Frequent Transit Network Target Frequencies	T-26
Figure 4: Frequent Transit Network Targets	T-29
Figure 5: Transit Capital Investment Corridors	T-36
Figure 6: Center City Transit Capital Projects	T-39
Figure 7: Link Light Rail Expansions and Planned RapidRide Corridors	T-43
Figure 8: Potential Link Light Rail and Sounder Commuter Rail Expansion Opportunities	T-44
Figure 9: Key Features and Functions of Seattle Community and Mobility Hubs	T-45
Figure 10: Community and Mobility Hubs Under Study and Future Study Priority	T-47
Figure 11: Transit Spot Improvement Process Flowchart	T-49
Figure 12: Proposed Transit Street Classification Process	T-72
Figure 13: Transit Classification Map	T-73

## LIST OF TABLES

Table 1: Transit Element: Delivering the Key Moves	T-7
Table 2: Priority Transit Corridor Classifications	T-34
Table 3: Potential Light Rail Expansion Opportunities	T-41
Table 4: Sounder Infill Station Opportunities	T-42
Table 5: Seattle Community and Mobility Hub Types	T-46
Table 6: Innovative Transit Streets	T-52
Table 7: Transit Performance Measures	T-64
Table 8: Transit Street Classification Categories by Bus Volume	T-70

[This page intentionally left blank]

## INTRODUCTION

Seattle's bright future is inextricably tied to the quality of the transit system. By 2050, Seattle is expected to be a city of nearly 1 million people, and the city has set an ambitious goal of more than doubling transit ridership from 2019 levels by 2030. To achieve our shared transportation vision and transit goals, we'll need to be strategic about how we move the growing number of people who live, work, play, and deliver goods on city streets—both locally and regionally.

Prioritizing transit investments is critical to reducing congestion and pollution, connecting people to opportunities, and providing affordable transportation options. Transit investments complement state and regional efforts to encourage denser housing options adjacent to transit centers and connect sustainable mobility options, like walking, biking, and other shared mobility options. Transit also makes it possible for people to access jobs and daily needs close to where they live and can foster livability and social cohesion through shared spaces where people connect and gather.

In collaboration with our transit agency partners, Seattle has helped to lead the nation in transit capital, service investments, and ridership growth by funding frequent and reliable service, building transit corridors, expanding bus, streetcar, and light rail options, coordinating schedules and operations, and supporting riders with real-time information, enhanced payment platforms, and reduced-fare programs. Over the next 20 years, transit—buses, streetcar, monorail, commuter and light rail, ferries, water taxis, paratransit, vanpool, on-demand shuttles and rideshare services—will sustain and grow Seattle's vitality by moving people where they need to go. As SDOT plans for the future of the transportation system, transit will be one of the best tools for advancing equity, mobility & economic vitality, and sustainability.



Union Station in the International District

### HOW TRANSIT ADVANCES THE STP

The Transit Element provides a framework for continued improvement to Seattle's transit system. The STP and Transit Element build on and supersede the 2016 Transit Master Plan (TMP). The Seattle Department of Transportation's (SDOT's) role in transit delivery includes investing tens of millions of dollars annually in additional bus service through the Seattle Transit Measure (STM), building capital projects to make transit faster and more reliable, owning a streetcar system, supporting Seattle Center Monorail, improving transit access, and representing Seattle on regional transit boards and committees.

To support a high-quality network, we partner with multiple agencies, including King County Metro (Metro), Sound Transit (ST), the Washington State Department of Transportation (WSDOT) and Community Transit (CT) to establish priorities that guide future transit investments. The Transit Element articulates SDOT's priorities and considers how to leverage significant regional and local investment in ST's Link light rail system. This element includes updates to the Frequent Transit Network (FTN), originally defined by the 2016 TMP as a framework for equitable investment based on an aspirational network of frequent, reliable transit services designed to meet daily travel needs.

The transit element also introduces a series of new community and mobility hubs, enabling travelers to access a range of other mobility options, public spaces, and community amenities. Alongside equity and accessibility, the Transit Element also focuses on continual improvement to passengers' physical and digital experience, including the ways passengers use smart phones and computers to access information, plan trips, and pay fares.

#### Supporting Growth and Economic Vitality

As Seattle continues to grow, our transportation system must evolve in tandem with our changing landscape. Our comprehensive plan, One Seattle, guides how and where growth will occur to accommodate the growing number of people who live, work and travel here. No matter where people live or work, providing safe and equitable transportation will always be critical to connect people and goods where they need to go. To achieve our shared goals as One Seattle, we must strategically plan for a range of appropriate travel options and supportive infrastructure that fits the needs of our unique and varied communities— whether a dense downtown grid, a quiet residential neighborhood, or a bustling manufacturing and industrial center.

In denser neighborhoods and commercial centers, development typically occurs close together. Combined with safe and supportive transportation infrastructure, density can make it easier for people to walk, bike and use transit because they don't have to travel as far. People have more access in these places, enabling them to live car free if they choose to or can't afford it. In places where development is more spread out, people might still walk or bike for shorter trips or to connect to transit services, but it is often harder due to longer distances between places.

While some people choose to live or work in places that are more spread out, others do so because they have no choice and driving is their only viable option. For instance, people who live outside of Seattle because housing is more affordable, or people who transport freight or cargo for a living may not have options for how they travel other than driving a vehicle.

Our transportation system can support anticipated growth in different places while continuing to advance our goals by making other travel options more viable and available in appropriate street contexts. For example, on-demand rideshare services could provide more convenient shared trips, or freight-and-bus only lanes may support reliable travel times for transit riders. Each functional element of the STP plays a role in supporting Seattle's growth and economic vitality.

Our integrated approach to planning the transit network alongside lead transit agencies and partners will play a pivotal role in supporting future growth in our region and achieving the goals of the STP and One Seattle comprehensive plan by:

- Busses, trains and other forms of transit carry more people than vehicles, offering a highly efficient travel option that takes up less street space. Transit is and will continue to be key to reducing vehicle miles travelled (VMT) and associated emissions per passenger-mile, especially when replacing single occupancy vehicle trips.
- Optimizing transit systems and encouraging shared mobility can reduce the number of vehicles on the road and improve traffic flow and travel times, particularly as travel demand grows alongside jobs and population.
- Expanded access to public transportation can improve physical and mental health and health equity by increasing access to medical care, healthy food, vital services, employment, and social connections.<sup>1</sup>
- High quality public transportation (convenient, comfortable, fast rail and bus transport) and transit oriented development (walkable, mixed-use communities located around transit stations) tend to affect travel activity in ways that provide large health benefits, including reduced traffic crashes and pollution emissions, increased physical fitness, improved mental health, improved basic access to medical care and healthy food and increased affordability, which reduces financial stress to lower-income households.<sup>2</sup>
  - Traffic casualty rates tend to decline as public transit travel increases in an area.
  - Most public transportation passengers achieve the CDC recommended amount of exercise from walking to and from transit stations and stops.
  - People who cannot afford a car often rely on public transportation to access medical services and obtain healthy, affordable food.

<sup>&</sup>lt;sup>1</sup> Public Transportation In The US: A Driver Of Health And Equity | Health Affairs

<sup>&</sup>lt;sup>2</sup> APTA\_Health\_Benefits\_Litman.pdf

#### Economic Benefits of Transit

The STP supports economic vitality in a range of ways and each functional Element plays a role. Decades of research show that transit positively impacts the economic health of our region through a broad range of pathways. Investments in public transit infrastructure create jobs, boost local economies, and stimulate economic growth. Additionally, by reducing dependence on fossil fuels, sustainable transportation reduces fuel costs for individuals and businesses, freeing up financial resources for other purposes.

- Public transit improvements can improve health outcomes and reduce healthcare costs.
  - Among physically able adults, average annual medical expenditures are 32% lower for those who achieve physical activity targets (\$1,019 per year) than for those who are sedentary (\$1,349 per year).<sup>3</sup>
- As a highly space efficient travel option, transit benefits traffic flows and travel times for other travelers, including the mobility of freight, goods and services, as well as people accessing jobs and other opportunities that support our economy.
- Affordable and reliable transportation alternatives, particularly for vulnerable communities and individuals who do not own private vehicles. This helps promote social equity by ensuring everyone has access to essential services, education, employment, and recreational opportunities.
- Businesses gain access to larger labor markets with more diverse skills, enabled by larger public transit service areas and reduced traffic congestion. In a very dense urban area when highways are highly congested, residents can live in a wide variety of locations throughout the region and access well-paid jobs.<sup>4</sup>
- When people ride transit, their travel costs may be lowered, and funds could be freed for housing, entertainment and other living expenses.
- Investment in transit attracts more employers to the region. Companies that are looking to locate in world-class regions are increasingly seeking places with robust transit systems. Public transit is seen as a necessary urban amenity for places to compete for workers, conventions and other economic activities.<sup>5</sup>

<sup>&</sup>lt;sup>3</sup> APTA\_Health\_Benefits\_Litman.pdf

<sup>&</sup>lt;sup>4</sup> Transit has a net economic benefit (metroplanning.org)

<sup>&</sup>lt;sup>5</sup> Caseforbusiness.pdf (apta.com)

### RELATIONSHIP TO STP GOALS

Transit plays an important role in meeting the Seattle Transportation Plan's goals for safety, equity, sustainability, mobility & economic vitality, livability, and maintenance & modernization.



**Prioritize safety for travelers in Seattle with no serious injury or fatal crashes.** Transit is among the safest forms of travel. Implementing transit corridor improvements and community and mobility hubs can help provide safe, inviting public spaces where people access transit and while on board to support existing riders and increase transit ridership.



**Co-create with community and implement restorative practices to address transportation-related inequities.** Affordable transit options enable people to live carfree, without costs to own, operate, and maintain a personal vehicle. Building out the transit network will provide high-quality, all-day travel options that increase access to jobs and opportunities, reduce barriers to using transit and make transit dignified and desirable for all. Transit also provides mobility and independence for those who don't drive, whether by choice or necessity.



**Respond to climate change through innovation and a lens of climate justice.** Transit encourages more trips using shared modes, like buses or light rail. It's one of the lowest emission travel modes since it carries so many people on one vehicle, and many routes including trolleybus and Link light rail are already carbon-free. Transit supports denser, more sustainable development and reduces driving trips—our greatest source of GHG emissions, air and water pollution.

Provide reliable and affordable travel options that help people and goods get where they need to go. Transit connects people to community destinations and creates access to opportunities, whether it be jobs and education, nature, recreational, or cultural gatherings. Transit has a unique ability to move many people using less street space when compared to other travel options. Providing a high frequency and reliable transit network is key to unlocking greater efficiency with limited right-of-way and reducing traffic congestion.



**MOBILITY &** 

**ECONOMIC VITALITY** 

LIVABILITY

**Reimagine city streets as inviting places to linger and play.** Transit contributes to economic and neighborhood vitality by reducing household transportation costs and encouraging local spending. Creating great streets and public spaces around transit improves experiences of transit riders as well as nearby residents. Transit also supports shared spaces and interactions, helping instill a sense of community and social cohesion.



**Improve city transportation infrastructure and ready it for the future.** Planning and budgeting for long-term maintenance of transit assets such as shelters, and wayfinding will ensure the system remains functional and attractive. Building partnerships and establishing clear agreements with partner transit agencies will ensure transit assets are well maintained.

## DELIVERING THE KEY MOVES

Part I, Chapter 3 of the Seattle Transportation Plan (STP) includes a collection of key moves, or strategies that describe the priority actions we've identified as critical to achieve our STP goals:

- Safety (S)
- Equity (TJ)
- Sustainability (CA)
- Mobility & Economic Vitality (PG)
- Livability (PP)
- Maintenance & Modernization (MM)

Each of the functional elements serve a distinct and important role in making our key moves happen. This section highlights the most relevant key move actions for this element.

**Table 1** is intended to illustrate which of the key moves the **Transit Element** will help us to accomplish.

- Element actions with a reference, such as "Supports Key Move TJ1," link directly back to the corresponding Part I Key Move that it supports. See Chapter 3.
- Element actions with a reference, such as "Supports TEF 32.1," link directly back to the corresponding Transportation Equity Framework (TEF) tactic(s) the action advances. A comprehensive list of supported TEF tactics is included at the end of each element.

Several actions are repeated across all STP functional elements because they are important commitments that should be present in all of our work. For example, all elements include:

Incorporate Vision Zero and Safe System approaches into every project and program, including proactive safety improvements for citywide implementation. (Supports Safety Key Move S2a)

Feature community voices in planning documents. (Supports Equity Key Move TJ1b)

Part I, Chapter 4 Implementation Strategy of the STP provides additional information on how we'll deliver our shared vision, goals, and key moves.

			STP Goals Supported					
	nsit Element: vering the Key Moves	Safety	Equity	Sustainability	Mobility & Economic Vitality	Livability	Maintenance & Modernization	
	Y KEY MOVES							
	centrate safety investments where fatal and serious injury collisions occur							
	t or are at a higher risk of occurring (S2)							
Т1	Incorporate Vision Zero and Safe System approaches into every project and program, including proactive safety improvements for citywide implementation. (Supports Key Move S2a)	⊘		<	<b>⊘</b>	<b>⊘</b>		
Т2	Accelerate implementation of research-backed improvements that are proven to make streets safer for everyone, including but not limited to leading pedestrian intervals (LPIs) at signals, arterial traffic calming, and road diets. (Supports Key Move S2c)	<b>⊘</b>					⊘	
Т3	Make people walking, biking, and rolling more visible by improving sight lines at intersections through treatments such as curb bulbs, intersection daylighting, and refuge islands, with a focus on High Injury Corridors. (Supports Key Move S2d)	<b>S</b>						
Mak	e all journeys safer from departure to destination, especially for people							
	eling outside the protection of a vehicle (S3)							
T4	Harness funding and opportunities when private development occurs to build planned new transit network facilities and prioritize mobility for people walking, biking, and rolling when construction occurs. (Supports Key Move S3b)	<b>⊘</b>	<b>&gt;</b>	<b>⊘</b>	<b>&gt;</b>		<b>⊘</b>	
T5	Upgrade existing facilities for people walking, bicycling, and rolling to be safer and accessible for people of all ages and abilities. (Supports Key Move S3c and TEF 7.1)	<b>~</b>		<b>⊘</b>	<b>~</b>			
T6	Enhance both real and perceived safety for riders at transit stops and station areas through investments in design features such as lighting and shelters, as well as frequent and reliable services that limit late-night wait times. Advocate for programs that support physical, mental, and emotional safety of transit riders. (Supports Key Move S3e)	⊘				<b>&gt;</b>		
Т7	Support programmatic activities and partnerships to reduce the size and weight of vehicles used for personal trips, transit, and urban goods movement. Heavier vehicles are a key factor in pedestrian fatalities. (Supports Key Move S3f)	<b>~</b>		<b>⊘</b>	<b>S</b>			
	ide safer routes to schools, parks, transit, community gathering spaces, and							
otne	r common destinations (S4)							
Т8	Construct the networks for walking, biking, transit, People Streets and Public Spaces as outlined in this plan. (Supports Key Move S4a)						<b>⊘</b>	
т9	Make investments near light rail stations and busy transit stops that make it safer to walk and bike to transit. (Supports Key Move S4b)				<b>S</b>			
T10	Develop station access plans for future light rail stations and enhance the experience and quality of existing facilities that connect people walking, bicycling, and rolling along and across major transit corridors. (Supports Key Move S4c and TEF 40.2)	0	<b>&gt;</b>	<b>⊘</b>	<b>⊘</b>			
EQUIT	Y KEY MOVES							

			STP Goals Supported							
	nsit Element: vering the Key Moves	Safety	Equity	Sustainability	Mobility & Economic Vitality	Livability	Maintenance & Modernization			
Cent	ter the voices of communities of color and underrepresented groups in						1			
plan	ning and decision-making processes (TJ1) Implement the Transportation Equity Framework (TEF) to grow transparency,									
T11	accountability, and shared power when making transportation decisions with community members. (Supports Key Move TJ1a)		<b></b>							
T12	Feature community voices in planning documents. (Supports Key Move TJ1b)									
T13	Continue to build and maintain relationships with vulnerable communities and underrepresented groups. (Supports Key Move TJ1c and TEF 29.1, 41.6)									
T14	Meet early and often to provide opportunities to influence projects during the initial phases of the development process. (Supports Key Move TJ1d and TEF 3.4)									
T15	Normalize the practice of making decisions about policies and right-of-way (ROW) allocations with input from vulnerable communities. (Supports Key Move TJ1f and TEF 19.1, 25.4)									
T16	Support the transportation-related needs of local businesses owned by vulnerable communities and their commuting employees. Provide accessible and culturally relevant information about SDOT services. (Supports Key Move TJ1h and TEF 17.1, 21.2, 16.1)		<		<b>&gt;</b>					
T17	Compensate community partners for their valuable work to connect and communicate with their networks and uplift community-driven initiatives. (Supports Key Move TJ1i and TEF 1.1, 13.4, 31.4, 37.1)		<b>⊘</b>							
T18	Include representation of our region's Coast Salish art, language, and culture in the Seattle transportation system. Support efforts to consult with federally recognized tribes to standardize policies for project and artist selection and a process to solicit feedback from the greater Native community. (Supports Key Move TJ1j)		⊘		<b>&gt;</b>		⊘			
	ress inequities in the transportation system by prioritizing investments for acted communities (TJ2)									
т19	Prioritize transportation investments that benefit people and local businesses who currently and historically experience high transportation burdens and those at high risk of displacement. (Supports Key Move TJ2a)		<b>⊘</b>				⊘			
T20	Support safe, reliable access to and through employment centers and MICs for BIPOC, low-income and displaced workers, such as increased or late-night transit services or well-lit overnight parking for truck drivers. (Supports Key Move TJ2b)	<b>&gt;</b>	<b>&gt;</b>		<b>&gt;</b>					
T21	Collaborate with municipal, county, regional, and state transportation partners to consider the transportation needs of people displaced from Seattle. (Supports Key Move TJ2c)									
T22	Engage regularly with local businesses owned by our vulnerable communities to hear their concerns around transportation project impacts and displacement, and co-create transportation, public space, and permitting solutions. (Supports Key Move TJ2d and TEF 14.3,15.2)		<b>&gt;</b>		<b>&gt;</b>	0				
T23	Develop policies to prevent and mitigate transportation projects, both past and present, from contributing to future displacement. (Supports Key Move TJ2g)		<b>⊘</b>							

		STP Goals Supported						
-	nsit Element:	Safety	Equity	Sustainability	Mobility & Economic Vitality	Livability	Maintenance & Modernization	
Dell	vering the Key Moves	Sa	ы	SL	Σü	Ċ	ΣΣ	
T24	Implement improvements to make traveling in Seattle more accessible for everyone, such as curb ramps, accessible pedestrian signals, accessible parking, and accessible transit stops. (Supports Key Move TJ2h)							
T25	Conduct and implement racial equity assessments at the program level. (Supports Key Move TJ2j)							
Rem	nove cost as a barrier so everyone can take the trips they need to make (TJ3)							
T26	Construct the walking, biking, and transit networks outlined in this plan. Expanding access to these affordable mobility options makes it easier to get around without the expense of automobiles. These networks provide 24/7 access, benefitting people who need to travel outside the hours of 8 AM to 5 PM, especially those who are low-income people of color, and those who rely heavily on public transportation. (Supports Key Move TJ3a)	•	•	<b></b>	<b>S</b>	<b>S</b>	⊘	
Т27	When a capital project is underway in a community, incorporate supplemental programs to help community members transition to sustainable travel options like taking transit. For example, support communities with fare subsidies or free ORCA cards. (Supports Key Move TJ3b)		<b>⊘</b>	<b>~</b>				
T28	Enhance programs that provide free or reduced travel fares and fees for low-income households. (Supports Key Move TJ3c and TEF 32.1, 46.2)							
	port shifts toward non-punitive transportation enforcement approaches that							
redu	ce harm and enhance public safety on city streets (TJ4)							
Т29	Prioritize street designs and infrastructure changes to create self-enforcing streets and curb regulations that encourage safe behaviors and reduce the need for enforcement. (Supports Key Move TJ4a)	<b>&gt;</b>						
Т30	Continue to explore automated safety cameras on bus-only lanes to improve transit speed and reliability. (Supports Key Move TJ4f)						Ø	
Т31	Improve enforcement of existing regulations that support reliable mobility and safety, including those that keep bike lanes and pedestrian zones clear, deter improper use of transit-only lanes, and discourage speeding, especially in school zones. (Supports Key Move TJ4g)	<b>S</b>						
SUST/	AINABILITY KEY MOVES							
	rove neighborhood air quality and health outcomes by promoting clean,							
sust	ainable travel options (CA1)							
Т32	Expand beyond employer-based travel demand management programs to include residential and neighborhood-based strategies that encourage non-driving travel choices for all trips. (Supports Key Move CA1a)				<b>⊘</b>			
Т33	Develop and expand programs that incentivize sustainable alternatives to driving for large events, and as a primary congestion mitigation tool during major construction projects. (Supports Key Move CA1c)							
Т34	Support increased transit service through co-investments with transit agency partners so the transit network takes people where they want to go. (Supports Key Move CA1d)			<b>~</b>				
T35	Encourage transit-oriented development through alignment of land use policies with other City departments. (Supports Key Move CA1e)							
Т36	Operate the transportation system—signals, markings, signage, and right-of-way allocation—to encourage sustainable travel choices (walking, biking, taking transit, and for moving goods). (Supports Key Move CA1g)	<b>&gt;</b>	<b>&gt;</b>	<b>⊘</b>	<b>⊘</b>			

		STP Goals Supported					
Γ				Sustainability	Mobility & Economic Vitality	ity	Maintenance &
	nsit Element:	Safety	Equity	stair	oholi	Livability	ainte
	vering the Key Moves	Sat	Eq	Su	Σü	Liv	ŝ
	en city streets with landscaping and street trees to better handle changing						
clim	ate (CA2)						
Т37	Encourage the maintenance and installation of green infrastructure—such as street trees, rain gardens, landscaping, natural drainage systems, bioswales, and pervious materials— as transit improvements occur in the right-of-way. (Supports Key Move CA2a and TEF 56.4)			<b>&gt;</b>			
Supi	port the transition from fossil fuel to electric vehicles for personal,						
	mercial, and delivery trips (CA4)						
Т38	Work with City departments to support the transition to electric vehicles (EVs) for all segments of transportation through equitable incentives, grant opportunities, partnerships, and pilot programming. (Supports Key Move CA4a and TEF 36.2)		0	<b>⊘</b>			
Т39	Support city and transit agency partners as they pursue zero-emissions fleets, including through infrastructure that supports existing trolleybus, streetcar, and light rail fleet, and other vehicles, collaborative planning and streamlined permitting processes. (Supports Key Move CA4d)			<b>⊘</b>			
Adva	ance mobility management strategies to encourage walking, biking, and						
	sit trips (CA5)						
T40	Explore equitable demand management tools that could influence travel choices and create revenues to invest in sustainable transportation options, freight movement, and innovation. (Supports Key Move CA5c)			<b>&gt;</b>			•
МОВІ	LITY & ECONOMIC VITALITY KEY MOVES						
	te seamless travel connections (PG1)						
T41	Prioritize efficient and sustainable movement of people within limited street space and reallocate street and curb space to maximize comfort, convenience, and directness for walking, biking, rolling, and transit. (Supports Key Move PG1a and TEF 19.6, TEF 43.4)		⊘	<b>⊘</b>	<b>~</b>	<b>⊘</b>	
T42	Improve the experience of making travel connections, especially between transit and travel options such as personal and shared bikes and scooters used for first- and last- mile trips. (Supports Key Move PG1b and TEF 35.2, 45.3)				<b>S</b>		
T43	Improve east-west mobility between neighborhoods and destinations, especially as additional north-south oriented light rail service begins, and existing bus services are redeployed. (Supports Key Move PG1c)			<b>⊘</b>	<b></b>		
T44	Coordinate with regional transit partners to simplify trip planning, booking, and mobility payment options across public and private mobility services. (Supports Key Move PG1d)				<b>⊘</b>		
T45	Provide equitable transportation access through direct subsidies and tailored mobility services for disadvantaged populations, including people with mobility impairment or low income. (Supports TEF 32.1 and 32.3). (Supports Key Move PG1e)				<b>~</b>		
T46	Expand the pedestrian wayfinding program, including at transit stations and stops, in collaboration with community and regional partners. (Supports Key Move PG1f and TEF 48.1)				<b></b>	<b>⊘</b>	
T47	Work with transit agencies and private partners so that real-time data can help travelers make informed decisions. (Supports Key Move PG1g)						~

			STP (	Goals	Suppo	orted	
	nsit Element: vering the Key Moves	Safety	Equity	Sustainability	Mobility & Economic Vitality	Livability	Maintenance & Modernization
T48	Partner with King County Metro to deliver SDOT's Frequent Transit Network target levels of bus service and service area coverage. (Supports Key Move PG3a)				<b></b>		•
T49	Leverage planned light rail investments to serve more people traveling by transit through system expansions, redeployment of existing bus services to connect passengers to light rail, and expansion of bus services to new areas and markets to serve more riders, including those in underserved areas and travelers who would benefit from more east-west transit connections. (Supports Key Move PG3b)		•	<b></b>	•		
T50	Partner with Sound Transit to support delivery of future Link light rail expansions and improvements to Sounder commuter rail, including improved service frequency, construction of infill stations, and station access improvements. (Supports Key Move PG3c)		<b>S</b>		<b>S</b>		
T51	Create a continuous streetcar connection by linking the First Hill and South Lake Union streetcar lines through Downtown. (Supports Key Move PG3d)				<b>⊘</b>	Ø	
T52	Aggressively prioritize transit capital investments to create a connected, reliable network of transit priority lanes with service that operates 24/7, making connections to Link light rail and other regional services. (Supports Key Move PG3e)		<b>S</b>	<b>⊘</b>	<b>S</b>		0
T53	Apply a Transit Performance Policy to improve transit travel time and reliability through expanded use of transit lanes, queue jumps, transit signal priority, and other treatments to make transit a competitive travel choice for most trips. (Supports Key Move PG3f)				<b>~</b>		<b>&gt;</b>
T54	Improve transit access to underserved neighborhoods and populations through expansion of existing transit services, programs that reduce transit fares, and new private sector partnerships, such as the Metro Flex service, to provide first- and last-mile services. (Supports Key Move PG3g and TEF 35.1)		⊘		<b>~</b>		
T55	Enhance existing and create new Community and Mobility Hubs, with connections to transit services and related travel options. (Supports Key Move PG3h)	<b>S</b>	<b>⊘</b>	<b>⊘</b>	<b>S</b>	0	<b>S</b>
T56	Prioritize low-carbon travel options through seamless, direct walking and rolling connections to Community and Mobility Hubs. (Supports Key Move PG3i)	<b>S</b>		<b>~</b>	<b>~</b>	<b>~</b>	
T57	Enhance transit stops and the experience of waiting at them in all types of weather and times of day through stop improvements implemented by transit partners and leveraged via private development. (Supports Key Move PG3j)	<	<b>⊘</b>		<b>~</b>	<b>⊘</b>	
Supp	port access to jobs, freight movement, and growth in deliveries (PG4)						
T58	Implement dedicated freight lanes and freight-and-bus lanes, pending successful results of a pilot project. (Supports Key Move PG4c)				<b>⊘</b>		
T59	Expand efforts to work with employers and property managers to provide sustainable transportation options, education, and incentives to promote sustainable travel options for shift workers, non-peak hour commuters, small business employees, and workers in MICs. (Supports Key Move PG4I)		<b>⊘</b>	<b>⊘</b>	<b>S</b>	0	
Man	age curb space to reflect city goals and priorities (PG5)						
Т60	Recognize that the curb supports all essential functions of the right-of-way (mobility, access for people, access for commerce, activation, greening, and storage) and						

		STP Goals Supported						
_	ransit Element: elivering the Key Moves develop decision frameworks to prioritize these functions based on local area and		Equity	Sustainability	Mobility & Economic Vitality	Livability	Maintenance & Modernization	
T61	system needs. (Supports Key Move PG5a) Develop strategies and new tools to accommodate more types of curb uses, including transit layover space, employer shuttle service, and other curb uses that support low-emission travel options. (Supports Key Move PG5c)				<b>~</b>		<b>~</b>	
LIVAB	ILITY KEY MOVES							
	<b>bocate street space to prioritize people, creating enjoyable places that also</b> <b>tate goods delivery and mobility (PP1)</b> Update Seattle's Right-of-Way Improvements Manual ( <i>Streets Illustrated</i> ) to implement actions and strategies outlined in this Plan.							
-	(Supports Key Move PP1d)							
Crea	te welcoming community and mobility hubs (PP2)							
T63	Work with partners to create a vibrant and welcoming public realm at community and mobility hubs to support community-oriented programming, such as markets, vending, performances, and recurring events. (Supports Key Move PP2a)					<b>⊘</b>		
T64	Improve walkability at every community and mobility hub by providing pedestrian infrastructure such as human-scale lighting, wayfinding, seating, and landscaping. (Supports Key Move PP2b)	<b>S</b>			<b></b>	<b>S</b>		
T65	Provide a safe and comfortable experience moving in and around community and mobility hubs, including better crossings and intersections, slower speeds and right-sized travel lanes, decluttered sidewalks, universal access, and more. (Supports Key Move PP2c)				<b></b>	<b>S</b>		
T66	Work to incorporate age-friendly public spaces at community and mobility hubs that work for older adults, children and their caregivers, including play-based learning activities that allow children to engage with the city and support their development. (Supports Key Move PP2d)		<b>&gt;</b>		<b>~</b>	<b>&gt;</b>	8	
т67	Partner with communities, Tribes, other agencies, and organizations to design, construct, activate, and maintain community and mobility hubs. (Supports Key Move PP2e)				<b>⊘</b>	0	<b>⊘</b>	
	TENANCE & MODERNIZATION KEY MOVES							
	ntain our streets, sidewalks, and bridges and incorporate planned safety and							
netw	vork improvements with maintenance work (MM1)							
Т68	Maintain our transportation infrastructure, including streets, sidewalks, and bridges serving the most users and on the high-injury network. (Supports Key Move MM1a)							
Т69	Strategically manage the life cycle of our transportation assets in accordance with our Transportation Asset Management Plan to achieve the best performance results for the preservation, improvement, and operation of infrastructure assets. (Supports Key Move MM1b)							
Т70	Reduce the maintenance backlog by being proactive, leveraging technology to monitor asset conditions, and using data and lifecycle analyses to help determine when it's time for upgrades. (Supports Key Move MM1c)							
T71	Conduct asset maintenance in accordance with the priority investment and emergency response route networks, especially when investment supports walking, biking, transit, and freight. (Supports Key Move MM1f)	<b>&gt;</b>			<b>~</b>		<b>&gt;</b>	
T72	Modernize city streets by incorporating planned safety and network improvements into maintenance and replacement activities to not only improve the condition of							

			STP Goals Supported						
	nsit Element: vering the Key Moves	Safety	Equity	Sustainability	Mobility & Economic Vitality	Livability	Maintenance & Modernization		
	transportation infrastructure and equipment, but also reduce dependence on driving, promote sustainable travel options, and support economic vitality. (Supports Key Move MM1g and TEF 19.3)	1		1					
Red	uce neighborhood disparities in the quality of streets, sidewalks, public								
spac	es, and bridges (MM2)								
Т73	Conduct a racial equity assessment of the maintenance needs of existing assets in neighborhoods that score high on the city's Race and Social Equity Index. (Supports Key Move MM2a and TEF 19.3)						⊘		
Т74	Equitably distribute resources for maintenance and improvements in neighborhoods that have been historically or are currently underserved. (Supports Key Move MM2b and TEF 19.4)						⊘		
Rea (MN	dy city streets for new travel options and emerging trends and technologies 13)								
T75	Collect, monitor, and use data to inform changes to the transportation system. (Supports Key Move MM3a)					Ø	$\bigcirc$		
Т76	Proactively work with public, private, and academic sector partners to collaboratively develop transit and mobility solutions for the future. (Supports Key Move MM3c)								



## SETTING THE CONTEXT

Seattle is a dynamic and ever-evolving city. We've seen dramatic changes in the types of travel options available for people to choose from, as well as when and where people want to travel. Additionally, there are increasing demands on the role streets play to support social, environmental, and economic health. We can't fully predict changing conditions (such as a global pandemic) that could disrupt the transportation system and all the functions it serves. As such, we will need to remain agile and able to continually adapt and respond to the evolving transportation needs of the city's residents, businesses, and visitors.

The STP provides a framework for how SDOT will navigate a changing transportation landscape over the next 20 years. This section describes the context we're operating in today, including significant opportunities, emerging trends, and challenges. It also includes a summary of major community engagement themes we heard that relate to transit. They were used to shape the actions we'll take to achieve our shared transportation vision. SDOT will continue to engage and co-create with community members as transportation system needs, preferences, and circumstances evolve in the years to come.

### OPPORTUNITIES, EMERGING TRENDS AND CHALLENGES

In 2019, Seattle was nationally recognized for its growing transit ridership, partnering with King County Metro (Metro) and Sound Transit (ST) as they built out the regional transit system, and achieving a 46% share of trips made by transit for workers commuting downtown. The 2019 Commute Trip Reduction (CTR) survey indicated only 26% of commute trips to the Center City were made by driving alone. Like many other cities, public transportation in Seattle faced unprecedented challenges in the early 2020s due to the COVID-19 pandemic. However, Seattle's transit system has proven resilient and essential despite lower numbers of downtown employees returning compared to peer cities. Our transit network remains an indispensable public service and continues to adapt, expand, and evolve as we invest in Seattle's future.

#### **Opportunities and Emerging Trends**

- Climate Action. The Mayor's Executive Order on Climate calls for an 82% reduction of transportation emissions by 2030 (from 2008 levels) and Net Zero emissions by 2050. Over 60% of Seattle's total emissions currently come from transportation, requiring significant mode shifts to reach this goal. Equitably designed pricing strategies, parking management, and expanded transportation demand management will also play a critical role in meeting our climate goals.
- Equitable Access to Travel Options Including New Shared Mobility. Public transportation plays a vital role in providing affordable travel options that can improve financial autonomy for low-income residents. To help reduce the cost burden of transportation, SDOT provides fare subsidy programs for Seattle's most under-resourced communities and partners with Metro on regional reduced fare programs, including those that impact SDOT-owned transit systems, such as the Seattle streetcar (TEF 34.1). As new mobility options grow, such as electric scooters, bikes, and other emerging mobility innovations, enabling access to these and other transit services for under- or un-banked people and those without a mobile data package or a smartphone is essential to providing equitable access to transit and increasing mobility. Equitable access also

means physical connections to transit stops and stations are safe and comfortable, including sidewalks and barrier-free paths.

- Link Light Rail expansion. ST's planned Link light rail extensions to Lynnwood, West Seattle, Ballard, Federal Way, and communities east of Lake Washington, along with the planned infill stations at NE 130<sup>th</sup> Street and Graham Street create the opportunity to grow the number of households within walking distance of high-capacity transit. Associated bus service restructures will provide opportunities to improve east-west connections and transit access from currently underserved areas. Together, these changes will increase regional mobility and decrease reliance on private vehicles.
- **RapidRide system expansion**. In partnership with Metro, several new RapidRide bus rapid transit (BRT) lines are under construction and in various stages of planning and design. RapidRide is effective at attracting more riders to existing bus corridors. and provides more frequent and reliable trips, upgraded stations and facilities, and intuitive, direct route design—reducing the need to plan exact trip departure ahead of time.
- Changing travel patterns and customer needs. As ridership has gradually rebounded from the pandemic, there are long-term changes in when and where ridership occurs throughout the city. Nearly half of all transit trips are now taken outside of morning and afternoon commute times on weekdays, up from 40% of rides pre-COVID. King County Metro bus routes that retained the highest ridership during the pandemic include those serving Southeast and Southwest Seattle. This trend demonstrates a need for more all-day frequency and late-night service connecting Urban Villages in addition to the downtown core to meet changing travel demand.
- **Transit electrification**. King County Metro is working to transition to a 100% zero-emissions fleet by 2035, a target that requires City partnership and significant infrastructure adaptation. This builds upon Metro's existing 70 miles of electric-powered trolleybus network on 15 routes, as well as electric Link light rail service. SDOT will partner with Metro on their evolving needs for vehicle charging, layover, and curbside uses so that the city's streets and curbs support Metro's zero emissions bus strategy.

#### Challenges

- **Ridership loss due to pandemic**. Metro bus service, ST Link light rail, and Seattle Streetcar experienced significant decreases during the pandemic because of shifted travel patterns, requiring new approaches and research to better align the transit network with changes in travel behaviors. Transit ridership continues to grow post-pandemic, but at a slower rate than before.
- Labor shortages and supply chain disruptions. Like transit agencies and many employers nationwide, King County Metro contends with ongoing labor shortages and supply chain disruptions during and after the pandemic. Supporting Metro's work to increase service is a critical challenge that will take resources and planning to resolve.
- Change in office work and impacts on Center City ridership and service. For a decade before the pandemic (2010-2020), there was unprecedented office growth in downtown Seattle, with transit mode shares almost doubling to nearly 50% during this period. The pandemic shifted this trend, making hybrid and remote work the new normal in many workplaces and industries. Seattle's

high rate of tech jobs made return to office trends slower than many national peers. The 2022 Commute Seattle survey on commuter behavior found work from home is the dominant "mode of travel" in 2022 making up 46% of all "trips." Transit use to work was down from 49% in 2019 to 22% in 2022.

- **Customer safety and security.** Transit customers, particularly in Center City neighborhoods, have expressed a perception of decreased safety in recent years. There are many factors contributing to this change in perception, and SDOT understands perceptions of safety directly impact how often riders choose to access transit.
- **Rising housing costs.** As housing costs continue to rise, many low-income residents are moving further outside the city in search of affordable housing. More affordable transportation options, especially transit, is a key strategy for SDOT to support citywide efforts to tackle our housing affordability crisis.
- **Rise in serious and fatal collisions on Seattle's streets.** Traffic fatalities have been on the rise since before the Pandemic, and Seattle's most vulnerable road users are most at risk. Transit can play a key role in making our streets safer as it is among the safest ways to travel. Shifting trips from personal vehicles to transit could reduce vehicle traffic, which could reduce serious and fatal collisions. Vision Zero and travel safety is a core SDOT value and service goal.

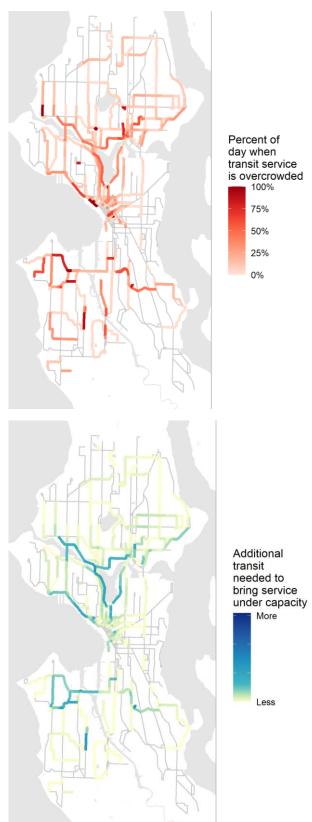
### **Transit's Role in** Addressing the Climate Emergency

Transportation accounts for over 60% of the city's GHG emissions. Seattle has a goal to reduce transportation emissions by 82% from 2008 levels by 2030 and to net zero by 2050. Impacts of climate events are known to fall disproportionately on BIPOC communities, immigrants, refugees, people with limited English language proficiency, people with disabilities, and low-income residents—this is coupled with worsened health effects due to disproportionate exposure to pollution from fossil-fuel powered cars and trucks.

The Office of the Mayor issued a December 2022 Executive Order to prioritize actions that reduce GHG emissions. Coordinated actions include a transition to electric vehicles, but also rely heavily on mode shift to sustainable modes of travel (e.g., transit, walking, and biking). The city's Climate Change Response Framework, an analysis of various transportation and land use strategies to mitigate climate change impacts, estimated that transit will need to make up one out of every four trips to meet the City's 2030 climate goals. Translated into daily passengers, this analysis indicates our transit systems will need to carry an additional 750,000 passengers per day by the year 2030, as compared to the 450,000 passengers riding transit daily in 2019.

The STP team analyzed the ability for the current (2021) system to handle this additional capacity. Maps in **Figure 1** show where additional transit capacity would be needed to hit those targets. This analysis is used to support capital and service investment needs presented in the STP transit element.

Figure 1: 2030 Projected Service Impacts and Needs with Climate Analysis Mode Shifts



## COMMUNITY ENGAGEMENT

Extensive public outreach and engagement occurred in the STP development process in three phases. We received almost 5,550 transit-specific comments through STP engagement, including through online surveys, the STP Engagement Hub, in-person meetings and events, a map-based comment portal, extensive work with community-based organizations (CBOs), and consultation with the Transportation Equity Workgroup (TEW). These comments were integral to the development of the Transit Element.

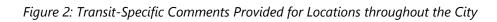
The STP engagement process collected approximately 2,000 location-specific public comments related to transit through online web maps (See Appendix B), including direct outreach to Black, Indigenous, and People of Color (BIPOC) communities, people with low incomes, immigrants, people with disabilities, and other populations who may not have easy access to government processes. In addition to being considered in the development of this Transit Element, these comments provide an ongoing resource for SDOT as we work in partnership with community to advance plan priorities.

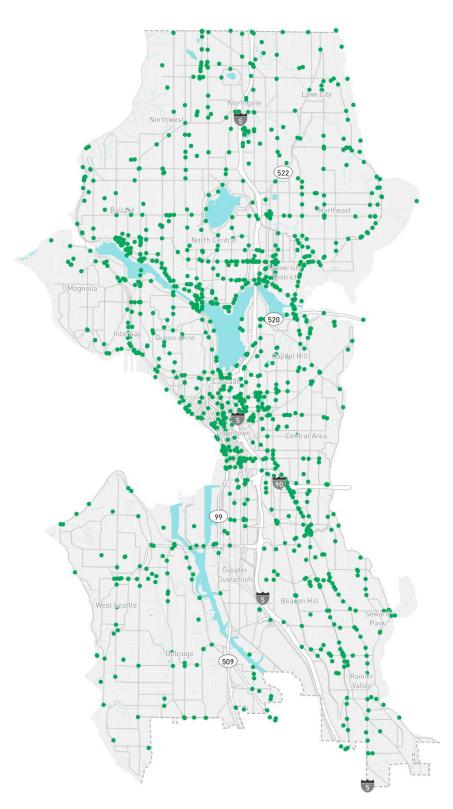
Key themes from community engagement include:

- Current transit is slow (trips take too long) and can be unreliable (long or unpredictable wait time).
- People want to see service levels (headways) restored to pre-pandemic levels or better.
- Improvements are needed to provide better access to transit, both to Link light rail and bus services throughout Seattle.
- Safety and personal security are significant and common concerns at transit hubs, stations, and bus stops.
- Transit doesn't work for all trips. Link light rail is being built primarily for people traveling north and south within Seattle, and for regional trips to other cities. There is a need to improve east-west transit services to connect neighborhoods as well as connect people to Link light rail.
- There is a desire to see more on-demand or shuttle type services for people living in or accessing low-density neighborhoods.
- Commenters support moving more people in less space to improve safety and climate outcomes, and they see high-quality transit as key to achieving these.

"More bus service late night; bus/transit service expanded for health care workers/hospitals; cameras on buses (if not there already)."

- Quote from Survey Respondent





Key themes from BIPOC community members include:

- Transit should be safe, as people experience safety concerns in station areas.
- The city and its transit agency partners should invest in transit where people rely on it—most typically in historically underserved communities, such as in Central Seattle, Southeast Seattle, Delridge, and far North Seattle
- Provide safe and equitable options; South Seattle residents expressed greater concern regarding safety at Link light rail stations and reduced access to park-and-ride options when compared to North Seattle.

#### **AMPLIFYING COMMUNITY VOICES**

Indigenous people (American Indians and Native Alaskans) referenced **transit** at a much higher percentage than citywide comments (21% compared to 7% citywide).

Community-based organizations' input on accessibility is heavily weighted toward transit. Key themes received through CBO-led engagement include:

- Free public transportation would serve everyone.
- Bus transfer windows aren't long enough for folks to run errands. People prefer paper transfers because bus drivers usually allow a four-hour transfer window for elderly people, while ORCA cards are set at a fixed amount to only allow two hours.
- Transit navigators who speak different languages are requested to help riders know what buses to take, when buses are coming, etc.
- Digitized boards with bus schedules at transit stops or at businesses near transit stops and stations are very helpful, and there is a strong interest for more of these.
- There are gaps in neighborhood services as well as a lack of access to the outskirts of Seattle. Not many buses go into neighborhoods or areas without a main street.
- Buses don't run late enough—it is sometimes hard for people who do not work jobs with regular hours to choose to take the bus.
- There's not a lot of bus access to the outskirts of Seattle.
- It can be easy traveling in the Center City, but difficult to get out, and bus times are often delayed.



## TRANSIT IN SEATTLE

Seattle has a wide variety of transit options, whether you're looking to travel on land or sea. While the City doesn't run the buses or light rail trains, we do work closely with other agencies to buy bus service, improve reliability, and make sure people can get where they need to go.

#### TRANSIT AGENCY PARTNER ACTIVITIES

King County Metro: RapidRide arterial bus rapid transit (BRT) project development and delivery; transit service planning within King County; station and stop improvements; transit operational improvements; access to transit improvements; Seattle Streetcar and Link light rail operations; trolleybus system planning and capital investments; development and implementation of Metro's long-range plan "Metro Connects"; coordination on discounted transit fares and subsidies; water taxi service between downtown and Vashon and West Seattle.

**Sound Transit**: Link light rail operations; Link light rail station area planning and project implementation; major capital project development, permitting, and construction management; Stride BRT program planning and construction; regional transit service planning; fare program development and management; coordination on regional fare structure, ORCA policy, and programs.

**WSDOT:** Regional freeway system operations and high-occupancy vehicle (HOV) network; planning of major transportation projects (SR-520 completion, I-5 major maintenance); planning and operations of state ferry network serving Seattle at Colman Dock and at Fauntleroy.





<u>King County Metro</u> <u>Sound Transit</u> <u>Community Transit</u> <u>Access Transportation</u> <u>Downtown Circulator</u>

<u>Seattle Streetcar</u> <u>Link Light Rail</u> <u>Sounder</u> <u>Seattle Center Monorail</u> <u>Amtrak</u>



the following section.

Washington State Ferries King County Water Taxi Kitsap Fast Ferries

In addition to the wide array of partnership activities, SDOT plays a direct role in managing providing, building, and supporting public transportation. These activities are detailed in

### SDOT'S ROLE IN ADVANCING TRANSIT

Capital Project Funding: We provide direct funding and seek grants for transit capital improvements ranging from City-led RapidRide projects to smaller spot improvement projects, such as bus lane markings, traffic signal upgrades, and improvements to bus stops.

Capital Project Development: We lead development, design, and construction for transit corridors and passenger amenity improvements projects to make trips faster and more reliable.

Funding and Planning Service: The Seattle Transit Measure (STM), a voter-approved measure funded through Q1 2027, generates roughly \$50 million annually, the majority of which funds transit service. STM also funds capital projects, transportation access programs, and other transit service delivery programs like Metro Flex. We work with Metro to plan service investments using the Frequent Transit Network (FTN) and equity policies as key guidance.

Improving Transit Access: We promote physical access to transit by prioritizing access to transit stops for people walking, biking, and rolling. The STM supports access to transit by providing ORCA transit passes to low-income groups, such as Seattle Housing Authority residents, low-income workers, and Seattle Promise Scholar students, as well as opportunities for youth, seniors, and people with disabilities to learn to ride transit. We also advocates for improved regional fare policies and increased access to reduced or no-fare programs.

Transit System Connectivity and Integration: We lead various planning efforts and aligns multimodal investments to support safe, equitable, and high-quality access to multimodal hubs, light rail stations, RapidRide stations, Streetcar, and local bus stops. We manage curb uses to support access to transit, particularly where access and mobility functions are in high demand.

Transit Reliability: We manage transitway agreements with Sound Transit for ownership and operation of Link light rail high-capacity transit (HCT) facilities within the City of Seattle, and plans, designs, and implements bus priority treatments.

Station Area Planning and Permitting: We works with the Office of Planning and Community Development (OPCD) and the Department of Construction and Inspections (SDCI) on access and land use planning, development review, and permitting for Link light rail station areas.

Traveler Experience in the Digital Realm: We work with partner agencies and the private sector to enhance access to transit, information, and intuitive forms of fare payment for all travelers.

Regional Transit Coordination: The Puget Sound region has one of the nation's most effective collaborations among transit agencies. SDOT partners with King County Metro, Sound Transit, and other neighboring agencies to track that regional investments benefit Seattleites, and that local investments align with regional travel needs.

Seattle Streetcar: We own, fund, and manage the South Lake Union streetcar, providing frequent service between Westlake Hub and South Lake Union, and the First Hill Streetcar, which connects neighborhoods of Capitol Hill, First Hill, the Chinatown/International District and Pioneer Square. SDOT contracts with King County Metro for operations.

### TRANSIT NETWORK

Frequent, reliable transit service is the foundation of a transportation system that empowers all travelers and makes Seattle a truly transit-friendly city. A robust transit network is essential if Seattle is to meet its climate goals and address transportation-related inequities. At its most fundamental level, a transit network is made up of transit infrastructure such as bus lanes, transit signals, and bus stops, often arranged in corridors.

The transit service that travels on this infrastructure can be described as a series of routes that connect different parts of a community for a number of hours per day at a certain frequency (the number of trips at a bus stop per hour). SDOT's vision for the service aspect of the transit network is followed by a vision for transit infrastructure in the sections below.

Public input and surveys consistently point to transit frequency as the most critical factor that influences ridership behavior. This fundamental concept directly informs SDOT's shared vision for a "Frequent Transit Network" (FTN), which builds from the 2016 Transit Master Plan (TMP) and establishes aspirational frequency targets for transit corridors throughout the city. A high-frequency transit network enables people to move through the city with confidence in a timely arrival—and without the need to consult a schedule—throughout the day and every single day of the week. Continual investment in improved transit frequency in Seattle is essential for many reasons:

- Post-pandemic transit is likely to remain less commuter-focused and oriented specifically to Downtown Seattle and must adapt to new travel behaviors and patterns.
- To support everyday trips by transit (not just commutes), people need reliable mobility at all times, such as early mornings, midday, evenings and at night all days of the week, not just at peak times on weekdays.
- Transit needs to accommodate work schedules of non-traditional and low-income workers including the times noted above.
- Transit should be attractive for all types of trips throughout the week, including education, shopping, and recreational trips, as well as cultural gatherings.
- An excellent transit network is necessary to accommodate the mode shift required to respond to the impacts of climate change in the next decade.
- Frequent transit reduces wait time, increases reliability, and values the time for existing and future riders.
- Frequent transit makes transfers more feasible and allows a network of routes to function as a system.

A connected network of frequent transit services is also critical to achieve STP climate goals, which require dramatic increases in transit ridership and VMT reduction to support broader efforts to reduce greenhouse gas (GHG) emissions from transportation.

High transit frequencies as part of a reliable, all-day service network can create a more equitable transportation system, making it possible for people of all ages, incomes, and abilities to get where they

want to go regardless of when or where they need to travel. The Transit Element presents a vision for frequent transit service in Seattle that goes beyond the original Frequent Transit Network (FTN) presented in the 2016 Transit Master Plan.

#### The Frequent Transit Network

This section provides an overview of the Frequent Transit Network and key changes made from the 2016 Transit Master Plan FTN. The updated FTN has two primary components: it establishes aspirational frequency targets alongside a transit corridor map illustrating how frequency targets are proposed to be distributed throughout the city. Transit corridors that are part of the updated FTN are classified into three categories:

**Frequent: Better than 10 minutes.** 6-minute to 10-minute service from 6 AM–7 PM, 10-minute to 15-minute service from 7PM to midnight, and 30-minute service from midnight to 6AM, every day. This category captures a vision that the best transit service is even more frequent than 10-minutes and that SDOT is willing to invest in certain Metro RapidRide lines and other very high frequency routes.

**Frequent 10 minutes.** 10-minute service from 6 AM–7 PM, 15-minute service from 7PM to midnight, and 30-minute to 60-minute service from midnight to 6AM, every day. This is a high frequency category for main transit corridors, including some RapidRide corridors.

**Frequent 15 minutes**. 15-minute service from 6 AM–9 PM, 30-minute service from 9PM to midnight, and service as needed between midnight and 6AM, every day.

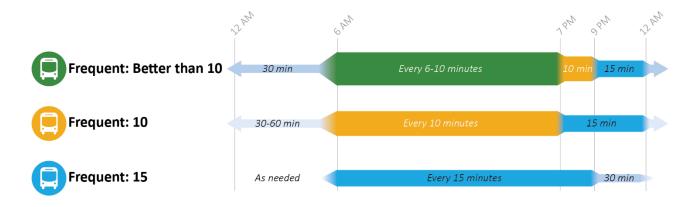


Figure 3: Frequent Transit Network Target Frequencies

The updated frequency targets presented in **Figure 3** include several significant changes from the FTN targets outlined in the 2016 TMP:

• Frequency targets are now the same on weekdays, Saturdays, and Sundays. This change reflects the fact that the weekday commute has less of an influence on travel patterns in the city, and that residents have travel needs throughout the week and for purposes beyond travel to and from work.

- A new evening travel period between 7 PM and 9 PM was added, calling for 15-minute minimum frequencies when many people are still moving throughout the city for a variety of trip purposes.
- Nighttime frequency targets, between midnight and 6AM, are higher. It is important that the transit network can support movement throughout the city 24/7.
- Service may be expected to ramp up to all-day levels as early as 5 AM to account for shift workers in service and medical fields arriving earlier than average workers—determined on a route-by-route basis depending on local demand and operational considerations.
- Future Link light rail frequencies are anticipated to be every 6 to 12 minutes throughout the day as the Link system builds out and more services are brought online. These frequencies are assumed to be included in targets for relevant corridors. Based on station locations and times of day, additional bus service may need to fill gaps along certain corridors to meet frequency targets, especially during Link's maintenance window when no services are able to be run between 1 and 5 AM.
- The updated FTN eliminates a "Local" service category, as it isn't frequent enough to be useful to Seattle riders for many of the reasons noted above. The city may still invest in local transit if a route serves an equity priority area or a key role in the larger network.



A Metro RapidRide bus

#### Updating and Measuring the Frequent Transit Network

The updated Frequent Transit Network (FTN) includes a network of transit corridors offering frequent, reliable service on designated corridors that connect urban villages, urban centers, and Link light rail stations throughout the day, every day. The FTN was developed using a data-driven approach to prioritize where SDOT should invest and advocate for improved transit frequency. Segments of the street network where Metro buses and Seattle Streetcars operate were assigned a Frequent Transit Network target based on various data inputs, including:

- Existing and future transit demand
- Future population and employment density
- Equity priority areas (areas with greater concentrations of BIPOC, low-income, foreign-born, disabled, or who have limited English proficiency)
- Access to link stations for regional connectivity
- Locations where a higher percentage of passengers pay with reduced fares

Higher intensity of service was warranted on portions of the network that scored higher for multiple factors. The FTN goal is to achieve target frequency along each network corridor identified. Since the FTN focuses on all-day service, seven days a week, many service deficiencies occur on weekends and during midday, compared to peak-period times when frequencies are highest. This highlights the need for investment in off-peak bus service to move closer to the aspirational vision of frequent all-day service, seven days a week.

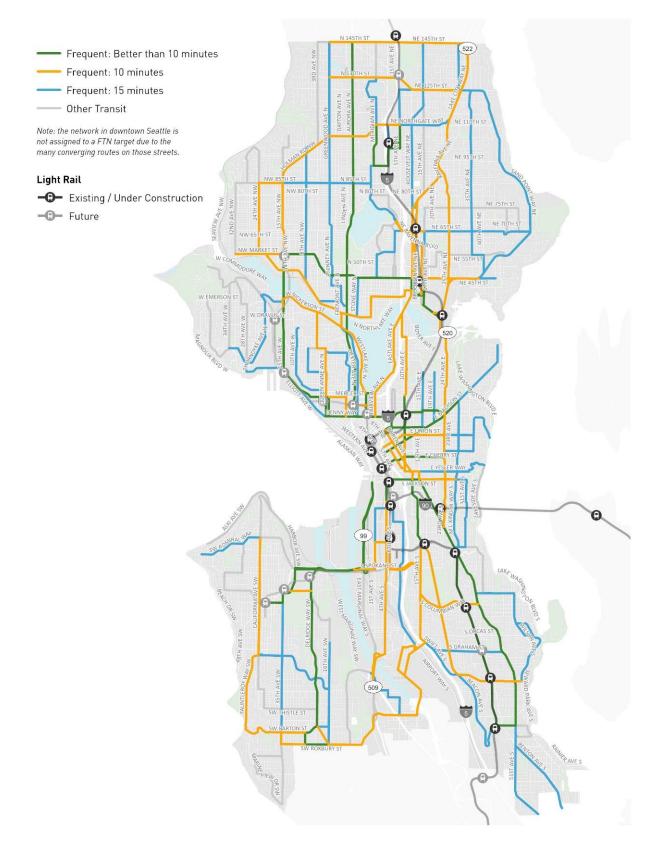
The FTN is supported by transit capital investments that protect these frequency service investments from traffic delay. Capital investments also align with pedestrian access, community and mobility hubs, and placemaking investments to elevate the overall travel experience. Additionally, they help protect investment in additional transit services by enabling transit to be more efficient, requiring fewer vehicles to meet target frequency goals. Continued expansion of ST Link light rail will continue to change how people travel via transit. Investing in east-west corridors that connect to generally north-south oriented Link light rail service is a focus of the STP, as is investment in high-frequency midday, evening, and weekend service.

The three categories defined in **Figure 3** above are used to illustrate the updated Frequent Transit Network (FTN) in **Figure 4** below.

Portions of the network are not part of the FTN but are shown as "Other Transit." The transit network in downtown Seattle is not assigned an FTN target because of the many converging routes on those streets. SDOT may update this vision over time as necessary. To realize the vision of the updated FTN, SDOT will measure progress towards the corridor-based frequency targets depicted in **Figure 4**.

Frequency targets will also be assigned to individual bus routes based on the FTN frequency targets to identify service gaps, per the investment methodology described in the Seattle Transit Measure (STM) (See Appendix A).

#### Figure 4: Frequent Transit Network Targets



The FTN map includes anticipated transportation and land use changes through 2031. Transit changes planned for implementation after 2031 will be incorporated into the FTN as part of future updates. Transit changes included within the FTN Map are grouped and bulleted below.

Lynnwood Link Light Rail Expansion

- Line 1 extension north to Lynnwood
- Bus restructures in North Seattle
- New service to the 130th St Station

#### Other Link Light Rail Expansion

- Judkins Park Station and surrounding bus service restructures
- S Graham St light rail infill station and surrounding bus service restructures
- Other bus routes that currently serve areas of Seattle that are restructured to new light rail stations outside of the city

New RapidRide and Stride Routes

- RapidRide G Line along E Madison St
- RapidRide J Line serving UW, Eastlake, and South Lake Union
- RapidRide R Line along Rainier Ave S
- Stride S3 BRT service along NE 145th St to Bothell

#### Seattle Transit Measure Investment

The 2020 voter-approved Seattle Transit Measure (STM) creates approximately \$50M annually through Q1 2027 to fund additional transit service, capital investments that improve transit service, and programs that improve access to transit. STM service investments are made throughout the city based on the Frequent Transit Network (FTN) and an equity-centered prioritization methodology.

This methodology prioritizes investments on routes that serve equity priority populations (BIPOC, lowincome, foreign-born, disabled, or who have limited English proficiency), the times of day when reduced fare rides are most prevalent, and where there are larger gaps between current service levels and the FTN targets. SDOT also considers qualitative information such as the results of community outreach and engagement and operational considerations like the presence of layover and transit infrastructure. This methodology was co-created with the Transit Advisory Board (TAB) and future changes to the methodology would include TAB's involvement.

## Transit Corridors and Major Projects

Many transit corridors in Seattle provide vital connections between local neighborhoods and regional employment and industrial centers. SDOT's 2016 Transit Master Plan directed capital project development into several critical bus corridors (e.g., RapidRide G, H, and J lines and several Transit-Plus Multimodal Corridors) and helped the City to partner with Sound Transit (ST) to determine Sound Transit 3 (ST3) Link light rail investments, which were funded by voters in 2016 and are now being planned and designed.

The Transit Element accounts for planned and completed system investments and the major transit network changes needed to optimize the 2008 voter-approved Sound Transit 2 (ST2) plan—Lynnwood Link, East Link, and Federal Way Link extensions—and ST3 investments including the Tacoma Dome, Everett, West Seattle and Ballard Link light rail extensions, and the NE 130<sup>th</sup> Street, Graham Street, and Boeing Access Road infill stations within Seattle.

ST Link light rail investments are predominantly oriented north and south towards regional destinations such as Tacoma and Everett, requiring complimentary investment in east-west bus services that enhance regional system connectivity and strengthen other north-south bus corridors in adjacent parts of the city where connections to Link light rail service are limited.

This section describes where transit corridor investments should be prioritized based on analysis of transit demand, travel patterns, tactics to meet Transportation Equity Framework (TEF) strategies, and coordination with King County Metro's "Metro Connects" Long Range Plan.

#### Inputs for Project Development

### Factors considered in developing corridor categorizations include:

- Ridership
- Bus Delay
- Reliability
- Frequent Transit Network
- SDOT & KCM capital programming
- Durability of improvements to protect transit reliability
- Connections to regional light rail, commuter rail

Develop a standard to measure right-of-way tradeoffs for design along transit corridors to use during project development.

- Evaluate outcomes from existing measures and policies which could include travel time and reliability to establish right-of-way allocation measures and goals on the transit network.
- Integrate the operational measures and goals into the complete streets process for project development to streamline right-of-way tradeoff decision-making alongside other multi-modal operational measures and goals where designated corridors overlap.

#### Transit Corridor Planning

SDOT will partner to advance and implement priority transit corridors through multiple programmatic and agency coordination activities:

**SDOT Major Projects.** These are large scale projects that will or could be managed by SDOT, including:

- Aurora Ave N (RapidRide E Line): The highest bus ridership corridor in the Pacific Northwest, this corridor provides opportunity to upgrade the existing E Line facilities, increase transit priority, and enhance street safety and passenger experience outcomes (could be a Metro led project)
- 3rd Avenue Transit Spine (see detail in Center City section below)
- Culture Connector Streetcar (see detail in Center City section below)
- Most Tier 1 Premium Transit Corridors in Figure 4 are in this category

**SDOT Transit Corridors Program.** These are projects of varying scales focused on improving travel time and reliability, passenger facilities, safety, and multimodal access:

- Most Tier 2 High-Priority Corridors in Figure 4 fit in this category
- Corridors that improve east-west transit travel are a priority
- NE 130th St/NE 125th Corridor Improvements: Establish a multimodal corridor to connect light rail riders to the future NE 130th St light rail station by implementing transit reliability, safety, access, bus stop, pedestrian, and bicycle improvements

**Partner led projects.** These are projects for which King County Metro is leading project development or plans to design and fund the project. SDOT is a key partner for these projects.

As of 2023, Metro has one partially funded RapidRide Corridor project in Seattle:

• Rainier Ave S (Route 7, Future RapidRide R): King County Metro has partial funding for RapidRide R line as its next corridor capital investment priority for RapidRide within Seattle. SDOT will partner with Metro to meet transit performance, safety, and other modal priorities.

As of 2023, Metro is studying four additional corridors in the City of Seattle for future RapidRide conversion:

- NW Market St & N/NE 45th Street (Route 44): This critical crosstown corridor will eventually connect Link stations in Ballard and the U District and ties together three Urban Centers and Urban Villages. SDOT made early investments in the corridor from 2021-2023 as part of the Route 44 Transit-Plus Multimodal Corridor Project.
- Westlake Ave N, NW Leary Way, and 24th Ave NW (Route 40): This high ridership corridor provides a critical connection between South Lake Union and Fremont and Ballard. The Route 40 Transit-Plus Multimodal Corridor will make early investments in the corridor as part of the Levy to Move Seattle.
- Beacon Ave S, Broadway Ave/E, 10th Ave E, Harvard Ave E, 15th Ave NE (Routes 36 & 49): This
  north-south corridor builds on a critical service concept presented in the 2012 Transit Master
  Plan and now included in the Metro Connects Plan. It would provide a north-south crosstown line
  (possibly combining portions of today's routes 36 and 49) from Southeast Seattle, through First
  Hill and Capitol Hill to the University District without running through Downtown.

• Downtown Seattle, SODO, Southcenter, Kent (Route 150): This north-south corridor included in the Metro Connects 2050 Plan and the RapidRide Expansion Plan connects the Downtown Seattle and SODO neighborhoods with two cities to the south, Tukwila and Kent, via Interstate 5.



Streetcar and Monorail operating in Downtown Seattle

# **Priority Transit Corridors**

The Transit Element Chapter identifies priority transit corridors for SDOT and its partners to consider for capital investment. Corridors are tiered by investment level based on the extent of identified transit priority needs and importance of supporting transit performance, climate, and equity goals. These corridors were identified because they:

- Support access and integration with regional investment, such as Link light rail
- Function as the most critical to support climate targets
- Support access to opportunity goals of the TEF
- Improve transit reliability on key corridors included in the Frequent Transit Network
- Address needs identified in the draft Transit Performance Policy<sup>6</sup>
- Address needs heard from community in the STP engagement process

Unlike previous SDOT transit master plans, priority transit corridors are not organized under an implementing program (e.g., RapidRide, Transit-Plus Multimodal Corridor Program, etc.). Rather, they are grouped by the level of transit priority aspired to and accounted for in STP network integration policy and mapping. This is intended to provide SDOT with flexibility to determine an implementation approach—including working with transit agency partners—that best match funding and implementation priorities. The corridors are classified into 3 tiers, with each serving a different role in the transit network.

These tiers are listed in **Table 2**. Figure 5 further below illustrates priority investment corridors per the classifications listed in **Table 2**.

Table 2.	Priority	Transit	Corridor	Classifications
Tuble 2.	FILOTILY	nunsu	Contaon	Classifications

Designation	Description	Examples
Tier 1: Premium Transit Corridor	Highest-level arterial transit need, continuous transit priority, potential future light rail corridor	Third Ave, 15th Ave NE (U District), Rainier Ave S
Tier 2: High-Priority Bus Corridor	Merits corridor-level investment programming, significant transit priority need	NE 65th St, 23rd Ave, California Way SW
Tier 3: Priority Bus Corridor	Incremental or spot-location transit priority as per Transit Performance Policy	Sand Point Way NE, Boren Ave, 15th Ave S

The STP Capital Investment Corridors Map is based on an analysis of transit needs and the future benefit of transit capital investment. The analysis focuses on Seattle's arterial street network, including streets that carry transit today and that might in the future<sup>7</sup>. The STP Capital Investment Corridors Map does not imply end-to-end corridor projects (e.g., converting the KCM Routes 36 and 49 to a new RapidRide line), but rather recommends a level of investment for key segments of the current and future transit network.

<sup>&</sup>lt;sup>6</sup> The SDOT Transit Performance Policy (TPP) is an approach to monitor transit performance on corridors included in the Frequent Transit Network (FTN) and determine locations where transit priority is needed to maintain service performance at the desired standard. The TPP is currently being drafted by SDOT.

<sup>&</sup>lt;sup>7</sup> To ensure pavement conditions are suitable for transit operations on street segments throughout Seattle, SDOT maintains a Transit Street Classification map (see Appendix B).

The three designations (see map legend) indicate the importance of and opportunity for capital improvements, particularly transit priority treatments such as bus lanes, queue jumps, Transit Signal Priority (TSP) and improvements for passengers accessing and waiting for transit.

# **Phased Implementation**

Many capital corridor investments will be made in response to light rail expansion or the introduction or upgrading of bus service to a RapidRide or Stride standard. These phasing considerations have a significant impact on the timing of future capital investments.

Transit changes anticipated as part of light rail or RapidRide/Stride expansion include:

#### Lynnwood Link Light Rail Expansion (2024)

- Bus restructures in North Seattle
- New bus service to the 130th St Station

#### Other Link Light Rail Expansion

- Judkins Park Station and surrounding bus service restructures
- S Graham St light rail infill station and surrounding bus service restructures
- Other bus routes that currently serve areas of Seattle that are restructured to new light rail stations outside of the city

#### West Seattle Link Light Rail Expansion (2032)

• Bus restructure in West Seattle and SODO

#### Ballard Link Light Rail Expansion to Smith Cove (2037)

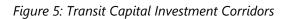
- Bus restructure in Interbay and South Lake Union
- Bus restructure in West Seattle, including the potential revision of RapidRide C Line and H Line

#### Ballard Link Light Rail Expansion to Ballard (2039)

• Bus restructure in Ballard, including the revision of RapidRide D line

#### New RapidRide and Stride Routes

- RapidRide G Line along E Madison St
- RapidRide J Line serving UW, Eastlake, and South Lake Union
- RapidRide R Line along Rainier Ave S
- Stride S3 BRT service along NE 145th St to Bothell





# Center City Connections

Seattle's ten Center City neighborhoods<sup>8</sup> experienced exponential growth over the last decade, supported by the expansion of high-quality transit options for travel in and to Downtown employment sites and adjacent Center City neighborhoods. Transit is crucial to Downtown's economic success, delivering people and moving residents, workers, and visitors within the area.

The next two decades will see significant transit investment, better connecting Center City neighborhoods to one another, to other Seattle neighborhoods, and to the region. Opportunities and challenges for Center City transit include:

**Dramatically improved transit access** to and within Downtown, with the opening of new funded transit projects, including:

- **RapidRide lines**, including G Line (Madison, 2024), H Line (Delridge, 2023) and J Line (Eastlake, 2027)
- **ST2-funded light rail service**, providing regional connectivity in multiple directions from Downtown:
  - Lynnwood Link Extension of existing line from Northgate (2024)
  - East Link line connecting over I-90 by rail to communities east of Lake Washington (2025)
  - Federal Way Link Extension of existing line south from Angle Lake (mid-2020s)
- **ST3-funded Link light rail tunnel** that will support extensions to West Seattle (2032) and Ballard (2037-39) and support a new Link light rail regional service pattern with three distinct lines.
  - This will include new underground Center City Link stations.
  - Construction impacts from major capital and transit projects, particularly West Seattle and Ballard Link Extensions (WSBLE), may impact street operations, including bus and streetcar routing and service.

**Opportunity to rethink street uses and bus pathways** as Link light rail extensions replace regional bus routes, creating opportunities for new distribution of transit pathways across Downtown and opportunities to repurpose right-of-way for other critical needs, such as building access, bicycle movements, urban goods delivery, pedestrian realm, greening, etc.

<sup>&</sup>lt;sup>8</sup> Seattle Center City Neighborhoods include: Uptown, South Lake Union, Belltown, Denny Triangle, Commercial Core, Pioneer Square, International District/Chinatown, Central District, First Hill and Pike/Pine.

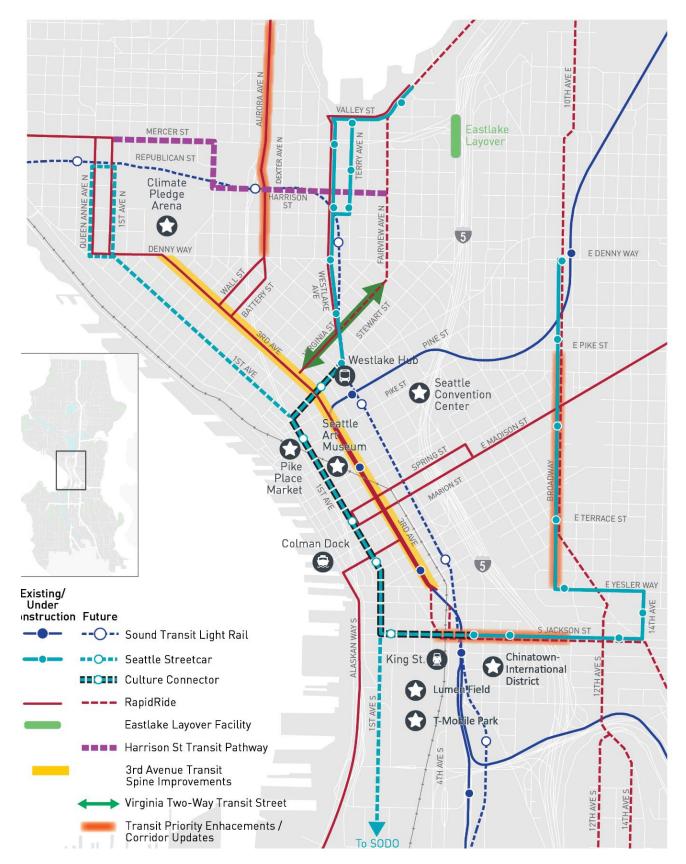
**Economic development and activation.** Seattle's Center City remains a center for tourist activity, culture and entertainment, sporting events, and dining. It also has a regional and international draw for conference activities. Easy-to-use transit circulation, including the Seattle Streetcar, can play a critical role in connecting destinations, including new Seattle Waterfront attractions and an expanded Convention Center.

**Right-of-way (ROW) allocation and bus layover management.** There is very limited ROW in Downtown. Evaluating and maintaining critical access for buildings needs to be a key part in evaluating potential changes for transit routes and transit layover spaces along the curbside. See more detail in the Curbside Management Element, which includes strategies related to layover and critical access needs.

Key proposed Center City transit improvement opportunities are shown in **Figure 6** and include:

- **3rd Avenue Transit Spine improvements.** As Seattle's busiest and most critical transit street, investing in bus reliability, passenger facilities, and placemaking are important to this corridor's success. SDOT will partner with King County Metro and downtown business interests to improve conditions on 3rd Avenue.
- Broadway E transit priority improvements (Capitol Hill/First Hill) to further increase the priority of people traveling on foot, by bike, or on transit.. The consideration of this as a new RapidRide route provides an opportunity for bolder thinking about enhanced bus-rail priority and will further improve service along the First Hill Streetcar line.
- S Jackson Street transit priority improvements and bus-streetcar integration (between 12th Ave S and 2nd Ave Extension S). SDOT will invest in S Jackson Street transit priority treatments as part of, or alongside, the RapidRide R Line project or other efforts to enhance streetcar priority.
- Harrison and Mercer Transit Access Project planning improvements to provide a new, reliable east-west bus pathway between Uptown and South Lake Union.
- Virginia and Stewart Multimodal Improvements that consolidates bus travel onto fewer streets in the Belltown-Denny Triangle area between 3rd Ave and transit pathways heading north (i.e., to Aurora, Dexter, Westlake, and Fairview Avenues N). Clear benefits of this would improve simplicity with two-way bus service on the same street and the opportunity to invest in fewer, better bus zone improvements and enhanced transit reliability measures. Virginia Street is a top-candidate corridor due to direct connectivity with Fairview Ave North, but other streets and pathway connections should be analyzed.

Figure 6: Center City Transit Capital Projects



# Seattle Streetcar and the Culture Connector

The Seattle Streetcar plays a critical role in delivering Seattle's vision for the Frequent Transit Network. The South Lake Union and First Hill Streetcars are separate lines that make up the Seattle Streetcar system. Their operational programs provide funding to deploy service and maintain operational assets through an interlocal agreement with King County Metro. Once the Culture Connector is built, connecting the two existing lines, there's opportunity to fold these into a single program for the Streetcar system.

The Culture Connector (formerly the Center City Connector or C3) project is designed to link the South Lake Union and First Hill streetcar lines, creating a single Seattle Streetcar that has the potential to carry 25,000 daily riders by 2035. This project plans to provide dedicated lanes for 85% of the alignment, elevating the streetcar to a major urban circulation system. Construction of the Culture Connector project before 2030 could be timely to support the economic revitalization of Downtown, providing an easy-to-use, level boarding connection between key sporting, entertainment, hotel, and retail districts; cultural destinations; and the newly revitalized Seattle Waterfront.

Reliable, frequent, street-running rail will provide critical circulation for Center City, with more balance between residential and office uses; a regional draw for sports, culture, and entertainment; and world class destination for tourists. Further, the connection to existing Link light rail stations at Westlake/McGraw Square and at Jackson Hub could be an important circulation method for Downtown travelers during WSBLE construction disruptions.

Seattle Streetcar capital project priorities include:

- The Culture Connector Project. The Culture Connector will build a streetcar line to connect the existing First Hill and South Lake Union Streetcars. This project includes tracks, stations, overhead trolley wires, an expanded operations and maintenance facility, and vehicles. This project will significantly expand the utility and benefit of the existing lines and provide an easy-to-use Center City circulation system for a wide variety of trips.
- **Future Extensions and Capital Facilities. The** Streetcar system could be expanded to advance Citywide Comprehensive Plan, STP, and climate goals. Potential extensions include:
  - North on 1st Ave/1st Ave N/Queen Anne Ave N to Seattle Center, Climate Pledge Arena
  - $\circ$   $\;$  South into south of Downtown (SODO) at Stadium Station or SODO Station.
- New Operations and Maintenance facility site to allow for fleet expansion.
- **Development of a Streetcar Performance Program.** This is a capital investment program to improve streetcar operations consistent with Transit Performance Policy and the Transit Capital Priorities map. As increased vehicle volumes decrease streetcar reliability and increase travel time, SDOT makes targeted capital investments to improve streetcar performance and reliability. Future improvements will consider transit-priority and possible car-lite or car-free options.
- Streetcar State of Good Repair. As the Seattle Streetcar ages, a State of Good Repair program allows SDOT to monitor whether the existing assets meet or exceed their useful life and stay safe for operations. It also allows for limited modernization as technology evolves, such as improvements to real time information signs and lighting at stations.

#### Streetcar Safety Program

Federal regulations require SDOT to have a Streetcar Safety Program to guide safe operations of the streetcar system. At SDOT, the Streetcar Chief Safety Officer is responsible for complying with federal regulations and implementing SDOT's Public Transportation Agency Safety Plan (PTASP). Implementation includes both operational and capital improvements.

#### Streetcar Strategy

This program represents SDOT's coordination with internal and external partners on major Seattle capital projects, planning efforts, and grant funding that impact Seattle Streetcar. This program is also responsible for fare policy decisions, managing data, and reporting critical performance measures for the Seattle Streetcar.

## King County Metro and Sound Transit Capital Programs

SDOT works with King County Metro and Sound Transit to support transit corridor capital programs. This section describes key investments that are planned, funded (or partially funded), or under construction. It also provides recommendations for long-term enhancements and expansions to RapidRide, Link light rail, and Sounder commuter rail. SDOT, King County Metro, and Sound Transit have several major transit projects planned, funded, and under construction.

## Light Rail Expansion

As Seattle continues to grow, there will be opportunities for continued expansion of the regional Link light rail system. Table 3 lists a mix of potential and aspirational opportunities for future Link light rail expansion. Potential expansion corridors are based on STP analysis as well as a review of previous Sound Transit and regional plans. These concepts reflect Seattle's interest in continued growth of the rail system and would require additional analysis and evaluation. No funding is identified for these conceptual expansion corridors; the committed ST3 program extends into the 2040s.

Regional growth and changing employment patterns are likely to increase demand for all-day service and improved off-peak direction travel on Sounder, the Puget Sound region's commuter rail service operated by Sound Transit. Future investments, such as midday service, higher frequencies all day, and electrification could be important investments to making Sounder a key part of the region's high-capacity rail network. Additional stations located in key growth centers should be considered to improve access and network connectivity. These potential locations are listed in **Table 4** below.

Potential Corridor	Justification or Plan Alignment
<b>NW Market/N 45th Street</b> Ballard – Wallingford – U District – Children's Hospital	<ul> <li>Included in <u>ST2</u> planning studies</li> <li>Included in <u>ST3</u> future investment studies</li> </ul>
<b>15<sup>th</sup> Ave/Holman Road NW</b> Ballard – Greenwood – Northgate Option to extend to Lake City and Kenmore	<ul> <li>Included in <u>ST3</u> high-capacity transit planning studies</li> </ul>
Aurora Avenue N Belltown – Fremont – Greenwood Option to extend to Edmonds and Lynnwood	<ul> <li>Existing high transit frequency and ridership</li> <li>One of the highest bus ridership corridors in Seattle/King County/Metro Seattle</li> </ul>

#### Table 3: Potential Light Rail Expansion Opportunities

Potential Corridor	Justification or Plan Alignment
California Avenue SW	
West Seattle – Morgan Junction – White Center	<ul> <li>Included in <u>ST2</u> planning studies</li> </ul>
Option to extend to Burien and Tukwila International	<ul> <li>Included in <u>ST3</u> high-capacity transit planning studies</li> </ul>
Boulevard	
Duwamish Valley	Direct faster score from south of the Deinian Valley to CODO
SODO – Georgetown – South Park	<ul> <li>Direct, faster access from south of the Rainier Valley to SODO and points further parth</li> </ul>
Option to extend to Tukwila International Boulevard	and points further north
23rd Avenue	<ul> <li>Major north-south corridor east of Downtown</li> </ul>
Mount Baker – Madison Valley	• High concentration of people and jobs, high transit ridership,
Option to extend to U District	connectivity to existing or planned Link lines
	Major east-west corridor north of Downtown
Denny Way/E Thomas Street	<ul> <li>High concentration of people and jobs, high transit ridership,</li> </ul>
South Lake Union – Capitol Hill – Madison Valley	and connectivity to existing/planned Link lines
Southeast to Southwest Seattle Corridor	Major past wast partider south of Downtown
	Major east-west corridor south of Downtown
West Seattle – Duwamish Valley – Southeast Seattle	Connects equity priority areas without needing to transfer in
(Details to be determined)	SODO or Downtown

#### Table 4: Sounder Infill Station Opportunities

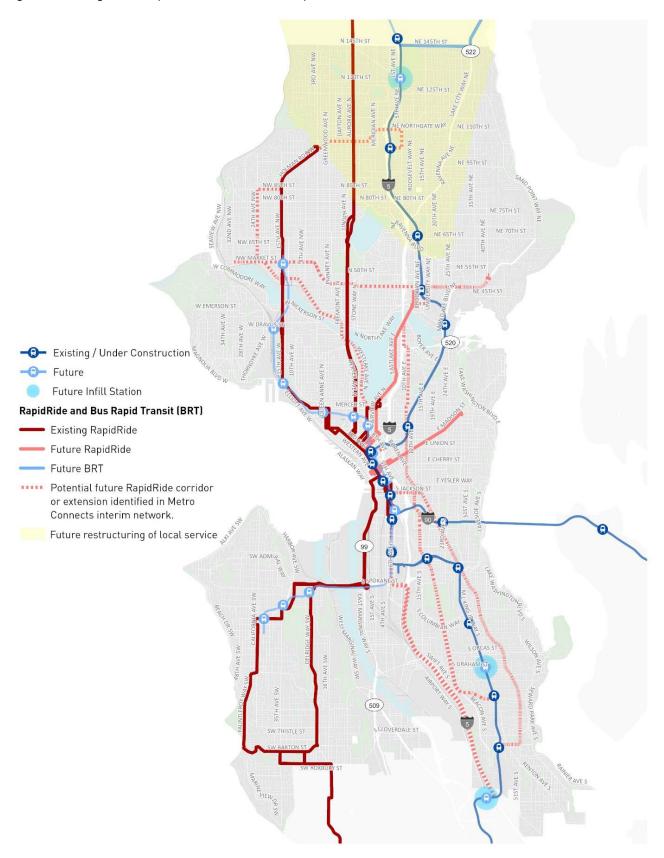
Potential infill station	Justification
Ballard	<ul> <li>Included in Sound Transit 2 as a provisional station location<sup>9</sup></li> </ul>
Interbay	<ul> <li>High concentration of jobs; adjacent to many dense residential neighborhoods</li> <li>Connectivity with Link light rail depending on station location chosen</li> <li>Serves Piers 90 and 91 and the cruise terminal</li> </ul>
Broad Street	<ul> <li>Included in Sound Transit 2 as a provisional station location<sup>3</sup></li> <li>Access to jobs and people in Belltown, South Lake Union, and Seattle Center</li> <li>Serves Pier 66 and the cruise terminal, along with connectivity with potential future passenger- only ferry dock</li> </ul>
SODO	<ul> <li>Concentration of high employment</li> <li>Connectivity with multiple Link light rail lines</li> </ul>
Georgetown	Mixed-use node with nearby employment centers and residential neighborhoods
Boeing Access Road	<ul> <li>Connectivity with Link light rail station, which is expected to open in 2031</li> <li>Included in Sound Transit System Plan</li> <li>Located outside Seattle, but within walking distance of city neighborhoods</li> </ul>

**Figure 7** shows planned expansions to the Link light rail system and planned RapidRide corridors in Seattle.

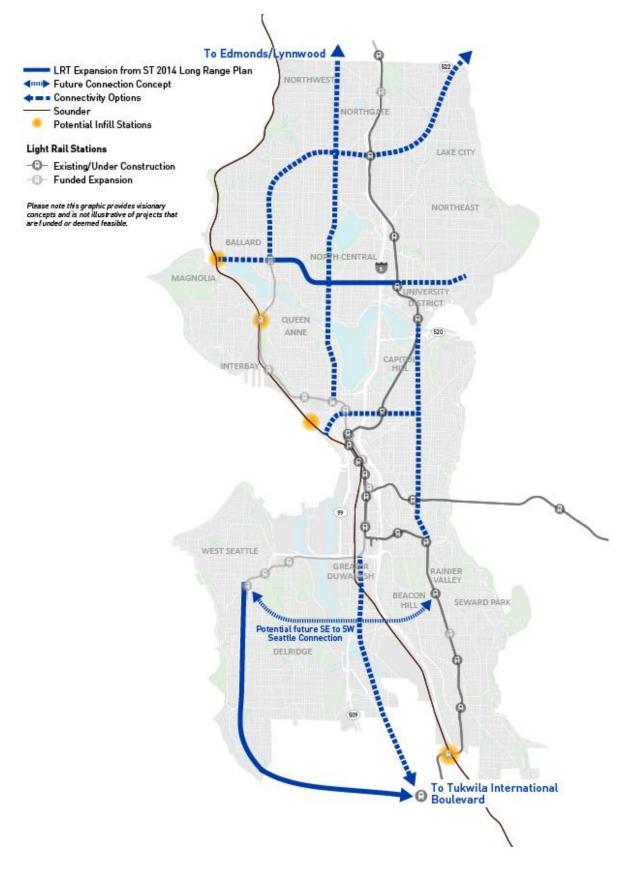
**Figure 8** shows the potential high-capacity transit corridors and potential Sounder infill stations on a single map, overlaid on top of the existing and future Link network.

<sup>&</sup>lt;sup>9</sup> Sound Transit 2: A Mass Transit Guide. July 2008. Page 9 and Page 16.

Figure 7: Link Light Rail Expansions and Planned RapidRide Corridors



#### Figure 8: Potential Link Light Rail and Sounder Commuter Rail Expansion Opportunities



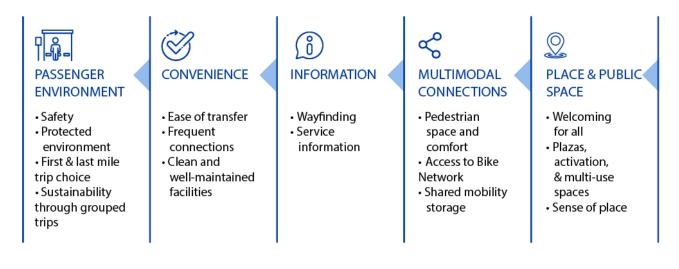
# Community and Mobility Hubs Network

Community and mobility hubs combine transportation options, community spaces, and travel information into a seamless, understandable, and on-demand travel experience. They are located along major transit routes where frequent transit services intersect to improve connectivity and facilitate local neighborhood connections, especially in historically underserved areas. They may feature People Streets and Public Spaces elements and goods delivery elements.

As the regional Link light rail system expands in Seattle, we will continue to focus investment on multimodal access to station areas, making transit a safe, secure, pleasant, and reliable choice for travelers. Expansion of RapidRide and high-quality, high-frequency bus services offer opportunities for focused hub investments and other hub development at locations across Seattle away from the substantial improvements occurring at Link stations. As new mobility options are introduced into Seattle, community and mobility hubs can serve as important locations where these options are integrated into the larger transportation system.

**Figure 9** describes many of the important components and functions that hubs can include, though this list is not exhaustive. Specific amenities included at a given location will be determined during project implementation.

Figure 9: Key Features and Functions of Seattle Community and Mobility Hubs

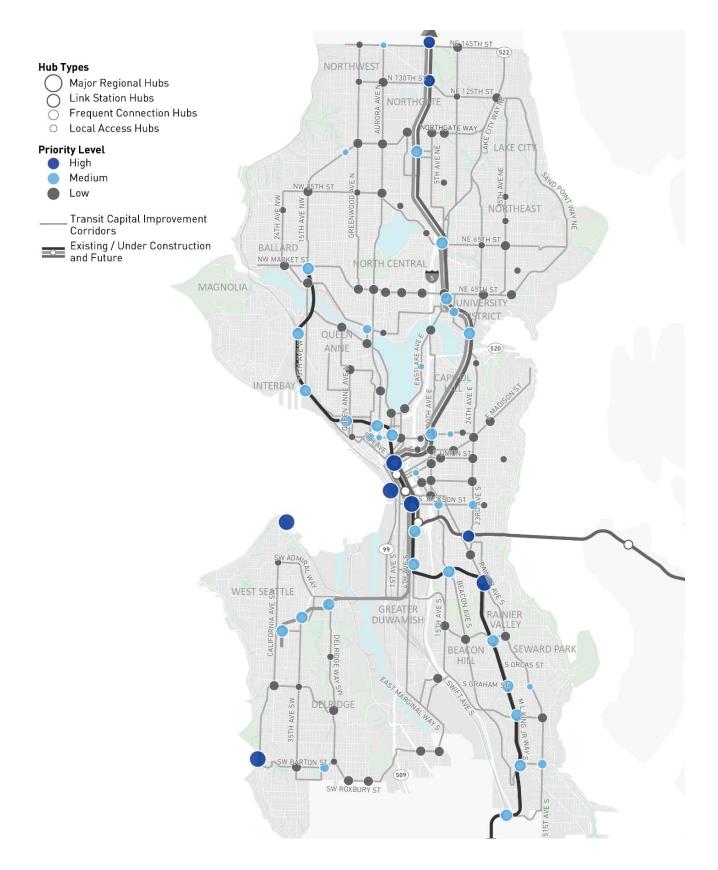


**Table 5** describes different typologies for community and mobility hubs, the level of investment necessary to implement them, and possible characteristics.

Hub Type	Description	Investment Levels	Possible Characteristics
Major Regional Hubs	-	<b>Highest</b> for all Community and Mobility Hub features	<ul> <li>Intermodal connections prioritized.</li> <li>High-capacity surface transit (bus/streetcar) operates efficiently to move people to and from the station.</li> <li>Busiest locations of rider throughput (ferry and Sounder train services)</li> <li>Convenient, pleasant, and safe to walk, bike, and spend time.</li> <li>Destinations/places of interest for people to meet, shop, linger and enjoy spending time</li> <li>Playful learning landscaping</li> </ul>
•		<b>High</b> for all Use PSPS to guide Place and Public Space	<ul> <li>Prioritize transferring between Link and other high-capacity transit services.</li> <li>Pedestrian crossing safety prioritized.</li> <li>Destination-rich to allow people to conveniently fulfill their daily needs.</li> <li>Playful learning landscaping</li> </ul>
	RapidRide or frequent route with another RapidRide or frequent route	Medium to High for all Use PSPS to guide Place and Public Space	<ul> <li>Prioritize transit-to-transit transfers.</li> <li>Pedestrian crossing safety prioritized. High quality passenger amenities with improved wayfinding</li> </ul>
	RapidRide or frequent route in urban village or neighborhood anchor	<b>Medium</b> for all Use PSPS to guide Place and Public Space	<ul> <li>Prioritize bus connections to local destinations and residences.</li> <li>Pedestrian crossing safety prioritized. Connect people biking and walking to transit from lower density areas.</li> </ul>

**Figure 10** shows possible locations of community and mobility hubs that are currently being studied or will be in the near term. Not all locations on the map will receive hub treatments. Locations indicated as high priority will be studied for potential project implementation first, followed by medium and low priority areas.

#### Figure 10: Community and Mobility Hubs Under Study and Future Study Priority



# **PROGRAMMATIC ACTIVITIES**

SDOT engages in a variety of programmatic activities (that is, activities that relate to programs or are ongoing, rather than for specific projects) to complete the work outlined in this Element. This section highlights existing and new programs or initiatives. Over time, it's not uncommon for program groupings and organization to change; however, the programmatic activities listed here provide helpful general information to describe the types of tools and methods SDOT will employ to manage the transportation system.

# Transit Spot Improvements

Transit spot improvements build smaller-scale transit capital investments that improve the operating environment for transit, making trips faster, safer, and more reliable for transit riders. In addition to the transit spot improvement program, the Seattle Transit Measure (STM) has historically funded small- to mid-scale transit capital projects through a similar process. The goals of the Transit Spot Improvement Program are to:

- Reduce travel delays and increase reliability for transit
- Improve safety for transit riders, bicyclists, pedestrians, and drivers
- Improve rider experience by enhancing passenger facilities.

The Transit Spot Improvement Program invests in various treatments to improve reliability and increase travel time. These include bus-only lanes, traffic signal upgrades, roadway improvements, and bus stop modifications. The program partners with King County Metro, Sound Transit, and other local efforts to fund, plan, design, and implement projects. The program addresses the transit capital needs of current bus service and routes. It also looks ahead to new needs that arise due to planned bus service restructuring to connect to new Link and RapidRide stations that are about to begin service.

The program is adaptable and tactical, focused on quick-build efforts and simple, cost-effective solutions to address operational and safety issues or improve passenger access and comfort. The program is also a way to modify existing transit infrastructure and develop innovative solutions. This includes a range of options, such as modifying signage and refreshing paint and markings as well as testing new products and designs to deter non-transit vehicles from using transit infrastructure.

Figure 11 illustrates the process SDOT uses to make transit spot improvements.

#### Figure 11: Transit Spot Improvement Process Flowchart



# Transit Integration Planning and Implementation

Siting and design of new transit capital projects (like Link light rail, RapidRide, SDOT-led multi-modal corridor improvements, and Vision Zero safety improvements) can have enormous implications on what future transit service scenarios are possible, and how well or safely customers navigate the overall transit system. Our transit integration planning and implementation work enables us to coordinate and leverage the impact of new capital investments alongside ongoing transit operational adjustments to increase transit ridership in Seattle and meet the City's climate and equity goals.

To be successful, we must engage early and often with regional transit partners. For example, we coordinate major capital project review with Sound Transit to allow transit partners to leverage new and forthcoming Link light rail stations and related bus restructure efforts. This coordination considers how various alternatives support Seattle's overall mode shift, climate, safety, and equity goals.

Transit integration planning and implementation directly influences major transit service changes through collaboration with partner agencies Sound Transit and Metro to ensure the legibility and accessibility of proposed service patterns and pathways, route numbering, transfer locations, connections to other modes, directness of service pathways, identifying and delivering capital projects to support modified transit travel paths, coordinating the identification and delivery of new transit passenger amenities, and public outreach efforts to support transit passengers as they adjust to the changes to the transit system.

This work also tracks and responds to ongoing adjustments to transit operations beyond new Link and RapidRide stations by considering adjustments that may need to be made to the right-of-way in transit corridors. In addition, we also work with Metro to understand and coordinate their new bus layover needs—an essential and often overlooked component of transit operations—which is outlined in the next section.

# Bus Layover Coordination

Buses providing transit service need space to park where operators can take needed breaks, catch up to service schedules, and prepare for the next trip. This happens on city streets, in curb space designated by SDOT, or off-street facilities owned by transit agencies or local cities, such as transit centers. As the number of routes and route frequencies increase, the need for layover space will increase as well. However, because of the ongoing Link expansion, fewer regional transit services will directly serve Downtown, potentially freeing up space for local operations or other curbside uses in several locations north and south of Downtown. Bus layovers are a critical area of coordination with transit agency partners and part of SDOT's transit integration efforts.

Generally, King County Metro works with us to communicate where and when layover space is needed to support transit operations, and we work to identify whether on-street solutions are feasible. If curbspace is limited or changing future conditions impact on-street availability, partner agencies may identify and fund an appropriate solution.

For example, King County Metro designed the Eastlake Layover Facility that will accommodate 11 bus layover spaces and provide a place for bus operators to take breaks, access safe restroom facilities, and perform operations tasks. Layover space is particularly constrained in Downtown, where real estate costs are high, curb space is limited, and many different modes and stakeholders have unique curb needs.

Layover needs will continue to change in the future, as Link light rail expands through Puget Sound and local services change in response to planned and unplanned conditions. Potential major changes include:

- Major transit capital investments, such as Link light rail expansion or new RapidRide and Transit Corridor projects.
- Significant changes to transit service patterns. For example, services changes related to East Link
  and Lynnwood Link will decrease the number of buses traveling to and through Downtown,
  providing an opportunity to re-evaluate layover uses in the northern and southern ends of
  Downtown. The Northgate Link Extension, which opened in 2021, caused changes to regional
  service, dramatically decreasing the layover needs of Downtown, while creating new needs in
  places like Northgate and First Hill.
- Large redevelopment or re-channelization efforts. If a transit center is relocated or redeveloped or if a new employer or development spurs major land use changes.
- Changes to fleet types and operational requirements. Metro is planning to move to a zeroemissions fleet by 2035. Therefore, more electric buses will likely require access to charging facilities (either on- or off-street). In addition, the mix of standard versus articulated (or stretch) buses changes may change in the future.

## Freight and Bus (FAB) Lanes

As the city continues to grow, so does the demand for freight transport. This includes urban goods delivery and services in a range of form factors, from heavy duty large commercial trucks to medium-duty delivery vans to light-duty trucks to personal vehicles delivering packages to even smaller electric cargo delivery cycles. With limited rights-of-way (ROW), we need to use available lane capacity more efficiently.

In key corridors, proposed transit lane facilities with additional capacity could be good candidates for sharing dedicated space.

To help maintain reliable movement of freight—in particular, commercial trucks larger than 26,000 pounds—between key manufacturing and industrial centers, freight-and-bus (FAB) lanes may be piloted in these key corridors. Freight-and-bus lanes can improve freight mobility and may avoid negative impacts to transit service. At the same time, FAB lanes can improve safety for people walking, bicycling, and even driving personal vehicles along these routes.



Metro bus using a bus-only lane

### Innovative Transit Streets

Urban streets evolve as a city's priorities change. As Seattle strives for more safe, equitable, and climatefriendly transportation systems, our streets will follow. We continue to plan and design streets that enhance transit performance and capacity while meeting these goals. Transit street investment can provide opportunity to realize STP outcomes described in the People Streets and Public Spaces element.

**Table 6** below highlights areas where we can continue to advance innovative transit street design. These examples represent the types of improvements SDOT might consider when advancing priority transit corridor projects. For more information on ROW design, see the Curbspace and People Streets and Public Spaces Elements.

## Table 6: Innovative Transit Streets

Category	Opportunity	Potential Application in Seattle	Example
Downtown Transit and Destination Streets	<ul> <li>Create street space focused on people and public space (for more information see PSPS element)</li> <li>Move high volumes of people with frequent bus or rail</li> <li>Maintain or reduce transit travel times and improve connections to the urban core</li> <li>Support street life and retail</li> <li>Address critical building access needs (e.g., deliveries, solid waste management, street activation)</li> </ul>	<ul> <li>Third Ave Transit Corridor</li> <li>Virginia Two-Way Transit Street</li> <li>Broadway</li> <li>1st Ave</li> </ul>	Photo Credit: Downtown Denver Partnership         Denver's 16th Street Mall is a pedestrian mall         that spans Denver's Downtown, connecting         two key transit hubs and providing very         frequent electric bus service along the length         of the mall.
Transit on People Streets	<ul> <li>Support street life and retail</li> <li>Prioritize transit while allowing certain priority vehicles access for delivery or parking garage access.</li> <li>Move high volumes of people on foot, by bike, and with frequent bus.</li> <li>See more information on People Streets in the PSPS element</li> </ul>	<ul> <li>Virginia Two-Way Transit Street</li> <li>Broadway</li> <li>S Jackson St</li> <li>15th Ave NE</li> <li>NE 43rd St</li> </ul>	Credit: Photo by John Muggenborg ©2019         Nicollet Mall is a transit and pedestrian street in downtown Minneapolis. The street is primarily used for bus travel and bicycles and allows limited vehicular access.
Freight and Bus Shared Lanes	<ul> <li>Provide priority for multiple modes</li> <li>Consider where:</li> <li>Operational conflicts with bus stopping and turn movements can be resolved</li> <li>Transit stops are widely spaced (or buses do not stop in lane), limiting delay for trucks</li> <li>Transit and freight volumes are compatible</li> <li>Separate parallel bike facility available</li> </ul>	<ul> <li>Westlake Ave N</li> <li>15th Ave NW</li> </ul>	A street in New York City has a busway element that allows trucks and buses to share a lane. The project has showed benefits for transit and trucks since opening in 2020.
Bus and Bike Shared Lanes	<ul> <li>Provide priority for multiple modes</li> <li>Consider:</li> <li>Short segments with constrained street space</li> <li>Where speeds are compatible</li> <li>Where grades are appropriate (not on uphill segments)</li> </ul>	<ul> <li>Downtown Streets</li> <li>Bridge approaches</li> <li>Light rail station area approaches</li> </ul>	Southwest Madison Street in Portland allows bus and bikes to share a lane on a downhill approach to a key bridgehead.

Category	Opportunity	Potential Application in Seattle	Example
Transit priority on Destination Streets	<ul> <li>Where streets are a space for socializing</li> <li>Streets with high pedestrian traffic</li> <li>Retail streets with frequent transit</li> <li>See more about Destination Streets in the <i>People Streets and Public Spaces (PSPS) Element</i></li> </ul>	<ul> <li>Broadway</li> <li>S Jackson St</li> <li>NW Market St</li> <li>SW Alaska St</li> <li>Terry Ave N</li> </ul>	Toronto's King Street project used auto restrictions to enhance transit service (i.e., the street tram) and dedicated auto storage at the curb to activate pedestrian space and parklets.
Streets with Surface Rail and Bus	<ul> <li>Share street space dedicated to transit where high volume bus corridors and rail overlap</li> <li>Reduce priority for private vehicles, particularly for through movements where alternative routes exist</li> <li>Create high-quality pedestrian and waiting environments</li> </ul>	<ul> <li>Westlake Ave N</li> <li>Broadway</li> <li>S Jackson St</li> <li>1st Ave</li> </ul>	Kungsportsavenyn in Gothenburg, Sweden carries street trams (i.e., rail) and frequent bus service. The street changes character every two blocks, creating an interesting and vibrant passage for transit customers.
Center Running Transit Ways	<ul> <li>High ridership bus corridors</li> <li>Corridors where transit needs priority on a busy roadway</li> <li>Streets benefiting from narrowing, reduced pedestrian crossing distances</li> <li>Candidates for safety improvements from removal of unprotected left turns</li> </ul>	<ul> <li>Madison St</li> <li>Aurora Ave N</li> <li>Lake City Way NE</li> </ul>	Photo Credit: SFMTA In 2022, San Francisco opened its first center- running busway on Van Ness Boulevard.
Transit Priority on One-Way Streets	<ul> <li>Effective at moving large volume of transit customers</li> <li>One-way streets can help improve bus throughput and reliability</li> <li>Allows for accommodation of other street and curb priorities such as loading, parking or bicycle facilities</li> </ul>	<ul> <li>Downtown avenues such as 2nd or 4th Aves</li> <li>Pike/Pine St</li> <li>Spring/Madison St</li> <li>Belltown/Denny Triangle/Uptown One- Way Couplets</li> <li>Roosevelt and 11th/12th Ave NE in U District, Roosevelt</li> </ul>	Photo Credit: NYDOT 1st Avenue in New York City has a single- direction bus lane, allowing a parking protected bicycle lane on the opposing curb (similar to 2nd Avenue in Seattle).

# ACCESS TO TRANSIT

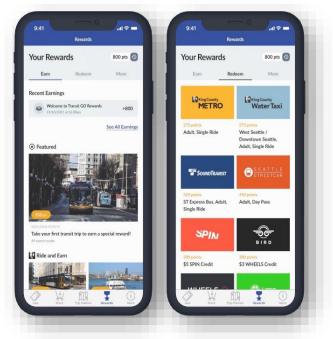
We aim to reduce barriers to transit use for everyone traveling in Seattle. Seattle Transit Measure (STM) funds support access for many people who may not otherwise be able to use transit consistently or reliably. Additionally, we provide transit subsidies to equity priority populations as well as engages in the development of regional fare payment and integration efforts, including participating in planning to update the ORCA regional fare payment system and funding the development of and Seattle rider incentives for the TransitGO mobile payment app.

The TransitGO platform (managed by King County Metro) offers an intermediate option for mobile payments until the next-Generation ORCA system is fully available. SDOT is working to provide fare payment options that meet our riders expectations and, increasingly, that means digital.

As technology evolves, we will increasingly leverage the private sector to stay at the forefront of innovation, while ensuring that riders of all digital competencies and with varying levels of digital access can pay for fares.

We've also been a regional collaborator and leader on innovative approaches to making transit easier to access and use. When the West Seattle Bridge was closed for maintenance in 2021, SDOT offered a rewards program to incentivize people to get around without driving alone.

TransitGO Rewards expanded to residents throughout the city in 2023 as well as the county in partnership with King County Metro.



Metro Transit GO Rewards App

# Fare Programs and Integration

Seattle's fare subsidy programs, which range from fully subsidized annual fare programs funded by STM to more focused TDM subsidies and incentives have proven successful. SDOT provides fully funded regional transit passes to thousands of program participants, including residents of all 102 Seattle Housing Authority-owned and -managed properties, low-income workers at small businesses in equity priority neighborhoods, Seattle Promise Scholars, and other priority groups.

Supporting equity-centered fare policy is critical to SDOT's access programs. Aligned with SDOT's value and commitment to equity, we work to create a shared understanding that transportation access is a form of poverty intervention. Regionally, the cost of riding transit depends on each operating agency's policy, although several reduced-fare programs are coordinated across agencies. The regional ORCA fare collection system is currently being updated to offer enhanced customer benefits, but with the delay of critical customer-facing features, such as tap payments with a credit/debit card or mobile application/ credential, the importance of continued engagement and advocacy within regional fares policy and technology spheres remains integral to supporting improved transit access.

SDOT will seek to work with transit partners to enhance the trip planning, booking and payment experience, enabling riders to easily navigate trip-planning, booking, and payments across public and private mobility services, and where price incentives are set to encourage shared or active travel modes. When equitable pricing approaches are adapted, these policies can be powerful tools to address current financial inequities and the State of Washington's regressive tax system, but also encourage lower emissions travel.

# Mobility Subsidies and Services

SDOT aims to support transit access and car-free or car-lite travel. For example, STM funds a fare free, ADA-accessible Downtown Circulator that connects low and no-income individuals with social and health services in the Downtown network. SDOT's STM-funded Transportation Access Programs also includes community focused engagement, education, and programming efforts, such as the Youth Ambassador Program and a Senior Transit Program. As resources allow, continuing to grow these efforts will help make the transit system more effective, equitable, affordable, and accessible.

Subsidies or other investments to support travel on transit-supportive modes, such as personal or shared bikes and scooters, also align with STP goals for climate and equity. SDOT should explore opportunities to build toward universal, or guaranteed, basic mobility - the democratization of transportation that calls for a minimum level of mobility for specified populations within an area. Mobility wallets are one tool that supports universal, or guaranteed, basic mobility.

Mobility wallet programs allow individuals or households to gain access to public transportation and shared mobility offerings at a discounted rate or no cost due to public subsidy. They have already been successfully deployed in cities across the U.S. such as Boise, Los Angeles, Oakland, Pittsburgh, and Portland. Immediate results of these programs have included increased transit use by targeted populations, reduced single occupancy vehicle travel, and more effective and equitable traves between and within communities. To embrace the mobility wallet concept and support the implementation of this innovative programming, We'll work with city and state partners to implement TDM policies that focus on reducing drive alone trips that occur throughout the day as opposed to just reducing commute trips.

In addition to directly funding and managing such programs, SDOT should coordinate with King County Metro and other transit partners on expanding programs serving businesses and major institutions to offer bulk purchasing and pricing on mobility services. Continuing to develop and deploy regional fare systems and managing relationships with private mobility services will help integrate payment technologies and platforms across modes and providers.

Ultimately, SDOT should also consider policies to use travel subsidies for specific modes and user types and to align transportation fees, charges, fares, tolls, or other payments with mode shift and equity goals.

## **Rider Experience**

The transit rider experience goes beyond the transit stop or riding a transit vehicle. The experience begins when someone decides to make a trip and ends when they reach their destination. Planning the trip and understanding transit options for that trip should be intuitive as the experience of travel between home and the transit stop is vital to people's decision making. This process includes everything from travelling to and waiting at a transit stop, riding transit, understanding at which stop you should exit, and travelling to your final destination; all of these components impact an individual's rider experience. SDOT's vision is that all riders have an intuitive, comfortable experience for all steps of the transit journey.

A high-quality transit experience requires clear language, wayfinding, frequent service, a safe and comfortable environment, access to restrooms and seating, and easy connections to other modes. As the mobility ecosystem becomes more complex, SDOT should continue building strong partnerships with regional partners and leading innovative approaches to the customer experience, like working to create a roadmap for integrated mobility payments across public and private mobility services.

To understand the current transit rider experience, it's important to capture rider feedback, including website or social media feedback, email feedback, phone calls, or tracking of experience on an app, among others. Welcoming feedback and making it easy to provide input will help improve the transit rider experience for all and improve transit agency's responsiveness to customer needs.

# TRANSPORTATION TECHNOLOGY AND INNOVATION

In partnership with Metro, SDOT should continue evaluating new service ideas and assessing the performance of existing services. New technologies, such as automated and shared vehicle technology, could greatly expand the feasibility and usefulness of on-demand and first-/last-mile services. Many cities and agencies throughout the country are testing or operating such services, and they have become routine in other parts of the world. These technologies will also distinguish between public and private transportation and may require new criteria to evaluate new service concepts for public investment.



## Alternative Service Models

Photo: King County Metro Flex is an example of on-demand neighborhood transit service

While fixed-route service typically receives most of SDOT's transit investments to date, the Seattle Transit Measure (STM) funds opportunities to test innovative transit service approaches that provide unique community value. In 2019, Seattle funded a new Via to Transit (now known as Metro Flex) service providing on-demand van service to four Sound Transit Link stations in Southeast Seattle, while Metro funded service to one station outside Seattle. This offered an opportunity to implement and evaluate these on-demand services and determine if they could be successful. Eventually, success of the service to two higher demand stations led Metro to invest its own funds in service operations.

Trailhead Direct is another innovative service pilot project initiated by SDOT and Metro and now led by Metro and King County Parks. The project is a seasonal service which started in 2017 and will continue operation in 2024. Trailhead Direct aims to ease traffic congestion and improve safety as well as provide more inclusive access to outdoor recreation along the I-90 corridor. It operates on a fixed route on weekends and holidays from May until Labor Day. In addition to testing new approaches or technologies, we invest in community services that have value beyond transportation. The Downtown Circulator provides connections between local human service agencies and other Downtown Seattle destinations, acting as an extension of these agencies.

# Fleet Electrification

Except for the Seattle Streetcar, transit vehicles in the Seattle region are owned and operated by local transit agencies. While most regional buses are diesel hybrid-electric buses, King County Metro (Metro) operates a large network of zero-emissions electric trolleybuses in Seattle that are powered largely by overhead wires along City streets. Metro is now investing in battery-electric buses and is targeting transitioning to a complete zero-emissions fleet by 2035. Transit fuel technologies worldwide continue to evolve rapidly, with vehicles powered by natural gas, hydrogen, biodiesel, and propane, among other fuels. SDOT should continue to support transit partners testing and operating low- and zero-emissions fleets.



An electric Metro bus

## Transit Technology and Systems

Technology systems are critical to optimizing SDOT and transit agency partners service and capital investments. When deployed to meet our goals, technology systems allow buses to avoid and bypass traffic congestion, provide better information and access to transit riders, increase opportunity for first-/last-mile access, improve enforcement of transit-only lanes, and help operators stay on schedule.

Introducing and testing emerging technologies can improve transit service, planning, rider experience, travel option redundancy, and resiliency. When people have access to information about when their bus or train is coming, not only do they perceive wait times as shorter, but they may also ride more often.

This technology can also benefit customer service operations who will have access to real-time, up-todate information to share with customers. Historically, providing this information to customers required costly hard-wired connections and displays that were subject to vandalism, weather, and other factors. Today, those with mobile phones can access information about bus arrival times, and in certain cases, even bus capacity at any stop in the system. Delivering the best information requires that physical and virtual systems be in place, but also requires back-end systems to collect and process information in real time. There are several technologies that help transit operate efficiently, including tools that:

- Modify traffic signal patterns to give transit an early start through intersections
- Maintain green signals for passing buses and trains
- Cite cars that are illegally driving in transit-only lanes
- Help maintain schedules for bus service

The City's role in procuring, managing, and adapting these systems varies depending on where the tool is located (i.e., on a bus, or in the right-of-way) and on specific project elements (i.e., whether the technology is part of a citywide traffic management strategy or a transit agency-led project like RapidRide or Link light rail). Partnerships are important in deploying technology. For example, the City is currently piloting automated enforcement technology in bus lanes and at intersections with stationary cameras.

As an alternative, violations in the future could be monitored by bus-mounted cameras. This change would require not only state legislative action, but also coordination with transit agency partners. Key transit technology systems include:

- Intelligent Transportation Systems (ITS), including Transit Signal Priority (TSP)
- Transit agency data collection systems, such as Automatic Passenger Counters (APC), General Transit Feed Specification (GTFS), and Automated Vehicle Location (AVL) systems
- Automated enforcement systems for transit lanes and intersections, that help reduce private vehicle use of bus lanes
- Fare collection and payment systems
- Technology solutions provided as an incentive to decrease car ownership or solo vehicle travel
- Customer-facing information systems, including trip-planning and real-time arrival information
- The ability to monitor a trip in real time and alter recommended transfers, destination stops, and other aspects of a trip
- Operational technology, such as operator communication systems, scheduling, run-cutting, and dispatch programs; real-time service management; and operator communication systems
- Emerging technologies, such as autonomous and shared vehicle technology
- Microtransit service for low-volume routes with high frequency or customization
- Mobility options beyond traditional public transit, including electric scooter and bike share and other existing and emerging point-to-point mobility options
- Customer trip and trip-planning feedback systems

# TRANSIT ASSET MAINTENANCE

SDOT, along with our transit partners, owns and maintains a variety of facilities and amenities which make up the fixed part of the transit system, such as shelters, wayfinding, real-time information signs, and even the sidewalks riders use to access transit—together these are generally referred as the physical "assets" of the transit network.

Maintaining assets and previous investments in a state of good repair is an important part of ensuring that transit continues to operate smoothly and without interruption. SDOT's goals for asset management include sustainability, accountability, and transparency. Regular reporting on transit asset management is a requirement of the Federal Transit Administration (FTA); a Transit Asset Management Plan (TAMP) covers the period of 2023–2026. This document summarizes transit-related assets pertaining to the Seattle Streetcar and King Street Station, which are owned by the City of Seattle.

Many of the infrastructure assets most important to the overall transit system are not part of the TAMP, such as bridges and structures, arterial roadway pavement, pavement markings, and ITS. While many of these assets are critical to other travel modes, the nature of fixed-route transit means that asset maintenance issues—even on a single block or intersection—can negatively impact service operations along an entire route or set of routes. Collecting high-quality data on asset condition is important to understanding future and emerging issues. This includes information on SDOT's ability to monitor and understand paving conditions, to systems that allow real-time reporting of maintenance issues and safety hazards—whether they are SDOT-owned assets or partner agency assets.

Transit is also a critical travel option if roads, bridges, or other facilities are closed for needed maintenance or repair. For example, during the West Seattle High Bridge closure from 2020-2022, local bus routes and the King County Water Taxi provided critical mobility to those traveling in, to and from West Seattle.



# DEFINING SUCCESS

To track progress toward the STP goals, it is important to define what success looks like and how we'll measure it. This section defines the performance measures that have been identified as important indicators of our progress, as well as relevant Transportation Equity Framework (TEF) tactics that this Element supports. Performance measurement is how SDOT is held accountable and provides transparency for community members and decision makers to understand the impacts of the plan as it is implemented over time.

A transit-friendly city provides our residents, workers, and visitors with a network of frequent, accessible, understandable, and secure transit services, providing reliable connections between neighborhoods, major job centers, and key destinations around the city and the region. Seattle can continue building on its strong transit history and network to evolve into an even more friendly place to ride transit and take trips easily for everyday needs. This looks like a transit system for Seattle that includes:

- Frequent service that allows people to use transit for most trips without consulting a schedule
- Reliable service that allows people to plan their trip with certainty
- **Competitive travel times** on transit should get people where they need to go in a similar or shorter amount of time than driving
- All-day network that focuses on meeting all travel needs, not just those traveling at peak times
- **Connected system** that provides a safe and seamless transfer between transit lines and delivers a wide range of mobility options for first- and last-mile connections
- Seamlessly integrated and affordable system including shared electric, micromobility services into multimodal transit trips at a cost proportionate to the share of the total trip, fostering accessibility and affordability (TEF 35.2)
- Accessibility for all, including fare programs that reduce or eliminate cost as a barrier to transit use, facilities that are fully accessible for people of all abilities, and facilities designed to safeguard customer safety
- **Passenger environment** where all riders feel safe accessing and using the system and where real time information is readily available
- **Clear and inviting spaces** for pedestrians to access transit stops and stations all hours of the day and night, including safe and barrier-free sidewalks (TEF 7.1)
- **Proactive maintenance** to provide a clean, secure waiting environment and making sure facilities are in good condition before major and expensive repairs are needed
- **Coordination with the One Seattle Comprehensive Plan growth strategy** to align land use planning, housing policies, parking and other transportation policies.

# MEASURABLE OUTCOMES

This section outlines desired outcomes and recommends performance measures to monitor the implementation of the STP Transit Element. They are part of a 3-tiered system of measures that includes:

- Tier 1: Overarching, and sometimes aspirational, outcome-based measures are identified in the STP implementation strategy (see Part I document). Generally, they are tracked at a city-wide scale, and SDOT may not have primary control over their achievement. Examples include VMT reduction in support of the STP's safety, sustainability, mobility, livability, and maintenance and modernization goals and the percent of household income dedicated to transportation that informs progress on equity, mobility, and livability goals.
- **Tier 2:** These measures are tracked in individual elements, as they are not as overarching as the measures in Tier 1. Typically measures in Tier 2 are a combination of outcome and output measures over which SDOT has a relatively large degree of control. These measures help SDOT track progress towards our Tier 1 goals. Examples include increasing the share of trips made by people taking transit and improving the reliability of transit service.
- **Tier 3:** Measures in the Tier 3 category are typically tracked by individual programs. SDOT has a high degree of control over these measures. They are used to track productivity and to help allocate resources. Examples include the miles of bus spot improvements or miles of dedicated transit-only or freight and bus (FAB) lanes installed per year.

While all metrics in the table below will be tracked at a citywide scale, it will be important to track several metrics by demographics and/or geography so that SDOT can pivot as needed to meet our equity goals over the next 20 years. The table indicates which metrics will be tracked using the city's Race and Social Equity Index (RSEI) and/or race. RSEI combines information on race, ethnicity, and related demographics with data on socioeconomic and health disadvantages to identify census tracts where priority populations make up relatively large proportions of neighborhood residents.

The ability to successfully track performance measures is dependent on city staff capacity to collect and analyze data, the availability of relevant data, and/or the availability of resources to acquire data.

**Table 7** on the following page includes the Tier 2 performance measures that will be tracked for theTransit Element.

# Table 7: Transit Performance Measures

Desired Outcome	Performance Measure (source)	Baseline (year)	Target or Desired Trend	Track measure by RSEI and/or race	Related STP Goals
Increase walking, rolling, biking, and transit mode share	Increase percent of trips made by transit (SDOT)	11% (2019)	28% by 2044	No	Safety Equity Sustainability Mobility & Economic Vitality Livability
Increase access to frequent transit	Percent of households within a 10- minute walk of frequent transit <sup>10</sup> (SDOT, Census Bureau, KC Metro)	53% (2023)	77%	Yes	Equity Sustainability Mobility & Economic Vitality
Increase satisfaction waiting at bus stops during the day and at night	Percent of customers who report feeling safe while waiting for the bus or train (King County Metro's Rider and Non- Rider Survey; Sound Transit Passenger Experience Survey)	Users feel safe at bus stops at night: 29% (2022) Users feel safe at bus stops during the day: 78% (2022) Pedestrians and cyclists feel safe on train platform grade: A- (Summer 2022)	Increase	Yes	Safety Livability

<sup>&</sup>lt;sup>10</sup> Frequent transit defined as any transit service with 10-minute or better headways available every day.

Desired Outcome	Performance Measure (source)	Baseline (year)	Target or Desired Trend	Track measure by RSEI and/or race	Related STP Goals
Improve reliability of bus transit service	Percent of bus transit network operating reliably (KCM, SDOT)	73% (Fall 2022)	Increase percent of network operating at a TTI of 1.2 or better ("Travel Time Index" (TTI) – ratio of congested to free-flow travel time on a segment)	Yes	Equity Sustainability Mobility & Economic Vitality Maintenance & Modernization
Reduce cost barriers to transit	ORCA distribution to eligible participants of SDOT funded fare subsidy program (SDOT)	56% (2022)	Distribute ORCA cards to at least 65% of eligible participants of SDOT funded fare subsidy programs	No	Equity Sustainability Mobility & Economic Vitality Livability
Support a well- maintained transit network	Percent of Transit Streets with fair or better pavement condition (SDOT)	57% (2023)	Achieve and maintain a higher percent of Transit Street segments with fair or better pavement conditions than streets as a whole	Yes	Safety Mobility & Economic Vitality Maintenance & Modernization

# RELEVANT TEF TACTICS

- TEF 7.1— Survey transit riders on board and at stops/stations about safety concerns; ask about specific locations where there are concerns about safety at waiting areas (align with tactic 11.1).
- TEF 19.6— Prioritize person-throughput, rather than vehicle throughput, as metric.
- TEF 40.1— Emphasize and incorporate pedestrian safety into the street character and design process; ensure staff are trained and educated on how to do this.
- TEF 46.2— Highlight findings/data on the transit access needs of growing middle class and collaborate with King County Metro, Sound Transit, and Puget Sound Regional Council (PSRC) on future programming opportunities.
- TEF 45.3— Identify spaces for equitable investment that can activate community, foster local economic development, and facilitate connections to transit.
- TEF 48.1— Work with transit partners to build on the Downtown Seamless Seattle pilot to expand the integrated transit-pedestrian wayfinding information system, implementing program principles of universal access, transit legibility, and community-vetted design.
- TEF 40.2— Identify locations for new or upgraded pedestrian crossing opportunities to support access to transit.
- TEF 38.4— Inform, empower, and create equitable access for urban neighborhoods to receive community grants to fund transportation projects.
- TEF 19.2— Identify opportunities to repurpose travel lanes for transit, biking, and smaller, lighter-weight vehicles and devices to create more travel options with the STP.
- TEF 43.4— Review SDOT policies, practices, standards, and funding allocation strategies to elevate access and use of right-of-way (ROW) for people of all ages and abilities—people recreating, shopping, walking, rolling, riding bikes and transit.
- TEF 19.1— Normalize decisions about ROW reallocations to be made in partnership with BIPOC communities. This should include investments in alternative modes and land use/housing and connecting with the neighborhood/comprehensive planning.
- TEF 19.7— Do pilots to test out repurposing street ideas and apply lessons learned to new policy approaches and broader citywide opportunities to carry out similar actions to make our streets safer and, first and foremost, for people.
- TEF 34.1— Ensure revenue is prioritized and directly invested in reliable, safe, affordable public transportation and other benefits for BIPOC community members so we can invest in low-income transportation options and prevent the need for enforcement.
- TEF 33.1— Continue to promote remote work and flexible work options at large employment sites citywide, and identifying opportunities where we can better support working-class populations.

- TEF 35.1— Invest in connections to transit that serve specific neighborhoods and priority populations, both new (e.g., inclusive mobility on demand pilot for older adults and people with disabilities) and existing (e.g., Via to Transit pilot, which has been running for 2 years) through grant opportunities and SDOT budget line items.
- TEF 35.2— Assess first-/last-mile connections as part of the transit system. This is part of access to transit and its costs should not be measured separately; it should be a part of the package for any transit access improvement.
- TEF 36.2— Support transition to electric vehicles for all segments of transportation, including personal mobility, goods movement, and services (skilled labor/repair, landscapers, home health care workers, trash collection, etc.) through targeted, equitable incentives and policy design. Implement related actions in the Transportation Electrification Blueprint.
- TEF 37.3— Develop an internal policy to address customer service requests that are near existing projects.
- TEF 38.3— Identify new and less regressive federal, state, and city funding and advocate to invest in pedestrian safety, including crosswalks, sidewalks, traffic calming, lighting, signal operations, etc. Include analysis from the Pedestrian Racial Equity Toolkit (RET) into this process.
- TEF 40.5— Collaborate with community-based organizations (CBOs) to map key target areas where there are higher populations of vulnerable communities and use this map to prioritize investments for improved crosswalk opportunities.
- TEF 40.6— Create a department-wide crosswalk policy that centers the safety needs of communities; this includes a guideline that takes policy, design, and implementation to address and improve crosswalks, pedestrian safety from a community-specific context.
- TEF 41.3— Develop SDOT standard guidance on how to engage and follow-up with community members when safety requests are reported and addressed (e.g., request for crosswalk installation or repairs).
- TEF 45.1— Revisit the Pedestrian Lighting Master plan from 2012; assess areas of current "pedestrian lighting deserts" with transit ridership routes, transfer opportunities, and higher emphasis on equity. Use the findings from this assessment to inform the development of the next transportation funding package.

# APPENDIX A: FREQUENT TRANSIT NETWORK UPDATE METHODOLOGY

Major updates to the Frequent Transit Network (FTN) shown in **Figure 4** (see page T-28) will occur during modal or SDOT-wide long-term plan updates. Minor updates will occur between long-term planning efforts as Seattle's land use patterns change, local population increases, and as the region's transit operators grow and evolve their networks.

## Process for Minor Frequent Transit Network Updates

In the case of Metro service restructuring or significant changes in demand and travel patterns, SDOT will make minor changes to the FTN so that the city's transit service investments continue to match needs. Changes to the classification of existing FTN transit corridors or the addition or deletion of transit corridors on the FTN map will be based on similar criteria used to create the updated FTN map for the STP (as detailed in the transit element):

- **Transit Demand**. Ridership from the corridor or corridor segment with proposed changes will be compared to ridership in comparable corridors of different frequency categories. If a new transit corridor or route is being proposed, SDOT staff will look at land use patterns, trip generators, and the importance of the corridor or segment in the larger transit network.
- Equity. As land use patterns change over time and new demographic or transportation data becomes available, indices such as the Equity Priority Area (EPA) Index Score (from the STM planning team) and the Displacement Risk Index (OPCD) are updated. This and other demographic data may be used to ensure that the FTN continues to meet the needs of vulnerable and historically disadvantaged populations.
- **Connectivity**. Changes in the classification of a transit corridor or corridor segment will be based on measures of how the corridor in question contributes to the connectivity of the transit system. Connections to Link light rail and Metro bus restructures will be drivers of changes to the FTN.

# APPENDIX B: TRANSIT STREET CLASSIFICATION

Transit street classification is the categorization of highways, roads, and streets by the number, or volume, of buses transiting a street segment. At scale, bus volume is a measure of the importance of a transit street in the larger transit network. Street segments with high bus volumes require a higher level of transit performance measures such as bus lanes and may also lead to the degradation of pavement condition at a faster rate. Transit street classification is conceptually similar to Functional Classification, the "grouping of highways, roads and streets by the character of service they provide and was developed for transportation planning purposes."<sup>1</sup> There are two main factors in determining the street types at the City of Seattle, namely the adjacent land use & Intensity and typical street classification.<sup>2</sup>

The Washington State Legislature in <u>RCW 47.05.021</u> and the Federal-Aid Highway Act direct the Washington State Department of Transportation (WSDOT) to analyze the entire state highway system to classify and sub-classify all designated state highways according to their function and importance. Seattle is required by state law to classify city streets into primary functional classifications, which are based on the American Association of State Highway and Transportation Officials (AASHTO) standards. Changes to the city's transit street classification are not required to be approved by Seattle City Council, WSDOT, or FHWA.

To have confidence in the <u>Transit Street Classification Map</u> for existing utilization and for planning purposes, the map must be regularly updated and/or allow transit to operate on these roadways with the intent to monitor pavement conditions and schedule necessary maintenance. The last update of the Transit Street Classification Map was in 2017, after major changes to the City's transit network in late 2016 including the extension of RapidRide C line into South Lake Union, and the University Link Extension which led to changes to many bus routes in central and north Seattle. Prior to 2016, major changes to the city's transit network on the scale of a Link-related restructure have been relatively rare - the largest being bus network changes accompanying the launch of Central Link light rail in 2009.

The North Link Connections transit restructure in Fall 2021 – accompanying the extension of Link light rail to Northgate and which involved further changes to bus service across north Seattle from the 2017 classification update – resulted in other significant modifications to transit pathways and bus volumes but has yet to be updated in the Transit Street Classification system. As of this writing in 2024, the Transit Street Classification Map needs to be harmonized with these changes in King County Metro (and other regional transit service providers) service networks as the result of both long-lasting service level changes due to the COVID-19 pandemic and bus network modifications planned around Sound Transit (ST) Link extensions. SDOT has already been working with King County Metro and Sound Transit on both the Lynnwood Link Connections and East Link Connections projects, which will also change transit service within Seattle each year from 2024 to 2026 due to further additions to the Link network. With these expansions of Link due to the 2008 voter approved ST2 plan, these major changes to transit pathways are proving far more complicated, regular, and onerous than the existing Transit Classification update process had envisioned.

To avoid the Transit Street Classification Map falling out of alignment with existing and planned transit corridors and service levels, this appendix describes an adjusted process for Transit Street Classification in the City of Seattle.

#### Transit Classification Categories

Transit Classification was last revised in 2017 and was based on two-way bus volume as detailed in **Table 8**. The original transit classification categories were based on peak number of buses per hour, with an implicit assumption that the travel of the bus itself along a segment – and the number of trips in any single hour – is the greatest impact to the surrounding area due to noise or vibration.

This document proposes a measure based on buses per day and focuses more on daily impacts to street paving due to heavy axle-weight of transit vehicles. The impact of bus volume on street condition should be based on the total number of buses moving through the corridor; which time of day buses travel on a corridor does not impact that corridor's pavement condition. Peak hour bus volumes do not translate consistently into buses per day because of factors such as the service span (the number of hours that a bus route is running) and frequency of each route (the number of trips per hour) that a vehicle transits a corridor over the course of a day.

In addition, post-COVID ridership patterns have changed, with ridership peaks during the "traditional" morning and afternoon commute period becoming less pronounced, and midday and nighttime ridership increasing in proportion to the overall total. The transit street classification measure needs to provide consistent results as bus schedules adjust to changing ridership throughout the day, and as King County Metro moves towards more of an all-day transit network and with more similar service levels between weekdays and weekends.

Also, this measure is based on weekday bus schedules. The threshold values for peak buses per hour were used to derive the values to the buses per day: we assumed 12-hour service spans and uniform frequencies over the 12-hour period. Many transit corridors will have longer service spans but lower frequency during midday service, so these two factors tend to balance out.

Transit Category	Original category thresholds (Peak Buses per Hour)	Updated category thresholds (Bus trips per day)
Principal	> 51	> 600
Major	16-50	181-600
Minor	1-15	1-180
Temporary	<10	< 120

#### Table 8: Transit Street Classification Categories by Bus Volume

#### **Transit Classifications Legend Definitions**

These definition categories were defined in previous transit classification policy considerations and are meant to accompany the Transit Street Classification Map. Slight modifications from previous methods were made to account for updated transit street classification measure (bus trips per day, as noted above) and to reference recent work on SDOT's draft Transit Performance Policy (TPP) that links bus volumes to transit priority tiers and recommended transit performance elements.

#### Principal Transit Street: (Threshold: Greater than 600 buses bi-directionally on weekdays.)

Provides high-volume transit service, often for regional or citywide trips. Provides frequent, moderate speed, high-capacity service to major private and public developments of regional significance and designated Urban Centers. Principal Transit Streets commonly have exclusive transit lanes or lanes shared with other High Occupancy Vehicles or Freight vehicles. Express and local transit services often share the same facilities.

#### Major Transit Street: (Threshold: Between 181 and 600 buses bi-directionally on weekdays.)

Provides concentrated transit service to connect and reinforce major activity centers and residential areas. Typically, adjacent to major private and public developments, commercial land uses and high-density residential areas such as Urban Centers and Urban Villages. Transit service can be mixed with general traffic or have dedicated bus lanes – see additional guidance for transit improvement projects in the TPP.

#### Minor Transit Street: (Threshold: Between 1 and 180 buses bi-directionally on weekdays.)

Provides local and neighborhood transit service. Adjacent land uses are compatible with the street's traffic classification including neighborhood activity centers such as schools, neighborhood businesses, and recreational facilities. Transit service is mixed with general traffic on Arterial Streets.

**Minor Transit Street on Non-arterial Street:** Consistent with the definition for Minor Transit street but applied to non-arterial streets. Transit service on non-arterial streets may be preferable to operation along arterials in order to access transit layover locations or where this is the best path for routes to connect between arterial streets (due to issues such as turn restrictions, roadway geometry, or accessing local destinations).

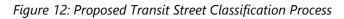
#### Temporary Transit Street: (Threshold: Between 1 and 120 buses bi-directionally on weekdays.)

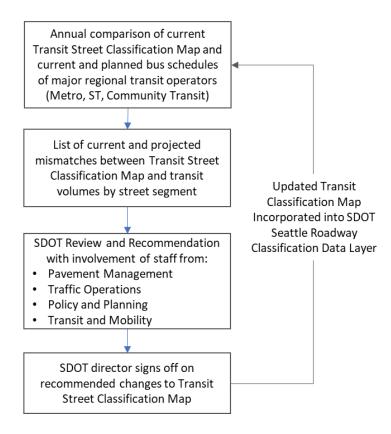
Provides local and neighborhood transit service on a temporary basis because the preferred arterial route has correctable physical constraints that preclude serving transit or because construction along the arterial has required the reroute of transit operations. Once physical improvements are made, transit service would move or return to the arterial street. Transit service mixes with general traffic on a temporary basis only by approval of SDOT.

#### **Transit Classification Process**

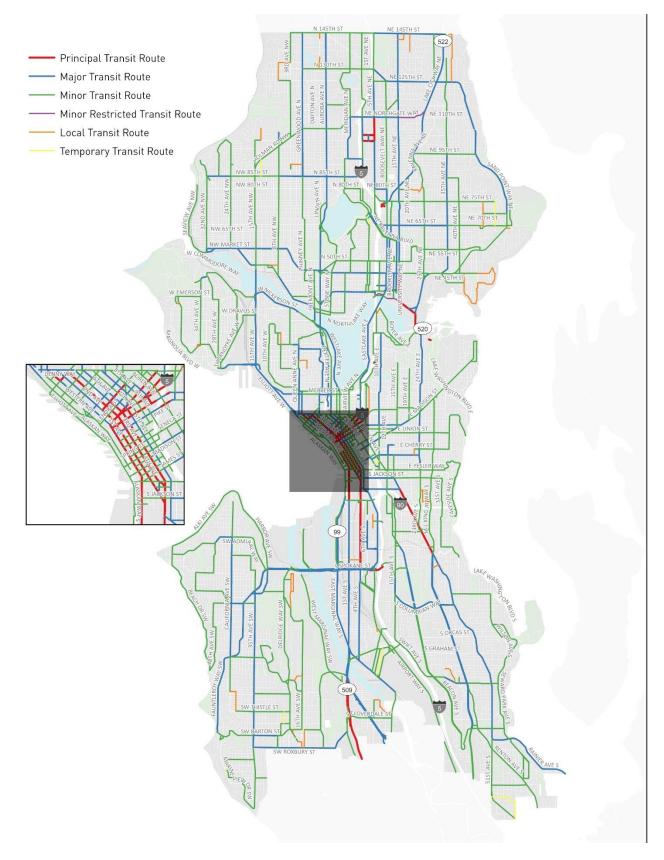
A Seattle Transit Street Classification process was originally outlined in the Seattle Transit Plan (TMP) from 2005. This document is almost 20 years out-of-date and has been supplanted by at least two updates to the TMP, and the involved nature of the process it prescribed has contributed to the infrequent update cadence of the Transit Street Classification Map.

The updated transit street classification process shown in **Figure 12**: Proposed Transit Street Classification Process, recognizes that the process does not have to follow the State or Federal rules that apply to Functional Classification. As a result, the SDOT Director has authority to approve updates to the Transit Street Classification Map that support improvements in transit service and pavement conditions without requiring legislative approval.





# Figure 13: Transit Classification Map



# GLOSSARY

Accessible Pedestrian Signal (APS): Signals installed at crossings to help pedestrians who are blind or have low vision. Auditory signals – such as voice instructions and chirping sounds – indicate when it is safe to cross the street.

Active transportation: Human-powered modes of travel such as walking, biking, and using a wheelchair.

ADA: Americans with Disabilities Act

All ages and abilities (AAA): Bicycle and e-mobility facilities that people of all ages and abilities feel comfortable using. They provide low-stress bicycling conditions and focus on safety.

**Arterial street:** The "backbone" of the roadway system and accommodates the most trips for all modes. Arterials provide the connections between freeways and access streets and vary in their speed and volume characteristics, design features, and degrees of local access.

**Automated Vehicle Location (AVL):** A computerized system that tracks the location of a transit vehicle in real time. It is helpful for riders to plan trips and gauge wait times.

Automatic Passenger Counters (APC): An electronic device on transit vehicles that records the number of people boarding and alighting. It is used to gauge transit ridership and analyze use patterns.

**Bicycle and Pedestrian Safety Analysis (BPSA):** A data-driven study conducted by SDOT to understand where, how, and why pedestrian and bicycle crashes happen. The study used data of where crashes happened and pedestrian, cyclist, and vehicle volumes. The results are used to identify locations and prioritize safety investments with the goal of preventing future crashes.

Bioswale: Vegetated ditches that capture and filter stormwater runoff.

**BIPOC**: BIPOC stands for Black, Indigenous, and all People of Color (BIPOC). It is a term to make visible the unique and specific experiences of racism and resilience that the Black/African Diaspora and Indigenous communities have faced in the structure of race within the United States. BIPOC is a term that both honors all people of color and creates opportunity to lift up the voices of those communities.

BRT: Bus rapid transit

**Business improvement area (BIA):** Districts where stakeholders control and fund the maintenance, improvement, and promotion of their commercial district. All stakeholders are required to pay a share that goes toward funding for the entire district.

**Café Streets:** Streets with high levels of foot traffic and lots of restaurants, cafes, shops, bars, markets, museums, and/or tourist destinations. Vehicles are still permitted to use the street for local access, goods loading, business access, and emergency access, although the street is designed to keep speeds low and to give priority to pedestrians. They are a type of Shared Street.

**Community and Mobility Hubs:** Places of connection that bring together transportation options, community spaces, and travel information into a seamless, understandable, and on-demand travel experience. They are located with major transit facilities and places and may feature People Streets and Public Spaces (PSPS) elements.

Community-based organizations (CBOs): These are trusted community builders and leader

**Commute Trip Reduction (CTR) Program:** A collaboration between governments and private employers to motivate and enable commuters to shift away from drive-alone commutes toward other modes of travel. The program is a result of the Washington State Commute Trip Reduction passed in 1991 to reduce traffic congestion and air pollution.

**Comprehensive Plan:** A 20-year vision and roadmap that guides City decisions on where to build new jobs and houses, how to improve the transportation system, and where to make capital investments such as utilities, sidewalks, and libraries.

**Connected and autonomous vehicles (CAVs):** Vehicles that can communicate with other vehicles (connected) and can drive without a human operator (autonomous).

E-mobility: Personal and shared electric-powered bicycles, scooters, and other electric-powered devices.

EV: Electric vehicles

**Executive Order 2022-07:** An executive order signed by Mayor Bruce Harrell to advance the City's climate goals. The order sets goals of establishing 3 low-pollution neighborhoods by 2028, making 20 miles of Healthy Streets permanent, hosting a Youth Transportation Summit, and making the City's fleet zero-emission by 2030.

First-/last-mile: The distance traveled at the beginning or end of a trip from transit to a final destination.

**Frequent Transit Network (FTN):** Frequent transit are buses and trains that arrive every 15 minutes or less. The FTN sets aspirational frequency targets alongside a transit corridor map illustrating how frequency targets are proposed to be distributed throughout the city. The FTN enables people to travel with confidence in a timely arrival every day of the week.

FTA: Federal Transit Administration

General Transit Feed Specification (GTFS): A common format for public transportation schedules and maps.

GHG: Greenhouse gas emissions

High-frequency transit: Transit service that arrives every 15 minutes or less.

**High-injury Network (HIN):** The High Injury Network (HIN) identifies where fatal and serious crashes have already occurred to inform safety corridors of focus for the Vision Zero program and more. It prioritizes corridors according to fatal and serious injury crash rates, as well as race and equity outcomes.

HOV: High-occupancy vehicle

**Intelligent Transportation Systems (ITS):** Technologies to manage transportation systems, such as coordinating traffic signals and traveler information systems that provide data such as travel times and road closures.

**Key Moves:** A series of strategies across the 6 STP core values that explain how the goals of the STP can be achieved. The Key Moves represent an integrated view of our complex transportation system, touching multiple elements.

Leading pedestrian intervals (LPIs): Walk signals at intersections that give pedestrians an additional 3-7 seconds to cross the street before vehicles.

Level of traffic stress (LTS): A measure of the amount of discomfort cyclists feel biking next to traffic.

**Levy to Move Seattle:** Approved by voters in 2015, the Levy provides \$930 million in funding – roughly 30% of the City's transportation budget – over 9 years to maintain and improve the transportation system.

**Micromobility:** Small, low-speed transportation devices. They are convenient for traveling short distances or the beginning or end of trips. They include bikes and scooters.

**Multimodal**: Refers to the various ways people use the transportation system, such as walking, riding a bicycle, taking transit, or driving a truck or personal automobile. It can also refer to a journey that employs more than one mode, such as walking to the bus stop and then taking a bus to a final destination. The vast majority of individual trips involve more than one mode.

**Neighborhood Greenways:** Neighborhood Greenways are safer, calmer neighborhood streets where people walking and biking are the priority. These streets work together with trails and protected bike lanes to provide connected routes to bring people to the places they want and need to go as part of Seattle's all ages and abilities bicycle network.

**New mobility:** New forms of transportation that use technology to improve efficiency, access, and experience. Examples of new mobility include shared bikes and scooters, rideshare apps like Uber and Lyft, and microtransit.

**OPCD:** Office of Planning and Community Development

PSRC: Puget Sound Regional Council

**PSPS:** People Streets and Public Spaces

**Public Transportation Agency Safety Plan (PTASP):** A Federal Transit Administration requirement that public transit agencies receiving federal funds must create a safety plan.

**Race and Social Equity (RSE) Index:** A tool produced by the Office of Planning and Community Development to aid in the identification of city planning and investment priorities.

Refuge islands: A paved median that protects pedestrians crossing a multi-lane street by providing a safe place to stop.

**Revive I-5:** A 10-year plan by the Washington State Department of Transportation for improvements along I-5 in King and Snohomish Counties. Projects include pavement repair and replacement, expansion joints, and updated to strengthen bridges against earthquakes.

Right-of-way (ROW): A strip of land legally established for the primary purpose of public travel by pedestrians and vehicles.

**Road diet:** Physical changes to the right-of-way that decrease vehicle volumes and speeds and reallocate space toward nonmotorized modes, such as walking and biking. Examples include curb bump-outs, pedestrian refuge islands, narrowed lanes, street cafes, and street trees and landscaping.

**Rolling:** A form of travel that includes low-speed, wheeled mobility devices that use the pedestrian network. Examples include wheelchairs and strollers.

**Safe System Approach:** A framework for transportation planning to move toward a transportation network that is safe for everyone. The approach differs from traditional approaches to traffic safety by recognizing that humans will make mistakes and layers of protection must be built elsewhere into the system to address that. The approach is based on 6 principles:

- Death and serious injuries are unacceptable
- Humans make mistakes
- Humans are vulnerable

- Responsibility is shared
- Safety is proactive
- Redundancy is crucial

Goals are to create safer vehicles, speeds, roads, and people and provide post-crash care.

**SDCI:** Seattle Department of Construction and Inspections

**SDOT:** Seattle Department of Transportation

**Seattle Promise Scholars:** Seattle Promise provides up to 2 years of free tuition at any of the Seattle Colleges for eligible graduating seniors at Seattle public high schools.

**Seattle Transit Measure (STM):** A voter-approved measure that creates \$50 million annually of transit funding, which is used to fund additional service, service improvements, and improve access to service.

**Shared micromobility:** Shared bikes and scooters that offer low-cost options for a short distance trip. Riders locate and rent available devices with their phone, ride it where they want to go, and leave it responsibly parked for the next person.

STP: Seattle Transportation Plan

**Streets Illustrated:** Seattle's Right-of-Way Improvements Manual is an online resource for property owners, developers, and architects involved with the design, permitting, and construction of Seattle's street right-of-way.

**Transit Advisory Board (TAB):** Founded by City Council in 2015, the Transit Advisory Board consists of 12 members – 6 appointed by the Mayor, 5 appointed by City Council, and 1 additional member – that works with the City on plans, programs, and policies related to transit.

**Transit Master Plan (TMP):** A long-range plan developed by SDOT, adopted in 2012 and amended in 2016, that is used to guide the City's transit planning through 2030. The TMP identifies strategies, programs, projects, and investments to achieve transit goals. The Transit Element builds on the TMP.

**Transportation demand management (TDM):** Programs that focus on shifting travel behaviors from single-occupancy vehicles toward more sustainable and efficient modes such as transit and walking.

**Transportation Electrification Blueprint:** Adopted in 2021, the Transportation Electrification Blueprint is a framework for Seattle to reduce its transportation-related greenhouse gas emissions, with a primary focus on electrification of personal trips, shared mobility, goods delivery, travel by the city fleet, and the installation of electrical charging infrastructure.

**Transportation Equity Framework (TEF)**: A roadmap for SDOT decision-makers, employees, stakeholders, partners, and the greater community to collaboratively create an equitable transportation system. The TEF addresses the disparities that exist within the transportation system due to institutional racism.

**Transportation Equity Workgroup (TEW):** Members of the Transportation Equity Workgroup represent vulnerable communities. They co-created the TEF Tactics and work with SDOT to implement the tactics. TEW members are active members within their respective communities and have a personal or professional background in transportation.

**Urban Villages and Centers:** Areas in Seattle identified in the Seattle 2035 Comprehensive Plan where the most future job and employment growth is targeted. This strategy promotes the most efficient use of public investments and encourages walking, bicycling, and transit use.

Vision Zero: City's goal to eliminate traffic deaths and serious injuries on city streets by 2030.

**Vulnerable Communities:** Communities that have historically and currently been erased, intentionally excluded and/or underinvested in by government institutions. SDOT's Transportation Equity Program and Transportation Equity Workgroup include:

- BIPOC communities
- Low-income communities
- Immigrant and refugee populations
- Native communities
- People living with disabilities
- LGBTQIA+ people
- People experiencing homelessness or housing insecurity

- Women and female-identifying populations
- Youth
- Aging adults
- Individuals who were formerly incarcerated
- Displaced and/or high-risk displacement neighborhoods

**Wayfinding:** Visual information that helps people to orient themselves spatially. Wayfinding is important to ensure people can travel easily, comfortably, and safely. Methods of wayfinding include signs and maps.

WSBLE: West Seattle and Ballard Link Extensions

[This page intentionally left blank]