Seattle Department of Transportation

THE

SEATTLE TRANSPORTATION PLAN

A Vision for the Future of Transportation in Seattle

August 2023 Draft

Part II: Technical Report

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INTRODUCTION

The Seattle Transportation Plan (STP) is a 20-year blueprint to modernize and adapt Seattle's streets to meet our needs of today and tomorrow. It guides how we will provide mobility through the city, enable access to places and opportunities, create places to socialize in our plazas and other spaces within the public right-of-way, and more. Additionally, an important objective of the STP is to provide greater detail for how we will achieve the transportation, safety, environmental, and other related goals defined in the One Seattle Comprehensive Plan (2024), the city's updated 20-year growth plan.

The STP is divided into two parts. Where the Part I document provides the vision and goal with a higher-level overview of how we will achieve them, this Part II document provides more of the details. The two documents are divided up as follows.

Seattle Transportation Plan Part I:

- Chapter 1: Shares the STP community vision and goals
- Chapter 2: Provides an overview of community engagement and how it shaped the plan
- Chapter 3: Highlights the key moves that will help attain our goals and provides a summarizes the 8 functional elements
- Chapter 4: Highlights implementing actions

This Part II Technical Report:

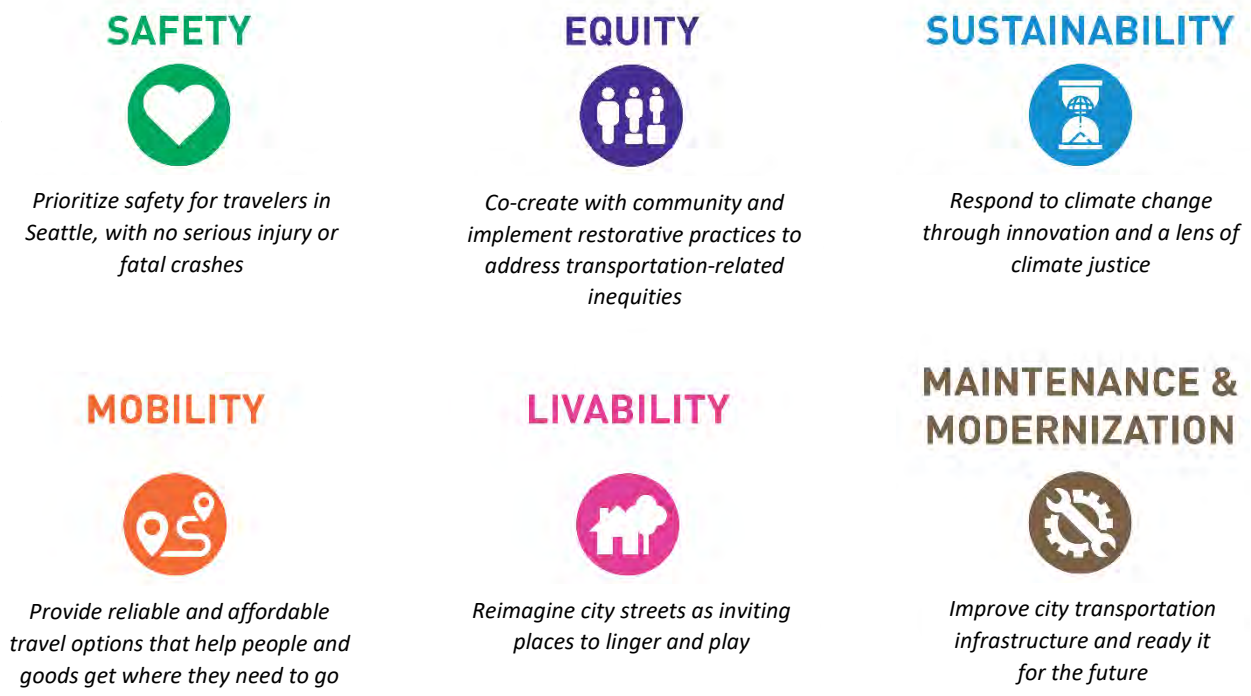
- Chapter 1: Introduces the Part II document and reiterates our vision and goals
- Chapter 2: Describes how the 8 functional elements work together and network integration process
- Chapter 3: Compiles the 8 functional elements
- Chapter 4: Summarizes the community co-creation process and results for each of the key phases of community engagement

The STP vision statement and goals result from a yearlong conversation with people throughout Seattle (see **Figure 1**).

STP VISION

Seattle is an equitable, vibrant, and diverse city where moving around is safe, fair, and sustainable. All people and businesses can access their daily needs and feel connected to the community.

Figure 1: STP Goals for Seattle



How the STP Will Help Us Going Forward

To meet our STP goals, we to need to prioritize the allocation of street space to provide safe, comfortable, and accessible experiences for people using transit, walking, bicycling and micromobility—and to promote those as the most reliable and convenient modes of travel. As well, we need to create inviting public spaces where people can linger and connect, increase our tree canopy for shade and carbon reduction benefits, and enable deliveries to reliably access their destinations.

The STP network integration approach and functional elements inform decisions about how we use our street space to best meet community goals. They also, along with community input, inform future transportation improvements, projects, and programs.

Each element includes performance measures, which when taken in conjunction with the system-wide measures in the Chapter 4 of the Part I document, help us evaluate how programs and projects support our shared vision and track our progress.

Importantly, the plan also informs future transportation funding, including local, state, and federal funding opportunities. The STP provides a menu of potential transportation system investments for the next 20+ years. We will use it to create a long-term funding strategy so we build the projects, implement the programs, and maintain the transportation assets that Seattle needs.

Functional Elements of Our Integrated Transportation System

Cities are complex places. We barely think about our travel experience when all goes well, yet behind the scenes there is a lot happening to make your trip smooth, safe, and enjoyable. An integrated transportation system is the result of careful long-term planning, investment, and day-to-day operations that keep people safe, signals on, systems moving, and goods arriving. The STP was developed to make all travel options safer, reliable, and effective. It is also intended to align the way we allocate our street space with our safety, equity, and climate goals.

The STP Part II report contains a dedicated chapter, or "element," for 8 discrete mobility options—or "modes"—and essential functions of the street. The STP elements are long-term visions of what we aspire to achieve, and each one provides direction on the policies, programs, and strategies needed to support the plan's overarching goals and Key Moves. The 8 functional elements address:

- Transit
- Bicycle and E-Mobility
- Freight and Urban Goods
- Pedestrian
- People Streets and Public Spaces
- Curbside Management
- New and Emerging Mobility
- Vehicle

The following provides a very brief description of the 8 elements, highlighting key ingredients of each element, what previous plans or policies the element builds on or supersedes (e.g., a previous citywide plan for an individual mode), and what in the element is new or innovative.

Transit Element: guides the development of a transit network that is frequent, accessible, understandable, and secure, and that provides reliable connections between other transit services and travel options, neighborhoods, major job concentrations, and key destinations around the city and region.

Includes	Builds on and supersedes	Enhances
A plan for capital investment in critical bus corridors, a vision for our frequent transit network, and programs to improve customer access and experience	2016 SDOT Transit Master Plan	Reliability, customer experience, and frequent service along with transit integration at new light rail stations.

Bicycle and E-Mobility Element: guides the development of a network, programs and facilities that support people who ride bikes because it's a convenient, affordable, fun, safe, and healthy choice.

Includes	Builds on and supersedes	Enhances
A 20-year vision for the bicycle network, recommended programs and strategies to improve safety and maintenance	2014 SDOT Bicycle Master Plan	Accommodations for e-bikes and electric small mobility devices

Freight and Urban Goods Element: guides the development of a system that provides for the efficient movement of freight and urban goods delivery, supporting city's economy and quality of life for its residents, workers, and visitors.

Includes	Builds on and Supersedes	Enhances
The freight network map, first- and last-mile connectivity needs for major port, industrial, and intermodal facilities, and policies for efficient movement of goods	2016 SDOT Freight Master Plan	Policies, programs, and technologies to support urban goods delivery and expands our policy support for dedicated lanes for freight

Pedestrian Element: guides the development of a connected, age-friendly network of sidewalks, walkways, paths, staircases, and pedestrian crossings.

Includes	Builds on and Supersedes	Enhances
All aspects of pedestrian mobility, network planning, programs, safety, and maintenance	2017 SDOT Pedestrian Master Plan	Our commitment to Vision Zero and includes a new focus on crossing busy arterials

People Streets and Public Spaces Element: is an integrated strategy to recognize our streets are more than just places for mobility; they are places for people to connect with a friend, enjoy a leisurely stroll, grab a coffee and people-watch, and utilize public space for relaxation or fitness.

Includes	Builds on and Supersedes	Enhances
Locations for future people streets and public space investments, investments of varying scales, strategies for maintenance of prized public spaces	Is a **new element** that builds on SDOT Urban Design programming	Our streets as places for people and public gathering

Curbside Management Element: guides how SDOT and its community partners manage limited curb space to provide a place for people to transfer between mobility options, to load and unload goods, to provide critical building services (such as waste pick-up), and to allow emergency responders to stage their vehicles.

Includes	Builds on and Supersedes	Enhances
Policies and strategies for managing curb access needs, pricing the curb, enforcement, use of data and electrification	Is a **new element** that builds on SDOT policies and programs for curbside management	Policies for use of data and technology, urban goods delivery, and management of the role of vehicle electrification

New and Emerging Mobility Element: focuses on how SDOT can leverage new technologies—such as on-demand and shared passenger vehicles, e-bikes, and scooters of all sizes, as well as digital infrastructure and technology—to support passenger movement and urban goods delivery.

Includes	Builds on and Supersedes	Enhances
Policies and strategies for managing automation, urban freight, customer facing technologies, and shared mobility	Is a **new element** that builds on the SDOT 2017 New Mobility Playbook	Position on how to center equity in managing emerging technologies, particularly those operated by private companies

Vehicle Element: guides the use of the vehicular system to ensure critical mobility and support a balanced transition to a more goal-driven and equitable use of right-of-way space for our integrated transportation system.

Includes	Builds on and Supersedes	Enhances
Key functional classifications for the vehicular network, definition of the high-crash network and strategies for meeting Vision Zero goals, and policies for allocating street space	Is a **new element** that builds on our Vision Zero Strategic Plan and emergency response planning	Definition of critical vehicular mobility, emergency response, and role of managing vehicular travel to meet safety and climate goals

Engagement summaries

The Part I document includes highlights from our community engagement process to develop the STP. This Part II document includes our full reports for the first two phases of community engagement, providing much more detail on what we heard from you.

The first phase of engagement occurred from May to August 2022. Community input during that period helped shape our vision, goals, and objectives. We also asked about your transportation challenges.

The second phase of engagement occurred from September 2022 to February 2023. During the second phase, we gathered feedback on the draft vision statement, goals, and objectives. We identified the actions that best help us achieve our goals, and we gathered feedback on the draft transportation network maps.

NETWORK INTEGRATION: HOW THE 8 STP ELEMENTS WORK TOGETHER

This chapter serves as a primer for how the 8 STP elements are shaped to inform an integrated, multimodal transportation system. It describes the STP network integration process and the emergent guidance used to shape the network maps and programmatic details in each STP element.

To realize the STP vision, all essential street functions and travel modes must work together – and do so in a manner that is safe, equitable, and climate-friendly. The STP network integration process considered the various needs of our streets to prioritize finite street space to align with plan goals. It builds on previous plans that address multimodal transportation needs within various neighborhoods and subareas, as well our Pedestrian, Bicycle, Transit, and Freight Master Plans.

These strategies and guidance developed as part of this process, helped shape all aspects of the plan including:

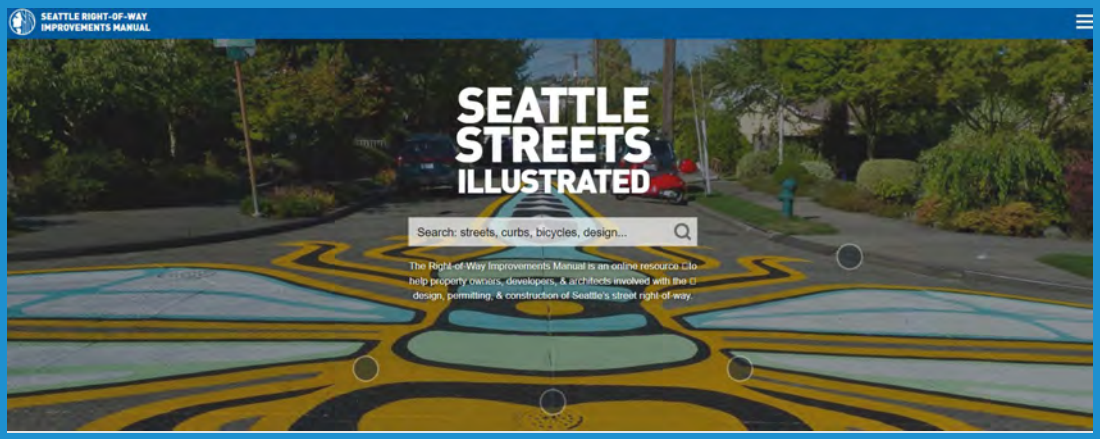
- Informing updates to the priority investment network maps within the 8 elements
- Developing the 8 STP elements recommendations and strategies
- Shaping the Key Moves and actions compiled in Chapter 3 of the Part I document

After completion of the STP, SDOT will build on the network integration process and the STP by updating *Streets Illustrated,* SDOT's *Right-of-Way Improvements Manual,* and advancing our Complete Streets process.

STREETS ILLUSTRATED

Streets Illustrated, Seattle's *Right-of-Way Improvements Manual*, provides design guidance, standards, and processes on how to design, build, and manage projects within the right-of-way.

Streets Illustrated attempts to balance the access, mobility, and placemaking needs of everyone who uses and travels in the right-of-way: people walking, biking, driving, riding transit, moving goods/freight, or seeking to enjoy the social and green spaces. Procedures and design standards were developed to balance safety, the preservation and maintenance of roadway infrastructure and utility services, context sensitive design, and enhancement of our environment.



STP ENGAGEMENT SHAPED THE ELEMENTS

To create the Seattle Transportation Plan, we sought to include the voices of all community members, particularly underrepresented people who may be Black, Indigenous, or members of a community of color (BIPOC); people who are LGBTQIA+; people living in poverty; immigrant communities and people who do not speak English at home; young people; older adults; and people with disabilities. We committed to listening, meeting people where they are, and working to address the needs of those who have historically been left out of planning processes and decision-making about the City's transportation system.

The results of this process are summarized in Part I, Chapter 2—Shaped by Community. Chapter 4 of this Part II document provides a more detailed accounting of the over 76,000 points of input collected from more than 7,000 individuals at over 130 meetings and through the project's on-line engagement hub.

Community input is integral in shaping the 8 STP Elements and was used to:

- Center the needs of historically underrepresented communities
- Define the vision, goals, and objectives that shape specific strategies and programs contained in each element
- Define specific needs and priorities of local communities, businesses, and residents
- Shape recommended programs and actions
- Guide future projects and implementation steps

NETWORK INTEGRATION PRINCIPLES

The STP team developed 7 network integration principles based on community input and technical analysis that demonstrated pathways to achieve the STP goals.

- Put safety first on every street and at every intersection.
- Prioritize streets differently than in the past. While personal vehicles have a place, we will prioritize space-efficient travel options for moving people (transit, bicycling, rolling, and walking).
- Support the essential access and community health functions streets provide, such as delivery of goods and services, curb access, people streets, and public spaces.
- Accelerate implementation of critical network connections, especially for people walking and biking.
- Manage the transportation system's capacity and reliability to meet climate targets, encouraging more people to ride transit, walk, and bike.
- Consider the unique needs of local communities when making decisions about streets.
- Allocate needed functions across a corridor composed of several streets or alleys.

The principles were vetted with Seattle's modal advisory boards (Transit, Bicycle, Pedestrian, and Freight Boards) the Transportation Equity Workgroup, the Seattle Planning Commission, and the School Traffic Safety Committee. Creating the principles formed the first step in the network integration process.

PRIORITIZING STREETS AND INTERSECTIONS

Seattle streets vary greatly in dimension, design, and adjacent land use, and they play different roles in the city and regional transportation network. Building an integrated system requires us to look at the many dimensions and roles of our streets and balance street design and operations to meet STP goals and individual user needs.

Four key dimensions of how we plan, design, and operate our streets are:

- **Essential functions of the right-of-way** compiles the range of ways our streets are used.
- **Right-of-way zones** dictate appropriate uses and relationship to immediately adjacent uses, ensuring that our streets balance mobility, access, and other critical functions.
- **Land uses and development patterns** (i.e., industrial, residential) influence the primary street users, the operating and design needs, and the street's role in the broader system (i.e., what types of places it connects, what modes it carries, and its roles in the regional network).
- **Intersections and community and mobility hubs** are the places where our streets, paths and transit lines come together. How these points of connections are designed and managed has an outsized influence on the transportation system.

6 Essential Functions of the Right-of-Way

In the development of the 8 elements, we considered their role in providing for essential street functions. Previously, Seattle's Comprehensive Plan (Seattle 2035) defined 6 essential functions of the right-of-way as part of a 20-year growth strategy. These essential street functions continue to be defined in the One Seattle Comprehensive Plan update (2024). These functions are shown in **Table 1**. Through the STP, we aim to comprehensively consider all essential street functions when making decisions about transportation system investments and street uses.

Table 1: Essential Functions of the Right-of-Way

FUNCTION	DEFINITION	EXAMPLES
MOBILITY	Moves people and goods	• Sidewalks • Bus or streetcar lanes • Bike lanes • General purpose travel lanes (includes freight)
ACCESS FOR PEOPLE	People arrive at their destination, or transfer between different ways of getting around	• Bus or rail stops • Bike parking • Curb bulbs • Passenger load zones • Short-term parking
ACCESS FOR COMMERCE	Goods and services reach their customers and markets	• Commercial vehicle load zone • Truck load zone
ACTIVATION	Offers vibrant social spaces	• Food trucks • Parklets and outdoor dining • Public art • Street festivals
GREENING	Enhances aesthetics and environment health	• Plantings - Boulevards - Street trees - Planter boxes • Rain gardens and bio-swales
STORAGE	Provides storage for vehicles or equipment	• Bus layover • Long-term parking • Reserved spaces (e.g., for police) • Construction

Right-of-Way Zones

The STP network integration policy will help planners and project developers—in collaboration with the community—to identify a preferred allocation of street space in support of a combination of context-specific functions (e.g., mobility, access for people, loading and access for goods and commerce, activation). Certain functions are appropriate in specific right-of-way zones (see **Figure 2**) based on land use context and a street's overall role in the transportation system. *Streets Illustrated* describes these zones as:

- **Pedestrian Realm**: this is the zone we call the sidewalk, but more broadly the space that serves people walking, rolling, or delivering goods. The pedestrian realm also houses fixed infrastructure such as street furniture, public seating, street trees that cool and beautify the street, bus platforms and shelters, bike racks, scooter and new mobility parking, public art, and café seating or dining.
- **Flex Zone:** The space along the curb that is essential for people and goods to transition between the pedestrian realm to mobility functions in the travelway. This highly constrained and valuable space has the most competing uses since it can be used for access, mobility, and or public space uses. It's often the critical interface between how people travel and the places they are traveling to and from.
- **Travelway:** The space "in" the street that is dedicated for mobility that can include moving goods, or traveling by bus, bike, e-mobility device, or private vehicle.

Figure 2: Street Right-of-Way Zones

Land Use Context

Seattle's growth strategy is the high-level framework, detailed within the Comprehensive Plan, for guiding how the city grows. Often referred to as "the Urban Village" strategy, the plan directs most of our population and employment growth into Urban Centers and Urban Villages--in general these are the denser, more pedestrian-friendly, and transit-supported districts within Seattle. The Comp Plan also identifies two Manufacturing Industrial Centers (in SODO and Ballard/Interbay), job centers in their own right that are critically important centers for freight and urban goods movement. The Comprehensive Plan is studying updates to the growth strategy, which will create opportunities and impacts for the transportation system. One key aspect of the STP and the network integration process is considering how our transportation system can grow and change to support any changes to the growth strategy.

STP network integration decision guidance focuses on Seattle's arterial street network, where most local trips and many regional trips are made. Clear guidance for how we allocate street space in these corridors is critical. That guidance is influenced by the street's role in the network and its land use context. For example, destination rich streets in Urban Centers and Urban Villages must provide access and serve as great places for people on foot, rolling, and cycling, while streets connecting Urban Centers, Urban Villages and Manufacturing and Industrial Centers are key connective tissue between destination and activity rich growth centers.

Streets Illustrated identifies many potential street types based on the degree of movement through them and the sense of place they are intended to provide. The three categories listed below are a distillation to help center a street's role in the transportation system and land use context in right-of-way allocation decision guidance.

- **Connector** streets connect Urban Centers, Urban Villages, and other neighborhood commercial areas; often have lower density land uses; and play a key role in serving longer trips for people and goods moving between Urban Centers and Urban Villages, Manufacturing Industrial Centers (MICs) and regional highways.
- **Main** streets are destination streets that serve retail and commercial uses in Urban Centers and Urban Villages neighborhoods. These are destination rich streets where pedestrian quality and public realm is a high priority as well as curb use functions that ensure access for people and goods.
- **Industrial Access** streets are adjacent to manufacturing and industrial land uses and make critical connections to regional and interstate highways. They are designed to accommodate significant volumes of large vehicles such as single unit trucks, tractor trailers, and other delivery vehicles.

Intersections, Crossings, and Community and Mobility Hubs

Intersections are where people meet, connect between different modes of travel, socialize, and pause to exchange ideas. Cities more broadly are about stopping traffic. That is why businesses, merchants, hotels, warehouses, cultural institutions, and people live and grow there. Our intersections and community and mobility hubs are microcosms of the city, meant to stop traffic and provide access and exchange.

The STP network integration process considered several unique contexts where intersections of major arterials, crossings of highways, pinch points created by water crossings or other "exchange" conditions presented opportunity to:

- Improve safety for vulnerable street travelers
- Increase non-drive alone mode share by improving the safety and reliability of other travel options
- Enhance the quality of public spaces where people come together
- Develop community and mobility hubs that connect people using transit, walking, cycling, etc., to the next leg of their trip or their destination.

Special contexts considered in the network integration process include:

- **Major arterial intersections with frequent transit in Urban** Villages (e.g., Greenwood Ave N and N 85th St crossing in the Greenwood–Phinney Ridge Urban Village)
- **Key network pinch points** such as bridges crossing the Ship Canal (e.g., Fremont Bridge, Ballard Bridge)
- **Streets crossing and providing access to freeways** (e.g., NE 45th St crossing of I-5)
- **Exchanges of streets providing access to Link light rail stations** (e.g., S Othello St and MLK Jr Way)

ELEMENT PRIORITY FUNCTIONS

Each of the 8 elements has a crucial role to play in meeting the needs of travelers and others who use city streets. Integrated transportation network guidance helps ensures all our priority networks function in balance, while advancing the network design and operational needs of each individual function of the transportation system. As an integrated whole, each element in **Table 2** does its part to ensure all people and businesses can access their daily needs and feel connected to their community.

Table 2: Each Element Contributes to an Integrated Whole

Pedestrian	Bicycle & E-mobility	Transit	Freight & Urban Goods
Safe, dignified access and mobility for everyone walking and rolling in all Seattle neighborhoods	Safe, connected system providing access to destinations for people of all ages and abilities	Reliable, affordable mobility for all Capacity for mode shift to meet our climate and safety goals	Reliable access to industrial land uses and regional freeways Operational space and efficient delivery of goods
People Streets & Public Spaces	**Curbside Management**	**New & Emerging Mobility**	**Vehicle**
Great places for walking and community life	Efficient access for passenger loading, goods, and services, building services Flexible functions to provide greening, activation, and electrification	Data-enabled, digital mobility and new vehicle types are managed to help meet our goals	Vehicular access provided for necessary trips with a focus on improving safety and reducing impacts of vehicular travel

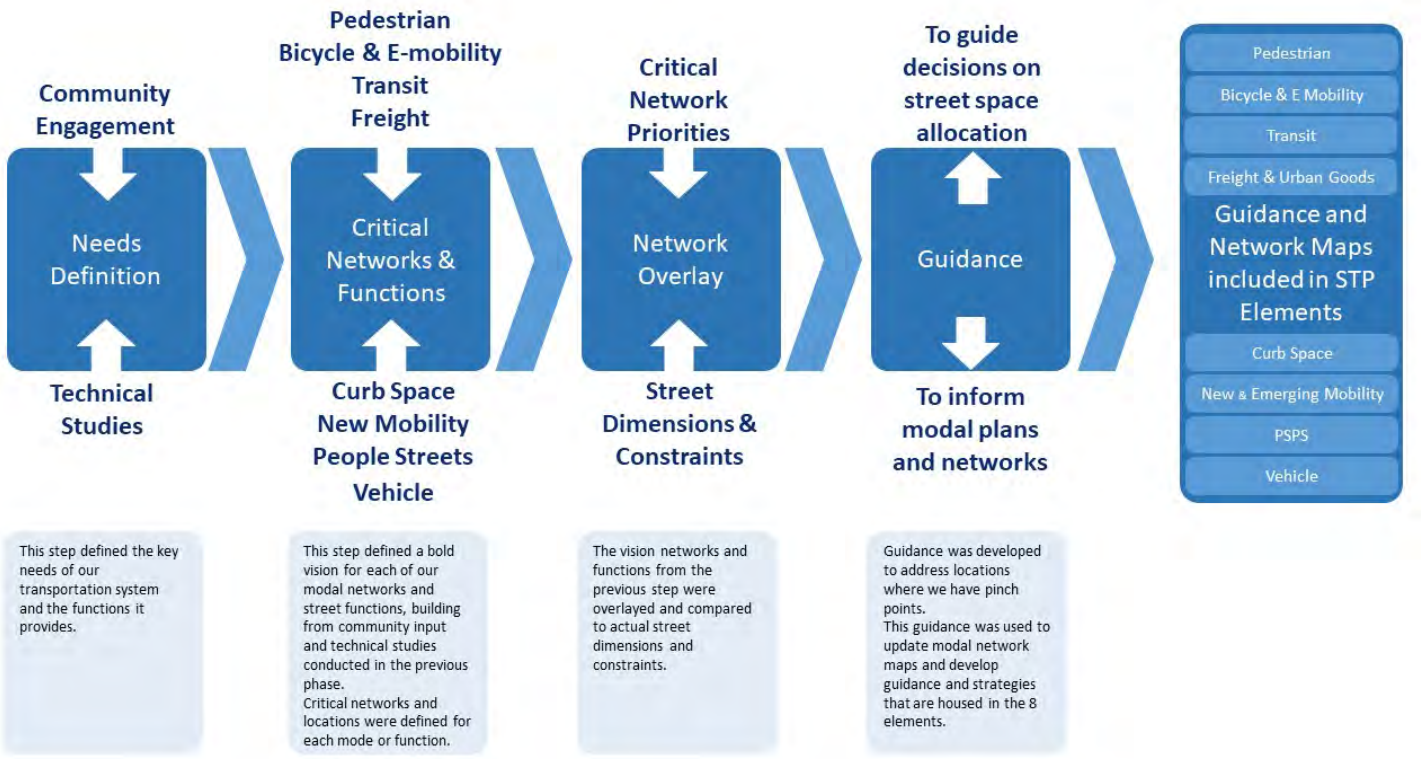
NETWORK INTEGRATION PROCESS

The Seattle Transportation Plan is different than previous Seattle transportation plans in that it considers all functions of the right-of-way and the finite street space available to program them on a

citywide scale. STP network integration used a data- and engagement-driven process to develop a multimodal network plan that tackles the hard decisions about how we program city right-of-way.

Figure 3 illustrates the key steps in the network integration process.

Figure 3: Network Integration: Prioritizing Street Space to Meet our Goals



The network integration process was:

- Informed by thousands of Seattleites who engaged in the STP development process and anchored to the STP vision and goals
- Developed with detailed input from technical experts from SDOT representing all the functions of the right-of-way
- Vetted by Seattle's modal advisory boards (Transit, Bicycle, Pedestrian, and Freight Advisory Boards) the Transportation Equity Workgroup, the Seattle Planning Commission, and the School Traffic Safety Committee

In the Needs Definition step in the process, we identified the role and priorities for what became the 8 functional elements. This step drew on Phase I community engagement feedback, where we solicited input on current challenges with getting around Seattle. We also worked closely with technical experts across SDOT.

In Fall 2022/Winter 2023, building on the recently developed draft STP vision, goals, and preliminary Comprehensive Plan growth scenarios, the project team began developing each of the 8 functional elements and modernizing the priority network maps. This process built upon the existing citywide mode-specific plans for pedestrian, bicycling, transit, and freight and other recent value-centered work around safety, equity, and climate action.

Subsequently, the networks and functions from the previous steps were overlayed and compared to actual street dimensions and constraints. This step included discussion of trade-offs utilizing the network integration guidance from the *Comprehensive Plan* and *Streets Illustrated*, along with new and emerging considerations advanced as part of this planning process.

The resulting networks, strategies, and recommendations are incorporated into the Part I document and functional elements. The overall set of recommendations is aimed at creating an exceptional transportation system, where the various components work together to meet everyday needs, support a growing city, and make more vigorous progress towards our most pressing goals for a safer, more equitable, and sustainable transportation system.

NETWORK INTEGRATION GUIDANCE

The STP network integration process integrated public input and technical analysis to shape guidance for future decisions about how we use finite street space. The following *Comprehensive Plan* policies played a key role in shaping our network integration process and decision making:

- T 2.1 Devote space in the street right-of-way to accommodate multiple functions of mobility, access for commerce and people, activation, landscaping, and storage of vehicles.
- T 2.2 Ensure that the street network accommodates multiple travel modes, including transit, freight movement, pedestrians, people with disabilities, bicycles, general purpose traffic, and shared transportation options.
- T 2.3 Consider safety concerns, modal master plans, and adjacent land uses when prioritizing functions in the pedestrian, travelway, and flex zones of the right-of-way.
- T 2.4 Use pedestrian design guidance in the Right-of-Way Improvements Manual and policy guidance from the modal master plans to determine adequacy of the pedestrian realm, before allocating space to the flex zone or travelway. Within the pedestrian realm, prioritize space to address safety concerns, network connectivity, and activation.
- T 2.5 Prioritize mobility needs in the street travelway based on safety concerns and then on the recommended networks and facilities identified in the respective modal plans.
- T 2.6 Allocate space in the flex zone to accommodate access, activation, and greening functions, except when use of the flex zone for mobility is critical to address safety or to meet connectivity needs identified in modal master plans. When mobility is needed only part of the day, design the space to accommodate other functions at other times.
- T 2.7 Assign space in the flex zone to support nearby land uses, provide support for modal plan priorities, and accommodate multiple functions.
- T 2.8 Employ the following tactics to resolve potential conflicts for space in the right-of-way:

    - Implement transportation and parking-demand management strategies to encourage more efficient use of the existing right of way
    - Allocate needed functions across a corridor composed of several streets or alleys, if all functions cannot fit in a single street
    - Share space between travel modes and uses where safe and where possible over the course of the day
    - Prioritize assignment of space to shared and shorter-duration uses
    - Encourage off-street accommodation for non-mobility uses, including parking and transit layover
- T 2.11 Design sidewalks in urban centers, urban villages, and areas designated as pedestrian zones … to foster vibrant pedestrian environments in these areas.
- T 2.14 Maintain, preserve, and enhance the City's alleys as a valuable network for public spaces and access, loading and unloading for freight, and utility operations.
- T 2.15 Create vibrant public spaces in and near the right-of-way that foster social interaction, promote access to walking, bicycling, and transit options, and enhance the public realm.

Additionally, an array of emerging considerations were factored into the network integration process. These came from priorities and themes from our community engagement process, our technical work, and from work across SDOT since the adoption of the *Comprehensive Plan* in 2018. These emerging considerations included:

- Reducing vehicle miles travelled (VMT), consistent with state law and a City Council resolution
- Utilizing a broader toolkit including potential truck-only lanes and freight and bus (FAB) lanes, car-lite and car-free streets, including Healthy Streets and School Streets, and mobility lanes
- Expanding on Policy T 2.15 to plan for a citywide constellation of People Streets and Public Spaces
- Elevating priority for critical access functions (e.g., load zones and waste pickup)
- Expanding opportunities for enhanced crossing of arterials
- Considering the needs of emergency response along Tier 1 (high volume response) routes
- Employing level of service measures and standards that reflect our complete streets approach and goals.

Design Guidance for Special Contexts

In many cases, further guidance is needed to address more complex conditions, tensions, and tradeoffs in how street space is allocated or operated. The process of balancing street space and use to meet our goals identified several special or challenging conditions that are repeated around Seattle. For example, these include places where arterial streets cross I-5, creating multiple threats to people walking and cycling, or bridge crossings of the Ship Canal, where all modes are forced to use narrow and antiquated bridge infrastructure. A more complete list of special contexts is provided in **Table 3**.

Table 3: Contexts Requiring Special guidance for Balancing Street Space

Connector Streets	• Connector streets prioritized for transit and freight movement • Connector streets with limited parallel routes • Streets crossing and providing access to freeways • Corridors parallel to light rail	
Main Streets	• Main streets that connect key centers • Main streets with limited parallel routes • Streets providing access to light rail stations	
Industrial Access Streets	• Industrial access streets with limited parallel routes • Industrial access streets that provide biking, walking, rolling access to light rail stations	

The network integration process developed guidance, implementing strategies and supportive programs for each of these special contexts.

- **Guidance** to determine use of right-of-way in alignment with STP goals and objectives, and current and planned land use context.
- **Implementing strategies** that can complement policy guidance. Street design requires many context-specific decisions, and there are many related design and operational conditions that contribute to how various modal or functional elements are included in constrained street environments. These are examples of strategies or design approaches that complete guiding policy.
- **Supportive programs** track other types of actions or programmatic approaches that are critical complements to network integration policies. By way of example, beyond the capital and service investments in transit, we fund an array of programs to support encouragement programs within our urban centers, fund discounted transit ORCA cards for eligible residents, and have proposed a new program to create community and mobility hubs around our busy transfer location.

FUNCTIONAL ELEMENTS

TRANSIT

BICYCLE AND E-MOBILITY

FREIGHT AND URBAN GOODS

PEDESTRIAN

PEOPLE STREETS AND PUBLIC SPACES

CURBSIDE MANAGEMENT

NEW AND EMERGING MOBILITY

VEHICLE

Seattle Department of Transportation

DRAFT SEATTLE TRANSPORTATION PLAN

Transit Element

August 2023

Seattle Department of Transportation

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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 and 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, and sustainability.

HOW THE TRANSIT ELEMENT ADVANCES THE STP

The Transit Element provides a framework for continued improvement to Seattle's transit system, building on the foundation of and superseding the 2016 Transit Master Plan. 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 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 Transit Master Plan (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.

RELATIONSHIP TO STP GOALS

Transit plays an important role in meeting the Seattle Transportation Plan's goals for **safety, equity, sustainability, mobility, livability,** and **maintenance and modernization**. Transit is a low-emissions, safe, affordable option that combats climate change and contributes to neighborhood livability and mobility.

Prioritize safety for travelers in Seattle with no serious injury or fatal crashes. Transit is among the safest forms of travel because vehicle operators are professional drivers and buses are less impacted in collisions. 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. Providing affordable transit options enables people to live car-free, without the costs to own, operate and maintain a personal vehicle. Implementing the transit network will provide high-quality, all-day travel options that increase access to jobs and opportunities, reduce some 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. Implementing the transit network encourages more trips using shared modes, like buses or light rail. Transit is 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 powered by carbon-free electricity. Transit also supports denser, more sustainable development and reduces driving trips—our greatest source of greenhouse gas (GHG) emissions, air and water pollution, and harmful emissions that impact community health.

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.

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.

IMPLEMENTING THE KEY MOVES

Part I of the Seattle Transportation Plan (STP) includes a collection of Key Moves, or strategies, to advance the STP goals. Each Functional Element serves an important role in making these Key Moves and their supporting actions.

Table 1 below summarizes the Key moves and specific actions the Transit Element helps to accomplish. They are nested under the primary STP goal they seek to advance. Many actions are cross-cutting, and they appear in all Functional Elements as important commitments and initiatives. Other actions are specific to one or more Functional Elements and are marked with an asterisk (*) to indicate that this Element plays a critical role in operationalizing or supporting that action.

Additional details on SDOT's roles and the ways we'll tackle this work are included in the "Transit in Seattle" section below. Actions that implement tactics from SDOT's Transportation Equity Framework (TEF) are noted in parentheses; these tactics are listed at the end of this element.

Table 1: Key Moves and Transit Element Actions

Key Moves
Actions

Key Moves and Transit Element Actions		STP Goals Supported						
		Safety	Equity	Sustainability	Mobility	Livability	Maintenance & Modernization
SAFETY KEY MOVES							
Concentrate safety investments at the most collision-prone locations (S2)							
T1	Incorporate Vision Zero and Safe System approaches into every project and program. (S2a)	✓	✓	✓	✓	✓	
T2	Pilot and evaluate new and emerging safety treatments in locations where proven interventions are infeasible or do not address the identified safety issues. (S2c)	✓					✓
Make all journeys safer, from departure to destination. (S3)							
T3*	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. (S3b)	✓	✓	✓	✓		✓
T4	Upgrade existing facilities for people walking, bicycling, and rolling to be safer and accessible for people of all ages and abilities. (Supports TEF 7.1) (S3c)	✓		✓	✓		

* Indicates this Element plays a key role in advancing this action.

Key Moves and Transit Element Actions		STP Goals Supported						
		Safety	Equity	Sustainability	Mobility	Livability	Maintenance & Modernization
T5	Accelerate implementation of research-backed improvements that are proven to make streets safer for everyone, such as hardened centerlines, leading pedestrian intervals (LPIs) at signals, No Turn on Red Signs at signalized intersections, and road diets. (S3d)	✓					
T6	Make people walking, biking, and rolling more visible by improving sight lines at intersections through treatments such as curb bulbs, No Parking signs, improved lighting, and refuge islands, with a focus on High Injury Corridors. (S3e)	✓					
T7*	Expand opportunities to more safely cross busy arterials by installing enhanced crosswalks. (Supports TEF 40.6) (S3f)	✓					
Provide safer routes to schools, parks, transit, community gathering spaces, and other common destinations (S4)							
T8*	Construct the networks for walking, biking, transit, People Streets and Public Spaces as outlined in this Plan. (S4a)	✓	✓	✓	✓	✓	✓
T9*	Make investments near light rail stations and busy transit stops that make it safer to walk and bike to transit. (S4b)	✓	✓	✓	✓		✓
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 TEF 40.2) (S4c)	✓	✓	✓	✓		
EQUITY KEY MOVES							
Center the voices of communities of color and underrepresented groups in planning and decision-making processes (TJ1)							
T12	Implement the Transportation Equity Framework (TEF) to grow transparency, accountability, and shared power when making transportation decisions with community members. (TJ1a)		✓				
T13	Feature community voices in planning documents. (TJ1b)		✓				
T14	Continue to build and maintain relationships with vulnerable communities and underrepresented groups. (Supports TEF 29.1 and 41.6) (TJ1c)		✓				
T15	Meet early and often to provide opportunities to influence projects before they are fully developed. (Supports TEF 3.4) (TJ1d)		✓				
T16*	Build trust and capacity within organizations prioritizing our vulnerable communities focused on increasing walking, biking, and rolling and learn from the leaders active in these spaces. (Supports TEF 31.4) (TJ1e)	✓	✓	✓	✓		

* Indicates this Element plays a key role in advancing this action.

Key Moves and Transit Element Actions		STP Goals Supported					
		Safety	Equity	Sustainability	Mobility	Livability	Maintenance & Modernization
T17	Normalize the practice of making decisions about policies and right-of-way (ROW) allocations with input from vulnerable communities. (Supports TEF 19.1 and 25.4) (TJ1f)		✓				
T18	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 TEF 17.1, 21.2 and 16.1) (TJ1h)		✓		✓		✓
T19	Compensate community partners for their valuable work to connect and communicate with their networks and uplift community-driven initiatives. (Supports TEF 1.1, 13.4, 31.4, and 37.1) (TJ1i)		✓				
Address inequities in the transportation system by prioritizing investments for impacted communities (TJ2)							
T20	Prioritize transportation investments that benefit people and local businesses who currently and historically experience high transportation burdens and those at high risk of displacement. (TJ2a)		✓				✓
T21	Collaborate with municipal, county, regional, and state transportation partners to consider the transportation needs of people displaced from Seattle. (TJ2b)		✓				
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 TEF 14.3 and 15.2) (TJ2c)		✓		✓	✓	
T23	Identify actions to address inequities experienced by vulnerable community members who walk, bike, and roll, and provide capacity-building support to BIPOC-led organizations that focus on increasing active transportation. (Supports TEF 31.4) (TJ2d)		✓			✓	✓
T24	Develop policies to prevent and mitigate transportation projects, both past and present, from contributing to future displacement. (TJ2e)		✓				
T25	Implement improvements to make traveling in Seattle more accessible for everyone, such as curb ramps, accessible pedestrian signals, accessible parking, and accessible transit stops. (TJ2f)		✓		✓		✓
T26	Partner with other departments and agencies to deploy anti-displacement programs, investments, tools, and mitigation efforts. (TJ2g)		✓				
T27	Conduct and implement racial equity assessments at the program level. (TJ2h)		✓				

Key Moves and Transit Element Actions		STP Goals Supported					
		Safety	Equity	Sustainability	Mobility	Livability	Maintenance & Modernization
Remove cost as a barrier so everyone can take the trips they need to make (TJ3)							
T28*	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. (TJ3a)	✓	✓	✓	✓	✓	✓
T29*	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. (TJ3b)		✓	✓			
T30*	Enhance programs that provide free or reduced travel fares and fees for low-income households. (Supports TEF 32.1, 46.2, 46.3, and 52.4) (TJ3c)		✓		✓		
SUSTAINABILITY KEY MOVES							
Improve neighborhood air quality and health outcomes by promoting clean, sustainable travel options (CA1)							
T31*	Expand beyond employer-based travel demand management programs to include residential and neighborhood-based strategies that encourage non-driving travel choices for all trips. (CA1a)	✓	✓	✓	✓	✓	✓
T32*	Develop and expand programs that incentivize sustainable alternatives to driving for large events and as a primary congestion mitigation tool during major construction projects. (CA1c)			✓	✓		
T33*	Support increased transit service through co-investments with transit agency partners so the transit network takes people where they want to go. (CA1d)		✓	✓	✓		
T34*	Encourage transit-oriented development through alignment of land use policies with other City departments. (CA1e)			✓	✓	✓	
T35*	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). (CA1g)	✓	✓	✓	✓		
Green city streets with landscaping and street trees to better handle changing climate (CA2)							
T36	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 TEF 56.4) (CA2a)			✓		✓	

* Indicates this Element plays a key role in advancing this action.

Key Moves and Transit Element Actions		STP Goals Supported					
		Safety	Equity	Sustainability	Mobility	Livability	Maintenance & Modernization
Foster neighborhood vitality and improved community health (CA3)							
T39*	Design for people-first streets to make sustainable travel choices the default and easy choice for neighborhood trips and to increase neighborhood business district activity. (CA3d)			✓			
Support the transition from fossil fuel to electric vehicles for personal, commercial, and delivery trips (CA4)							
T41	Support the transition to electric vehicles (EVs) for all segments of transportation through equitable incentives, grant opportunities, partnerships, and pilot programming. (Supports TEF 36.2) (CA4a)		✓	✓			
T42*	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 transition of other vehicles to battery-electric buses, including collaborative planning and streamlined permitting processes. (CA4d)			✓			
Advance mobility management strategies to encourage walking, biking, and transit trips (CA5)							
T44*	Explore equitable demand management tools that could influence travel choices and create revenues to invest in sustainable transportation options, freight movement, and innovation. (CA5c)		✓	✓			✓
MOBILITY KEY MOVES							
Create seamless travel connections (PG1)							
T45	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 TEF 19.6 and TEF 43.4). (PG1a)		✓	✓	✓	✓	
T46*	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 TEF 35.2 and 45.3) (PG1b)	✓			✓	✓	
T47*	Improve east-west mobility between neighborhoods and destinations, especially as additional north-south oriented light rail service begins, and existing bus services are redeployed. (PG1c)			✓	✓		
T48*	Coordinate with regional transit partners to simplify trip planning, booking, and mobility payment options across public and private mobility services. (PG1d)				✓		
T49*	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). (PG1e)				✓		✓

* Indicates this Element plays a key role in advancing this action.

Key Moves and Transit Element Actions		STP Goals Supported						
		Safety	Equity	Sustainability	Mobility	Livability	Maintenance & Modernization
T50*	Expand the pedestrian wayfinding program, including at transit stations and stops, in collaboration with community and regional partners. (Supports TEF 48.1) (PG1f)				✓	✓	
T51*	Work with transit agencies and private partners so that real-time data can help travelers make informed decisions. (PG1g)				✓	✓	✓
Make walking, biking, and rolling easy and enjoyable travel choices (PG2)							
T52*	Improve pedestrian lighting, especially along transit routes and where connections between different travel options are made. (Supports TEF 45.1) (PG2c)	✓			✓	✓	
Create world-class access to transit and make service more frequent and reliable (PG3)							
T53*	Partner with King County Metro to deliver SDOT's Frequent Transit Network target levels of bus service and service area coverage. (PG3a)		✓		✓		✓
T54*	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. (PG3b)		✓	✓	✓		
T55*	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. (PG3c)		✓		✓		
T56*	Create a continuous streetcar connection by linking the First Hill and South Lake Union streetcar lines through Downtown. (PG3d)		✓		✓	✓	
T57*	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. (PG3e)		✓	✓	✓		✓
T58*	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. (PG3f)				✓		✓
T59*	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 TEF 35.1) (PG3g)		✓		✓		
T60*	Enhance existing and create new Community and Mobility Hubs, with connections to transit services and related travel options. (PG3h)	✓	✓	✓	✓	✓	✓

* Indicates this Element plays a key role in advancing this action.

Key Moves and Transit Element Actions		STP Goals Supported					
		Safety	Equity	Sustainability	Mobility	Livability	Maintenance & Modernization
T61*	Prioritize low-carbon travel options through seamless, direct walking and rolling connections to Community and Mobility Hubs. (PG3i)	✓		✓	✓	✓	
T62*	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. (PG3j)	✓	✓		✓	✓	
Enhance economic vitality by supporting freight movement and growth in deliveries (PG4)							
T63*	Implement dedicated freight lanes and freight-and-bus lanes, pending successful results of a pilot project. (PG4c)			✓	✓		✓
Manage curb space to reflect city goals and priorities (PG5)							
T64	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 develop decision frameworks to prioritize these functions based on local area and system needs. (PG5a)				✓		✓
T65*	Develop strategies and new tools to accommodate more types of curb uses, including parking for bikes and other small devices, parking for shared micromobility, dedicated car share space, transit layover space, employer shuttle service, and other curb uses that support low-emission travel options. (PG5c)				✓		✓
LIVABILITY KEY MOVES							
Boldly reallocate street space to prioritize people while preserving access for goods delivery and emergency response (PP1)							
T66	Update Seattle's Right-of-Way Improvements Manual (Streets Illustrated) to implement actions and strategies outlined in this Plan. (PP1d)	✓	✓	✓	✓	✓	✓
Transform community and mobility hubs into welcoming places (PP2)							
T67*	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. (PP2a)					✓	
T68*	Improve walkability at every Community and Mobility Hub by providing pedestrian infrastructure such as human-scale lighting, wayfinding, seating, and landscaping. (PP2b)	✓			✓	✓	
T69*	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. (PP2c)	✓			✓	✓	

* Indicates this Element plays a key role in advancing this action.

Key Moves and Transit Element Actions		STP Goals Supported						
		Safety	Equity	Sustainability	Mobility	Livability	Maintenance & Modernization
T70*	Partner with communities, other city departments, agencies such as Sound Transit and King County Metro, and local neighborhood groups, such as BIAs and other organizations and institutions, to design, construct, activate, and maintain community and mobility hubs. (PP2e)				✓	✓	✓
Co-create and enhance public spaces for playing and gathering to improve community health (PP3)							
T71	Implement shared, car-light streets, such as Café Streets and Neighborhood Greenways, and car-free streets to support the transition to a low-carbon transportation system and reduce chronic health disparities. (PP3d)	✓	✓	✓	✓	✓	✓
MAINTENANCE & MODERNIZATION KEY MOVES							
Transform city streets for safety and sustainable travel choices through optimal timing of asset maintenance and replacement (MM1)							
T72	Use asset maintenance and replacement opportunities to not only improve the condition of transportation infrastructure and equipment, but to also enhance safety, reduce dependence on driving, promote sustainable travel options, and support economic vitality. (MM1a)	✓	✓	✓	✓	✓	✓
T73	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. (MM1b)						✓
T74	Collect feedback on asset conditions as part of community engagement on transportation system planning, design, and co-creation. (MM1c)		✓				✓
T75*	Conduct asset maintenance in accordance with the priority investment and emergency response route networks, especially when investment supports walking, biking, transit, and freight. (MM1d)	✓	✓	✓	✓		✓
Reduce neighborhood disparities in the quality of streets, sidewalks, public spaces, and bridges (MM2)							
T76	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 (RSE) Index. (Supports TEF 19.3) (MM2a)	✓	✓				✓
T77	Equitably distribute resources for maintenance and improvements in neighborhoods that have been historically or are currently underserved. (Supports TEF 19.4) (MM2b)		✓		✓		✓

* Indicates this Element plays a key role in advancing this action.

Key Moves and Transit Element Actions		STP Goals Supported						
		Safety	Equity	Sustainability	Mobility	Livability	Maintenance & Modernization
Ready city streets for new travel options and emerging trends and technologies (MM3)							
T78*	Collect, monitor, and use data to inform changes to the transportation system. (MM3a)	✓	✓	✓	✓	✓	✓
T79*	Anticipate and leverage innovative transportation technologies so they are shaped to meet community values and goals, including safety, equity, and climate response. (MM3b)				✓		✓
T80	Proactively work with public, private, and academic sector partners to collaboratively develop transit and mobility solutions for the future. (MM3c)		✓				✓
T81*	Develop and maintain up-to-date asset data, including digital inventories of physical assets like curb space, load zones, bike and scooter parking locations. (MM3e)	✓	✓		✓	✓	✓
T82*	Research and develop policies to manage the evolution toward connected and autonomous vehicles, recognizing that government and industry must partner to deliver their anticipated benefits safely. (MM3g)	✓	✓	✓	✓	✓	✓

* Indicates this Element plays a key role in advancing this action.

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.

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 to the transportation system, 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.

Metro buses travelling in Downtown Seattle, Image Source: SDOT

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 partnership 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, and communities east of Lake Washington, along with the planned infill stations at NE 130th Street and Graham Street create the opportunity to grow the number of households within walking distance of high-capacity transit. The associated bus service restructures will provide opportunities to improve east-west connections and improve 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. RapidRide provides more frequent and reliable trips, upgraded stations and facilities, and intuitive and direct route design— improvements that reduce the need to plan exact trip departure ahead of time.

Changing travel patterns and customer needs. As ridership has gradually rebounded from the COVID-19 pandemic, there are long-term changes in when and where ridership occurs throughout the city. Close to half of all rides 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 on all-day frequency and late-night service connecting Urban Villages in addition to 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 COVID-19 pandemic. Metro bus service, ST Link light rail, and Seattle Streetcar experienced significant decreases during the COVID-19 pandemic because of shifted travel patterns, requiring new approaches and research to better align the transit network with the new ways people are travelling. Transit ridership continues to grow post-COVID-19 pandemic, but at a slower rate than before. While the pandemic caused many challenges, its impacts also provide opportunities to bring transit service back in a way that is more responsive to Seattle's equity and mobility goals.

Change in office work and impacts on Center City ridership/service. For a decade before the COVID-19 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 for many 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 with 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 access transit.

Rising housing and transportation 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 the 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.

COVID-19 pandemic-related labor shortages and supply chain disruptions. Like transit agencies and many employers nationwide, King County Metro has had to contend with ongoing labor shortages as well as supply chain disruptions during and after the COVID-19 pandemic. Supporting Metro as they work to address these issues so they can increase the service they deliver is a critical challenge that will take direct resources and planning to resolve.

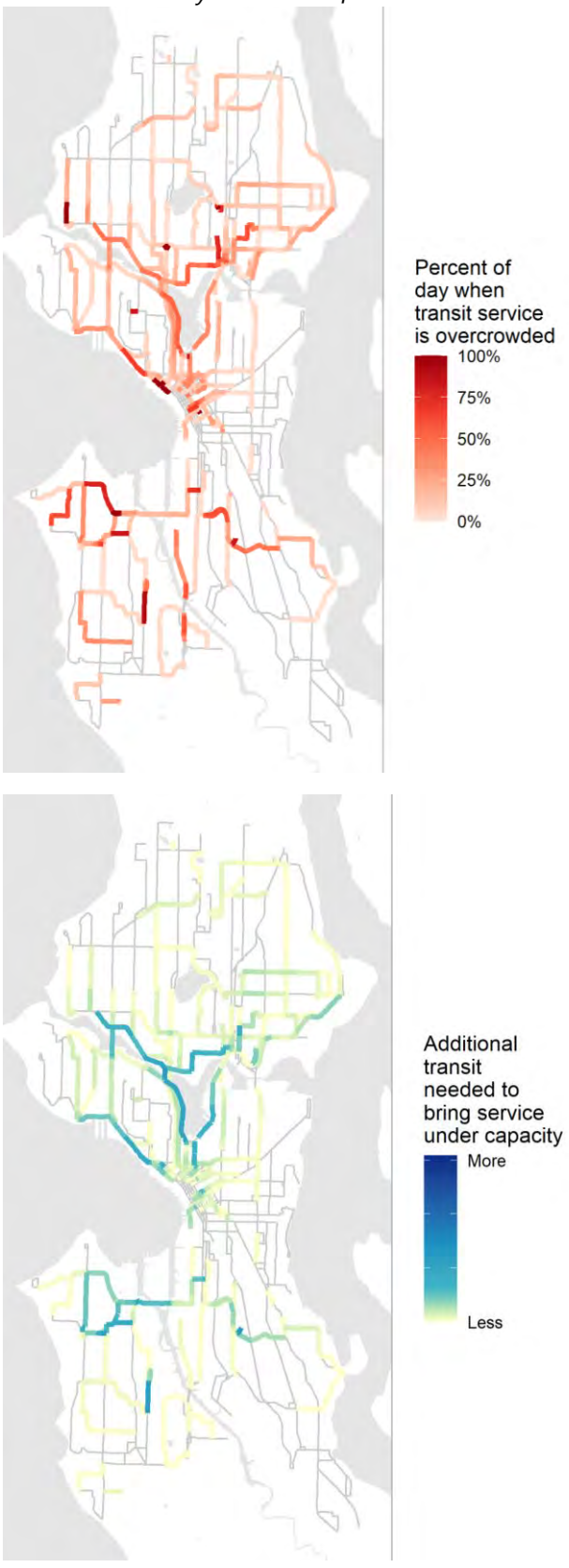
Transit's Role in Addressing the Climate Emergency

Transportation accounts for over 60% of the city's greenhouse gas (GHG) emissions. Seattle has a goal to reduce transportation emissions by 82% from 2008 levels by 2030 and to reduce them to net zero by 2050. The impacts of climate events are known to fall disproportionately on Black, Indigenous, and People of Color (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 analysis of various transportation and land use strategies to mitigate climate and congestion estimated that our transit systems will need to carry an additional 750,000 passengers per day by the year 2030.

The STP team analyzed the ability for the current (2021) system to handle this 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

We received almost 5,500 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 **Figure 2)**, 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.

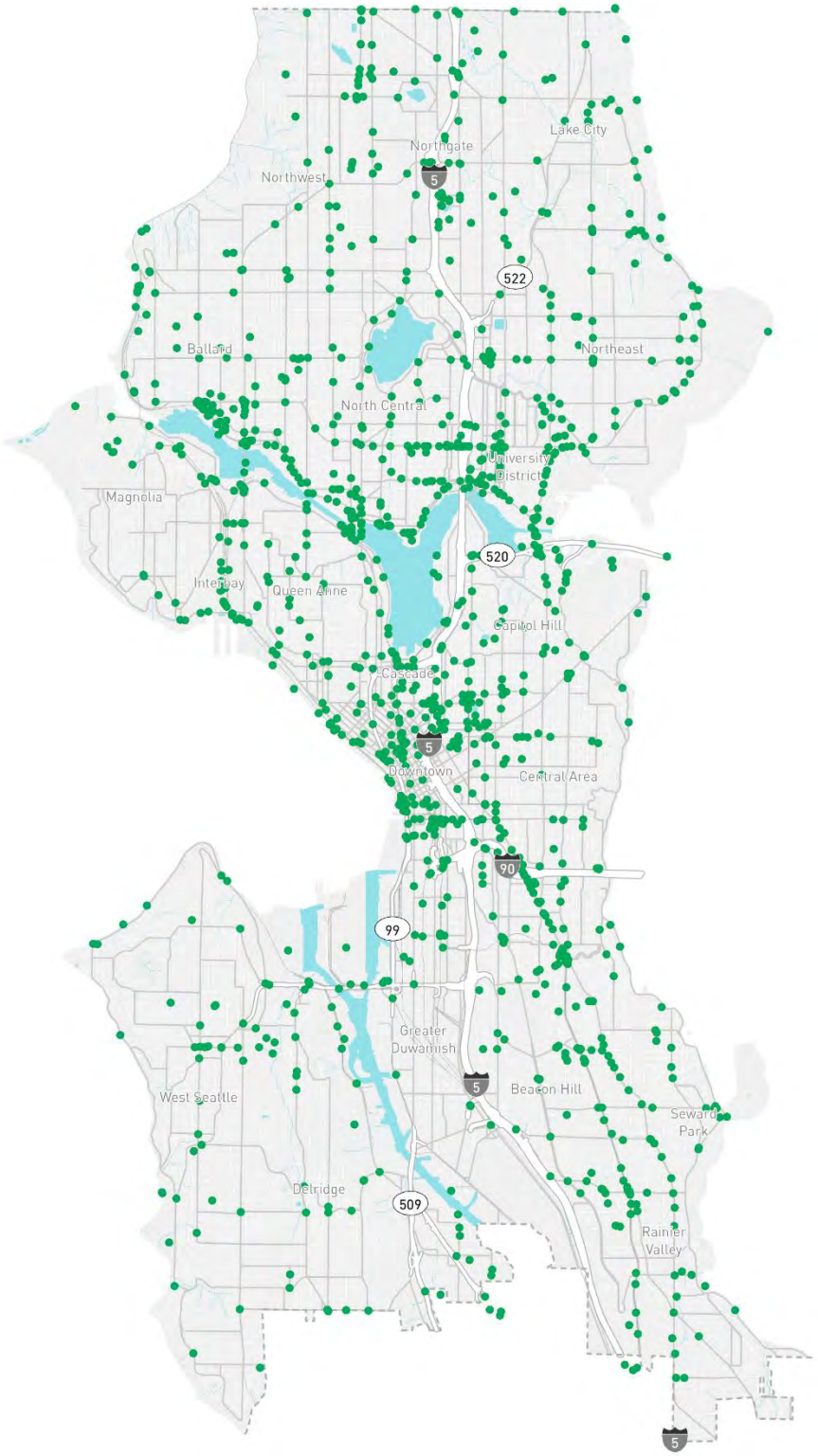
Key themes from community engagement include:

- Current transit is slow (trips take too long) and can be unreliable (long or unpredictable wait time).
- People would like 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

Figure 2: Transit-Specific Comments Provided for Locations throughout the City



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.

Bus

King County Metro
Sound Transit
Community Transit
Access Transportation
Downtown Circulator

Rail

Seattle Streetcar
Link Light Rail
Sounder
Seattle Center Monorail
Amtrak

Water

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 the following section.

SDOT'S ROLE IN ADVANCING TRANSIT

Capital Project Funding: SDOT provides direct funding and seeks grants for transit capital improvements ranging from City-led RapidRide projects (e.g., G Line) to a range of smaller transit spot improvement projects, such as bus lane markings, traffic signal upgrades, and enhancements to bus stops.

Capital Project Development: SDOT leads project development, design, and construction for transit corridors, passenger amenity improvements, and projects to make bus 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 service delivery programs. 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 in stations for people walking, biking, and rolling. The STM supports access to transit by providing ORCA transit passes to groups, such as low-income residents, essential workers, and Seattle Promise Scholars, as well as opportunities for youth, seniors, and people with disabilities to learn to ride transit. SDOT also advocates for improved fare policy and to access reduced or no-fare programs.

Transit System Connectivity and Integration: SDOT leads various planning efforts and aligns multimodal investments to ensure safe, equitable, and high-quality access to multimodal hubs, light rail stations, RapidRide stations, Streetcar, and local bus stops. SDOT manages curb uses to ensure access to transit, particularly where access and mobility functions of our streets are in high demand.

Transit Reliability: SDOT manages 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: SDOT works with the Seattle Office of Planning and Community Development (OPCD) and the Seattle 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: SDOT works 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: SDOT owns, funds, and manages the South Lake Union streetcar, which provides frequent transit service between the Westlake Hub and South Lake Union, and the First Hill Streetcar, which connects the 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—during the morning and afternoon peak periods 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 necessary mode shift 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 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

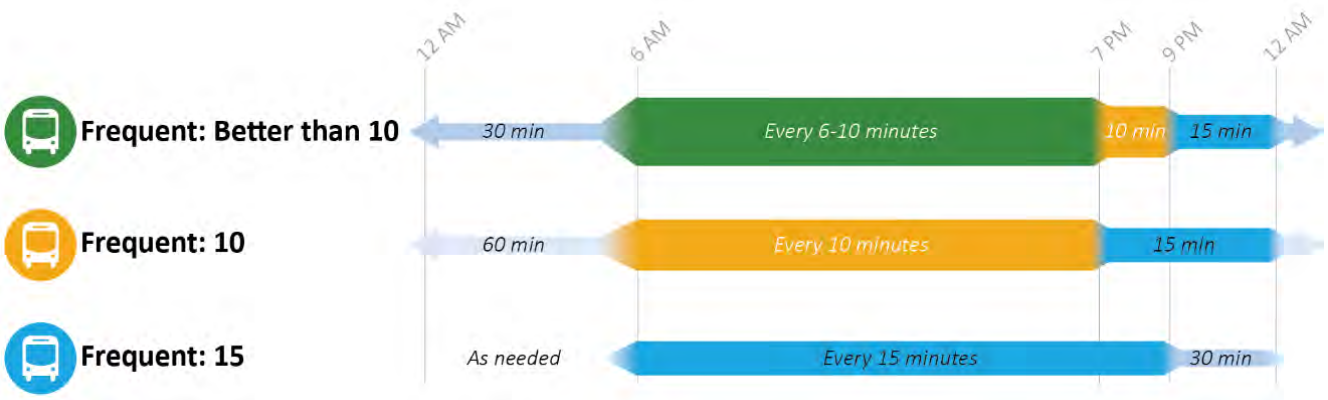
This section provides an overview of the Frequent Transit Network and key changes made from the 2016 Transit Master Plan FTN. The updated FTN has two primary components: it establishes aspirational frequency targets alongside a transit corridor map illustrating how frequency targets are proposed to be 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 on weekdays, and 10 to 15-minute service through to midnight 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 Metro's RapidRide system and other very high frequency routes to bring them to a world-class level of service.

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

Frequent 15 minutes. 15-minute service from 6 AM–9 PM, with 30-minute service through to midnight every day. This designation aligns with parking flexibility areas monitored by the Seattle Department of Construction and Inspections (SDCI), in which parking minimums for new housing development are reduced or removed near frequent transit operating at least every 15 minutes.

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.
- 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 who arrive earlier than the average worker—this can be determined on a route-by-route basis depending on localized 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. Note that the city may still invest in local transit if a route serves an equity priority area or has a key role in the larger network.
- Corridors that don't require the "Frequent: 15" category are termed "Other Transit" (see **Figure 4**) and are determined by Metro's Service Guidelines.

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 percent of passengers pay with reduced fares.

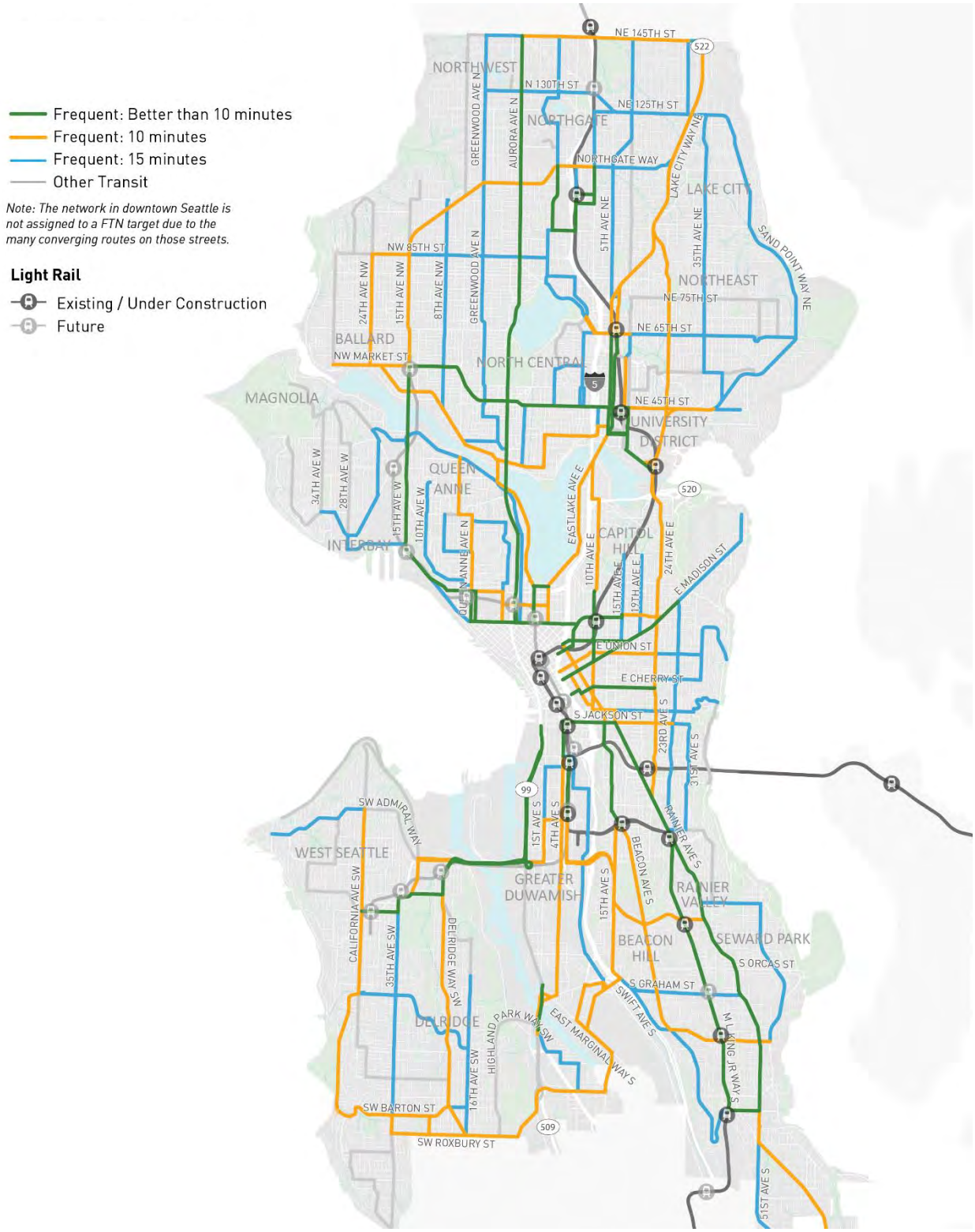
Higher intensity of service was warranted on portions of the network that scored higher for many of these factors. The goal of the FTN is to achieve the target frequency at each bus stop along the corridors identified in the network, accounting for all routes that service the given bus stop. As of Summer 2023, the updated FTN was 78% realized across all bus stops, city-wide. However, because the FTN focuses on all-day service, seven days a week, some of the biggest service deficiencies occur on weekends and during the mid-day, compared to peak-period times when frequencies are highest. This highlights the need for SDOT 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. These capital investments also align with pedestrian access, Community and Mobility Hubs, and placemaking investments that elevate the overall travel experience. Additionally, capital investments help protect investment in additional transit service 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 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).

Figure 4: Frequent Transit Network Targets



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, low-income, 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.

A Metro RapidRide bus, Image Source: SDOT

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 130th 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.

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

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.

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 ridership bus 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, three additional corridors are being studied for future RapidRide funding:

- 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, and to the University District without running through Downtown.

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 (FT corridors
- Address needs identified in the Transit Performance Policy1
- Address needs heard during the 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**.

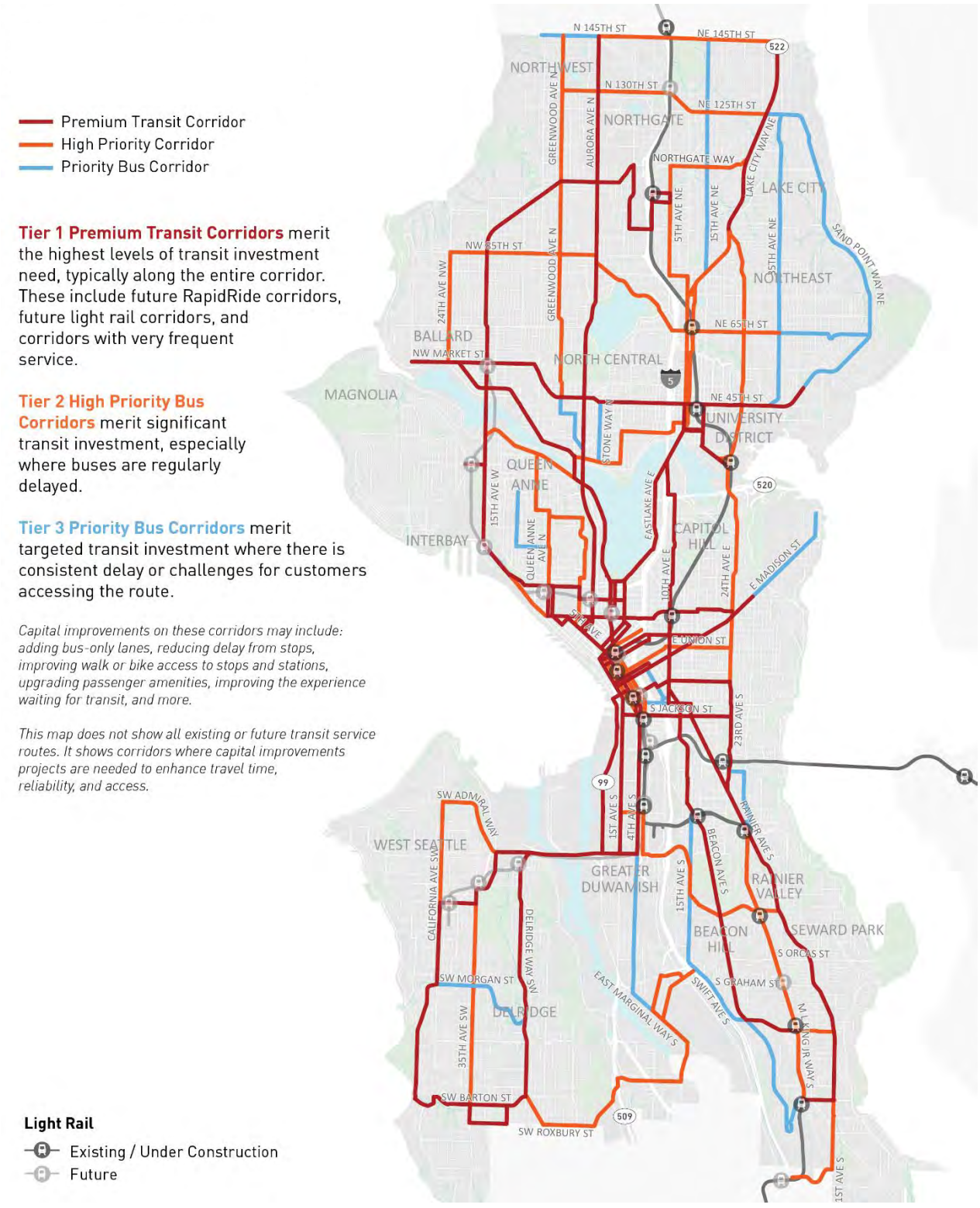
Figure 5 below illustrates priority investment corridors per the classifications listed in **Table 2.**

Table 2: Priority Transit Corridor 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

[1] The Transit Performance Policy is an approach for monitoring transit performance on the Frequent Transit Network (FTN) and determining locations where transit priority is needed to maintain service performance at the desired standard. See Appendix A for more information.

Figure 5: Transit Capital Investment Corridors



Center City Connections

Seattle's ten Center City neighborhoods[2] 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 the economic success of Downtown, 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)
- An 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.

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

[2] 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.

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, invest in bus reliability; passenger facility, safety, and security; and placemaking improvements. 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 transit, pedestrian, and bicycle priorities. 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). Invest in Jackson Street transit priority treatments as part of or together with the RapidRide R Line project, through implementing the Culture Connector, and 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.

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 capital 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
    - 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.

- **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 for recent improvements to real time information signs and lighting at stations.

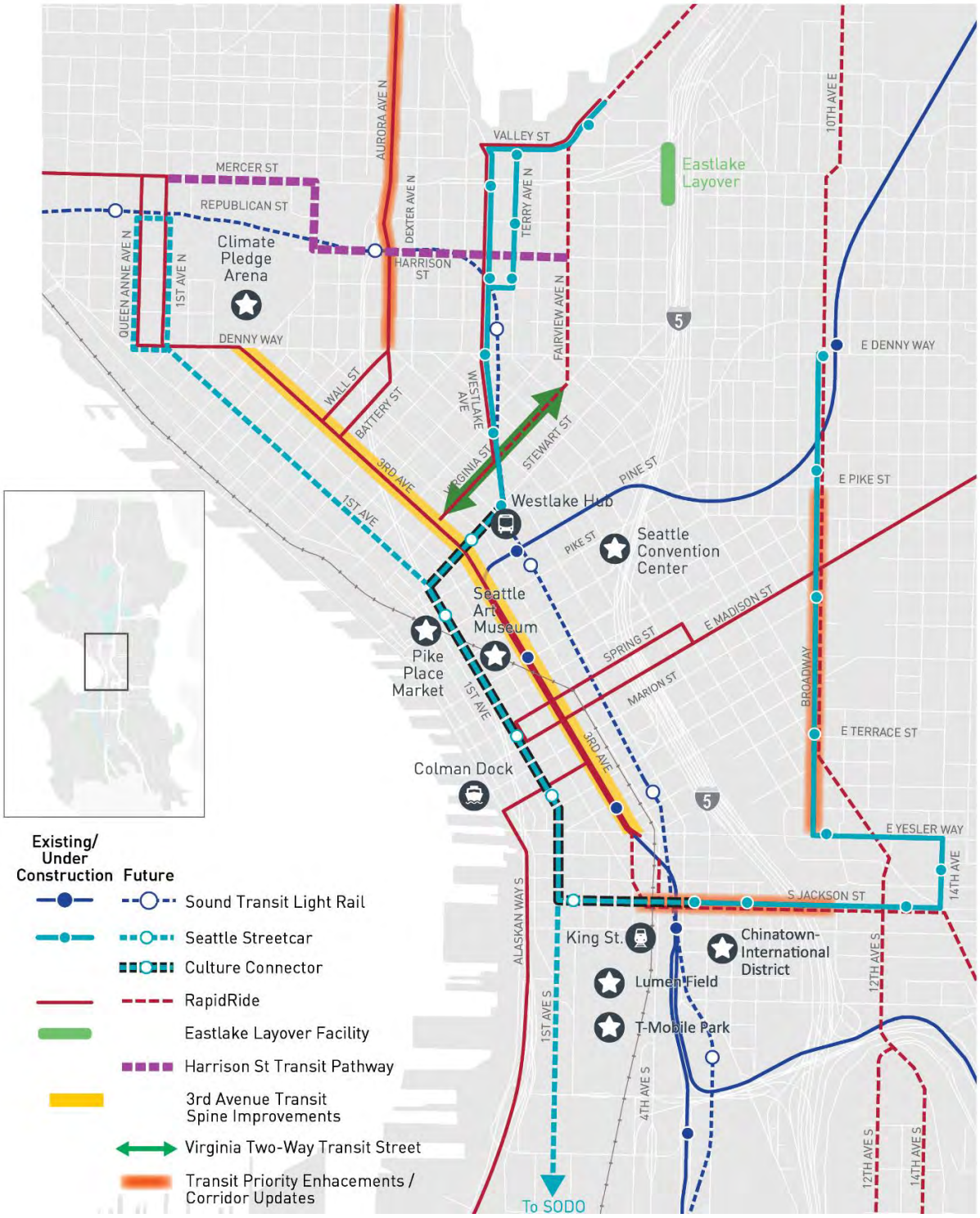
Streetcar Safety Program

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.

Figure 6: Center City Transit Capital Projects



King County Metro and Sound Transit Capital Programs

SDOT is working 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. See **Figure 7** below.

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.

Table 3: Potential Light Rail Expansion Opportunities

Potential Corridor	Justification or Plan Alignment
NW Market/N 45th Street Ballard – Wallingford – U District – Children's Hospital	• Included in ST2 planning studies • Included in ST3 future investment studies
15th Ave/Holman Road NW Ballard – Greenwood – Northgate *Option to extend to Lake City and Kenmore*	• Included in ST3 high-capacity transit planning studies
Aurora Avenue N Belltown – Fremont – Greenwood *Option to extend to Edmonds and Lynnwood*	• Existing high transit frequency and ridership
California Avenue SW West Seattle – Morgan Junction – White Center *Option to extend to Burien and Tukwila International Boulevard*	• Included in ST2 planning studies • Included in ST3 high-capacity transit planning studies
Duwamish Valley SODO – Georgetown – South Park *Option to extend to Tukwila International Boulevard*	• Direct, faster access from south of the Rainier Valley to SODO and points further north
23rd Avenue Mount Baker – Madison Valley *Option to extend to U District*	• Major north-south corridor east of Downtown • High concentration of people and jobs, high transit ridership, and connectivity to existing or planned Link lines
Denny Way/E Thomas Street South Lake Union – Capitol Hill – Madison Valley	• Major east-west corridor north of Downtown • High concentration of people and jobs, high transit ridership, and connectivity to existing or planned Link lines
Southeast to Southwest Seattle Corridor West Seattle – Duwamish Valley – Southeast Seattle *Details to be determined*	• Major east-west corridor south of Downtown • Connects equity priority areas without needing to transfer in SODO or Downtown

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**.

Table 4: Sounder Infill Station Opportunities

Potential infill station	Justification
Ballard	• Included in Sound Transit 2 as a provisional station location[3]
Interbay	• High concentration of jobs; adjacent to many dense residential neighborhoods • Connectivity with Link light rail depending on station location chosen
Broad Street	• Included in Sound Transit 2 as a provisional station location[3] • Improved access to jobs and people in Belltown, South Lake Union • Potential connectivity with future ferry dock
SODO	• Concentration of high employment • Connectivity with multiple Link light rail lines
Georgetown	• Mixed-use node with nearby employment centers and residential neighborhoods
Boeing Access Road	• Connectivity with Link light rail station, which is expected to open in 2031 • Included in Sound Transit System Plan • Located outside Seattle, but within walking distance of city neighborhoods

Figure 7 below 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.

[3] Sound Transit 2: A Mass Transit Guide. July 2008. Page 9 and Page 16.

Figure 7: Link Light Rail Expansions and Planned RapidRide Corridors

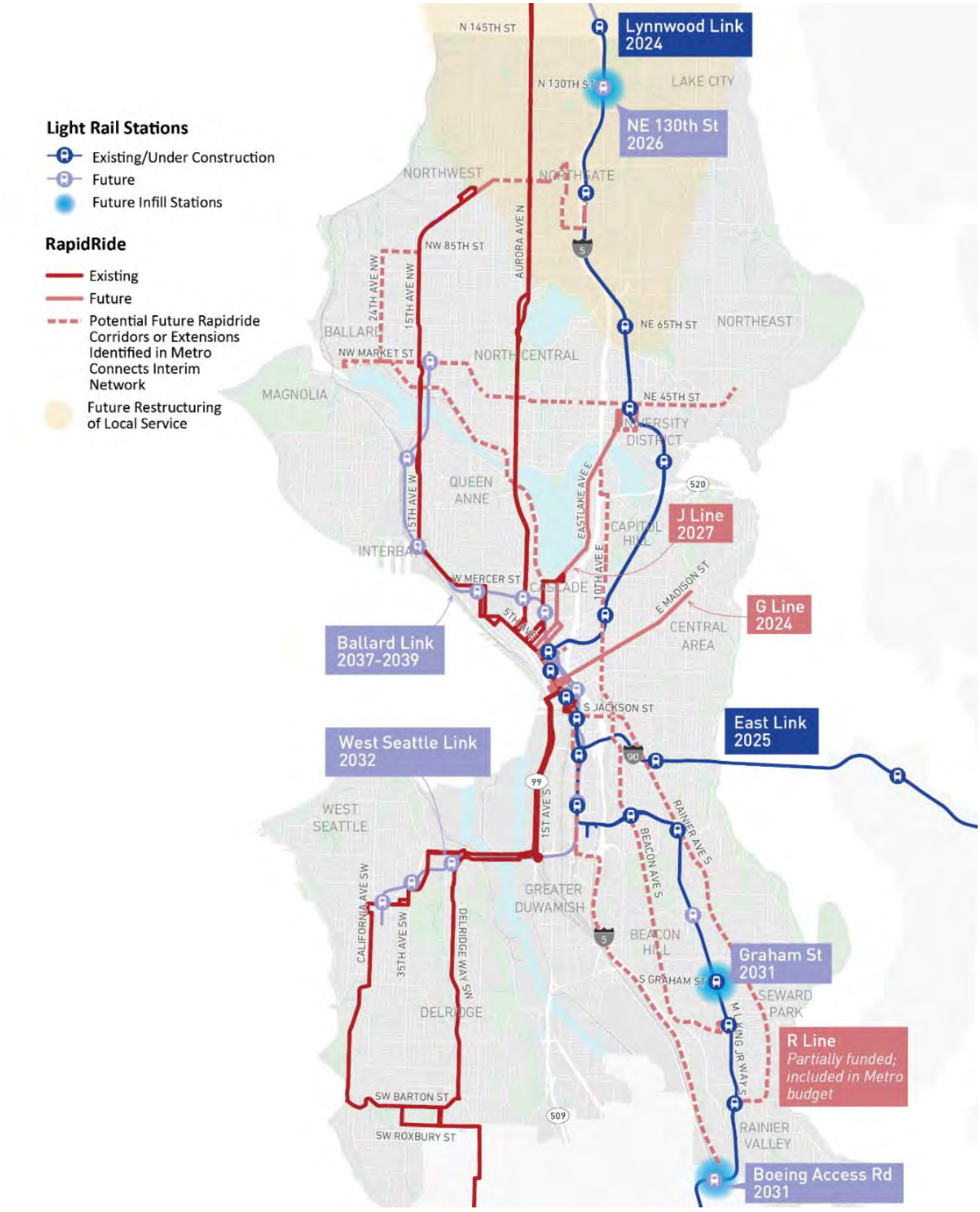
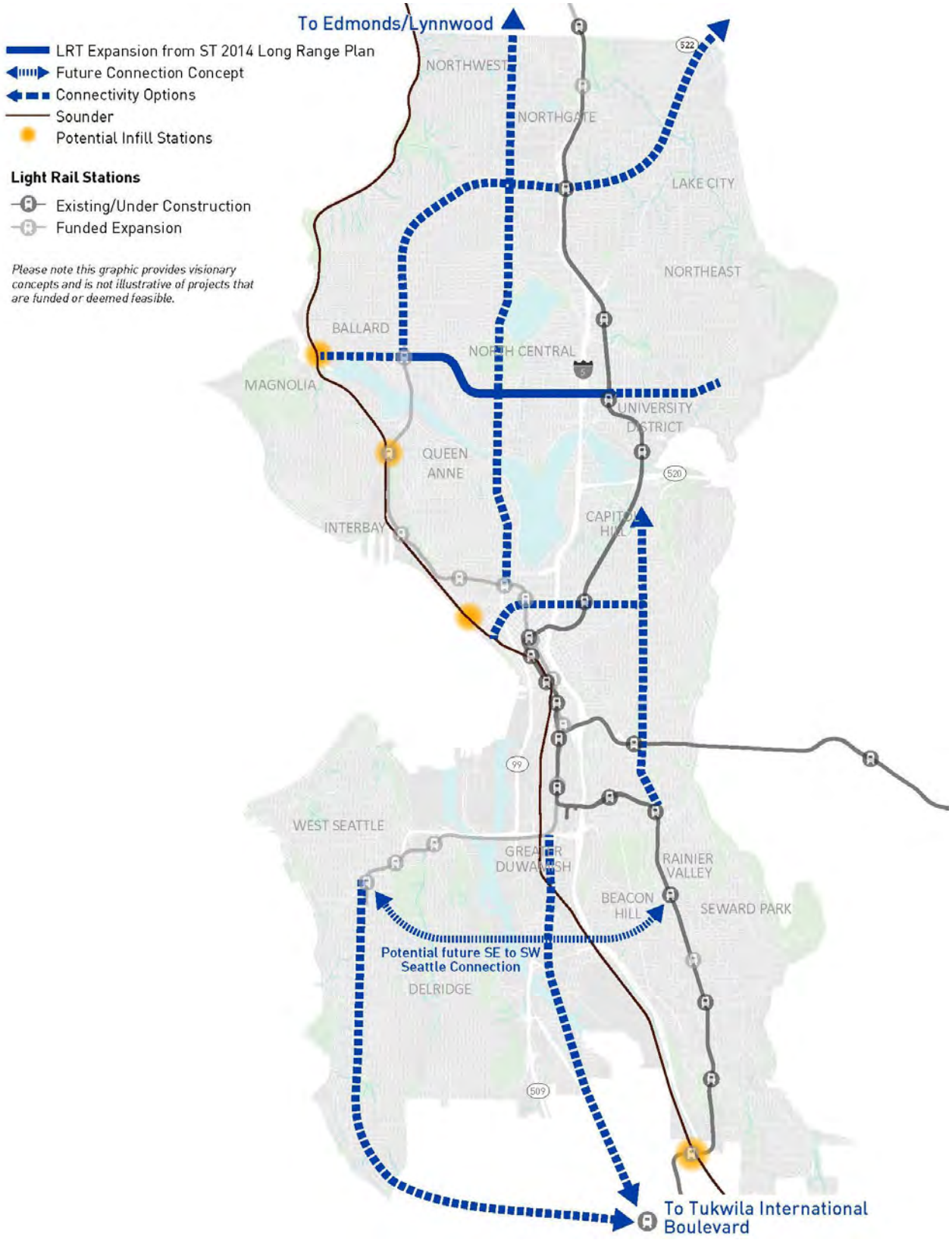


Figure 8: Potential Link Light Rail and Sounder Commuter Rail Expansion Opportunities



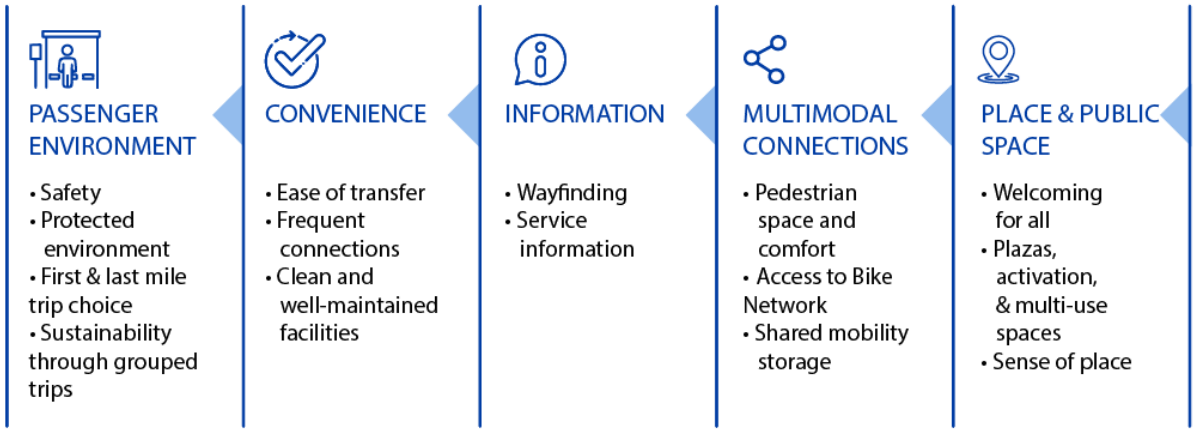
Community and Mobility Hubs Network

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 imporant components and functions that hubs can include.

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



Community and Mobility Hub Locations

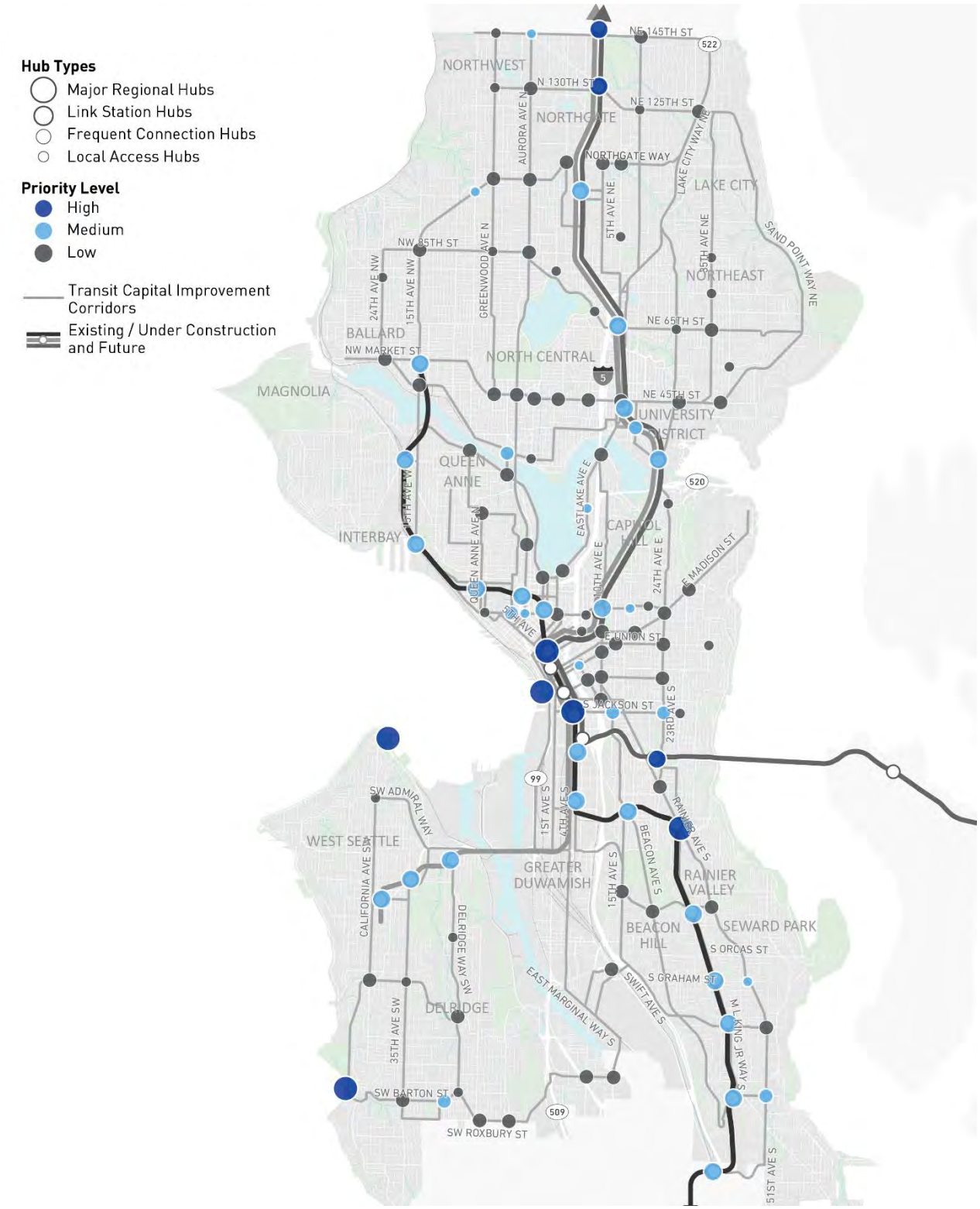
Table 5 describes different typologies for Community and Mobility hubs, alongside the level of investment necessary to implement them and possible amenities that would be included.

Table 5: Seattle Community and Mobility Hub Types

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

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 programs 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:

1. Reduce travel delays and increase reliability for transit
2. Improve safety for transit riders, bicyclists, pedestrians, and drivers
3. 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

The siting and design of new transit capital projects like Link light rail, RapidRide, SDOT-led multi-modal transit corridor improvements, and Vision Zero safety improvements can have enormous implications on what future transit service scenarios are possible and how well and safely customers can navigate the overall transit system.

SDOT's transit integration planning and implementation efforts play a critical role in coordinating and leveraging the impact of these new capital investments as well as ongoing transit operational adjustments to increase transit ridership in Seattle and meet the City's climate and equity goals.

To be successful, SDOT must engage early and often with regional transit partners. For example, SDOT coordinates major capital project review with Sound Transit to better accommodate travel patterns and destinations and allow SDOT's transit partners to leverage the 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, this program works 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 can happen on city streets, in curb space designated by SDOT, or in off-street facilities that may be 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. While bus layover is not a stand-alone SDOT program, it is a critical area of coordination with transit agency partners and part of SDOT's transit integration efforts.

Generally, King County Metro works with SDOT to communicate where and when layover space is needed to support transit operations, and SDOT works 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.** For example, 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 zero-emissions 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 still avoid negative impacts to transit service. And at the same time, FAB lanes can improve safety for people walking, bicycling, and even driving personal vehicles along these routes.

Innovative Transit Streets

Urban streets evolve as a city's priorities change. As Seattle strives for more safe, equitable, and climate-friendly transportation systems, our streets will follow. We continues 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 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

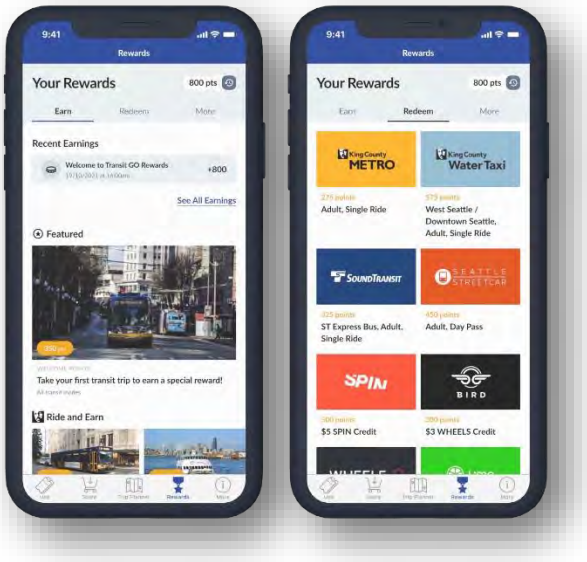
Category	Opportunity	Potential Application in Seattle	Example
Downtown Transit and Destination Streets	• Create street space focused on people and public space (for more information see PSPS element) • Move high volumes of people with frequent bus or rail • Maintain or reduce transit travel times and improve connections to the urban core • Support street life and retail • Address critical building access needs (e.g., deliveries, solid waste management, street activation)	• Third Ave Transit Corridor • Virginia Two-Way Transit Street • Broadway • 1st Ave	 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	• Support street life and retail • Prioritize transit while allowing certain priority vehicles access for delivery or parking garage access. • Move high volumes of people on foot, by bike, and with frequent bus. • See more information on People Streets in the PSPS element	• Virginia Two-Way Transit Street • Broadway • S Jackson St • Harrison St • 15th Ave NE • NE 43rd St	 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	• Provide priority for multiple modes • Consider where: • Operational conflicts with bus stopping and turn movements can be resolved • Transit stops are widely spaced (or buses do not stop in lane), limiting delay for trucks • Transit and freight volumes are compatible • Separate parallel bike facility available	• Westlake Ave N • 15th Ave NW	 14th 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	• Provide priority for multiple modes • Consider: • Short segments with constrained street space • Where speeds are compatible • Where grades are appropriate (not on uphill segments)	• Downtown Streets • Bridge approaches • Light rail station area approaches	 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	• Where streets are a space for socializing • Streets with high pedestrian traffic • Retail streets with frequent transit • See more about Destination Streets in the *People Streets and Public Spaces (PSPS) Element*	• Broadway • S Jackson St • NW Market St • SW Alaska St • Terry Ave N	 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	• Share street space dedicated to transit where high volume bus corridors and rail overlap • Reduce priority for private vehicles, particularly for through movements where alternative routes exist • Create high-quality pedestrian and waiting environments	• Westlake Ave N • Broadway • S Jackson St • 1st Ave	 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	• High ridership bus corridors • Corridors where transit needs priority on a busy roadway • Streets benefiting from narrowing, reduced pedestrian crossing distances • Candidates for safety improvements from removal of unprotected left turns	• Madison St • Aurora Ave N • Lake City Way NE	 Photo Credit: SFMTA In 2022, San Francisco opened its first center-running busway on Van Ness Boulevard.
Transit Priority on One-Way Streets	• Effective at moving large volume of transit customers • One-way streets can help improve bus throughput and reliability • Allows for accommodation of other street and curb priorities such as loading, parking **or** bicycle facilities	• Downtown avenues such as 2nd or 4th Aves • Pike/Pine St • Spring/Madison St • Belltown/Denny Triangle/Uptown One-Way Couplets • Roosevelt and 11th/12th Ave NE in U District, Roosevelt	 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

SDOT works 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. Additionally, SDOT provides 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 and replace the ORCA regional fare payment system and directly funding the TransitGO mobile payment app.

The TransitGO platform (managed by King County) offers an intermediate option for mobile payments until the next-Generation ORCA system (managed by Sound Transit) is fully available. SDOT is working to provide fare payment options that meet our riders where they are and, increasingly, that means digital. As technology evolves, SDOT will increasingly engage the private sector to stay at the forefront of innovation, while ensuring that riders of all digital competencies and access understand how to pay fares while finding a relative ease in paying and affording transit fares. SDOT has 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.



Metro Transit GO Rewards App, Image Source: King County Metro

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, are highly 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, essential 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 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 uses various strategies to support transit access and car-free or car-lite travel. For example, STM funds a free, ADA-accessible Downtown Circulator that connects low and no-income individuals with social and health services in the Downtown network. SDOT's 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 a tool that supports universal or guaranteed basic mobility.

Mobility wallets allow individuals or households to gain access to public transportation and mobility offerings at a discounted rate or no cost due to public subsidy. Mobility wallets have already been deployed in cities such as Boise, Los Angeles, Oakland, Pittsburgh, and Portland. Immediate results of these programs have included increased transit use by targeted population, reduced single occupancy vehicle travel, and more effective travels between and within communities.

In addition to directly funding and managing such programs, SDOT should coordinate with King County Metro and other transit partners on expanding regional programs serving businesses and major institution to offer bulk purchase 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 and 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 which stop is your exit, and travelling to your final destination; all of these components impact someone'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

While fixed-route service typically receives most transit investments to date, the Seattle Transit Measure (STM) previously funded 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 King County 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, the success of the service to two higher demand stations led Metro to invest its own funds in operation of the service.

Trailhead Direct is another innovative service pilot project let by King County Metro and King County Parks. The project is a seasonal service which started in 2017 and will continue operation in 2023. 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

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

during weekend and holidays from May until Labor Day. In addition to testing new approaches or technologies, SDOT invests in community services that have value beyond transportation. The Downtown Circulator is an extension of local human service agencies, providing connections between service providers and to other Downtown Seattle destinations.

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-to-date 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 testing automated enforcement technology with costly 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 transit-only 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.
- Micro- or on-demand transit options 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 (Supports TEF 35.2).
- Customer trip and trip-planning feedback systems.

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 operates a large network of zero-emissions electric trolleybuses in Seattle that are powered largely by overhead wires along City streets. King County 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, Image Source: SDOT

TRANSIT ASSET MAINTENANCE

SDOT, along with our transit partners, owns and maintains a variety of facilities and amenities which make up the fixed part 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 is 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 Intelligent Transportation Systems (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.

Metro bus using a bus-only lane, Image Source: SDOT

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 recommended 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 a reduction in vehicle-miles traveled 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 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. SDOT will continue to evaluate resource availability before performance measures are set in the final recommended STP.

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

Table 7: Transit Performance Measures

Desired Outcome	Related STP Goals	Performance Measure	Target or Desired Trend	Track measure by RSEI and/or race	Baseline
Increase trips made by people taking transit	Sustainability Mobility	Increase percentage of trips made by in-city transit trips (PSRC)	XX% of total trips will be on transit by 2030 XX% by 2044	No	In development
Increase access to frequent transit	Equity Sustainability Mobility	Percentage of households that live within a 10-minute walk of all-day 10 minute or better service to key local and regional destination (Census Bureau, KC Metro)	75% of households	Yes	In development
Increase satisfaction waiting at bus stops during the day and at night	Safety Livability	Percentage 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)	Increase	Yes	In development
Improve reliability of transit routes	Mobility Maintenance & Modernization	Transit travel time reliability	Decrease in actual travel time compared to free-flow conditions on Transit Performance Policy (TPP) corridors	Yes	In development
Reduce cost barriers to transit	Equity Sustainability Mobility Livability	ORCA distribution to eligible participants of SDOT funded fare subsidy program	Distribute ORCA cards to at least 75% of eligible participants of SDOT funded fare subsidy programs	No	In development

Desired Outcome	Related STP Goals	Performance Measure	Target or Desired Trend	Track measure by RSEI and/or race	Baseline
Support a well-maintained transit network	Maintenance & Modernization	Percentage of Transit Streets with fair or better pavement condition (SDOT)	Increase the Percentage of Transit street segments with a "Fair" or better pavement condition rating (out of Good/Fair/Poor)	Yes	In development

NOTE: Many of the STP performance measures targets and baselines are still under development.

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 crosswalk, 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: DRAFT TRANSIT PERFORMANCE POLICY

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; this appendix provides a snapshot of the current priority designation thresholds, performance targets, and example corridors and transit performance treatments.

The TPP prioritizes arterial street segments with transit into four categories, as described in the table below. Prioritization is based on the higher of the two values for 1) scheduled trips per day per direction, and 2) passenger load, measured as maximum passengers per hour.

Table 8: Transit Performance Policy Approach

Priority	Description	Scheduled Trips Per Day Per Direction	Passenger Load (max passengers/hr)	Baseline (Year)
Maximum (Transit First)	Critical segments to the overall transit network, **with many daily trips and high passenger loads**. Transit should function at the highest level besides grade-separated transit, regardless of the impact to general-purpose traffic.	800	1,000	TBD
High (Transit Priority)	Key segments with a **high number of daily trips and passenger volumes**. Transit should function at a high level, with significant general-purpose impacts accepted.	400	500	TBD
Medium (Transit Focus)	Segments **shared by multiple routes or that serve a single high-ridership route**. Transit should be a competitive mode of travel, while still maintaining mobility for other modes.	200	250	TBD
Low (Transit Supportive)	Segments generally **serving a single route, often on minor arterials or neighborhood streets**. Transit should perform well, but it may be less important to advance transit performance projects.	0	0	TBD

The TPP sets target levels of performance for reliability and travel time per mile that tie to each level of priority.

Priority	Description	Reliability (Travel Time Reference Ratio)	Travel time (minutes) per mile
Maximum (Transit First)	Critical segments to the overall transit network**, with many daily trips and high passenger loads**. Transit should function at the highest level besides grade-separated transit, regardless of the impact to general-purpose traffic.	1.1	2.5
High (Transit Priority)	Key segments **with a high number of daily trips and passenger volumes**. Transit should function at a high level, with significant general-purpose impacts accepted.	1.3	3.0
Medium (Transit Focus)	Segments **shared by multiple routes or that serve a single high-ridership route**. Transit should be a competitive mode of travel, while still maintaining mobility for other modes.	1.5	4.0
Low (Transit Supportive)	Segments generally **serve a single route, often on minor arterials or neighborhood streets**. Transit should perform well, but it may be less important to advance transit performance projects.	1.7	5.0

The TPP identifies example locations and types of treatments expected in each priority category.

Priority	Description	Example Location	Example Treatments
High (Transit Priority)	Key segments with a **high number of daily trips and passenger volumes**. Transit should function at a high level, with significant general-purpose impacts accepted.	Rainier approaching Jackson, Fremont Bridge, Westlake (south Lake Union)	Transit only lane, limited general-purpose turning, traffic signal priority for transit, in-lane stops, queue jumps
Medium (Transit Focus)	Segments **shared by multiple routes or that serve a single high-ridership route**. Transit should be a competitive mode of travel, while still maintaining mobility for other modes.	E John St, California Ave s/o Alaska, Rainier Ave S s/o McClellan	Peak transit only lane, queue jumps, in-lane stops
Low (Transit Supportive)	Segments generally **serve a single route, often on minor arterials or neighborhood streets**. Transit should perform well, but it may be less important to advance transit performance projects.	N 85th St, MLK, Madison e/o MLK, 31st Ave S,	Stop consolidation, in-lane stops, channelization improvements

GLOSSARY

Accessible Pedestrian Signal (APS): Signals installed at crossings to help pedestrians who are blind or 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: Community and Mobility Hubs are 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 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 non-motorized 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

The goals of the approach 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 option 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 that 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: The 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

Seattle Department of Transportation

DRAFT SEATTLE TRANSPORTATION PLAN

Bicycle and E-Mobility Element

August 2023

Seattle Department of Transportation

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By 2050, Seattle is expected to be a city of nearly 1 million people. To achieve the Seattle Transportation Plan's (STP) shared transportation vision and meet our 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. We'll need to sustainably accommodate growth by investing in improvements that enable people to increasingly choose low-emission mobility options, like biking and using e-mobility. A bikeable city is one where people of all ages and abilities ride bikes and use e-mobility because it is a convenient, affordable, fun, safe, and healthy choice. We want to build on Seattle's existing bicycle network to make that a reality.

HOW THE BICYCLE AND E-MOBILITY ELEMENT ADVANCES THE STP

The Bicycle and E-Mobility Element of the STP will help create a safer, more bikeable Seattle, building on the foundation of and superseding the 2014 Bicycle Master Plan (BMP). It provides a foundation for the City of Seattle to grow our investment in bicycling and e-mobility to achieve STP goals. The bicycle and e-mobility network serves not only people riding traditional bicycles, but also people using adaptive bikes, cargo bicycles for both personal use and deliveries, trikes, scooters, skateboards, roller skates, wheelchairs or other wheeled mobility devices, and "e-mobility" devices, which refers to personal and shared electric-powered bicycles, scooters, and other electric-powered devices. It serves people bicycling and taking e-mobility to serve a variety of trip purposes, such as getting to work, school, transit, the gym or doctor's office, recreating, making urban goods deliveries, and more.

The Bicycle and E-Mobility Element outlines the actions that are needed to make bicycling and e-mobility for personal and commercial travel an integral part of our transportation future, fulfilling the STP Vision Statement where "moving around is just, sustainable, and safe." Investments in our bicycle and e-mobility network provide an affordable and environmentally friendly travel option that also improves Seattle's livability, public health, and economic vitality.

ALL AGES AND ABILITIES (AAA)

We are striving to create a network of bicycle and e-mobility facilities that people of all ages and abilities feel comfortable using—whether it's a child biking to school or an adult that is less confident bicycling on city streets. AAA facilities provide low-stress bicycling conditions and focus on safety. They may include off-street trails, protected bike lanes, conventional bike lanes that meet AAA guidelines, Healthy Streets, and neighborhood greenways. This is described more in **Table 4.**

This Bicycle and E-Mobility Element:

- Sets a vision for continued investment and improvements to Seattle's all ages and abilities (AAA) bicycle and e-mobility network. We are striving to have 100 percent of Seattle households within a quarter mile of a connected network of AAA facilities and to have all public schools served by an AAA facility.
- Identifies catalyst projects that overcome major connectivity barriers and expand access.
- Identifies programmatic investments that support and encourage bicycling among people of all ages, abilities, races, and economic backgrounds
- Focuses on policies and investments that improve safety for people bicycling and using e-mobility.
- Identifies policies and strategies for equitable investment in the bicycle and e-mobility network.
- Identifies and guides opportunities for coordination with other key modal and functional elements of Seattle's transportation system.

HOW THE BICYCLE MASTER PLAN HAS BENEFITED SEATTLE

Seattle has used citywide bicycle plans to guide investments since 1972, with the most recent edition published in 2014. These plans:

- Defined the vision for a connected bicycle network that serves all of Seattle
- Demonstrated an evolution in bicycle network planning, with the 2014 BMP emphasizing a network that serves people of all ages and abilities with protected bike lanes, neighborhood greenways, and multi-use trails
- Engaged the public and stakeholders in bicycle network planning and identifying other strategies for improving bicycling
- Identified programs and strategies to promote bicycling as a viable mode of transportation
- Informed funding and implementation priorities
- Resulted in 34-miles of protected bike lanes, 75-miles of bike lanes, 54-miles of neighborhood greenways, 68 bike signals, and 263 bike corrals.[1]

[1] Bike infrastructure constructed from 2007-2022

RELATIONSHIP TO STP GOALS

Bicycling plays an important role in meeting the STP's goals for **safety, equity, sustainability, mobility, livability**, and **maintenance and modernization**. Bicycling is a zero-emission, affordable mode of travel that contributes to neighborhood livability and mobility.

Prioritize safety for all travelers in Seattle, with no serious injury or fatal crashes. Implementing the bicycle and e-mobility network increases separation from vehicles and creates low-speed streets that increase safety for all people. As the number of people bicycling increases, the safer bicycling becomes.[2] People bicycling and using e-mobility devices are unlikely to kill or seriously injure other road users in a collision, so increasing the number of people bicycling reduces the number of people that could cause grievous harm in a collision.

Co-create with community and implement restorative practices to address transportation-related inequities. All ages and abilities facilities provide more affordable and accessible travel options. They improve access to transit, employment, education, and services, and they contribute to heath and active living.

Respond to climate change through innovation and a lens of climate justice. Implementing the network encourages more trips by bicycle and e-mobility, which are one of our cleanest travel options since they are zero-emission. They reduce driving trips, which is our greatest source of greenhouse gas (GHG) emissions, air and water pollution, and harmful emissions that impact community health.

Provide reliable and affordable travel options that help people and goods get where they need to go. Provide a reliable and affordable travel option for personal and commercial travel, particularly for shorter trips. They support first-/last-mile connections to Seattle's transit system and provide independent mobility for younger and older Seattleites.

Reimagine city streets as inviting places to linger and play. Contribute to economic and neighborhood vitality by reducing household transportation costs and encouraging local spending. Create positive health outcomes for communities through physical activity, clean air, mental health, and social connection. Support the creation of inviting, people-oriented streets due to the quiet, zero-emission travel.

Improve city transportation infrastructure and ready it for the future. A well-maintained bicycle and e-mobility network contributes to safety, comfort, and accessibility. People bicycling and using e-mobility have a lower impact on our streets compared to people driving. Use of durable materials with low life-cycle costs will reduce maintenance costs while enhancing safety and comfort of people riding bicycles.

[2] Fyhri, A., Sundfør, H. B., Bjørnskau, T., & Laureshyn, A. (2017). Safety in numbers for cyclists-conclusions from a multidisciplinary study of seasonal change in interplay and conflicts. Accident; analysis and prevention, 105, 124–133. https://doi.org/10.1016/j.aap.2016.04.039

IMPLEMENTING THE KEY MOVES

Part I of the Seattle Transportation Plan (STP) includes a collection of Key Moves, or strategies, to advance the STP goals. Each Functional Element serves an important role in making these Key Moves and their supporting actions.

Table 1 below summarizes the Key moves and specific actions the Bicycle and E-Mobility Element helps to accomplish. They are nested under the primary STP goal they seek to advance. Many actions are cross-cutting, and they appear in all Functional Elements as important commitments and initiatives. Other actions are specific to one or more Functional Elements and are marked with an asterisk (*) to indicate that this Element plays a critical role in operationalizing or supporting that action.

Additional details on SDOT's roles and the ways we'll tackle this work are included in the "Bicycling and E-Mobility in Seattle" section below.

Table 1: Key Moves and Bicycle and E-Mobility Actions

Key Moves	Actions	Key Moves and Bicycle and E-Mobility Actions	STP Goals Supported: Safety	Equity	Sustainability	Mobility	Livability	Maintenance & Modernization
SAFETY KEY MOVES								
		Reduce vehicle speeds to increase safety (S1)						
B1*		Design all streets using context-appropriate traffic-calming treatments that are proven to reduce speeds and encourage people driving to travel at the posted speed limit. This should include strategies to narrow the street, coordinate traffic signals, and plant street trees. (S1a)	✓			✓		✓
B2*		Implement traffic calming strategies, such as traffic circles, speed humps, cushions, and tables, and leverage them with programs that deliver educational campaigns to reduce speeding. (S1b)	✓					
		Concentrate safety investments at the most collision-prone locations (S2)						
B3*		Incorporate Vision Zero and Safe System approaches into every project and program. (S2a)	✓					✓
B4*		Prioritize bicycle safety improvements that are on the high-injury network, have high levels of travel stress, or are identified through the Seattle Bicycle and Pedestrian Safety Analysis. (Supports TEF 19.2) (S2b)	✓	✓		✓		

* Indicates this Element plays a key role in advancing this action.

Key Moves and Bicycle and E-Mobility Actions		STP Goals Supported					
		Safety	Equity	Sustainability	Mobility	Livability	Maintenance & Modernization
B5*	Pilot and evaluate new and emerging safety treatments in locations where proven interventions are infeasible or do not address the identified safety issues. (S2c)	✓					
Make all journeys safer, from departure to destination (S3)							
B6*	Advocate for changes to state-level legislation and programs.	✓			✓		
B7*	Construct new crosswalks, bike lanes, and multi-use trails where there are gaps or opportunities for new connections, prioritizing places with the greatest safety concerns. (S3a)	✓			✓		
B8*	Harness funding and opportunities when private development occurs to build planned new network facilities and prioritize mobility for people biking and using e-mobility when construction occurs. (S3b)	✓			✓		
B9*	Upgrade existing facilities for people bicycling and using e-mobility to be safer and accessible for people of all ages and abilities. (Supports TEF 7.1 and 43.4) (S3c)	✓			✓		✓
B10*	Accelerate implementation of research-backed improvements that are proven to make streets safer for everyone, such as hardened centerlines, leading pedestrian intervals (LPIs) at signals, No Turn on Red signs at signalized intersections, and road diets. (S3d)	✓			✓		✓
B11*	Make people biking and using e-mobility more visible by improving sight lines at intersections through treatments such as curb bulbs, No Parking signs, improved lighting, and refuge islands with a focus on High Injury Corridors. (S3e)	✓			✓		✓
B12*	Expand opportunities to more safely cross busy arterials by installing enhanced crossings. (Supports TEF 40.6) (S3f)	✓			✓		✓
B13*	Coordinate with freight, passenger rail, and light rail partners on safety improvements at rail crossings. (S3g)	✓					
B14*	Expand safety education for all travelers (S3h)	✓					
Provide safer routes to schools, parks, transit, community gathering spaces, and other common destinations (S4)							
B15*	Construct the bicycle and e-mobility network as outlined in this Plan. (S4a)	✓	✓	✓	✓	✓	✓
B16*	Make investments near light rail stations and busy transit stops that make it safer to bike to transit. (S4b) Establish a Safe Routes to Transit program.	✓		✓	✓	✓	
B17*	Develop station access plans for future light rail stations and enhance the experience and quality of existing facilities that connect people bicycling along and across major transit corridors. (Supports TEF 40.2) (S4c)	✓		✓	✓	✓	✓

* Indicates this Element plays a key role in advancing this action.

Key Moves and Bicycle and E-Mobility Actions		STP Goals Supported					
		Safety	Equity	Sustainability	Mobility	Livability	Maintenance & Modernization
B18*	Serve every public school with an all ages and abilities bicycle facility. (Supports TEF 43.4 and Executive Order 2022-07) (S4d)	✓	✓	✓	✓	✓	
B19*	Expand permanent Healthy Streets to all neighborhoods as a way of providing low stress connections to common destinations for people walking, biking, and rolling, regardless of age or and ability. (Supports TEF 43.4 and Executive Order 2022-07) (S4e)	✓	✓	✓	✓	✓	
B20*	Make investments that make it safer to bicycle to parks, community gathering spaces, and other common destinations. (S4g) Establish a Safe Routes to Parks program.	✓	✓				
EQUITY KEY MOVES							
Center the voices of communities of color and underrepresented groups in planning and decision-making processes (TJ1)							
B21*	Expand the Neighborhood Street Fund.	✓	✓	✓	✓	✓	✓
B22	Implement the Transportation Equity Framework (TEF) to grow transparency, accountability, and shared power when making transportation decisions with community members. (TJ1a)		✓				
B23	Feature community voices in planning documents. (TJ1b)		✓				
B24	Continue to build and maintain relationships with vulnerable communities and underrepresented groups. (Supports TEF 29.1 and 41.6) (TJ1c)		✓				
B25	Meet early and often to provide opportunities to influence projects before they are fully developed. (Supports TEF 3.4) (TJ1d)		✓		✓		
B26*	Build trust and capacity within organizations prioritizing our vulnerable communities focused on increasing biking and learn from the leaders active in these spaces. (Supports TEF 31.4) (TJ1e)		✓		✓		
B27	Normalize the practice of making decisions about policies and right-of-way (ROW) allocations with input from vulnerable communities. (Supports TEF 19.1 and 25.4) (TJ1f)		✓		✓		✓
B28	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 TEF 17.1, 21.2 and 16.1) (TJ1h)		✓				
B29	Compensate community partners for their valuable work to connect and communicate with their networks and uplift. (TJ1i)		✓				

* Indicates this Element plays a key role in advancing this action.

Key Moves and Bicycle and E-Mobility Actions		STP Goals Supported					
		Safety	Equity	Sustainability	Mobility	Livability	Maintenance & Modernization
Address inequities in the transportation system by prioritizing investments for impacted communities (TJ2)							
B30*	Prioritize bicycle and e-mobility investments that benefit people and local businesses who currently and historically experience high transportation burdens and those at high risk of displacement. (TJ2a)		✓		✓	✓	
B31	Collaborate with municipal, county, regional, and state transportation partners to consider the transportation needs of people who have been displaced from Seattle. (TJ2b)		✓		✓		
B32	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 TEF 14.3 and 15.2) (TJ2c)	✓	✓		✓	✓	
B33*	Identify actions to address inequities experienced by vulnerable community members who walk, bike, and roll, and provide capacity-building support to BIPOC-led organizations that focus on increasing active transportation. (Supports TEF 31.4) (TJ2d)	✓	✓		✓		
B34	Develop policies to prevent and mitigate transportation projects, both past and present, from contributing to future displacement. (TJ2e)		✓		✓		✓
B35	Implement improvements to make traveling in Seattle more accessible for everyone, such as curb ramps, accessible pedestrian signals, accessible parking, and accessible transit stops. (TJ2f)	✓	✓		✓		✓
B36	Partner with other departments and agencies to deploy anti-displacement programs, investments, tools, and mitigation efforts. (TJ2g)		✓		✓		
B37	Conduct and implement racial equity assessments at the program level. (TJ2h)	✓	✓	✓	✓	✓	✓
Remove cost as a barrier so everyone can take the trips they need to make (TJ3)							
B38*	Construct the bicycle and e-mobility network 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 of 8 AM to 5 PM, especially those who are low-income people of color, and those who rely heavily on public transportation. (TJ3a)		✓		✓	✓	
B39*	When a capital project is underway in a community, incorporate supplemental programs to help community members transition to sustainable travel options like walking, biking, and taking transit. For example, when installing a bike lane, consider partnering with a local bike shop on helmet distribution. (TJ3b)	✓	✓		✓		

* Indicates this Element plays a key role in advancing this action.

Key Moves and Bicycle and E-Mobility Actions		STP Goals Supported					
		Safety	Equity	Sustainability	Mobility	Livability	Maintenance & Modernization
B40*	Enhance programs that provide free or reduced travel fares and fees for low-income households. Specifically, develop E-bike and e-scooter incentives. (Supports TEF 32.1, 46.2, 46.3, and 52.4) (TJ3c)		●		●		
SUSTAINABILITY KEY MOVES							
Improve neighborhood air quality and health outcomes by promoting clean, sustainable travel options (CA1)							
B41*	Expand beyond employer-based travel demand management programs to include residential and neighborhood-based strategies that encourage non-driving travel choices for all trips. (CA1a)		●	●			●
B42*	Expand public education campaigns to encourage bicycling, using e-mobility, walking, rolling, and taking transit. (CA1b)		●	●	●		
B43*	Develop and expand programs that incentivize sustainable alternatives to driving for large events and as a primary congestion mitigation tool during major construction projects. (CA1c)			●	●		
B44	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). (CA1g)			●	●		●
Green city streets with landscaping and street trees to better handle changing climate (CA2)							
B45	Encourage the maintenance and installation of green infrastructure—such as street trees, rain gardens, landscaping, natural drainage systems, bioswales, and pervious materials—as other improvements occur in the right-of-way. (Supports TEF 56.4) (CA2a)			●			●
B46*	Prioritize tree planting and maintenance in historically under-invested communities, as we continue to increase tree canopy coverage citywide. (Supports TEF 56.6) (CA2c)		●	●		●	●
B47	Partner with local communities to co-create green landscape and urban forest improvements that increase resilience to climate impacts. (Supports TEF 56.4) (CA2d)			●		●	●
Foster neighborhood vitality and improved community health (CA3)							
B48	Design for people-first streets to make sustainable travel choices the default and easy choice for neighborhood trips and to increase neighborhood business district activity. (CA3d)		●	●	●		
B49*	Incentivize mobility options that don't use fossil fuels for transit, personal and urban goods delivery vehicles, and shared mobility (such as e-bikes and scooters). (CA3e)		●	●			

* Indicates this Element plays a key role in advancing this action.

Key Moves and Bicycle and E-Mobility Actions		STP Goals Supported					
		Safety	Equity	Sustainability	Mobility	Livability	Maintenance & Modernization
Support the transition from fossil fuel to electric vehicles for personal, commercial, and delivery trips (CA4)							
B50	Support the transition to electric vehicles (EVs) for all segments of transportation, including personal mobility, goods movement and services, and fleets and transportation network companies, through equitable incentives, grant opportunities, partnerships, and pilot programming. (Supports TEF 36.2) (CA4a)		✓	✓			
B51	Support electrification of shared mobility and freight vehicles through programs that install charging infrastructure, offer focused incentives, and reduce reliance on large vehicles. (CA4f)			✓			✓
MOBILITY KEY MOVES							
Create seamless travel connections (PG1)							
B52	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 TEF 19.6 and TEF 43.4). (PG1a)				✓		✓
B53*	Improve the experience of making travel connections, especially between transit and travel options – such as personal and shared bikes and scooters – used for first-/last-mile trips. (Supports TEF 35.2 and 45.3) (PG1b)		✓	✓	✓		✓
Make walking, biking, and rolling easy and enjoyable travel choices (PG2)							
B54*	Establish a bicycle level of service (BLOS) to be applied during project development that addresses comfort, delay, and directness, to make bicycling and e-mobility a more attractive option for more people. (Supports TEF 19.6 and 43.4)			✓	✓		
B55*	Provide helpful resources to help people plan their bicycle and e-mobility trips.	✓	✓	✓	✓		
B56*	Expand the bicycling community.		✓	✓	✓		
B57*	Grow the bike network and employ designs that reflect the needs and comfort level of people of all ages and abilities. (PG2d)	✓	✓	✓	✓		
B58*	Launch a citywide parking program for bicycles, scooters, and e-mobility devices, with a focus on community and mobility hubs, curbspace, and other locations. (PG2e)		✓	✓	✓	✓	
B59*	Update private development bike parking guidelines and code requirements (for charging and storage) to support and grow the use of e-bikes, larger cargo bikes, and scooters. (PG2f)		✓	✓	✓		✓

* Indicates this Element plays a key role in advancing this action.

Key Moves and Bicycle and E-Mobility Actions		STP Goals Supported					
		Safety	Equity	Sustainability	Mobility	Livability	Maintenance & Modernization
Create world-class access to transit and make service more frequent and reliable (PG3)							
B60*	Enhance existing and create new community and mobility hubs, with connections to high-capacity transit services. (PG3h)			✓	✓		✓
B61*	Prioritize low-carbon travel options through seamless, direct walking, biking, and rolling connections to community and mobility hubs. (PG3i)			✓ ✓	✓		
Enhance economic vitality by supporting freight movement and growth in deliveries (PG4)							
B62*	Design the street network for safe and predictable movement of trucks and delivery vehicles, integration with other travel options, and in support of safety, climate, and equity goals. (PG4a)	✓	✓	✓	✓		✓
B63*	Prioritize improvements in the freight network and safety improvements to freight vehicles to accommodate their interactions with other functions of the street and curb, particularly with people who are walking, biking, and rolling. (PG4d)	✓			✓		✓
B64*	Collaborate with private sector partners on pilots and programs that accelerate the shift of freight trips to more sustainable low- and zero-emissions vehicles, such as electric cargo bikes to replace a portion of last-mile deliveries made by larger vans and trucks in densely developed areas. (PG4f)			✓	✓		
Manage curbspace to reflect city goals and priorities (PG5)							
B65	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 develop decision frameworks to prioritize these functions based on local area and system needs. (PG5a)		✓	✓	✓	✓	
B66*	Develop strategies and new tools to accommodate more types of curb uses, including parking for bikes and other small devices, parking for shared micromobility, dedicated car share space, transit layover space, employer shuttle stops, and other curb uses that support low-emission travel options. (PG5c)		✓	✓	✓	✓	✓
LIVABILITY KEY MOVES							
Boldly reallocate street space to prioritize people while preserving access for goods delivery and emergency response (PP1)							
B67*	Reallocate street space currently used for vehicle storage (i.e parking) and general purpose travel to support a variety of people-oriented uses, such as gathering, playing, walking, and biking in strategic locations (PP1a)	✓	✓	✓	✓	✓	✓

* Indicates this Element plays a key role in advancing this action.

Key Moves and Bicycle and E-Mobility Actions		STP Goals Supported					
		Safety	Equity	Sustainability	Mobility	Livability	Maintenance & Modernization
B68*	Update Seattle's Right-of-Way Improvements Manual (Streets Illustrated) to implement actions and strategies outlined in this Plan. (PP1d) Reflect the wide range of bicycle and e-mobility devices that use and will use the Bike+ and multi-use trail networks in the future.	✓	✓	✓	✓	✓	✓
Transform community and mobility hubs into welcoming places (PP2)							
B69	Provide a safe and comfortable experience moving in and around community and mobility hubs. This includes better crossings and intersections, slower speeds and rightsized travel lanes, decluttered sidewalks, universal access, and more. (PP2c)	✓	✓	✓	✓	✓	✓
Co-create and enhance public spaces for playing and gathering to improve community health (PP3)							
B70*	Implement shared, car-light streets, such as Café Streets and Neighborhood Greenways, and car-free streets to support the transition to a low-carbon transportation system and reduce chronic health disparities. (PP3d)	✓	✓	✓	✓	✓	
MAINTENANCE & MODERNIZATION KEY MOVES							
Transform city streets for safety and sustainable travel choices through optimal timing of asset maintenance and replacement (MM1)							
B71*	Use asset maintenance and replacement opportunities to not only improve the condition of transportation infrastructure and equipment, but to also enhance safety, reduce dependence on driving, promote sustainable travel options, and support economic vitality. (MM1a) Maintain the bicycle and e-mobility network to provide a safe and comfortable bicycling and e-mobility experience.	✓	✓	✓	✓	✓	✓
B72*	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. (MM1b)						✓
B73*	Collect feedback on asset conditions as part of community engagement on transportation system planning, design, and co-creation. (MM1c)		✓				✓
B74*	Conduct asset maintenance in accordance with the priority investment and emergency response route networks to guide asset maintenance, especially when investment supports walking, biking, transit, and freight. (MM1d)		✓	✓	✓		✓

* Indicates this Element plays a key role in advancing this action.

Key Moves and Bicycle and E-Mobility Actions		STP Goals Supported					
		Safety	Equity	Sustainability	Mobility	Livability	Maintenance & Modernization
Reduce neighborhood disparities in the quality of streets, sidewalks, public spaces, and bridges (MM2)							
B75	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 TEF 19.3) (MM2a)		✓		✓		✓
B76	Focus resources for maintenance and improvements in neighborhoods that have been historically or are currently underserved. (Supports TEF 19.4) (MM2b)	✓	✓	✓	✓	✓	✓
Ready city streets for new travel options and emerging trends and technologies (MM3)							
B77*	Collect, monitor, and use data to inform changes to the transportation system. (MM3a)	✓	✓	✓	✓		✓
B78*	Anticipate and leverage innovative transportation technologies so they are shaped to meet community values and goals, including safety, equity, and climate response. (MM3b)		✓	✓	✓		✓
B79	Proactively work with public, private, and academic sector partners to collaboratively develop transit and mobility solutions for the future. (MM3c)		✓	✓	✓		✓
B80*	Adapt streets for new and evolving forms of mobility devices such as commercial or private cargo bikes, e-scooters, personal delivery devices, low-speed electric vehicles, and others to create more travel options. (Supports TEF 19.2). (MM3d)	✓		✓	✓	✓	✓
B81*	Develop and maintain up-to-date asset data, including digital inventories of physical assets like curb space, load zones, bike and scooter parking locations. (MM3e)			✓	✓		✓

* Indicates this Element plays a key role in advancing this action.

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 bicycling and e-mobility. 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 continue to evolve in the years to come.

OPPORTUNITIES AND EMERGING TRENDS

- **E-bikes and cargo bikes**. The increasing adoption of electric bikes, cargo bikes, and adaptive bikes has the potential to help people overcome network and personal barriers previously seen as limiting factors for bicycling in Seattle, such as hills or the need to transport family members and goods.
- **Complete neighborhoods**. Complete neighborhoods are those that include access to adequate housing, essential needs and services, amenities, jobs, educational opportunities, and more within a short walk, bike ride, e-mobility ride, or transit ride. Updates to Seattle's land use vision as part of the One Seattle Comprehensive Plan will put more destinations within biking distance of peoples' homes. As a result of the 2018 land use code update, bicycle parking is required at all new developments, so residents and employees of new buildings have a location to lock their bike.
- **Commercial bike use**. As we implement our bike and e-mobility network, there will be enhanced opportunities for business to reduce reliance on autos to make urban goods deliveries including business to consumer (B2C) and business to business (B2B) deliveries. More cargo and e-mobility bikes can be used to offer reliable, low-emission delivery options. The University of Washington's Urban Freight Lab estimates a potential 30% reduction

Electric pallet used for goods delivery.
Photo source: UW Freight Lab

in CO2 emissions per package.[3] The creation of a future Commercial Bike program could improve awareness, promote partnerships, and accelerate the adoption of commercial cargo and e-mobility deliveries.

- **Light rail expansion**. The West Seattle and Ballard, Lynnwood, and East Link extensions and infill stations will allow more opportunities to connect to the regional transportation network using a bicycle as a "first- and last-mile" travel mode. Under Seattle's land use code, these new stations will have bike parking areas that will make biking to transit more secure.
- **Improved safety data**. Data and findings from SDOT's Bicycle and Pedestrian Safety Analysis (BPSA)[4], the 2023 Vision Zero "Top to Bottom" Review[5], and Vision Zero Action Plan will help guide strategic and equitable investments in safety for people bicycling.
- **Low-Emission Neighborhoods**. Executive Order 2022-07 on transportation emissions will further promote bicycling for transportation within proposed low-emission neighborhoods. Low-emission neighborhoods prohibit or restrict the types of vehicles allowed within the neighborhood and encourage other, zero- to low-emission modes like biking, walking, e-cargo deliveries, etc. (Supports TEF 19.7) *See the STP People Streets and Public Spaces Element for more information.*
    - Other elements from Executive Order 2022-07, such as the Youth Transportation Summit, the commitment to 20 miles of permanent Healthy Streets, expansion of the School Streets program, and the commitment to have an all ages and abilities bike facility serve every public school, will also support bicycle and e-mobility element goals. *See the STP People Streets and Public Spaces Element for more information.*
- **Improved detection**. New technology has been developed that allows for better bicycle detection at signals, enabling a more seamless and convenient experience for people riding.
- **Vehicle technology**. Active safety systems—such as autonomous emergency braking, cellular vehicle-to-everything (C-V2X) technology and intelligent speed assistance—could curb risky driving behavior and reduce crashes, including bicycle crashes. Fully autonomous vehicles, capable of operation without any human involvement, are not available today, but they have the potential to reduce the number and severity of collisions and improve road safety for everyone. That said, these technologies are also a potential safety challenge for people bicycling and using e-mobility devices until the technology advances.

[3] Toussaint, K. (2021, October 19) *This e-bike delivery experiment reduced CO2 emissions by 30% per package*. Fast Company. https://www.fastcompany.com/90686872/this-e-bike-delivery-experiment-reduced-co2-emissions-by-30-per-package

[4] Seattle Department of Transportation. (2016, September 30). "City of Seattle Bicycle and Pedestrian Safety Analysis." www.seattle.gov/documents/departments/besupersafe/bicyclepedestriansafetyanalysis.pdf

[5] Seattle Department of Transportation. (2023, February 23). "Vision Zero Top to Bottom Review." https://www.seattle.gov/documents/Departments/SDOT/VisionZero/SDOT-Vision-Zero-TopToBottomReview-FullReport.pdf

- **Implementation of bicycle-related Transportation Equity Framework (TEF) tactics**. Tactics outlined in the Seattle Transportation Equity Framework (TEF) provide a roadmap to address historical disinvestment and the resulting disparities in mobility, including safe bicycling facilities, health, and travel affordability. Relevant TEF tactics are referenced throughout this element and are listed at the end of this document.

CHALLENGES

- **Maintenance**. Investments in equipment, labor, and materials will be necessary to maintain safe, comfortable, and attractive bicycle facilities. This includes sweeping debris, filling potholes, restriping faded lines, maintaining signals, fixing broken bollards (posts that block vehicle access into restricted bike or pedestrian facilities), and more.
- **Lighting**. A 24/7 network requires us to address lighting deficiencies on non-arterial (neighborhood) streets and multi-use trail connections.
- **Bike parking**. More secure and ubiquitous bike parking is needed that accommodates adaptive bikes, e-bikes, and cargo bikes in both residential and commercial areas and at high-frequency transit/light rail stations and Community and Mobility Hubs.
- **Geographic pinch points**. Seattle's steep topography, highway network, water bodies, and bridges create pinch points where freight, transit, bicycle, and pedestrian access needs compete for limited space on existing bridges and rights-of-way. The STP provides guidance on how to address these pinch points, and additional analysis will be needed as part of project implementation.
- **Cultural changes**. Changes in public opinion and behavior are needed to shift a portion of trips from driving in private vehicles to other modes, such as bicycling and e-mobility, in a meaningful way.
- **Interagency coordination**. We will need to work with agency partners to identify solutions that inhibit use of bicycling and e-mobility:
    - *King County Metro*: It is challenging to locate bike facilities under trolley lines where buses must maintain lateral clearance to attach overhead, and bike racks on buses do not accommodate a variety of e-bike and cargo bike sizes
    - *WSDOT*: There are conflicts between bike facilities and highway entrance and exit ramps
    - *U.S. Army Corps of Engineers, U.S. Coast Guard, Washington State Departments of Natural Resources and Fish & Wildlife, and Tribal Nations*: There is a desire to provide new and upgraded facilities with drawbridge operations
    - *Seattle Public Utilities*: Dumpsters located in bike lanes during pickup days is a common complaint
    - *Seattle City Light*: Overhead wires and "down guys" obstruct access for trail maintenance within Seattle City Light right-of-way

    - *Railroad Companies:* Safely negotiate conflicts between bike facilities and train track crossings

- **Access through construction zones**. It is critical to provide safe and intuitive access through construction zones—whether roadway or building construction—so people bicycling are not suddenly forced to merge with traffic. Often, this comes down to enforcing approved traffic control plans.
- **Vehicles obstructing bike lanes**. Bike lanes often are obstructed by people driving delivery vehicles, Transportation Network Company (TNC) drivers, and others who need to access the curb, forcing people bicycling and using e-mobility devices to merge with traffic. Protected bike lanes reduce occurrences of obstructed bike lanes, as does more awareness-building messaging and enforcement.
- **Continuous improvement opportunities**. While the use of flexible delineators for protected bike lanes has allowed for relatively low-cost expansion of Seattle's protected bike lane network, we recognize that there is a need to upgrade these bikeways with more permanent, robust protection to truly make them comfortable for more people. We are always seeking to improve safety and update facilities to meet current standards.
- **Wayfinding**. While Seattle has an extensive bicycle wayfinding sign system, there is more work to be done to improve signage so people can confidently and comfortably find their way along the bicycle and e-mobility network. Increased coordination with other city wayfinding programs is needed to provide consistency in what destinations are called, graphics, and format for secondary languages.
- **Urban Heat Island Effect**. As climate change accelerates and extreme weather events continue to include longer periods of hotter, dryer weather, active transportation becomes more difficult. Areas lacking tree canopy are most impacted by urban heat island effects. Where trees provide shade to bike facilities, their natural debris and growing roots can increase maintenance needs.
- **Autonomous Delivery**. Autonomous delivery robots, if permitted, would potentially use bike lanes, resulting in increased demand and competition for space in bicycle lanes.
- **Need for Nimble Design Standards**. *Streets Illustrated* (Seattle Right-of-Way Improvements Manual)[6] identifies comprehensive design standards and guidance for bike lanes, multi-use trails, intersections, bike lanes with transit service, neighborhood greenways, and bike parking that are based on national best practices. However, best practices are evolving, and our design standards need to reflect that. As more and more people use cargo bikes, e-bikes, adaptive bikes, and e-mobility devices that vary in size and speed at which they travel, there needs to be adequate space for people traveling faster to safely pass those moving more slowly and to maneuver larger devices through pinch points.

[6] https://streetsillustrated.seattle.gov/

COMMUNITY ENGAGEMENT

Bicycling is a form of transportation and recreation embraced by many people within Seattle, and there are still more people who would choose to bicycle if it were safer and more convenient. We conducted extensive public outreach as part of the Seattle Transportation Plan (STP) development process through a variety of tools, such as two interactive maps, open ended surveys, in-person events, festivals, listening sessions, and open houses. Please see Chapter 2 in Part I of the STP for more details on the public engagement process and feedback received. (Supports TEF 29.1)

As part of this engagement, we used two interactive webmaps. In the first interactive map (May to August 2022), people could drop pins, trace routes, and draw areas they want to see improvement in Seattle's transportation system. We received over 4,700 bicycle-related comments on challenges and opportunities for bicycling and e-mobility. In the second interactive map (December 2022 to February 2023), people could drop pins and leave comments in response to the draft STP bicycle and e-mobility network. We received nearly 900 bicycle-related pins. See **Figure 1** and **Figure 2** for aggregated bike-related comments. This feedback informed the draft bike maps in this chapter. Additional public comment received directly informed the policies, programs, and strategies found in this element. (Supports TEF 29.1)

Several general themes emerged related to the bicycle and e-mobility network and policies, including:

- **Prioritize safety.** Frequently cited safety concerns include motorist speeding, distracted driving, delivery/freight drivers parking vehicles in bike lanes, and car doors opening into bike lanes. There is also concern that streets are not safe for kids to walk and bike on.

  Provide separation. Physically separated bike lanes are strongly preferred. Durable, permanent materials are strongly preferred over temporary bollards. Maintaining protection through intersections both physically and temporally is needed to achieve an AAA facility designation.
- **Increase geographic equity.** Focus bike network improvements, bike facilities, and safety investments in areas that have historically seen less investment, such as South Seattle. (Supports TEF 19.4)

> "There are no good, safe, flat ways to get to central [Seattle] from this far south…Add protected bike bus priority infrastructure all the way from Othello to downtown to increase equity in the south end."
>
> – Quote from Survey Respondent

- **Fill gaps in the network.** Focus on completing the bicycle and e-mobility network so there are no gaps.
- **Deter bicycle theft**. Frequently cited ideas for addressing bicycle theft include more secure bike parking options for a variety of bicycle sizes and bicycle registration.
- **Use universal design**. Consider the needs of people with limited mobility when designing the bicycle and e-mobility network and parking areas (such as accessible vehicle parking at the curb, bicycle-pedestrian conflict points, and maintaining a clear pedestrian zone on sidewalks and at crossings).
- **Enhance safety and comfort through better maintenance**. Better maintained surface conditions in bike lanes and paths would make it safer and more comfortable for people biking and using scooters and other smaller-wheeled devices.
- **Provide more enforcement and education**. Drivers need to be held accountable for aggressive driving and not following the law. All road travelers need to practice better etiquette.
- **Deter parking and loading in bike lanes.** When cars are parked in bike lanes, people bicycling must merge into vehicular traffic to get around the parked car, putting them at risk of being hit. Enforcing no parking mandates within bike facilities will be an important part of keeping people bicycling and using e-mobility devices safe.
- **Be more consistent.** More consistency in bikeway design and maintenance would create a more predictable and safe bicycling experience.

We also had a series of listening sessions with Black, Indigenous, and People of Color (BIPOC) bicycle leaders, which revealed key takeaways for the STP:

- **Prioritize investment in the South End**. This is necessary to rebuild and regain trust from the community. Co-create with the community so that investments enhance lives of Black and Brown people living in the South End and do not facilitate displacement. (Supports TEF 19.4)
- **Reduce Speeds**. Safer street design and traffic calming in underserved neighborhoods is needed.
- **Promote protected bike facilities**. There is a desire to see more permanent protected bike lanes and other bike safety investments—as opposed to lanes distinguished by paint and plastic bollards, particularly in areas with lower vehicle ownership rates.
- **Emphasize safety in growing neighborhoods**. As neighborhoods densify, there is a need to reevaluate safety needs for people bicycling.
- **Accelerate the build-out of a complete and connected cycling network**. Bicycling infrastructure needs to connect riders as directly as possible to the places they want to go. Bicycle lanes should not just end and merge into a vehicle lane. Work to methodically complete a connected and safe cycling network.

Among the locations and areas in Seattle where the most public comments were received were Capitol Hill, Rainer Valley, Ravenna/Roosevelt, Burke-Gilman Trail, Beacon Hill, Aurora Ave, I-5

(multiple locations crossing I-5 and at ramps), Ballard Bridge, Fremont, and the University District. **Figure 1** and **Figure 2** show aggregated bike-related comments. In **Figure 1,** the map on the left shows clusters of bicycle-related comments received on the first webmap, and the map on the right shows the location of each individual bicycle-related pin. **Figure 2** shows the location of each individual bicycle-related pin received on the second webmap.

"Until we actually add safe infrastructure to the Ballard Bridge, we should absolutely not consider it part of our bike network or a safe bike route."

– Quote from Survey Respondent

Figure 1: Bike-related Public Comments on Webmap #1

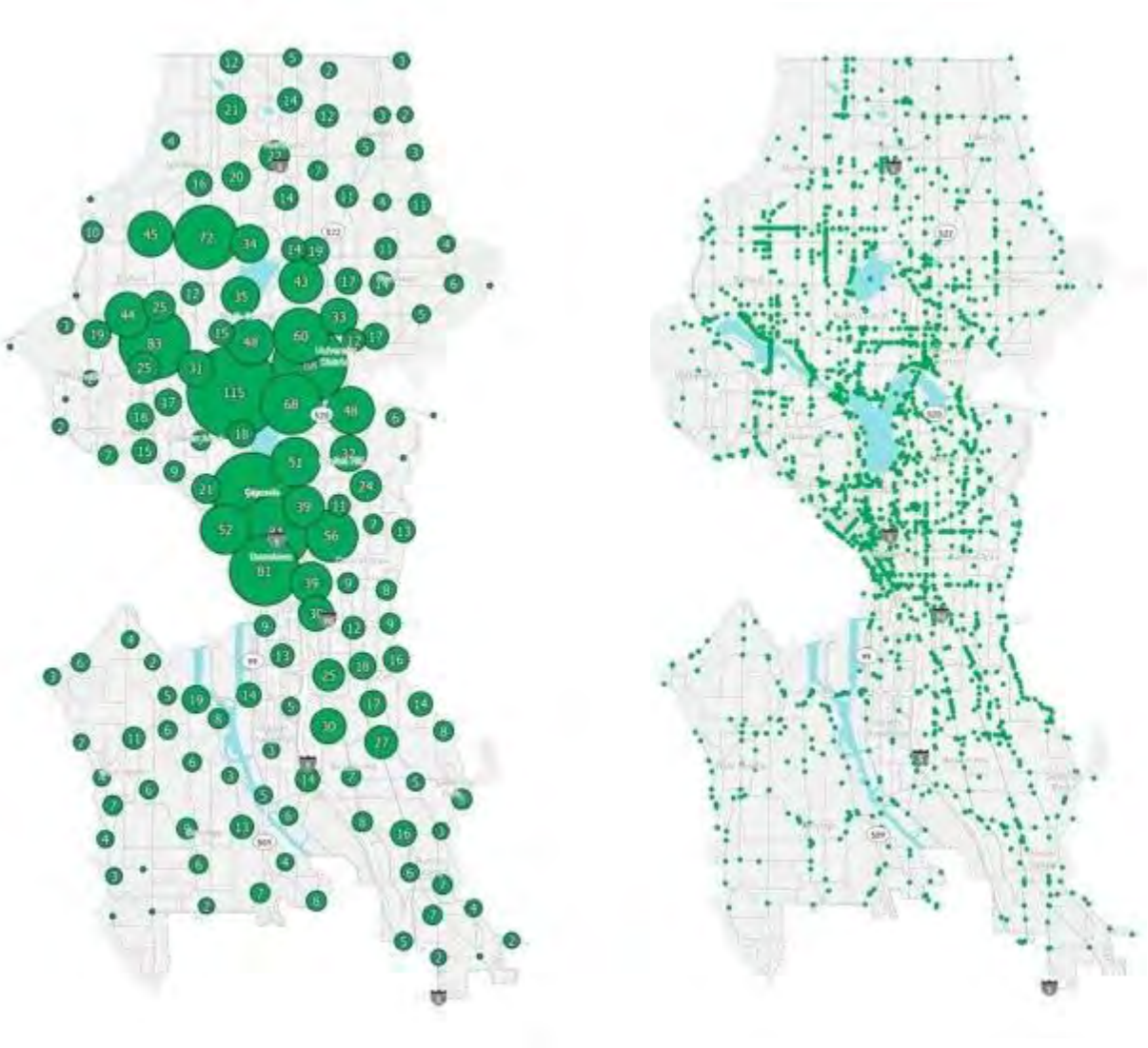
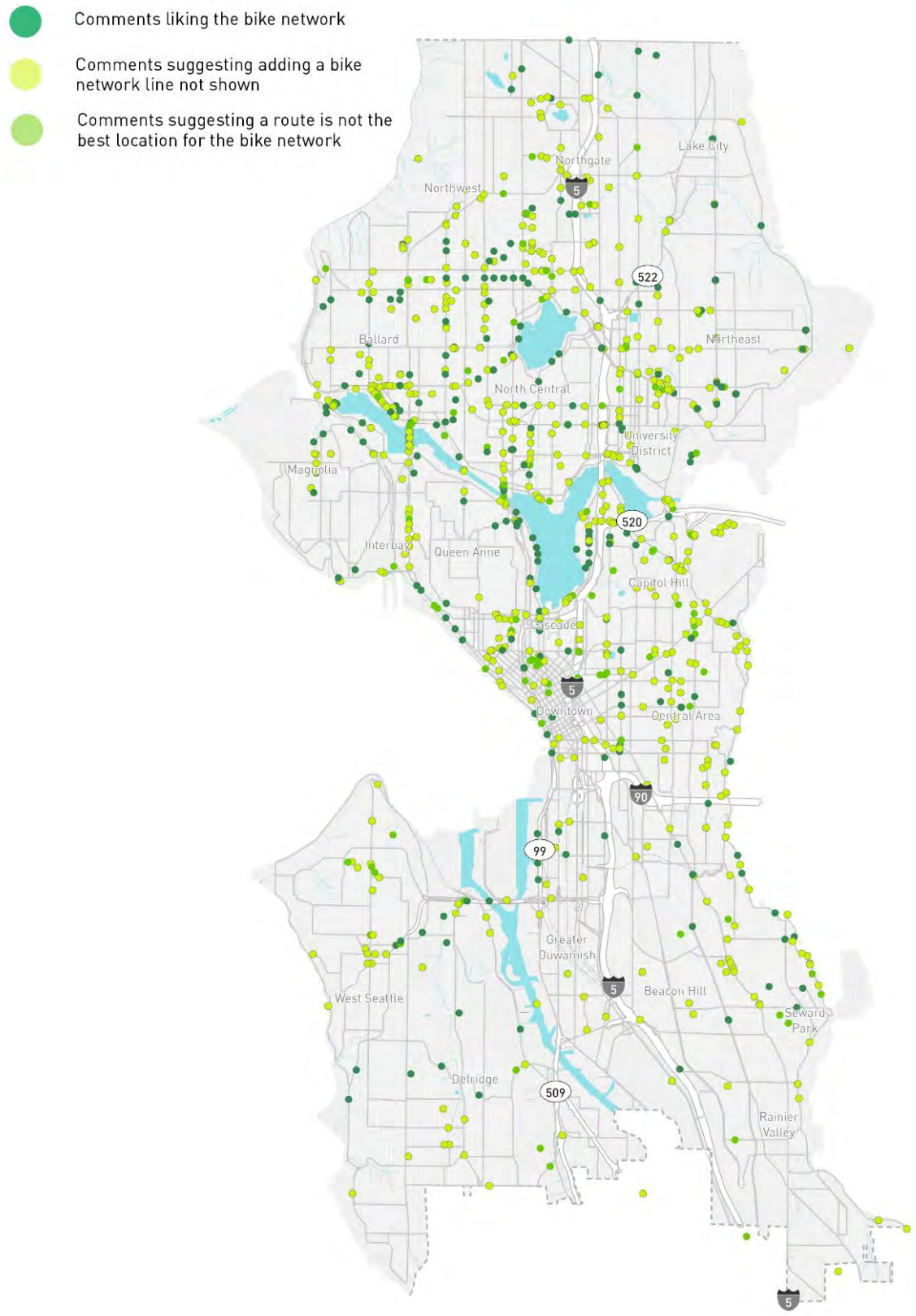


Figure 2: Bike-related Public Comments on Webmap #2



BICYCLING AND E-MOBILITY IN SEATTLE

To make bicycling a viable and attractive mode of transportation for a greater number of Seattleites and visitors, the bicycle and e-mobility network must feel safe, intuitive, and provide convenient access to the places people want to go. This means the bicycle and e-mobility network must be connected, provide a consistent level of comfort, be well-maintained, and offer competitive travel times. This section describes the bicycle and e-mobility network and the key spatial and operational considerations necessary to achieve this vision.

SDOT is responsible for constructing and maintaining bicycle and other e-mobility facilities in the right-of-way. These facilities include trails, protected bike lanes (cycle tracks), painted bike lanes, and other SDOT assets that help these facilities function, such as bicycle signals and markings. SDOT regularly updates bicycle transportation planning documents to add new routes and desired upgrades to existing routes. The bicycle and e-mobility network continues to grow each year, both in overall miles and quality of design and materials used. SDOT projects are prioritized annually to fill in network gaps, achieve safety outcomes, and address equity opportunities to making biking a vibrant part of life for everyone in Seattle.

BICYCLE AND E-MOBILITY NETWORK

The Seattle bicycle and e-mobility network will be safe, comfortable, and provide convenient access to destinations for people of all ages and abilities. It will support complete neighborhoods where everyday destinations like parks, schools, transit, and shopping are easily accessible by biking or walking. It will also enable time-competitive longer trips between priority destinations, such as Urban Villages, Urban Centers, and regional destinations, particularly for a growing number of people using e-bikes.

The bicycle and e-mobility network consists of the Bike+ network (defined below) and multi-use trail network, which will accommodate a greater volume and variety of people over time. This will involve

BICYCLING ETIQUETTE

The Bike+ network and multi-use trails will be used by a wide variety of people. This includes but is not limited to children; people in wheelchairs; both avid, long-time bicyclists and those new to bicycling; people using conventional bikes, cargo bikes, adaptive bikes, e-bikes, e-trikes, and e-scooters; and more. It is inevitable that people will travel at a range of speeds. We expect:

- People bicycling and using e-mobility devices to travel in a safe and prudent manner with reasonable speeds not to exceed 15-20 miles per hour, taking into account weather and site conditions.
- Courteous behavior that prioritizes the comfort and safety of people using the network more slowly.
- Slower travelers keep right to enable passing on the left.
- Give audible warning when passing.
- Signage may be installed to remind riders to slow down.
- If a person bicycling wants to travel at the speed of people driving, then they may want to take the travel lane.

ongoing coordination with e-mobility providers and freight delivery services utilizing e-trikes or similar vehicles for local deliveries. The network will be well-integrated with multi-use trails regardless of whether they are managed by SDOT or other agencies like WSDOT and Seattle Parks and Recreation. Finally, the network will be integrated with Seattle's network of historic Olmsted Boulevards.

Bike+ Network

The Bike+ network consists of bikeways suitable for people of all ages and abilities (AAA), including protected bike lanes, neighborhood greenways, Healthy Streets, and bike lanes where vehicle speeds and volumes are sufficiently low. The Bike+ network is envisioned to seamlessly integrate with the multi-use trail network, which provides connections through or on the edges of parks and opens spaces, where an off-street connection is preferred, or is more feasible than an on-street connection.

Many planned projects from the 2014 BMP have been implemented and are shown on the existing bicycle and e-mobility network map**.** The Bike+ network shows existing and proposed AAA bikeways on Seattle's arterial and non-arterial (i.e., neighborhood streets) networks. The proposed Bike+ network comprises planned bikeways carried over from the 2014 BMP, new bikeway connections, and existing bikeways that are proposed to be upgraded to meet National Association of City Transportation Officials (NACTO) AAA guidelines.

The proposed Bike+ network includes new connections to better serve new and planned light rail stations and other key destinations. In some locations, such as on Delridge Way and Airport Way, planned connections identified in the 2014 BMP were removed because alternative parallel routes were deemed more feasible and in alignment with other modal priorities.

Through the STP process, we conducted preliminary, planning-level analysis to identify locations where Bike+ improvements would not fit – either because of limited right-of-way or conflicts with other proposed priority networks – to put forward a future network that is as realistic as possible. Please see the Draft Seattle Transportation Plan Part II, Chapter 2 for an overview of this analysis. However, in the future when a corridor is being designed, there is the possibility that some locations shown as Bike+ in the maps in this element will be deemed infeasible, and per the Comprehensive Plan's Complete Corridor policy, alternative parallel routes may be explored instead. Conversely, there is also the possibility that bicycle and e-mobility facilities could be built in locations even if they are not shown on the maps in this element.

COMPREHENSIVE PLAN
"COMPLETE CORRIDOR" POLICY

Collectively two or more streets can combine to serve as a "complete corridor," since not every street can accommodate every need.

The bicycle and e-mobility network consists of the following bikeway types:

Protected Bike Lanes

Protected bike lanes are physically separated from traffic and the sidewalk. Like a trail, protected bike lanes are often more comfortable for people who prefer not to ride with traffic. They may be one-way (both sides of street) or two-way (on one side of the street). Input from Seattle residents indicates a clear preference for these types of bike lanes, and numerous studies from across North America have shown that such bikeways generally encourage more people to bicycle. Protected bike lanes built with flexible delineators are intended to be temporary, and over time we will upgrade these bike lanes with more permanent design elements.

One-way Protected Bike Lane with Delineator Posts

Two-Way Protected Bike Lane with Planters

Bike Lanes

Seattle's current built bike network consists of many miles of painted bike lanes and bike lanes that are buffered through additional hatched pavement marking to create greater distance between moving cars and people bicycling. These types of lanes offer dedicated space for bicycling but lack any physical separation from moving vehicles. Over time, these bike lanes may be upgraded to protected bike lanes, particularly in locations with identified safety issues. Where vehicle volumes and speeds are low (i.e., 20 mph or less), bike lanes may meet NACTO AAA guidelines. In such cases, the bike lane may be maintained as is, or upgraded if feasible. In cases where there is an AAA facility within a quarter mile of an existing bike lane that does not meet NACTO AAA guidelines and there is not room to upgrade, the existing bike lane may be preserved because it may still have an important network role even if it is not AAA.

Bike Lane

Buffered Bike Lane

Neighborhood Greenways

Neighborhood greenways are routes that prioritize people walking, biking, and rolling comfortably on non-arterial streets with low vehicle volumes and speeds. Defined by their enhanced crossings of busy streets, neighborhood greenways provide a seamless connection between many protected bike lanes, trails, and community destinations such as schools, parks, libraries, and neighborhood commercial areas. **Figure 3** shows the design elements of a neighborhood greenway.

Bike train to school on a neighborhood greenway

Heathy Streets

Healthy Streets are open for people walking, rolling, biking, and playing, and they are closed to pass-through vehicular traffic. They frequently overlap with the Neighborhood Greenway network. Healthy Streets were originally introduced to provide space for social distancing in response to the COVID-19 pandemic and are now being made permanent and piloted in new locations as part of the Bike+ and pedestrian networks. *For additional details, see the People Streets and Public Spaces Element.*

People bicycling on Healthy Street in Seattle

Figure 3: Neighborhood Greenway Design Elements

Multi-Use Trails

Multi-use trails are off-street facilities that accommodate people walking, biking, and using a wide range of other non-motorized and e-mobility devices. Multi-use trails are for two-way travel and may be adjacent to a street or found in parks, along rivers, beaches, greenbelts, or utility corridors. Seattle has many multi-use trails that offer recreational opportunities and are an essential part of the city's transportation network. Because these facilities are shared by a wide variety of people traveling at varying speeds for a variety of purposes, they require both courteous behavior and adequate space for travelers to coexist safely and comfortably.

Ship Canal Trail

Several multi-use trails in Seattle connect to the greater regional trail network, including the Burke-Gilman Trail, Interurban Trail, and trails on State Routes 520 and I-90. These multi-use trails facilitate travel between Seattle and neighboring communities and connect Seattleites to recreational opportunities in the greater Puget Sound region and beyond, especially those designated as part of the regional Leafline trail network. Portions of the Burke-Gilman Trail, Elliott Bay Trail, and waterfront trail are part of the Great American Trail, a cross-country route connecting La Push, WA to Washington, D.C. Ensuring Seattle's multi-use trails are safe, comfortable, and easy to navigate can encourage more visitors and yield economic benefits.

Burke-Gilman Trail

Magnolia Blvd

Lake Washington Blvd during a temporary street closure

Olmsted Boulevards

While not technically multi-use paths, Seattle's Olmsted Boulevards similarly create recreational opportunities for people biking, walking, rolling, and engaging in other activities.

In the early 1900s, Seattle hired the Olmsted Brothers landscape architecture firm to design a system of interconnected parks and boulevards that provided open space for all people.[7] The Seattle City Council approved the Olmsted Brothers' plan "A Comprehensive System of Parks and Parkways" in 1903.

Olmsted Boulevards include:

- Cheasty Boulevard
- Green Lake Boulevard
- Hunter Boulevard
- Interlaken Boulevard
- Lake Park Drive
- Lake Washington Boulevard
- Magnolia Boulevard
- Montlake Boulevard
- Mount Baker Boulevard
- Queen Anne Boulevard
- Ravenna Boulevard
- Schmitz Boulevard
- University Boulevard

Today, Olmsted Boulevards are managed jointly by Seattle Parks and Recreation and SDOT. While these boulevards have been more vehicle-centric in the past, SDOT has heard requests from people who want more people-oriented streets in the city. There may be opportunities to open more street space for walking, strolling, and bicycling along our Olmsted Boulevards by introducing car-lite strategies. This would enable recreational opportunities year-round instead of only summer weekends and, in some cases, provide high-comfort bike network connections. (Supports TEF 43.4) The city would engage with communities and Friends of Seattle's Olmsted Parks in any such decision-making processes.

[7] Friends of Seattle's Olmsted Parks. "A Brief History." https://seattleolmsted.org/history/

Complementary Facilities

Complementary facilities are places where traffic volumes are exceptionally low, slow, or closed to traffic. Slow Lanes and Shared Streets are both places where bicycles can enjoy low-stress riding combined with reduced conflicts and vibrant neighborhood community interaction. *More about Slow Lanes can be found in the New and Emerging Mobility Element and Shared Streets in the People Streets and Public Spaces Element.*

Non-Bike+, Existing/Proposed

Some roadways are important connections for people bicycling and using e-mobility devices, but right-of-way is so constrained that an AAA bike facility is not feasible. SDOT will either seek to maintain the bike infrastructure that exists today or make future improvements that support bicycling even though it is not feasible to design them for all ages and abilities.

Maps

Many planned projects from the 2014 BMP have been implemented and are shown in **Figure 4**, which shows our existing bicycle and e-mobility network.

Figure 5 through **Figure 10** show existing and proposed AAA bikeways on Seattle's arterial and non-arterial (i.e., neighborhood) streets. This map is printed in six sections by geography: northwest, northeast, west, east, southwest, and southeast.

Figure 11 shows the future bicycle and e-mobility network—this is the ultimate vision for a connected AAA network that would put 100 percent of Seattle households within a quarter mile of a AAA bikeway or multi-use trail.

Figure 12 shows catalyst projects, which are described in greater detail in **Table 2**.

Figure 4: Existing Bicycle and E-Mobility Network

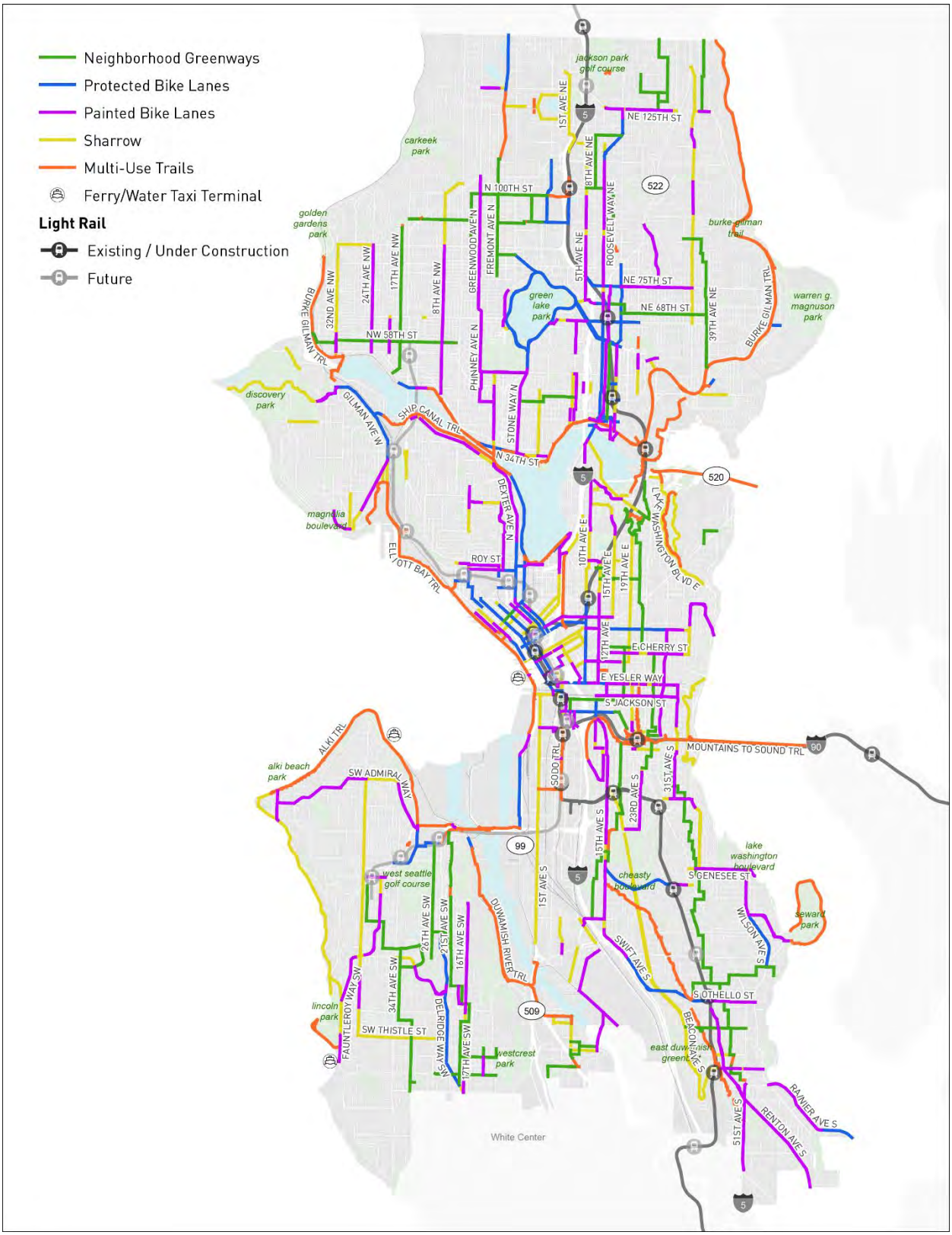


Figure 5: Existing and Proposed Bicycle and E-Mobility Network (Northwest)

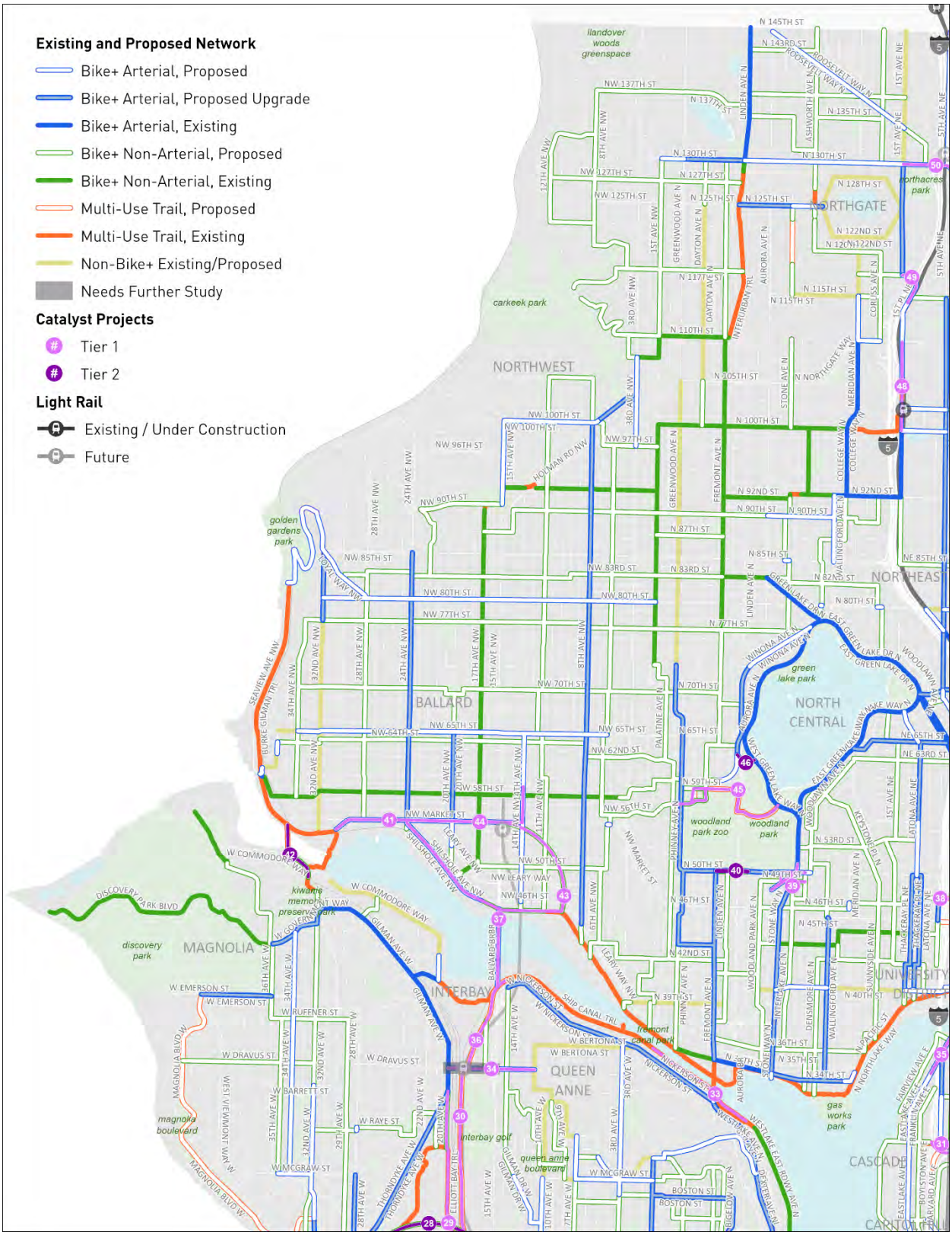


Figure 6: Existing and Proposed Bicycle and E-Mobility Network (Northeast)

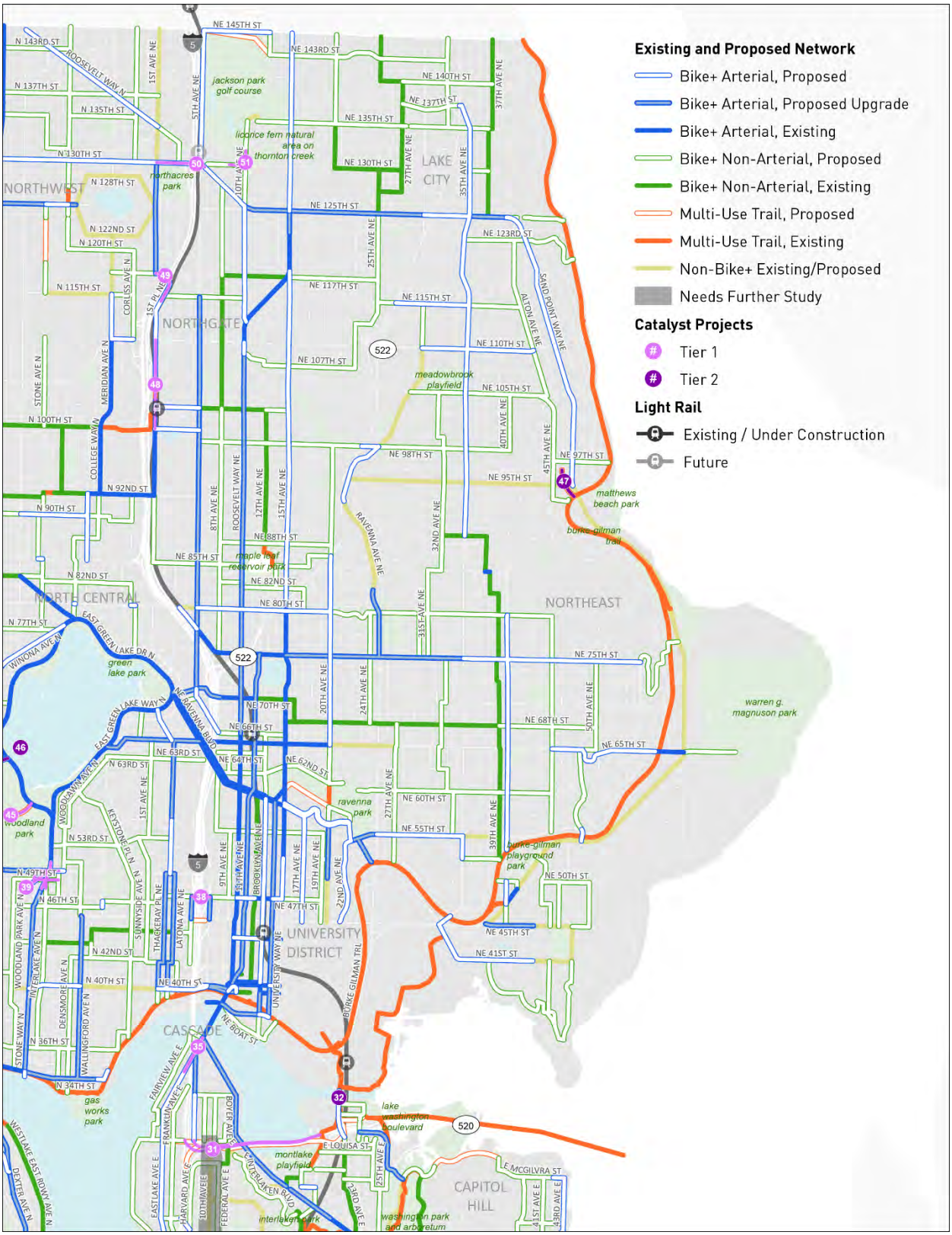


Figure 7: Existing and Proposed Bicycle and E-Mobility Network (West)


Existing and Proposed Network
Bike+ Arterial, Proposed
Bike+ Arterial, Proposed Upgrade
Bike+ Arterial, Existing
Bike+ Non-Arterial, Proposed
Bike+ Non-Arterial, Existing
Multi-Use Trail, Proposed
Multi-Use Trail, Existing
Non-Bike+ Existing/Proposed
Needs Further Study
Catalyst Projects
Tier 1
Tier 2
Light Rail
Existing / Under Construction
Future
Ferry/Water Taxi Terminal
MAGNOLIA
QUEEN ANNE
WEST SEATTLE
DOWNTOWN
CAPITOL HILL
GREATER DUWAMISH
UNIVERSITY DISTRICT
NORTH CENTRAL
BALLARD
INTERBAY
discovery park
kiwanis memorial preserve park
magnolia boulevard
magnolia park
interbay golf
queen anne boulevard
fremont canal park
gas works park
woodland park zoo
woodland park
green lake park
hamilton viewpoint park
duwamish head greenbelt
seacrest park
alki beach park
schmitz preserve park
charles richey sr viewpoint
W COMMODORE WAY
GILMAN AVE W
NW MARKET ST
NW 58TH ST
NW 56TH ST
NW LEARY WAY
NW 46TH ST
N 59TH ST
N 50TH ST
N 46TH ST
N 45TH ST
N 42ND ST
N 39TH ST
N 36TH ST
N 35TH ST
N 34TH ST
W EMERSON ST
W RUFFNER ST
W DRAVUS ST
W BARRETT ST
W RAYE ST
W MCGRAW ST
W BERTONA ST
NICKERSON ST
SHIP CANAL TRL
BOSTON ST
NEWTON ST
W GALER ST
W HIGHLAND DR
W OLYMPIC PL
ALOHA ST
ROY ST
MERCER ST
REPUBLICAN ST
THOMAS ST
JOHN ST
DENNY WAY
BROAD ST
ELLIOTT AVE W
ALASKAN WAY
WESTERN AVE
S JACKSON ST
S KING ST
S DEARBORN ST
S HOLGATE ST
S LANDER ST
SW ADMIRAL WAY
SW HINDS ST
SW HANFORD ST
CALIFORNIA AVE SW
FAUNTLEROY WAY SW
ALKI AVE SW
ALKI TRL
BEACH DR SW
DISCOVERY PARK BLVD
BURKE-GILMAN TRL
SHILSHOLE AVE NW
LEARY WAY NW
BALLARD BRG
INTERBAY
MAGNOLIA BLVD W
MAGNOLIA BR
THORNDYKE AVE W
ELLIOTT BAY TRL
GILMAN DR W
QUEEN ANNE AVE N
1ST AVE N
5TH AVE N
6TH AVE N
7TH AVE N
8TH AVE N
9TH AVE N
10TH AVE N
11TH AVE NW
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15TH AVE NW
24TH AVE NW
34TH AVE NW
36TH AVE NW
42ND AVE NW
GREENWOOD AVE N
PHINNEY AVE N
FREMONT AVE N
AURORA AVE N
INTERLAKE AVE N
STONE WAY N
WOODLAND PARK AVE N
1ST AVE NE
5TH AVE NE
8TH AVE NE
11TH AVE NE
15TH AVE NE
25TH AVE NE
35TH AVE NE
39TH AVE NE
42ND AVE NE
45TH AVE NE
50TH AVE NE
55TH AVE NE
60TH AVE NE
65TH AVE NE
70TH AVE NE
75TH AVE NE
77TH AVE NE
MERIDIAN AVE N
1ST AVE NW
3RD AVE NW
6TH AVE NW
8TH AVE NW
11TH AVE NW
14TH AVE NW
15TH AVE NW
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24TH AVE NW
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32ND AVE NW
34TH AVE NW
36TH AVE NW
42ND AVE NW
46TH AVE NW
49TH AVE NW
54TH AVE NW
57TH AVE NW
61ST AVE NW
63RD AVE NW
FAIRVIEW AVE E
EASTLAKE AVE E
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Figure 8: Existing and Proposed Bicycle and E-Mobility Network (East)

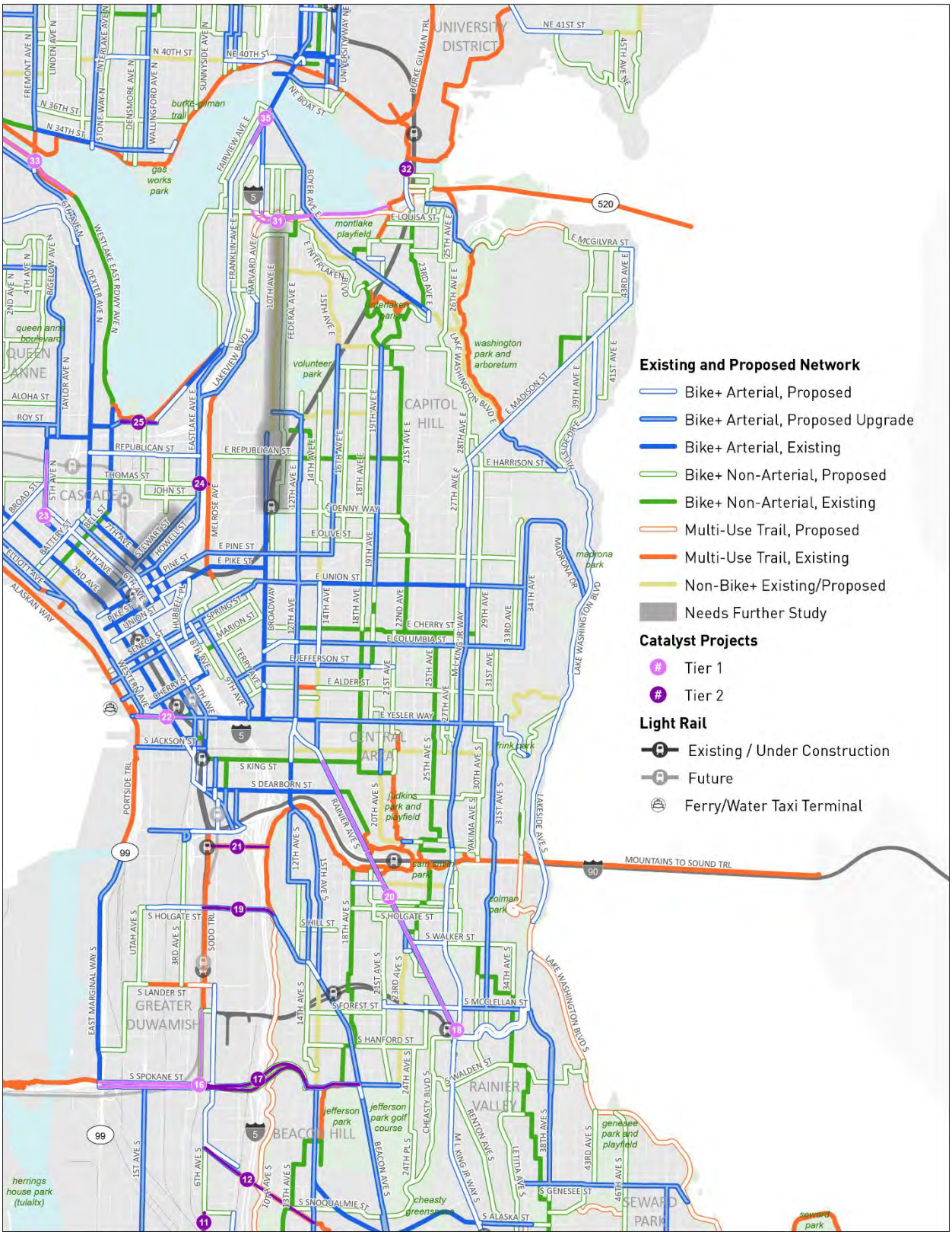


Figure 9: Existing and Proposed Bicycle and E-Mobility Network (Southwest)

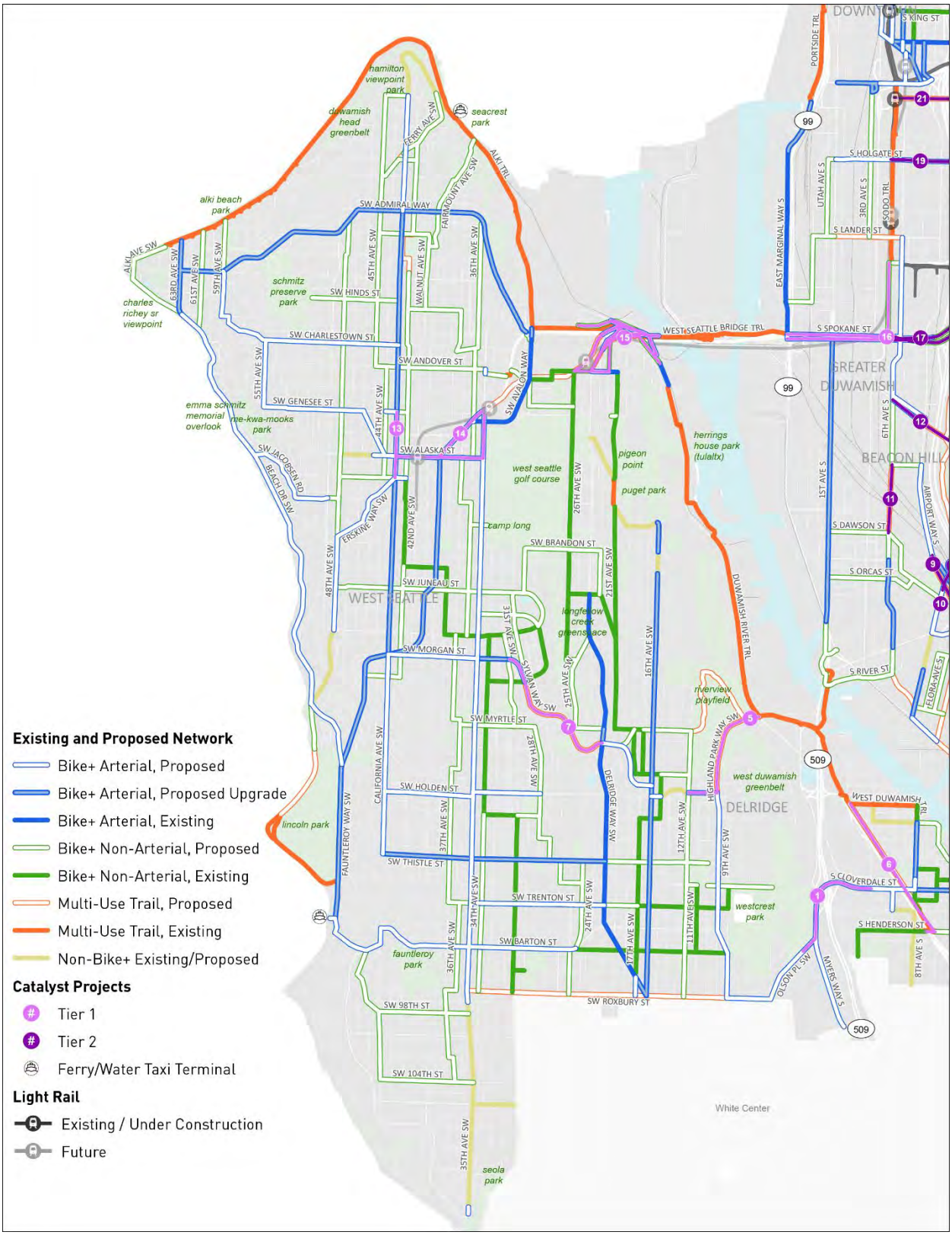


Figure 10: Existing and Proposed Bicycle and E-Mobility Network (Southeast)

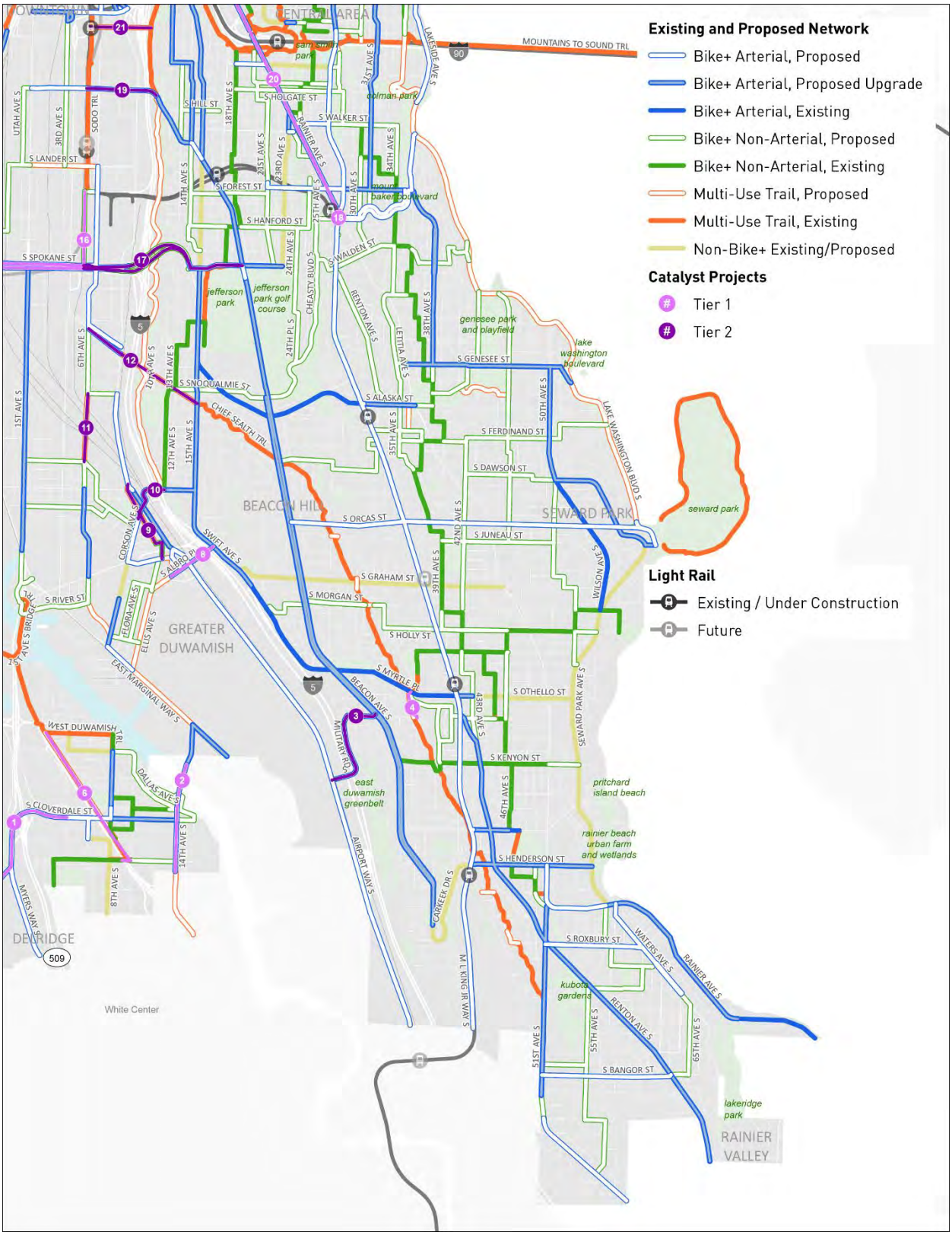
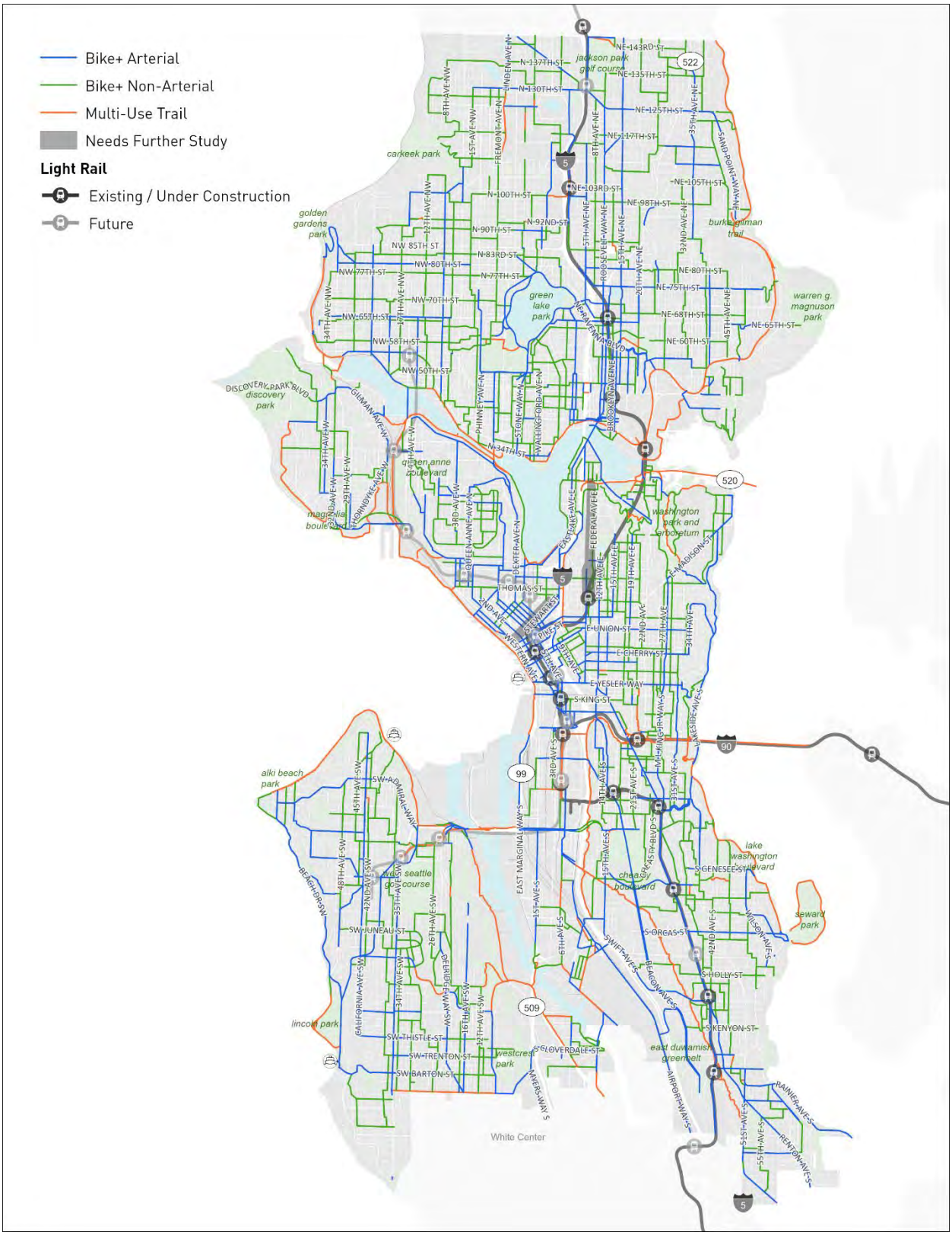


Figure 11: Future Bicycle and E-Mobility Network Vision



Catalyst Projects

Catalyst projects overcome major connectivity barriers and are often complex projects requiring creative solutions, large capital investments, and in some cases, coordination among multiple stakeholders both internal and external to the city. Catalyst projects pertaining to bicycles and e-mobility are identified in **Table 2** and presented in **Figure 12**.

The 2014 BMP identified 27 bike network catalyst projects, several of which have been completed, such as the John Lewis Memorial Bridge (also known as the Northgate pedestrian and bicycle bridge) and N 34th St and Fremont Ave intersection improvements. Many projects have not been completed due to their complexity and cost, while others, such as the SR 520 connection across Portage Bay, have been designed and will soon be constructed. Where catalyst projects have not been completed, other investments have been made at several locations in the interim to improve safety for people walking and bicycling. For example, for Project 18 at S Holgate Street, we have widened the sidewalk to 12 feet and replaced the staircase with a ramp. Uncompleted catalyst projects, for the most part, remain on the list and additional catalyst projects have been identified.

A total of 51 bicycle and e-mobility catalyst projects have been identified. Many of these catalyst projects directly benefit the Bike+ network, while others also remove barriers to the pedestrian network. Examples of catalyst projects include:

- **Reconnecting communities divided by highway construction** (e.g., S Cloverdale St over SR 509 (Project 1), S Henderson St over W Marginal Way S (Project 6), S Albro St over I-5 (Project 8), and NE 47th St over I-5 (Project 38)
- **Providing new multi-use trail connections to fill gaps in the Bike+ network** (e.g., Duwamish Trail connection to Highland Park (Project 5), a new multi-use trail on Sylvan Way to connect Delridge Way and the High Point neighborhood (Project 7), and a multi-use trail connection across SR 99 through Woodland Park (Project 45))
- **Providing safer and more comfortable bicycle facilities on arterial streets to minimize conflicts with cars, transit, and freight** (e.g. S Spokane St connecting West Seattle to SODO and Downtown (Project 16), Rainier Ave S from MLK Way S to S King St (Project 20), 5th Ave N between Belltown and Seattle Center (Project 23), and NE 130th St connecting the neighborhoods east and west of I-5 (Project 50)) (Supports TEF 19.2)
- **Addressing pinch points that constrict our Bike+ network** (e.g., SR 520 trail connection to Capitol Hill and Eastlake (Project 31), W Dravus St to connect to the future Interbay light rail station (Project 34), and University Bridge improvements (Project 35))

Catalyst projects are categorized into two tiers. Tier 1 catalyst projects are our highest priorities because they address critical access, equity, and safety needs. Tier 2 catalyst projects also address important connections, but due to their complexity and cost, may have longer implementation timeframes.

Figure 12: Bicycle and E-Mobility Catalyst Projects

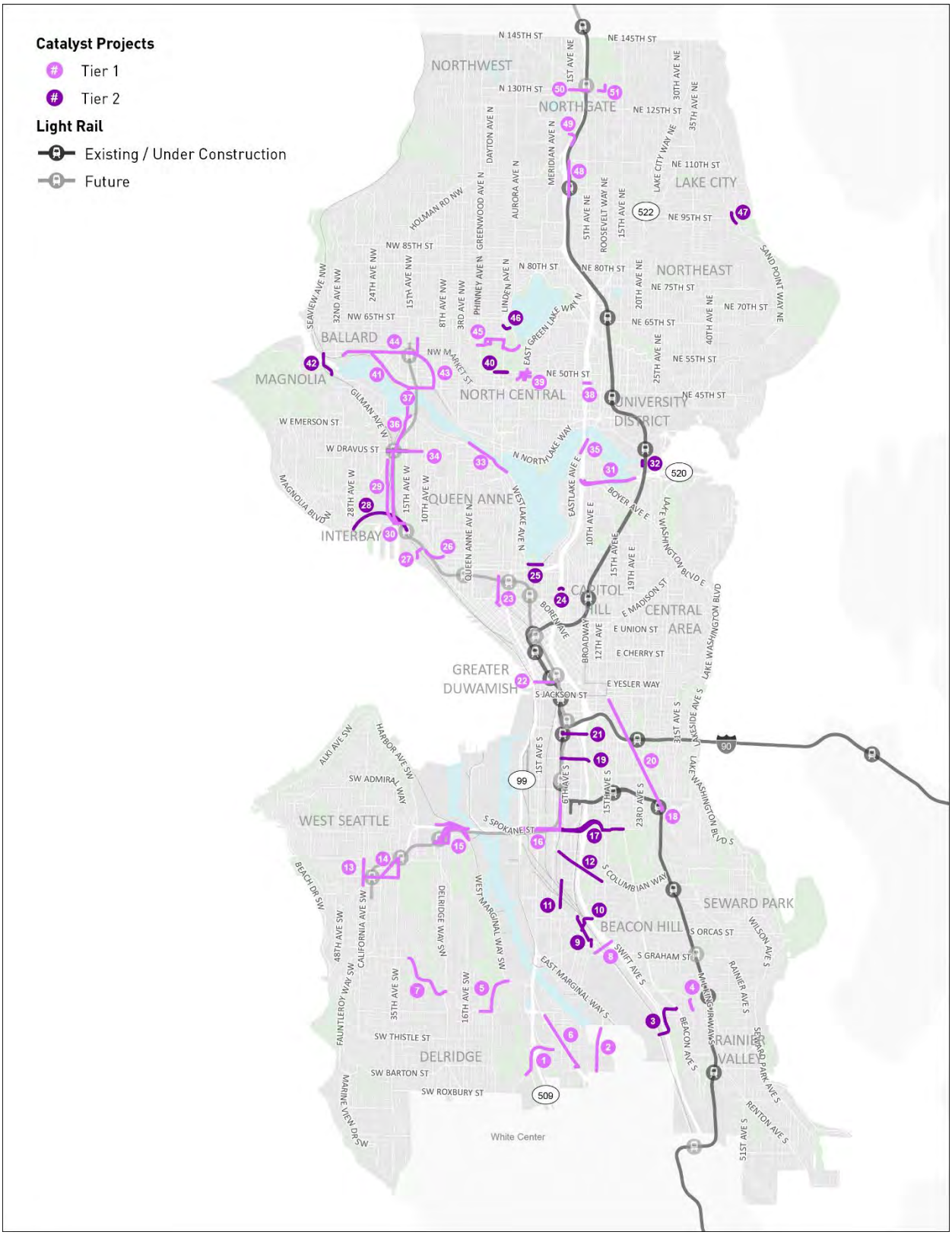


Table 2: Bicycle and E-Mobility Catalyst Projects

ID	PROJECT	TIER	OPPORTUNITY STATEMENT
1	Cloverdale multimodal connection over SR 509	Tier 1	Provide an all ages and abilities bicycle connection between South Park and White Center
2	14th Ave S Trail Connection to Green River Trail	Tier 1	Connect the 'Georgetown to South Park Trail' with the 'Green River Trail' extension
3	Military Road S to Airport Way S connection across railroad tracks	Tier 2	Connect Beacon Hill to Airport Way S/Boeing Field
4	Chief Sealth Trail connection Myrtle to Webster	Tier 1	Fill the missing gap in the Chief Sealth Trail between Myrtle/Othello and Webster to connect schools and housing to the urban village.
5	Duwamish Trail connection to West Seattle	Tier 1	Connect Duwamish Trail to Highland Park neighborhood and greater West Seattle through a multi-use trail on the west side of Highland Park Way and protected bike lanes on SW Holden St
6	Duwamish Trail connection to South Park	Tier 1	Fill the missing gap in the Duwamish Trail on W Marginal Way and improve the connection on S Henderson St over W Marginal Way S per Reconnect South Park
7	Sylvan Way Multi-use Path	Tier 1	Build an all ages and abilities connection between Delridge Way SW and the High Point neighborhood
8	S Albro Pl bike connection over I-5	Tier 1	Provide an all ages and abilities bike connection between the Georgetown to South Park Trail and Swift Ave S along S Albro Pl
9	Central Georgetown Connection	Tier 2	Fill future missing link between Georgetown to Downtown and Georgetown to South Park projects through the commercial core of Georgetown; preferred route is a rail with trail along the Union Pacific spur
10	S Lucile St under I-5	Tier 2	Provide an all ages and abilities bike connection between the Central Georgetown Connection and Beacon Hill
11	6th Ave S Bridge over railroad tracks	Tier 2	New bicycle and pedestrian bridge across railroad tracks to connect SODO to Georgetown
12	Chief Sealth Trail Extension	Tier 2	Provide an all ages and abilities connection between the Chief Sealth Trail and Airport Way S
13	SW Alaska St from Fauntleroy Way to California Ave and California Ave from Edmunds to Genesse	Tier 1	Provide an all ages and abilities connection along SW Alaska St to connect to the Alaska Junction light rail station
14	West Seattle Bridge Triangle area improvements	Tier 1	Provide bicycle connections along SW Alaska St, Fauntleroy Way SW, and 35th Ave SW

ID	PROJECT	TIER	OPPORTUNITY STATEMENT
15	Chelan Ave SW / W Marginal Way / Alki Trail / SW Marginal Way / Delridge Way SW / SR 99 intersection enhancements	Tier 1	Improve the trail network between the Alki Trail, West Seattle Bridge Trail, Duwamish Trail, and Delridge Station; enhance the crossing
16	SODO Trail Extension and Spokane Street Connection	Tier 1	Expand existing SODO Trail south to Spokane Street, connecting West Seattle to SODO and Downtown
17	S Spokane St viaduct at-grade to Beacon Hill	Tier 2	Connect the SODO Trail to Beacon Hill
18	Rainer Ave S/Martin Luther King Jr Way S intersection improvements	Tier 1	Provide access to Mount Baker light rail station and reconnect Mount Baker Boulevard to Cheasty Boulevard S
19	S Holgate St across I-5	Tier 2	Connect the Mountains to Sound Trail with the SODO Trail by widening the Holgate I-5 overpass. This would provide a walking and biking connection (Since the 2014 BMP, we have widened the sidewalk to 12 feet and replaced the staircase with a ramp)
20	Rainier Ave S (Martin Luther King Way S to S King St) multimodal improvements	Tier 1	Provide an all ages and abilities bicycle connection between the Judkins Park light rail station, Chinatown International District, and Mount Baker
21	Mountains to Sound Trail Crossing over I-5	Tier 2	Build a bridge that connects Stadium Station to the Mountains to Sound Trail
22	Yesler Way Between Alaskan Way and 3rd Ave bike connection	Tier 1	Connect the Waterfront Trail to existing protected bike lanes on Yesler Way
23	5th Ave N connection (Republican St to 4th Ave)	Tier 1	Provide an all ages and abilities bicycle connection between Belltown (4th Ave/Vine St) and the east side of Seattle Center (5th Ave N/N Republican St)
24	South Lake Union to Capitol Hill I-5 Crossing	Tier 2	New bicycle and pedestrian bridge across I-5 at Thomas St connecting Capitol Hill to South Lake Union
25	Valley St multi-use path north side (Westlake PBL to Fairview)	Tier 2	Connect the Westlake PBL to the future Eastlake PBLs and clarify the Cheshiahud Lake Union Loop wayfinding route
26	Kinnear Park Trail connection	Tier 1	Provide a connection from Queen Anne to the future Ship Canal light rail station and Elliott Ave W
27	Helix Bridge Retrofit	Tier 1	Retrofit the helix bridge by adding ramps to make it more accessible for bicyclists of all ages and abilities; it currently has stairway runnels and an elevator

ID	PROJECT	TIER	OPPORTUNITY STATEMENT
28	Magnolia connection	Tier 2	Build an all ages and abilities connection from the Elliott Bay Trail to Magnolia for people bicycling
29	Elliot Bay Trail to Thorndyke Ave W	Tier 1	Improved and widened trail connection between the existing end of the protected bike lane on 20th Ave W at Thorndyke Ave W to the end of the Elliott Bay Trail under the Magnolia Bridge
30	Elliot Bay Trail Extension	Tier 1	New trail from existing Elliott Bay Trail end below the Magnolia Bridge to the Interbay light rail station, located on the east side of the railroad tracks, west of 15th Avenue W
31	SR 520 connection across Portage Bay (under construction)	Tier 1	Connect the SR 520 Trail to Capitol Hill and Eastlake
32	Improved crossing of Montlake Bridge	Tier 2	When the bridge is replaced, add all ages and abilities bicycle facilities
33	Ship Canal Trail and Dexter Ave to Fremont Bridge connection	Tier 1	Complete a multi-use trail connection between the Ship Canal Trail and Westlake multi-use trail
34	Interbay Station Connection on Dravus	Tier 1	W Dravus St connections from 20th Ave W to 11th Ave W, including the W Dravus St bridge, to provide a bicycle connection to the Interbay light rail station
35	University Bridge - South leg to Eastlake Ave E/Harvard Ave E	Tier 1	Improved connection on Eastlake Avenue E between the University Bridge and Harvard Avenue E for both north bound and south bound bicyclists.
36	Interbay Station Connection from Ship Canal Trail	Tier 1	New connection from Ship Canal Trail crossing under the Ballard Bridge to the Interbay light rail station
37	Connect Trails via Ballard Bridge	Tier 1	Provide an all ages and abilities bicycle connection on the Ballard Bridge between the Ship Canal Trail and Burke Gilman Trail, in concert with any Ballard Bridge replacement.
38	NE 47th St overpass over I-5	Tier 1	Build a new bicycle and pedestrian bridge over I-5 to connect the University District and Wallingford
39	Green Lake Way N / N 50th St / Stone Way N intersection multimodal improvements	Tier 1	Provide an all ages and abilities bike connection between Green Lake PBLs and Fremont/Wallingford neighborhoods using both physical and temporal separation through this busy intersection
40	50th St under Aurora	Tier 2	Provide a an all ages and abilities connection along the southern edge of Woodland Park, addressing the pinch point under Aurora Ave N
41	Burke-Gilman Trail "Missing Link" completion	Tier 1	Multi-use trail connecting the two existing sections of the Burke-Gilman Trail in Ballard

ID	PROJECT	TIER	OPPORTUNITY STATEMENT
42	Salmon Bay Bridge	Tier 2	Connect 33rd Ave W Bridge in Magnolia to the Burke-Gilman Trail
43	14th Ave NW from NW 58th St neighborhood greenway to Ballard Station and from NW 45th St / 11th Ave NW	Tier 1	Provide an all ages and abilities connection along 14th Ave NW from the NW 58th St neighborhood greenway to the Ballard light rail station and a connection from the light rail station to NW 45th St / 11th Ave NW
44	NW Market St from 24th Ave NW to 14th Ave NW	Tier 1	Provide an all ages and abilities connection along NW Market Street between downtown Ballard and the light rail station. Freight and transit will also operate on this corridor, so the corridor design will have to plan curb space accordingly.
45	Woodland Park Connection across Aurora Ave N	Tier 1	In coordination with the Parks Department, build a multi-use trail connection between West Green Lake Way N and the N 57th St underpass of Phinney Ave N.
46	Green Lake Way to N 63rd St underpass of Aurora Ave N (SR 99)	Tier 2	Widen the SR 99 underpass to provide improved walking and biking connections between the Green Lake Loop and the Phinney/Greenwood neighborhoods
47	Thorton Creek Trail to Matthews Beach	Tier 2	Provide a new bridge and trail connection between the street end of 46th Ave NE and the Burke-Gilman Trail along the Thornton Creek natural space
48	1st Ave NE crossing of Northgate Way	Tier 1	Provide an all ages and abilities bicycle connection along 1st Ave NE across Northgate Way and connecting to the John Lewis Memorial Bridge (Northgate pedestrian and bicycle bridge)
49	1st Ave NE over I-5 multimodal improvements (widening)	Tier 1	Provide a widened connection over I-5 reconnecting the Northgate neighborhood
50	NE 130th St multimodal improvements over I-5	Tier 1	Provide a seamless bike connection between the protected bike lanes on NE 130th St and Roosevelt Way NE connecting the light rail station with the Bike+ network and neighborhoods east and west of I-5
51	Trail connection between 15th Ave NE and 5th Ave NE (NE 135th St/Jackson Park Trail replacement)	Tier 1	Provide an improved trail connection between 15th Ave NE and the light rail station via unopened NE 130th St ROW and improved crossing of Thorton Creek on 10th Ave NE

Phased Implementation

There are various segments in the bicycle and e-mobility network that will require phased implementation. Several of these corridors are dependent on other changes occurring throughout the transportation system, such as the West Seattle to Ballard Link Extension stations opening. Other corridors require changes that will be challenging to implement; in these locations, near-term improvements could be implemented as an interim step until the long-term vision can be realized.

Table 3: Phased Implementation Corridors

ID	Location	Considerations
1	SW Admiral Way	In the near term, consider interim Bike+ Arterial improvements on SW Admiral Way from 45th Ave SW to SW Olga St. RapidRide service is planned to be added to this corridor in concert with light rail expansion. A long-term AAA bikeway route will be determined closer to the introduction of RapidRide service.
2	35th Ave SW	In concert with light rail service expansion, RapidRide is planned to be removed from 35th Ave SW between Alaska and Avalon. After that time, Bike+ Arterial improvements will be considered from SW Dawson St to Fauntleroy Way SW.
3	SW Alaska St	Bike+ Arterial improvements will be considered in the vicinity of the Alaska Junction light rail station in concert with station construction.
4	Martin Luther King Jr Way S	In the near-term, pursue a range of strategies to slow vehicle traffic and create a safer, more comfortable travel experience on Martin Luther King Jr Way S. In the long-term, consider Bike+ Arterial improvements south of Rainier.
5	S Graham St	Bike improvements on S Graham St will be considered for construction in conjunction with the opening of the South Graham Street infill light rail station.
6	W Dravus St	Bike+ Arterial improvements will be considered in concert with opening of the Interbay light rail station and/or in concert with the replacement of the Dravus St bridges.
7	Ship Canal Trail connection to Thorndyke Ave W	Bike+ Arterial improvements will be considered in concert with the opening/construction of the Interbay light rail station.
8	NW Market St	Bike+ Arterial improvements will be considered in concert with the opening/construction of the Ballard light rail station.
9	14th Ave NW	Bike+ Arterial improvements will be considered in concert with the opening/construction of the Ballard light rail station.

SPATIAL REQUIREMENTS AND OPERATIONAL CONSIDERATIONS

There are many design and operational considerations to advance the vision for bicycle and e-mobility use in Seattle and meet the STP vision to help people biking and using e-mobility be able to move around in ways that are "just, sustainable, and safe." Most critical is that the bicycle and e-mobility network provide a safe, comfortable, and convenient experience for people of all ages and abilities, which will help maximize use of the network.

Bikeway design should be informed by the NACTO *Designing for All Ages and Abilities* contextual guidance and design standards from *Streets Illustrated,* our Right-of-Way Improvements Manual that identifies guidance for bike lanes, multi-use trails, intersections, bike lanes with transit service, neighborhood greenways, and bike parking based on national best practices. These resources help SDOT staff determine what type of AAA facility is most appropriate on a given street based on factors like vehicular speeds and volumes and the number of travel lanes. **Table 4** shows the appropriate AAA bicycle facility and key operational considerations for given roadway contexts.

In addition to the factors presented in **Table 4,** it is important that bicycle facility design is closely coordinated with the Seattle Fire Department for emergency access and with our transit agency partners, such as King County Metro, Sound Transit, and Community Transit, to minimize impact on transit operations.

Streets Illustrated will be updated after adoption of the Seattle Transportation Plan to account for evolving best practices, which is described in more detail below under "Maintenance & Modernization."

Table 4: Contextual Guidance for Selecting All Ages and Abilities Bikeways[8]

Roadway Context				Key Operational Considerations
Speed	Volume (AWDT)	Vehicle Lanes	AAA Bike Facility	
< 10 mph	<400	No Centerline or Single Lane 1-way	Healthy Street	Pedestrians share the roadway
< 20 mph	<800	No Centerline 11' Single lane; 2-way traffic	Neighborhood Greenway	Neighborhood greenways may not be appropriate when there are high peak hour volumes, lots of curbside activity, and/or frequent use by transit and/or freight vehicles, even if speeds or volumes are low. Protected bike lanes may be more appropriate in these contexts. Passing opportunities (such as those provided by residential driveways) must be considered in context of topography and vehicle volumes Lower volume neighborhood greenways are the most comfortable; however, in urban village contexts, higher volumes may be considered where there are low operating speeds, ample passing opportunities and sidewalks/pathways are present.
	<1,000	No Centerline 18' Single lane; 2-way traffic		
	< 400	Single lane; 1-way traffic	Neighborhood Greenway w/contraflow bike lane	
< 25 mph	< 1,000 – 3,000	Single lane each direction or single lane one-way	Conventional Bike Lane Buffered Bike Lane Protected Bike Lane	Low curbside activity Low congestion pressure
	< 3,000 – 6,000		Buffered Bike Lane Protected Bike Lane	
	> 6,000		Protected Bike Lane	
	Any	Multiple Lanes in each direction	Protected Bike Lane	
> 26 mph	Any	Any	Protected Bike Lane Or Separated Pathway	Arterial Traffic Calming

[8] Adapted from NACTO guidance to be specific to Seattle

PROGRAMMATIC ACTIVITIES

SDOT engages in a variety of programmatic activities (that is, activities that relate to programs or are ongoing, rather than specific to a project) 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 programs listed here provide helpful general information to describe the types of tools and methods SDOT will seek to employ to manage the transportation system.

Implement the Bicycle and E-Mobility Network

SDOT will aim to construct the bicycle and e-mobility network outlined in this Plan to provide a more comprehensive network of AAA routes in the city. SDOT will seek to:

- Continue to include more complex and expensive bicycle facilities and large catalyst projects as stand-alone projects within the City's 6-year Capital Improvement Program, as appropriate, so annual program budgets are not fully consumed by one or two large projects.
- Utilize grants to supplement public and private investments in the right-of-way to help fill gaps in the network.
- Consider additional connections. Bike connections not included on the maps in this element are not precluded from bike infrastructure in the future. Bicycles are a flexible mode of travel and, as network demands change and our transportation network evolves, we should remain open to opportunities and exploration of additional connections in the future.
- Conduct studies to evaluate trail expansion needs. If a trail cannot be widened (e.g., adjacency to an environmentally sensitive area), assess if a parallel street may help serve people riding bicycles. Install alternate route wayfinding signage along the trail when a parallel street bicycle facility is installed.
- Prioritize building new bike projects in neighborhoods that have historically seen underinvestment by the city, employing the city's Race and Social Equity Index. Use data sets such as educational attainment level, household car ownership, multigenerational households, and income to analyze neighborhood characteristics.
- Prioritize gap construction projects using the TEF, specifically for Districts 1, 2, parts of 3, and 5.
- Early in project planning, identify partnerships with other programs, funding, and potential challenges to construction.
- Create work plans that use cost-efficient SDOT crew capacity to deliver projects, as much as possible.
- Harness funding and opportunities when private development occurs to build planned new network facilities.
    - Be prepared to work with developers during the Street Improvement Permit process to build new street elements within the right-of-way.

    - Use the street vacation process to implement new bike facilities during the public benefits package scoring.
- While conducting outreach for new capital projects, ask the community if there are any safety concerns that crews can try to address during project implementation.
- When a capital project is underway in a community, incorporate and market supplemental programs to help community members transition to sustainable travel options like biking, walking, and taking transit. For example, when installing a bike lane, consider partnering with a local bike shop on helmet distribution. Help community members sign up for e-bike and e-scooter incentives, which are discussed below. And host events in communities where local shops can interact with individuals and SDOT can offer giveaways for sustainable travel options.

To achieve the bicycle and e-mobility network, some existing facilities will need to be upgraded to be safer and accessible for people of all ages and abilities. Bike facilities are implemented using the materials and design standards that are current at the time of their construction. However, we are always seeking to improve safety, and updating facilities to meet current standards is an ongoing process. SDOT will seek to:

- Evaluate current facilities that do not meet the National Association of City Transportation Officials (NACTO) AAA guidelines to determine the best solution for either upgrading the facility or developing a parallel AAA facility nearby. (Supports TEF 43.4)
- Proactively adjust existing bike lanes and trails to widen to new standards that accommodate larger bike footprints.

Reallocate Street Space

Reallocate street space currently used for vehicle storage and general-purpose travel to support a variety of people-oriented uses, such as gathering, playing, walking, and biking in strategic locations. SDOT will seek to:

- Use reallocated street space to implement the bicycle and e-mobility network.
- Implement shared, car-light streets, such as Café Streets and Neighborhood Greenways, and car-free streets to support the transition to a low-carbon transportation system. *See the People Streets and Public Spaces Element for more details.*
- Explore with Seattle Parks and Recreation the potential for changes in policy and operation of select Olmsted Boulevards to allow more flexibility to create better walking, strolling, and bicycling experiences. These changes could enable more opportunities for healthy recreation opportunities year-round instead of summer weekends, and in some cases, provide high-comfort bike network connections. (Supports TEF 43.4) As part of the STP engagement process, we heard broad support for increased recreational opportunities along Olmsted Boulevards, along with more people-oriented streets throughout the city. The city would engage with communities and Friends of Seattle's Olmsted Parks in any such decision-making processes.

- Work with Seattle Parks and Recreation and other partners to improve and expand temporary open streets events.
- For large capital bike projects, look for opportunities to add planted medians when reconstructing street curb.

Intersection Improvements

Safety improvements are critical at intersections along the bicycle and e-mobility network so that a person's entire trip will be comfortable. SDOT will seek to:

- Expand opportunities to more safely cross busy arterials by installing enhanced crossings. (Supports TEF 40.6)
- Standardize crossing treatments for bikeways and multi-use trails at arterial streets, streetcar, light rail, and railroads, and clarify who should yield right-of-way for trail crossings with clear signs and markings.
- Make people biking and using e-mobility more visible at intersections by installing treatments such as curb bulbs, No Parking signs, and refuge islands. When vehicles park within 20 feet of an intersection, it makes people crossing the street less visible to people driving, thereby giving drivers less time to react and safely stop.

Freight and Urban Goods Considerations

Freight and urban goods access will be carefully considered when designing and constructing the bicycle and e-mobility network. SDOT will seek to:

- Design bike facilities and parking to support efficient, time-competitive e-cargo bike freight delivery programs for food and goods delivery (see Executive Order 2022-07). *See the Freight Element for more details on a commercial e-cargo bike program and e-cargo bike lending libraries.*
- Use sufficient freight turning movement templates when designing bike lanes to increase visibility of vulnerable users and protect buffer materials from future maintenance needs.
- Allocate clear and sufficient loading zones for freight, and work with parking enforcement to discourage parking in bike lanes.

Bike Parking

Secure and convenient bike parking is a critical component of a bicycle and e-mobility network. It helps encourage people to bicycle for their everyday needs. To meet anticipated growing demand for convenient and secure bike parking, it will be necessary to dedicate more right-of-way to bike parking facilities. Shopping districts, Community and Mobility Hubs, and multi-family residential areas where residents may not have the space or ability to securely park or store their bikes, are especially important areas for providing secure bike parking options.

People also need spots to lock their bikes and other mobility devices for quick trips to shops and other destinations. SDOT will seek to:

- Consolidate bike parking work at SDOT into a permanent, staffed program responsible for implementing the following tactics in partnership with other agencies and the community.
- Utilize the public right-of-way to install short- and long-term bike parking to meet the level of bicycle use needed to achieve Seattle's climate action goals.
- Provide secure, sheltered bike and other micromobility device parking in the public right-of-way—including space for shared micromobility, larger bikes and cargo devices, and electronic charging needs.
- Prioritize areas with older multi-family buildings that do not have secure on-site parking and commercial areas where people's everyday needs can be met. (Supports TEF 43.4)
- See "Community and Mobility Hubs" section below for detail on bike parking at light rail stations and Community and Mobility Hubs.

PEER EXAMPLE: OONEEPOD

The Ooneepod is one example of secure parking kiosk that can be placed in the right-of-way. With a variety of modular designs and capacities, Oonnepods offer adaptable, secure parking for a monthly fee. Ooneepods are in use in several cities, including New York and Jersey City.

- Look at partnerships, updates to *Streets Illustrated* or City Code to change development requirements, and property manager incentives as mechanisms for meeting parking demand.
- Resume meeting community-based requests for bike racks and other micromobility parking infrastructure, and proactively install bicycle parking based on the Seattle Displacement Risk Index to fairly allocate bike and other micromobility parking spaces.
- Continue requiring Seattle Public Schools to install long-term and short-term bike parking at redeveloping schools and partner with Seattle Public Schools to install short-term bike racks on other school sites.
- Adopt specifications, graphic identify, and wayfinding for secure parking pods/kiosks in the public right-of-way, then identify vendors to partner in delivering secure parking kiosks or pods.
- Develop a strategy for deploying secure parking in the public right-of-way, which may include defining residential and commercial bicycle parking zones and estimating parking demand within each zone based on adjacent land uses and availability of publicly accessible, convenient, and secure parking on private property.

- Implement "intersection daylighting," which is an easy-to-implement safety treatment that converts the parking spaces and no-parking zones immediately before an intersection into bike parking areas, thereby increasing the visibility of people walking, biking, and rolling across the street.
- Implement loading zones to support increased delivery trips made by people riding bicycles and using e-mobility devices.

While all residential, commercial, and institutional development should provide secure bike parking (a requirement for new development), older buildings may not be well set up to do so, and bicycle parking code requirements and guidelines do not adequately address the needs stemming from a growing number of e-bikes, cargo bikes, and other types of devices, which often do not fit in traditional bike parking areas. It is also important to provide infrastructure for charging e-bikes and other e-mobility devices. SDOT will seek to:

- Consider the diversity of bikes (e.g., cargo, trike, adaptive), bike design vehicles (e.g. bikes with trailers), and other mobility devices (e.g. scooters) when designing future bike parking at private developments.

Safe Routes to School

The Safe Routes to School (SRTS) program is designed to improve safety in areas around schools and encourage more kids to walk and bike. SDOT will seek to:

- Expand the School Streets program.
- Serve every public school with an all ages and abilities bicycle facility. (Supports TEF 43.4 and Executive Order 2022-07)
- Continue partnering with Seattle Public Schools on walking and biking safety education for students, including students with disabilities.
- Partner with Seattle Public Schools on bike buses.
- Work with our partners to provide free bicycles to low-income children and their parents/guardians so they may use the skills they learn and ride to school on the bicycle facilities we construct that serve their schools.
- Continue supporting the Safe Routes to School Coordinator position at Seattle Public Schools who works to ignite a culture of active transportation to school.
- Continue providing walking and biking maps to school, free bicycling incentives and prizes for bike to school campaigns, and free packages with bike train supplies.
- Continue engaging with students in designing and installing artwork along routes to school and other community destinations like parks and libraries.

See the Pedestrian Element and People Streets and Public Spaces Element for more information about Safe Routes to School.

Safe Routes to Parks

Park properties offer opportunities to create all ages and abilities bikeways that would greatly enhance network connectivity and create a sense of park expansion. Such connections require close coordination with the Seattle Parks and Recreation Department and thoughtful design to minimize environmental impacts and not diminish the enjoyment of park users. SDOT will seek to:

- Make investments that make it safer to bicycle to parks. This includes expanding bike connections within and adjacent to parks.
- Build on our existing partnership with Seattle Parks and Recreation and efforts to create these kinds of connections.
- Collaborate with other departments to explore these types of connections.

Neighborhood Greenways and Healthy Streets

Neighborhood Greenways and Healthy Streets are an integral component of the Bike+ network because some people prefer to ride on quieter local streets instead of busier arterial streets, even if the arterials are AAA. While they are intended for all active modes, they provide important bicycle and e-mobility network connections and neighborhood bicycle recreation opportunities. (Supports TEF 43.4)

SDOT will seek to:

- Implement the Bike+ network to provide a more comprehensive network of AAA routes in the city. Neighborhood Greenways and Healthy Streets will be implemented on non-arterial streets.
- Expand permanent Healthy Streets to all neighborhoods as a way of providing low stress connections to common destinations for people walking, biking, and rolling, regardless of age or and ability. (Supports TEF 43.4 and Executive Order 2022-07) (S4e)
- Enhance Neighborhood Greenways. Bike facilities are implemented using the materials and design standards that are current at the time of their construction. We are always seeking to improve safety and update facilities to meet current standards.
- Improve the legibility and visibility of Neighborhood Greenways and Healthy Streets. Implement cohesive wayfinding between Neighborhood Greenways and the rest of the bike network to help people travel where they need to go. This will make Neighborhood Greenways more visible and navigable for new users and visitors.
- Explore opportunities for expanding neighborhood-based events, play streets, and block parties on Neighborhood Greenways and Healthy Streets.
- Educate people so they are aware of new greenways in their neighborhood.

See the People Streets and Public Spaces Element for more details on Healthy Streets.

Vision Zero

The City of Seattle is committed to Vision Zero, a goal to eliminate fatal and serious crashes on our streets, and safety is a priority goal for the STP. Achieving the Vision Zero goal requires making changes to our streets to reduce vehicle speeds, minimize conflicts between people driving and people bicycling, and separate people bicycling from those driving. SDOT will seek to:

- Incorporate Vision Zero and Safe System approaches into every project and program.
- Prioritize bicycle safety improvements that are on the high-injury network (HIN), have high levels of travel stress, or are identified through the Seattle Bicycle and Pedestrian Safety Analysis (BPSA) (Supports TEF 19.2)
- Take a comprehensive, data-driven, Safe System approach to address bicyclist fatalities and serious injuries.
- Implement proven techniques systemwide that help further Seattle's goal.
- Create regular opportunities that are not tied to specific projects which enable community conversations on safety with leadership. (Supports TEF 41.6)
- Employ design strategies to maximize comfort and safety for people bicycling, such as those described below under "Update Streets Illustrated," through right-of-way reallocation and traffic calming. This is important whenever redesigning our streets, and is especially important at these locations.
- Accelerate implementation of research-backed improvements that are proven to make streets safer for everyone, such as protected intersections for bicycles. Protected intersections may include elements such as color, signage, medians, signal detection, and pavement markings. The level of treatment required for bicyclists at an intersection will depend on the bicycle facility type used, the adjacent street function, and the surrounding land use.
- Pilot and evaluate new and emerging safety treatments in locations where proven interventions are infeasible or do not address the identified safety issues. In some locations, data shows repeated collision patterns involving people bicycling, yet it is challenging to correct these patterns due to limited right-of-way or competing needs for space.
    - In locations with limited right-of-way and current design standard widths for bike facilities cannot be met, SDOT will seek to test new materials and solutions that would require less width.
    - Work to approve deviations for these new design treatments efficiently, and partner across divisions to implement new solutions.

See the Pedestrian Element and the SDOT Vision Zero Top to Bottom Report (2023) for more information about Vision Zero.

E-Bike and E-Scooter Incentives

Seattle's steep topography is a deterrent to biking, and while e-bikes and e-scooters help make bicycling and using e-mobility a more feasible travel option because they make the hills easier to navigate, their high upfront cost makes them unattainable for many. SDOT will seek to:

- Develop E-bike and e-scooter incentives to increase purchases of e-bikes and e-scooters and broaden public awareness of these options and their potential for everyday use as a clean, convenient, and inexpensive mode of personal transportation. (Supports TEF 32.1, 46.2, 46.3, and 52.4) This can be achieved through promotional activities and by providing incentives, such as rebates or stipends.
- SDOT will seek to prioritize low-income individuals and households for incentives to increase equitable access to e-bikes and e-scooters.

See the New and Emerging Mobility Element for information about subsidies that could be provided to people renting shared micromobility devices like shared bicycles and scooters.

PEER EXAMPLE: DENVER E-BIKE AND E-CARGO BIKE INSTANT REBATES

The City of Denver established a rebate program to incentivize more people to purchase e-bikes as a sustainable transportation solution. The program offers tiered rebates based on income and physical ability. Income-qualified applicants can receive up to $1,400 for an e-cargo bike and people with disabilities can receive up to $1,400 for an adaptive e-bike. The program releases a limited number of vouchers each month. In its first year, the program has had nearly 5,000 vouchers redeemed.

Neighborhood Street Fund

The Neighborhood Street Fund is a city program, running on 3-year cycles, that enables the community to propose and help prioritize transportation-related projects that are then built by the Seattle Department of Transportation. (Supports TEF 43.4) Since 2015, over 20 projects have been designed and constructed, including projects that improve bicycle facilities. Projects fall into various categories such as: art, community placemaking, and safety improvements. (Supports TEF 19.4 and TEF 45.3) This is a popular program and multiple requests go unfulfilled in each of the 3-year funding cycles. SDOT will seek to:

- Expand the Neighborhood Street Fund program and enable an increase in the number of projects selected and seek ways to continue to advance equity and transportation justice.

Safe Routes to Transit

Bicycling and e-mobility are ideal first-/last-mile solutions and greatly expand the reach of who can access our transit system and the region it serves. SDOT will seek to:

- Make bicycle and pedestrian investments near light rail stations and busy transit stops that make it safer to bike to transit.
- Improve bicycle and e-mobility connections to current and future light rail stations and the frequent transit network.
- Minimize conflicts with transit and impacts to transit performance. (Supports TEF 43.4)
- Advocate for bike supportive policies to transit agency partners, such as continuing the ability to bring bikes onto transit and improving bicycle parking at transit stations.

Community and Mobility Hubs

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. Bike parking will be an important component of the design. They may feature People Streets and Public Spaces elements and goods delivery elements. SDOT will seek to:

- Partner with Sound Transit and King County Metro to provide sufficient and secure bicycle parking at existing and future Link light rail stations and Community and Mobility Hubs. Light rail stations need ADA accessible kiosks for cargo bikes and adaptable bikes, and they would benefit from high-capacity storage for more traditional bikes.

See the Transit Element and the Curbside Management Element for more detail.

Biking for Congestion Mitigation

Large events, such as sporting events and concerts at the stadiums and arena, and major construction projects can result in traffic congestion on our streets. Biking and using e-mobility are great alternatives in these scenarios and serve as a congestion mitigation strategy. SDOT will:

- Develop and expand programs that incentivize sustainable alternatives to driving for large events and as a primary congestion mitigation tool during major construction projects.
- Partner with hosting agencies to accommodate temporary event parking for bikes and e-mobility devices.
- Work with temporary traffic control plans to ensure bike lanes and trails have sufficient detour routes and connections during events.

PUBLIC OUTREACH AND EDUCATION

Safety Education

SDOT currently leads safety education campaigns, such as Vision Zero yard signs, that educate people on the importance of driving more slowly and engaging in safer behaviors on our streets. SDOT will seek to:

- Expand safety education campaigns to increase safety for all travelers.
- Make materials accessible to non-English speakers.
- Create regular opportunities that are not tied to specific projects that enable community conversations on safety with City leadership. (Supports TEF 41.6)

Public Education Campaigns on Bicycling and E-Mobility

To meet our climate goals, we are working to make it safe, easy, and affordable for people to get where they need to go without relying on a car. Public education campaigns will be needed to help mainstream bicycling and make it an integral part of daily life for more people. SDOT will seek to:

- Expand public education campaigns to encourage bicycling and using e-mobility.
- Develop focused and continuous outreach campaigns to mainstream bicycling and build a diverse bike culture. Emphasize storytelling with a focus on diversity. Connect bicycling to urban wellbeing.
- Partner with community groups to organize events to promote bicycling (e.g., Ciclovia/Bicycle Weekends, bike swaps, bike festivals) and safety.
- In collaboration with community partners, identify solutions to remove skill, knowledge, and cost barriers and ignite a culture of bicycling so that all people can feel comfortable to start bicycling.
- Incorporate educational messaging around "rules of the road" and being courteous, particularly when interacting with pedestrians. (Supports TEF 43.2)

Public Resources

It is important that people have the resources they need to confidently plan their bicycle and e-mobility trips and identify the route that will work best for their needs and comfort level. In order to make that possible, SDOT will seek to:

- Update and enhance the online bike map, such as improving compatibility with mobile devices.
- Work with mapping and navigation providers to confirm information is accurate.

- Explore opportunities to provide web or app-based bike maps that include access routes and any detours planned to help bikers navigate development activities and plan routes efficiently.
- Create an online walking and bicycling route planner that allows users to tailor routing to their needs, such most direct route, most comfortable route that uses only specific facility types, or least steep route.

PARTNERSHIPS

Address Inequities and Past Harm

To rebuild and regain trust from the community, SDOT must continue to partner with BIPOC-led organizations and co-create improvements with community so that investments enhance lives of Black and Brown people living in the South End and do not facilitate displacement. SDOT will seek to:

- Build and maintain relationships with vulnerable communities, including those focused on increasing biking, and learn from the leaders active in these spaces about how SDOT can work and co-create with community members to improve their community. (Supports TEF 31.4)
- Identify actions to address inequities experienced by vulnerable community members who walk, bike, and roll, and provide capacity-building support to BIPOC-led organizations that focus on increasing active transportation. (Supports TEF 31.4)
- Prioritize investment in the South End.
- Implement safer street design to reduce vehicle speeds and calm traffic in underserved neighborhoods.
- Promote protected bike facilities with concrete protection, especially in areas with low car ownership.
- Re-evaluate and study safety needs for people bicycling as neighborhoods densify.
- Accelerate the build out of a complete and connected bicycling network, which includes improvements at intersections and supporting bike infrastructure (e.g., bike racks).

Partner with Bicycling Organizations

There are number of groups are already doing meaningful work to expand the bicycling community, and we seek to establish or expand our partnerships with them. Partnership may come in the form of micro-grants, providing material support for events, and/or dedicated staff time. SDOT will seek to:

- Support and partner with organizations, such as Black Girls Do Bike, Bike Works, Outdoors for All, Peace Peloton, and Northstar Bicycling Club, to deliver programs designed to encourage bicycling by women and caregivers, people of color, people with

disabilities, non-English speakers, low-income populations, seniors, and youth. These groups are already doing meaningful work to expand the bicycling community, and we seek to establish or expand our partnership with them. Partnership may come in the form of micro-grants, providing material support for events, and/or dedicated staff time.

Partner to Improve Rail Crossings

There are many opportunities to coordinate with freight, passenger rail, light rail, and streetcar partners on safety improvements at rail crossings. SDOT will seek to:

- Negotiate who is responsible for ongoing maintenance and design of train track crossing signage.
- Evaluate and update operating agreements for access control for train track use and determine what abandoned tracks can be removed.
- Prioritize locations with greatest needs to update crossing design.
- Research and pilot new materials for track crossing flange treatments to address bike tires becoming stuck.

Coordinate with Partner Agencies

Many agencies play a role in supporting actions to enhance Seattle's bicycle network infrastructure and operations. SDOT will seek to partner with:

- **King County Metro**: Explore ways to safely locate bike facilities under trolley lines where buses must maintain lateral clearance to attach overhead, and make modifications to bike racks on buses to accommodate a variety of e-bike and cargo bike sizes.
- **WSDOT**: Coordinate on design solutions to minimize conflicts at highway entrance and exit ramps.
- **U.S. Army Corps of Engineers, U.S. Coast Guard, Washington State Departments of Natural Resources and Fish & Wildlife, and Tribal Nations**: Coordinate on new and upgraded facilities with drawbridge operations.
- **Seattle Public Utilities**: Coordinate on how to minimize dumpsters blocking bike lanes during pickup days.
- **Seattle City Light**: Coordinate on how to improve access for trail maintenance within Seattle City Light right-of-way.

Advocate for Changes to State and Federal Legislation and Programs

There are policies that impact bicycle use and safety that are outside of the City of Seattle's control. As a city focused on providing a safe, equitable, and sustainable transportation

system, we can advocate for changes to state and federal legislation and programs. SDOT and the city will seek to:

- Revise driver education policies to require driver education for anyone seeking a Washington driver's license. Put more focus on safety for people walking, biking, and rolling, as well as young driver safety. Many regions of the country do not teach new drivers how to interact with people bicycling and using e-mobility devices, so additional driver education is critical.
- Require that drivers aged 72 and older renew their license every two years, and allow driving authorities to restrict licenses in the interest of keeping drivers and roadways safe.
- Require driver's license re-examination for drivers who are involved in a serious or fatal crash.
- Revise state legislation (RCW 46.61.250) that precludes pedestrians from having priority use of the roadway.
- Reduce legal blood alcohol limits.
- Engage communities to address equity concerns around automated enforcement and potentially expand its use in areas with many fatalities and serious injuries.
- Enact e-bike incentives/rebates at the state level.

TRANSPORTATION DATA, TECHNOLOGY, AND INNOVATION

Maintain Our Datasets

Data on bicycle facilities is useful to track asset locations and their condition, as well as to provide information to others. SDOT will seek to:

- Maintain the dataset for existing bicycle facilities and the digital inventory of public bicycle parking locations, and continually update them on the city website.

Use Data to Inform Changes to the Transportation System

To make informed decisions typically requires good data. SDOT will seek to:

- Create a more robust bike count and annual reporting program that captures bike activity at specific locations, such as within Link light rail station areas, along key bicycle corridors between urban villages and centers, and along neighborhood greenways, and trips made using shared micromobility.
- Collect data on non-commute trips made by personal and shared bicycle and e-mobility devices, such as through trip surveys, big data, and more.
- Collect data on the demographics of people bicycling and using e-mobility at a regular interval to track progress toward increasing the diversity of who is bicycling and using e-

mobility devices. SDOT strives to expand the bicycling community and include more women, caregivers, people of all ages and abilities, and people of color. Determine the best format for collecting this data.

- To better estimate network-wide bicycle and e-mobility volumes, develop factor groups based on permanent count data and extrapolate short-duration counts that can be used in planning and performance tracking.
- Purchase updated bike counters and maintain existing equipment quickly to provide accurate reporting.
- Explore use of cellular data to augment and validate bicycle volume estimations.
- Make bike count data easily accessible to City staff, partner agencies, and the public.
- Evaluate existing multi-use trail conditions and develop recommendations to improve the multi-use trail environment. This includes pavement and shoulder condition, vegetation control, adjacent buffers and/or barrier treatments, intersection and/or railroad crossings, etiquette signage, and wayfinding signage.

MAINTENANCE & MODERNIZATION

Update Streets Illustrated

Streets Illustrated (Seattle Right-of-Way Improvements Manual) identifies comprehensive design standards and guidance for bike lanes, multi-use trails, intersections, bike lanes with transit service, neighborhood greenways, and bike parking that are based on national best practices. However, best practices are evolving, and our design standards need to reflect that. As more and more people use cargo bikes, e-bikes, adaptive bikes, and e-mobility devices that vary in size and speed at which they travel, there needs to be adequate space for people traveling faster to safely pass those moving more slowly. *Streets* Illustrated needs to reflect the wide range of bicycle and e-mobility devices that use and will use the Bike+ and multi-use trail networks in the future. This section highlights considerations that should be accounted for when *Streets Illustrated* is updated after adoption of the Seattle Transportation Plan. SDOT will seek to:

- **Include the Bike+ network** in *Streets Illustrated* to minimize conflict points between people bicycling and driveways to new developments
- **Bikeway Width**. Increase the width of bikeways to accommodate the volumes of people bicycling that are needed to meet Seattle's climate action goals and an increasing number of cargo bikes, e-bikes, adaptive bikes, and e-mobility devices that vary in size and speed at which they travel. In areas with higher anticipated bicycle and e-mobility activity, such as light rail station areas and within urban villages and centers, it is especially important to size our protected bike lanes and their associated buffers to meet growing demand, encourage usage, and help people feel comfortable.
- **Standard Bicycle Design Vehicle**. Adopt a standard bike with a trailer as the "design vehicle" for new and upgraded bikeways. Using this footprint in bikeway design will help

make sure new bikeways provide enough space for proper turning movements, intersection cut throughs, and spaces for waiting.

- **Physical Separation**. Physical separation of bike lanes and other measure, such as clear signage and enforcement, should be used to prevent drivers parking or traveling in bike lanes. *Streets Illustrated* identifies a variety of permanent and interim buffer treatments. We will continue to advance our separation standards to best accommodate emergency vehicles, encourage people driving to obey traffic laws, minimize maintenance and replacement costs, and consider constructability and supply chain issues. Physical separation can also increase sense of safety and actual safety for people bicycling and using e-mobility devices, making them more likely to use the facilities.
- **Multi-Use Trail Width**. Multi-use trails typically should be designed to standard widths, with additional soft surface shoulder space on both sides. In high demand areas with large volumes of pedestrians, wider trails may be needed to provide more operating space, and in some cases, separation between people bicycling and walking.
- **Neighborhood Circulation and Traffic Calming**. As Seattle continues to build out an extensive network of neighborhood greenways, broader neighborhood circulation strategies should be used to achieve vehicle volumes and speeds at or below NACTO thresholds. Adding stop signs for side streets crossing the greenway has improved compliance of drivers stopping for bicyclists and pedestrians.
- **Safe Intersections and Signal Strategies**. At busy street crossings, prioritize people walking, bicycling, rolling, and using e-mobility devices on neighborhood greenways and multi-use trails. To reduce crashes and conflicts at major intersections, bicyclists and motor vehicle drivers should be separated physically (e.g., a protected intersection) and/or temporally (e.g., a dedicated signal phase). Eliminate vehicle turn movements that conflict with movements of people walking, rolling, and biking. Bicycle detection should continue to be implemented using an appropriate technology for the specific location context (e.g., push buttons, loops, infrared, etc.), and signal delay for people bicycling should be minimized. This may include retiming signals to provide "green waves" that optimize travel at 10-15 mph for people bicycling on arterial streets.
- **Network Legibility**. To make bicycling and e-mobility attractive to a broader group of Seattleites and visitors, the network needs to be legible and intuitive. This includes uniform design and clear connections between on-street bicycle lanes, off-street trails, and neighborhood greenways as well as to and from transit stations and major destinations. Increased coordination with other city wayfinding programs is needed to provide consistency in what destinations are called, graphics, and format for secondary languages. Seattle's extensive wayfinding system has an important role in network legibility.
- **Bike Parking at Developments**. As discussed above under "Bike Parking," look at updating *Streets Illustrated* or City Code to change bike parking requirements for development projects as a mechanism for meeting parking demand.
- **Increase pedestrian-scale lighting**. Expand the requirements for pedestrian-scale lighting downtown to all Urban Villages and multi-use trails. Many trails and off-street

connections are dark and challenging to navigate at night and better lighting would make them more useful. These locations will be inventoried and prioritized, and we will work with Seattle City Light to develop a plan and funding mechanism for installing additional lighting. (Supports TEF 45.3)

See the People Streets and Public Spaces Element for more information about implementing pedestrian-scale lighting improvements.

Maintain the Bicycle and E-Mobility Network

To provide a safe and comfortable bicycling and e-mobility experience, SDOT will seek to:

- Periodically review and adjust resources for maintenance equipment, labor, and program management to be proportionate to a growing bicycle and e-mobility network.
- Improve and promote the Find It, Fix It app to make it easier for community members to report maintenance issues, including bike facility specific issues.
- Address maintenance concerns efficiently and promptly.
- Address annual maintenance needs in an organized manner for seasonal issues, such as vegetation trimming, blackberry bush removal, bike lane sweeping, and clearing drainage problems.
- Promote the use of sustainable materials in the construction of bike facilities that are durable and have lower lifecycle costs to replace and maintain, such as permanent barriers.
- Negotiate maintenance agreements with partners.
- Anticipate signal equipment upgrades, including needed signal heads or phasing changes to make bicycling connections easier.
- Develop a schedule for routine maintenance checks, such as bike lane sweeping, lane striping, and protective barrier materials replacement, that prioritizes locations for investment.

Establish a Bicycle Level of Service (BLOS)

Establish a bicycle level of service (BLOS) to be applied during project development that addresses comfort, delay, and directness, to make bicycling and e-mobility a more attractive option for more people. (Supports TEF 19.6 and 43.4) SDOT will seek to:

- Evaluate existing BLOS, Bicycle Level of Traffic Stress (LTS), multimodal level of service (MLOS) calculation methods to select the right one for Seattle's context and establish baselines across the city.
- Integrate BLOS, LTS, or MLOS into project development decision-making alongside other metrics such as vehicle level of service.

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 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 bikeable city is one where people of all ages and abilities ride bikes because it is a convenient, affordable, fun, safe, and healthy choice. (Supports TEF 43.4)[9]

A bikeable city includes:

- Connected and well-maintained bicycle facilities between where people live and the places they need to go to meet their everyday needs, including school, shopping, services, work, parks, and connecting to transit for longer trips (supports TEF 45.3, 19.4)
- Enjoyable and safe places to ride a bicycle or e-mobility device—whether on a residential street, multi-use trail, or protected bike lane (supports TEF 45.3)
- Places to securely park bicycles and e-mobility devices of all sizes at destinations (supports TEF 45.3)
- Intuitive and inviting design and wayfinding that makes people feel comfortable and confident navigating the network
- Increased access to bicycles and e-mobility devices
- Well-lit streets and multi-use trails
- Broad community acceptance and support for bicycling as a viable and attractive mode of travel, including from businesses, schools, and government (supports TEF 29.1). Bicycling is mainstream.
- A traveling public that is educated on how to share the road safely, respectfully, and predictably

These components are particularly important to make bicycling more accessible and attractive for populations historically underrepresented in bicycling, such as women, the economically disadvantaged, and people of color.

[9] TEF refers to SDOT's Transportation Equity Framework. You can learn more about the TEF at https://www.seattle.gov/transportation/projects-and-programs/programs/transportation-equity-program/equityworkgroup. A complete list of the TEF tactics referenced is located at the end of the element.

MEASURABLE OUTCOMES

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

- Tier 1: Overarching outcome-based measures are identified in the STP implementation strategy (see Chapter 4 of the Part I document). Generally, they are tracked at a citywide scale, and SDOT may not have primary control over their achievement. Examples include a reduction in vehicle-miles traveled and the percent of household income dedicated to transportation.
- 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 a target to increase the share of people taking active trips and the percentage of households living within a quarter mile of an all ages and abilities bikeway.
- 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 track productivity and to help allocate resources. Examples may include the number of secure bike parking spaces installed each year in public right-of-way (both citywide and in equity priority areas); number of miles of multi-use trails, protected bicycle lanes, and Healthy Streets created each year; percent of bicycle and e-mobility catalyst projects completed (both citywide and in equity priority areas); and more.

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.[10]

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. SDOT will continue to evaluate resource availability before performance measures are set in the final recommended STP.

Table 5 identifies the Tier 2 performance measures that will be tracked for the Bicycle and E-Mobility Element.

10 https://data.seattle.gov/dataset/Racial-and-Social-Equity-Composite-Index-Current/w3kz-xtmq

Table 5: Bicycle and E-mobility Performance Measures

Desired Outcome	Related STP Goals	Performance Measure (Source)	Target or Desired Trend	Track measure by RSEI and/or race	Baseline
End traffic deaths and serious injuries on city streets	Safety Equity Mobility Livability Maintenance & Modernization	Number of fatal and serious injury crashes involving people biking and rolling (Seattle Police Department (SPD) collision report data)	Zero	Yes	In development
Increase trips made by people bicycling	Sustainability Mobility	Increase in the share of active trips (walk, bike, rolling trips, micromobility devices) (PSRC, SDOT bike counts)	XX% by 2044 Sub-measure: Track bike ridership by race, gender, and age	Yes	In development
Increase access to all ages and abilities network	Safety Sustainability Mobility	Percentage of households within ¼ mile to the Bike+ or multi-use trail networks (Census Bureau, SDOT)	100% by 2044 Sub-measure: Percentage of public schools directly served by a Bike+ route or multi-use trail. 100% by 2044	Yes	In development
Support a well-maintained bike network	Mobility Maintenance & Modernization	Percentage of bikeways with fair or better pavement condition (SDOT)	Increase the percentage of bikeway segments with fair or better pavement conditions	Yes	In development

NOTE: Many of the STP performance measures targets and baselines are still under development.

RELEVANT TEF TACTICS

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 19.4—Focus maintenance resources in communities and neighborhoods currently underserved by government that have significant maintenance needs; use findings from the racial equity assessment.

TEF 19.6—Prioritize person-throughput as metric rather than vehicle throughput.

TEF 29.1—Create publicly accessible, community-oriented visuals and neighborhood-specific snapshots to capture where SDOT has built infrastructure, dedicated investments, and collected community feedback; this should be utilized by SDOT, other City departments, and transportation partners to inform future investment needs and planning and programmatic efforts.

TEF 41.6—Create regular opportunities that are not project specific for community conversations on safety with leadership.

TEF 43.2—Coordinate with community-based organizations (CBOs) and legislators to revise or remove pedestrian crossing (jaywalking, etc.) and helmet laws that result in harm to BIPOC communities; replace with educational outreach that promotes safe walking, rolling, and bicycling behaviors.

TEF 43.4—Review SDOT policies, practices, standards, and funding allocation strategies to elevate/give priority to 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 45.3—Identify spaces for equitable investment that can activate community, foster local economic development, and facilitate connections to transit.

TEF 56.4—Improve, identify, and maximize current opportunities for street trees and greenscapes in SDOT activities, ranging from routine maintenance to capital project delivery; ensure design guidance and functions of maintenance include this consideration for long-term sustainability.

GLOSSARY

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

ADA: Americans with Disabilities Act

Adaptive bikes: Bicycles that are designed for people with disabilities or who cannot ride a traditional two-wheeled bicycle. Examples include trikes and hand cycles.

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.

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.

Bicycle level of service (BLOS): A measure or set of measures (indicators) used to determine quality of the bicycle network and overall cycling experience. Examples of measures include, but are not limited to, bicycle network level of stress or level of traffic stress; pavement conditions on bicycle network; and width of bicycling facility.

Bicycle Master Plan (BMP): A long-range plan developed by SDOT in 2014 that identifies projects, programs, and investments for a citywide bike network to make riding a bicycle a comfortable and integral part of daily life in Seattle. The Bicycle and E-mobility Element builds on the BMP.

Bike+ Network: Bikeways suitable for all ages and abilities (AAA) that allow for safe, comfortable, and accessible bicycle travel such as protected bike lanes and Neighborhood Greenways. The Bike+ Network will be seamlessly integrated with the multi-use trail network.

Bike buses/trains: Organized group bike rides for kids to travel safely to and from schools.

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.

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.

Capital Improvement Program (CIP): A planning tool that identifies future capital investments and funding strategies over 6 years.

Cellular vehicle-to-everything (C-V2X): Technology that enables vehicles to wirelessly connect and interact with their surroundings, such as other vehicles and 5G service. C-V2X has the potential to make travel safer by reducing crashes and conflicts between road users.

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 leaders.

Complete neighborhoods: Neighborhoods where residents can access all daily needs within walking distance.

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.

E-cargo bikes: Human-driven bikes with battery-powered pedal assist that can transport packages or other small goods in a front-mounted wagon or rear-hitched trailer.

E-commerce: The buying and selling of goods online that are then delivered directly to a home or business. Examples include Amazon and eBay.

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

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.

Find It, Fix It app: A smartphone app offering mobile users a way to report selected issues to the City by submitting a photo and written description.

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

GHG: Greenhouse gas emissions.

Healthy Streets: Streets for people walking, rolling, biking, and playing. They are closed 24/7 to pass-through traffic. People driving who need to get to homes and destinations along Healthy Streets retain access and can still drive on these streets.

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.

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.

Low-emission neighborhood: Low-emission neighborhoods, sometimes called low-pollution neighborhoods, prohibit or restrict the types of vehicles allowed within an area and encourage zero- and low-emission travel options like walking, biking, electric vehicles, and deliveries by e-cargo bike. Implementation of these concepts will vary by neighborhood and are co-created with local communities.

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.

Multimodal level of service (MLOS): A measure of the volume, comfort, safety, and speed of all modes of travel – vehicles, transit, bicycles, and pedestrians – on a street.

Multi-use trails: Off-street paths for people walking, biking, rolling, and using other non-motorized and e-mobility devices.

NACTO: National Association of City Transportation Officials

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.

Neighborhood Street Fund: A City program, running on 3-year cycles, that enables the community to propose and help prioritize transportation-related projects that are then built by SDOT.

Personal delivery devices (PDDs): Small automated or remotely piloted robots designed for short deliveries carrying food, packages, or other goods

Protected bike lanes: Bike lanes that are physically separated from traffic and the sidewalk, offering a greater level of comfort and safety for cyclists.

PSRC: Puget Sound Regional Council

PSRC Household Travel Survey: Collection of data on travel behavior – who, what, when, where, why, and how people travel – from households throughout the Puget Sound Region.

Public Spaces: Plazas and Shoreline Street Ends that come in many shapes and forms. They are pedestrianized spaces that invite people to gather, play, and connect with one another. These spaces may be focal points in neighborhoods that support local businesses, venues for community gatherings, or more subtle spaces that are loved by locals and stumbled upon by visitors who delight in their discovery. They may incorporate public art, seating, games, trees and green infrastructure, and flexible space for vendors and gatherings. Public Spaces are born of inclusive, community-driven processes that inform design, programming, and long-term stewardship.

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.

RCW 46.61.250: This is the state code regarding pedestrians on roadways. It describes the nuances of allowed pedestrian behavior when sidewalks are available and accessible and when they are not. You can find exact language of the code here: https://app.leg.wa.gov/rcw/default.aspx?cite=46.61.250

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

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 non-motorized 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 Routes to School: A national movement to make it easier and safer for students to walk and bike to school. The program is designed to improve safety in areas around schools and to encourage more kids to walk and bike.

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

The goals of the approach are to create safer vehicles, speeds, roads, and people and provide post-crash care.

Seattle Displacement Risk Index: Areas in Seattle identified where displacement of people of color, low-income people, renters, and other populations susceptible to displacement may be more likely.

SDOT: Seattle Department of Transportation.

Shared micromobility: Shared bikes and scooters that offer low-cost option 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.

Shared Streets: Streets that are "people first" spaces either permanently or during certain times of the day or week. They are typically identified in partnership with the surrounding community. Shared Streets include Healthy Streets, Café Streets, School Streets, Event Streets, Special Alleys, and Pedestrianized Streets.

Slow Lanes: Dedicated lanes that allow human-powered or small motorized devices to travel in safely separated from larger vehicles.

Speed cushion: Multiple low-rise speed humps placed together that slow vehicle speeds while still allowing emergency vehicles to pass through normally. They are used on low volume and non-arterial streets.

STP: Seattle Transportation Plan

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

TNC: Transportation network company (e.g., Uber and Lyft)

Traffic calming: Physical changes to street design that slow traffic and make the street safer for all travelers. Examples include traffic circles, speed humps, and narrow lanes.

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.

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

Vision Zero Top to Bottom Review: A review of the Vision Zero program and actions. It was conducted to help the department better understand the causes of the rise in number of traffic deaths and to identify opportunities to reduce harm while creating a culture of care and dignity for all travelers.

Vulnerable traveler: As defined in City Code, "a pedestrian, a person riding an animal, or a person operating or riding any of the following on a public way: a farm tractor or implement of husbandry, without an enclosed shell, a bicycle, an electric-assisted bicycle, an electric personal assistive mobility device, a moped, a motor-driven cycle, a motorized foot scooter, or a motorcycle." The STP intentionally uses the term "vulnerable traveler" instead of "vulnerable user" to better reflect that people are traveling in the public way.

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.

WSDOT: Washington State Department of Transportation

Zero-emission travel: Modes of transportation that do not emit any greenhouse gases (GHGs).

Seattle Department of Transportation

DRAFT SEATTLE TRANSPORTATION PLAN

Freight and Urban Goods Element

August 2023

Seattle Department of Transportation

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Seattle's diverse economy and trade relations are important elements of the city's history and cultural identity. Key industries include health services, construction, maritime, manufacturing, and logistics, professional services and life science, technology, creative occupations, and the green economy—all of which are interconnected with the national and global economies.

Seattle is a major import and export hub for regionally focused industrial sectors, such as retail and consumer goods, agricultural products, and e-commerce. All these industrial sectors are significant freight generators. Washington State is the most trade dependent state in the nation, and Seattle is at the center of it all.

Seattle business owners, employees and consumers rely on efficient, predictable, and sustainable goods movement, which is critical to attracting and retaining businesses that support the economic health and vibrancy of Seattle. Additionally, tens of thousands of local jobs from large retail to gig-economy deliveries depend on an efficient and connected freight network. Over the next 20 years, Seattle's supply chain logistics and delivery of goods and services will help preserve Seattle's thriving economy.

HOW THE FREIGHT AND URBAN GOODS ELEMENT ADVANCES THE STP

The Seattle Transportation Plan (STP) presents a 20-year vision for transportation in Seattle. The Freight and Urban Goods Element (Freight Element) provides a more detailed framework for the planning, design, construction, maintenance, and operation of the transportation network for moving freight deliveries and services to, from, and within Seattle.

The Freight element builds on and supersedes the 2016 Freight Master Plan (FMP). All transportation modes, vehicle types, and facilities used in goods movement are considered in the Freight Element, with a focus on truck transport and the portions of the transportation network used to access the maritime, manufacturing, and industrial centers (MICs) and connections to the regional freight system. Providing reliable truck connections to local and regional port facilities, airports, and intermodal terminals is critical to Seattle's livability and economic health.

The Freight Element addresses the manners and means in which goods and services are transported and the various impacts freight movement has on equity, community health, climate change, economy, traffic patterns, and public safety. It establishes a policy framework to guide freight mobility investments to increase safety surrounding freight-related interactions with all other travel movements, improve equitable access to resources, programs, and secure infrastructure for freight industry employees, while addressing the known adverse impacts of freight industry outputs that continue to be detrimental to the adjacent Seattle neighborhoods.

It is critical that this element also consider the people employed by the freight industry. Supporting the human element of freight and enhancing quality of life for service providers are aligned with citywide goals to eliminate historical racial and socioeconomic disparities in and around industrial lands.

RELATIONSHIP TO STP GOALS

Freight plays an important role in meeting STP goals for **safety, equity, sustainability, mobility, livability, and maintenance and modernization**. It's a key component to preserving a thriving economy, connecting local businesses and people to vital goods and services on a daily basis.

Prioritize safety for travelers in Seattle, with no serious injury or fatal crashes. Major Truck Streets are primary routes to connect major freight traffic generators. This designation informs roadway design for truck movements, such as turning radii and lane widths, traffic management decisions, and pavement repair. Safety improvements where vulnerable travelers intersect with freight movement, where personnel perform work in streets, and at railroad grade crossings can reduce serious or fatal injuries.

Co-create with community and implement restorative practices to address transportation-related inequities. Equity in freight investments can improve the health of communities impacted by goods movement. Capital investments in areas adjacent to industrial lands can address historic and emergent environmental, public health, and shoreline access concerns. Reducing intermodal impacts on communities through industry partnership supports the human needs of freight industry personnel.

Respond to climate change through innovation and a lens of climate justice. Green innovations in rail and port operations can support climate goals. These include integrating coastal remediation policy and practice into industrial area maintenance and new freight facility construction, as well as grade separating rail facilities where possible to reduce vehicle idling. Working in partnership with other city departments, we maintain environmental compliance by funding roadway maintenance.

Provide reliable and affordable travel options that help people and goods get where they need to go. Prioritizing investments within MICs and along designated freight routes supports the safe, efficient, and reliable movement of goods and services. Mobility for freight is supported by wayfinding, commercial vehicle load zones, employee personal vehicle and truck parking, and consolidation and dissemination of travel and permit information. Improved data collection can help to better respond to industry changes and maintain consistency with state and regional freight plans.

Reimagine our streets as inviting places to linger and play. Developing an urban goods delivery strategy that includes on- and off-street tactics and capital investment in the freight network supports economic growth. Updates to commercial vehicle load zone permit processes, hours, and enforcement will provide more reliable curb access. Addressing constraints in the freight network, including an increase in train traffic and blocked grade crossings, can smooth flows for all travelers.

Improve city transportation infrastructure and ready it for the future. Integration of innovative policy and practices will improve maintenance and safe, efficient operation of the freight network, including for nonarterial roads in industrial and commercial areas. Asset management can optimize maintenance investments, while coordination of freight and transit infrastructure investments can encourage safe coexistence of all modes.

IMPLEMENTING THE KEY MOVES

Part I of the Seattle Transportation Plan (STP) includes a collection of Key Moves, or strategies, to advance the STP goals. Each Functional Element serves an important role in making these Key Moves and their supporting actions.

Table 1 below summarizes the Key moves and specific actions the Freight and Urban Goods Element helps to accomplish. They are nested under the primary STP goal they seek to advance. Many actions are cross-cutting, and they appear in all Functional Elements as important commitments and initiatives. Other actions are specific to one or more Functional Elements and are marked with an asterisk (*) to indicate that this Element plays a critical role in operationalizing or supporting that action.

Additional details on SDOT's roles and the ways we'll tackle this work are included in the "Freight and Urban Goods in Seattle" section below. Actions that implement tactics from SDOT's Transportation Equity Framework (TEF) are noted in parentheses; these tactics are listed at the end of this element.

Table 1: Key Moves and Freight Element Actions

Key Moves / Actions		STP Goals Supported					
		Safety	Equity	Sustainability	Mobility	Livability	Maintenance & Modernization
SAFETY KEY MOVES							
Concentrate safety investments at the most collision-prone locations (S2)							
F1*	Apply and expand the freight toolbox to address mobility and safety needs and incorporate new tools as best practices evolve.	✓	✓		✓	✓	✓
F2	Incorporate Vision Zero and Safe System approaches into every project and program. (S2a)	✓	✓	✓	✓	✓	
F3	Prioritize safety improvements at locations that are on the high-injury network (HIN), have high levels of travel stress, or are identified through the Seattle Bicycle and Pedestrian Safety Analysis (BPSA). (S2b)	✓					✓
F4*	Pilot and evaluate new and emerging safety treatments in locations where proven interventions are infeasible or do not address identified issues. (S2c)	✓					✓

* Indicates this Element plays a key role in advancing this action.

	Key Moves and Freight Element Actions	STP Goals Supported					
		Safety	Equity	Sustainability	Mobility	Livability	Maintenance & Modernization
Make all journeys safer, from departure to destination (S3)							
F5*	Use SDOT truck and heavy vehicle design guidance and develop new designs for truck-compatible traffic calming measures that allow for safe truck movements and integrates with other travel options.	✓	✓	✓	✓		
F6*	Accelerate implementation of research-backed improvements that are proven to make streets safer for everyone, such as hardened centerlines, leading pedestrian intervals (LPIs) at signals, No Turn on Red signs at signalized intersections, and road diets. (S3d)	✓					
F7*	Make people walking, biking, and rolling more visible by improving site lines at intersections through treatments such as curb bulbs, No Parking signs, and improved lighting with a focus on High Injury Corridors. (S3e)	✓	✓				
F8*	Coordinate with freight, passenger rail, and light rail partners on safety improvements at rail crossings. (S3g) Fund and develop a rail program that outlines a range of initiatives to improve safe interactions between various travel options and trains at rail crossings.	✓	✓	✓	✓		
F9*	Expand safety education for all travelers. (S3h) Develop a freight education program and rail freight education program for the freight community and all roadway travelers that frequently share space with trucks.	✓					
EQUITY KEY MOVES							
Center the voices of communities of color and underrepresented groups in planning and decision-making process (TJ1)							
F10	Implement the Transportation Equity Framework (TEF) to grow transparency, accountability, and shared power when making transportation decisions with community members. (TJ1a)		✓				
F11	Feature community voices in planning documents. (TJ1b)		✓				
F12	Continue to build and maintain relationships with vulnerable communities and underrepresented groups. (Supports TEF 29.1 and 41.6) (TJ1c)		✓				
F13	Meet early and often to provide opportunities to influence projects before they are fully developed. (Supports TEF 3.4) (TJ1d)		✓				
F14	Normalize the practice of making decisions about policies and right-of-way (ROW) allocations with input from vulnerable communities. (Supports TEF 19.1 and 25.4) (TJ1f)		✓				

* Indicates this Element plays a key role in advancing this action.

Key Moves and Freight Element Actions		STP Goals Supported					
		Safety	Equity	Sustainability	Mobility	Livability	Maintenance & Modernization
F15*	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 TEF 17.1, 21.2 and 16.1) (TJ1h)		✓		✓		✓
F16	Compensate community partners for their valuable work to connect and communicate with their networks and uplift community-driven initiatives. (Supports TEF 1.1, 13.4, 31.4, and 37.1) (TJ1i)		✓				
Address inequities in the transportation system by prioritizing investments for impacted communities (TJ2)							
F17*	Prioritize transportation investments that benefit people and local businesses who currently and historically experience high transportation burdens and those at high risk of displacement. (TJ2a) Identify and address communities and families specifically affected by freight and related industries.		✓				✓
F18*	Regularly engage 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 TEF 14.3 and 15.2) (TJ2c)		✓		✓	✓	
F19	Identify actions to address inequities experienced by vulnerable community members who walk, bike, and roll, and provide capacity-building support to BIPOC-led organizations that focus on increasing active transportation. (Supports TEF 31.4) (TJ2d)		✓			✓	✓
F20*	Develop policies to prevent transportation projects, both past and present, from causing future displacement and mitigate impacts that can't be avoided. (TJ2e)		✓				
F21	Implement improvements to make traveling in Seattle more accessible for everyone, such as curb ramps, accessible pedestrian signals, accessible parking, and accessible transit stops. (TJ2f)		✓		✓		✓
F22	Conduct and implement racial equity assessments at the program level. (TJ2h)		✓				
SUSTAINABILITY KEY MOVES							
Improve neighborhood air quality and health outcomes by promoting clean, sustainable travel options (CA1)							
F23*	Increase application for permitted uses and reduce unpermitted uses.	✓	✓	✓	✓		
F24*	Operate the transportation system (e.g., signals, markings, signage, and right-of-way allocation) to encourage sustainable travel choices (walking, biking, taking transit, and for moving goods). (CA1g)	✓	✓	✓	✓	✓	✓

* Indicates this Element plays a key role in advancing this action.

Key Moves and Freight Element Actions		STP Goals Supported					
		Safety	Equity	Sustainability	Mobility	Livability	Maintenance & Modernization
Green city streets with landscaping and street trees to better handle changing climate (CA2)							
F25*	Encourage the maintenance and installation of green infrastructure—such as street trees, rain gardens, landscaping, natural drainage systems, bioswales, and pervious materials—as other improvements occur in the right-of-way (ROW). (Supports TEF 56.4) (CA2a) Incorporate green infrastructure in MICS and industrial areas.			✓		✓	
Foster neighborhood vitality and improved community health (CA3)							
F26*	Develop integrated land use and transportation plans for commercial and industrial areas.			✓		✓	
F27*	Develop a low- and zero-emission loading program that prioritizes climate friendly vehicles and incentivizes freight companies to transition to right-sized, electric vehicle alternatives.			✓		✓	
F28*	Co-create low-emission neighborhoods with communities so the benefits of cleaner air and safer streets are shared equitably. (CA3a)	✓	✓	✓		✓	
F29	Design for people-first streets to make sustainable travel choices the default and easy choice for neighborhood trips and to increase neighborhood business district activity. (CA3d)			✓	✓		
F30*	Incentivize use of non-fossil fuel-powered mobility options for transit, personal and urban goods delivery vehicles, and shared mobility (such as e-bikes and scooters). (CA3e) Develop and launch a commercial cargo e-bike program and e-cargo bike lending libraries.			✓			
F31*	Develop and launch neighborhood delivery hubs in partnership with local businesses to create central drop-off/pick-up locations for goods and services used by multiple providers, retailers, and consumers. (CA3f)			✓			
Support the transition from fossil fuel to electric vehicles for personal, commercial, and delivery trips (CA4)							
F32*	Support the transition to electric vehicles (EVs) for all segments of transportation, including personal mobility, goods movement and services, and fleets and transportation network companies, through equitable incentives, grant opportunities, partnerships, and pilot programming. (Supports TEF 36.2) (CA4a)		✓	✓			
F33*	Support electrification of shared mobility and freight vehicles through programs that install charging infrastructure, offer focused incentives, and reduce reliance on large vehicles. (CA4f)			✓			

* Indicates this Element plays a key role in advancing this action.

	Key Moves and Freight Element Actions	STP Goals Supported					
		Safety	Equity	Sustainability	Mobility	Livability	Maintenance & Modernization
Advance mobility management strategies to encourage walking, biking, and transit trips (CA5)							
F34	Explore equitable demand management tools that could influence travel choices and create revenues to invest in sustainable transportation options, freight movement, and innovation. (CA5c)		✓	✓			✓
MOBILITY KEY MOVES							
Create seamless travel connections (PG1)							
F35	Prioritize efficient and sustainable movement of people within limited street space and reallocate street and curb space to maximize comfort, convenience, and directness for non-vehicle travel options. (Supports TEF 19.6 and TEF 43.4). (PG1a)		✓	✓	✓	✓	
Enhance economic vitality by supporting freight movement and growth in deliveries (PG4)							
F36*	Develop an urban goods movement and delivery planning program.	✓	✓	✓	✓	✓	
F37*	Design the street network for safe and predictable movement of trucks and delivery vehicles, integration with other travel options, and in support of safety, climate, and equity goals. (PG4a)	✓	✓	✓	✓	✓	
F38*	Provide for critical access needs (mail and goods deliveries, solid waste pick-up, etc.) on-street when they cannot be accommodated off-street. (PG4b)				✓		
F39*	Explore implementation of dedicated freight (truck-only) lanes and freight-and-bus (FAB) lanes, pending successful results of a pilot project, to improve freight mobility on Seattle streets with high truck volumes. (PG4c)		✓	✓	✓		
F40*	Prioritize improvements in the freight network and safety improvements to freight vehicles to accommodate their interactions with other functions of the street and curb, particularly with people who are walking, biking, and rolling. (PG4d)	✓	✓	✓	✓	✓	
F41*	Address the unique mobility and access needs of freight in manufacturing/industrial centers (MICs) through planning, design, and operations activities, and through coordination with freight and passenger rail partners. (PG4e)				✓		
F42*	Collaborate with private sector partners on pilots and programs that accelerate the shift of freight trips to more sustainable low- and zero emissions vehicles, such as electric cargo bikes, to replace a portion of last-mile deliveries made by larger vans and trucks in densely developed areas. (PG4f)		✓	✓	✓		

* Indicates this Element plays a key role in advancing this action.

Key Moves and Freight Element Actions		STP Goals Supported					
		Safety	Equity	Sustainability	Mobility	Livability	Maintenance & Modernization
F43*	Pilot and expand use of technologies that can improve predictability and accessibility for vehicle loading/unloading activities. (PG4g)				✓		✓
F44*	Explore programs and incentives that encourage rightsizing of freight vehicles for an urban environment. (PG4h)			✓	✓	✓	✓
F45*	Work with other agencies and private partners to provide real-time information to minimize travel time and optimize access for freight and urban goods vehicles. (PG4i)			✓	✓		✓
Manage curbspace to reflect city goals and priorities (PG5)							
F46	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 develop decision frameworks to prioritize these functions based on local area and system needs.(PG5a)				✓		✓
F47*	Prioritize uses of the curb to address demands stemming from changes to more sustainable and efficient personal travel options and the evolving landscape of goods and service delivery over use as private car storage. (PG5b)				✓		
F48*	Increase the number of commercial vehicle loading zones to decrease the time freight and delivery drivers spend searching for parking. (PG5h)		✓	✓	✓	✓	
LIVABILITY KEY MOVES							
Boldly reallocate street space to prioritize people while preserving access for goods delivery and emergency response (PP1)							
F49*	Design streets and public spaces so that goods and emergency responders can still reliably get where they need to go, while adjacent businesses prosper from an activated public realm. (PP1c) Prioritize services that meet basic human needs for freight employees along the freight network to support.	✓	✓		✓	✓	
F50*	Update the City of Seattle Standard Plans for Municipal Construction to reflect freight network changes recommended in the toolbox and updates to Streets Illustrated. (PP1d)	✓	✓	✓	✓	✓	✓
MAINTENANCE & MODERNIZATION KEY MOVES							
Transform the city streets for safety and sustainable travel choices through optimal timing of asset maintenance and replacement (MM1)							
F51	Use asset maintenance and replacement opportunities to not only improve the condition of transportation infrastructure and equipment,	✓	✓	✓	✓	✓	✓

* Indicates this Element plays a key role in advancing this action.

	Key Moves and Freight Element Actions	STP Goals Supported					
		Safety	Equity	Sustainability	Mobility	Livability	Maintenance & Modernization
	but to also enhance safety, reduce dependence on driving, promote sustainable travel options, and support economic vitality. (MM1a)						
F52*	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. (MM1b)						✓
F53	Collect feedback on asset conditions as part of community engagement on transportation system planning, design, and co-creation. (MM1c)		✓				✓
F54*	Conduct asset maintenance in accordance with the priority investment and emergency response route networks, especially when investment supports walking, biking, transit, and freight. (MM1d)	✓	✓	✓	✓		✓
	Reduce neighborhood disparities in the quality of streets, sidewalks, public spaces, and bridges (MM2)						
F55	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 (RSE) Index. (Supports TEF 19.3) (MM2a)	✓	✓				✓
F56	Equitably distribute resources for maintenance and improvements in neighborhoods that have been historically or are currently underserved. (Supports TEF 19.4) (MM2b)		✓		✓		✓
	Ready city streets for new travel options and emerging trends and technologies (MM3)						
F57	Collect, monitor, and use data to inform changes to the transportation system. (MM3a)				✓		✓
F58	Proactively work with public, private, and academic sector partners to collaboratively develop transit and mobility solutions for the future. (MM3c)						✓
F59*	Develop and maintain up-to-date asset data, including digital inventories of physical assets like curb space, load zones, bike, and scooter parking locations. (MM3e)		✓				✓
F60	Research and develop policies to manage the evolution toward connected and autonomous vehicles (CAVs), recognizing that government and industry must partner to deliver benefits safely. (MM3g)	✓	✓		✓	✓	✓

* Indicates this Element plays a key role in advancing this action.

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'll need to remain agile and continually adapt and respond to the evolving transportation needs of the city's residents, businesses, and visitors.

The STP provides a framework for how the Seattle Department of Transportation (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 freight and urban goods. 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 continue to evolve in the years to come.

OPPORTUNITIES, EMERGING TRENDS AND CHALLENGES

The freight network must be responsive to and inclusive of as many goods and service movement methods as possible, while interacting safely with other transportation options. Living in one of the nation's leading trade gateways, Seattle residents experience these challenges firsthand. Freight and urban goods movements are a key component of our local, regional, and national supply chains. A single disruption can reverberate all the way to the Seattle consumer. The health and fitness of the freight system is critical to the economic wellbeing of the entire city and every resident and business.

Opportunities and Emerging Trends

Strong growth in freight demand and flows. The Environmental Protection Agency (EPA) noted that, in 2015 alone, the U.S. logistics industry moved more than 49.5 million tons of goods, worth nearly $52.7 billion, every day, and more than 56 tons of freight per person per year. The agency projects that in 2025, the shipment of U.S. goods will grow another 23.5%; and a total of 45% by 2040.[1]

Shift in shopping trends during the COVID-19 pandemic. The pandemic accelerated the shift in consumer spending from brick-and-mortar to e-commerce, which resulted in significant growth in local parcel delivery and the construction of e-commerce warehouses.

Last-mile neighborhood delivery hubs. There is increasing interest and testing of last-mile neighborhood delivery hubs that serve as a delivery point for trucks, which offload parcels onto electric-assist cargo trikes for local delivery to residences or businesses or to short-term

[1] Why Freight Matters to Supply Chain Sustainability | US EPA

storage in parcel lockers. These solutions can reduce local truck trips and emissions in commercial and residential areas.

Focus on employee safety and wellbeing. The health and safety of the people working in the supply chain impacts the health, safety, and equity experienced by our communities. The impact of the goods and services movement on climate change is enormous, and there are many creative opportunities to mitigate impacts.

Challenges

Deferred Maintenance. The transportation network serving commercial and industrial land uses, especially non-arterial streets in manufacturing and industrial centers (MICs), have significant deferred maintenance needs. These streets serve as critical access to various manufacturing and commercial activities and see higher heavy vehicle use. Traditionally, these streets have not been prioritized for maintenance efforts and have some of the lowest pavement condition ratings in Seattle.

COVID-19 pandemic impacts. The COVID-19 pandemic unveiled weaknesses in supply chains as demand shifted from services to consumer goods. The shocks of the pandemic resulted in long-term changes to how and where goods are produced. High-density distribution centers, now an aging concept, are being reimagined as micro-distribution hubs, in line with emerging trends. Federal and state public health restrictions caused significant changes in commuting patterns, which led to a steep drop in traffic congestion on city streets. Traffic volumes partially rebounded in 2022.

Supply chain instability. Ongoing workforce shortages, trade disruptions, changes in freight delivery patterns, and other shocks have roiled otherwise stable supply chains, placing pressure on Seattle's multimodal freight system. Respondents to a Washington State Department of Transportation (WSDOT) Freight System Plan (FSP)[2] survey indicated that supply chain disruptions were a critically important freight-related challenge being faced. Additionally, manufacturers consulted during the development of the FSP expressed ongoing concern about supply chain instability.

Limits on new technologies and infrastructure. Development and integration of new technologies, such as alternative fuels and drone delivery deployment, may be limited by legislative restriction and infrastructure requirements; inadequate and aging electrical distribution infrastructure; and the ability to fund, design and construct alternative fueling stations to meet demand.

Network impacts. Network access reductions are concerning for freight movement and supply chain resilience. For example, from March 23, 2020, to September 17, 2022, the West Seattle High-Rise Bridge was closed for repairs and comprehensive testing. During that time, the Spokane Street Swing Bridge traffic was severely restricted, causing access constraints for critical Harbor Island maritime freight, freight supportive, and national defense industries.

Climate impacts on industrial and Port facilities. Much of Seattle's industrial lands rest upon real estate reclaimed from the Duwamish River wetlands. National Oceanic and Atmospheric

[2] Freight System Plan | WSDOT (wa.gov)

Administration (NOAA) climate change models indicate that reclaimed lowlands are at greatest risk of climate change related weather impacts, such as rising sea levels and seismic events[3].

Air quality impacts of freight on residents. Existing and projected goods movement volumes are direct contributors to poor air quality in and around MICs and adjacent mixed-use neighborhoods in Seattle. The negative impacts of the transportation sector in general, and freight movement in particular, are known to contribute over 50% of nitrogen oxides (NOx) emissions, over 30% of volatile organic compound (VOC) emissions, and over 20% of particulate matter (PM) to the emissions inventory in the U.S. [4]

COMMUNITY ENGAGEMENT

In 2022, we conducted extensive public outreach as part of the STP development process. During the public comment period, we collected feedback specific to freight, urban goods movement, and freight infrastructure. Upon review of the comments, several general themes emerged:

- **Separate people walking and biking from freight vehicles.** Bike lanes, trails, and associated crossings need to be separated or clearly differentiated from freight to allow for safer and easier mobility around the city. Suggestions include grade separation, complete corridors, and treatments, such as landscaping or fencing.
- **Support electric vehicle (EV) transition.** There is general support for the transition to EVs. The shift should consider expanded use of smaller EV freight vehicles in dense urban areas.
- **Designate freight routes.** Freight route designations were supported to better accommodate truck movements and enhance safety. Ideas to clear lanes for the freight system to better serve the public were also mentioned.
- **Shared transit lanes.** Numerous comments supported the incorporation of freight and transit in the same lane. However, it is important to consider concerns raised, such as volume management, impact on transit performance, and time constraints—i.e., create time of day restrictions to ensure travel time benefits are achieved.

Other suggestions include:

- **Improve data collection and analysis.** This may help to remove biases and uncover causal relation behind crashes, serious injuries and near misses to inform safety enhancements in street design and traffic operations.
- **Mobility hubs.** Facilitate last-mile delivery trips with smaller vehicles.
- **Improved planning efforts and guidance.** Develop direction to address design treatments at intersections and at-grade rail crossings, truck congestion, truck and freight employee parking, delivery methods in residential and urban areas, and short-haul truck trips between intermodal facilities (port and drayage).

[3] Climate Change: Global Sea Level | NOAA Climate.gov
[4] Why Freight Matters to Supply Chain Sustainability | US EPA

- **Expand dedicated staff and financial resources.** Dedicate more funding for staff resources to carry out freight planning and support additional funding for freight spot improvements.
- **Address maintenance backlogs.** Advance the backlog of projects associated with pavement and rail grade crossing maintenance within the freight network.

FREIGHT AND URBAN GOODS IN SEATTLE

SDOT plays an important role in supporting the freight and goods movement network by operating city streets in a manner that supports safe, efficient, and reliable travel for freight vehicles and other travelers. We work with our partners to design and build capital improvements, maintain capital assets (pavements, signals, signs, markings, etc.), fund system investments, and collaborate with agency, business, and industry stakeholders. Freight includes goods that travel to or from railyards, seaports, airports, regional warehousing, and end-user destinations (e.g., businesses and residences).

Primary modes in the freight network include:

- **Ground.** Often identified as truck transport, there are many types and sizes of ground freight encompassed in large bulk freight and last-mile freight. Increasingly, electric bicycles (e-bikes) are gaining in use for last-mile transport and delivery of smaller parcels.
- **Rail.** Freight rail moves goods regionally and nationally, while in-town industry rail service provides connections between local Seattle businesses and the larger, nationwide rail network.
- **Air.** Air freight carriers transport goods that are time sensitive or have high value per unit.
- **Ports.** Typically, large cargo ships bring in a flow of national and regional imports.

To further define freight, it is important to also understand what it provides:

- **Services.** Includes waste collection; city, residential, and business utility installation and maintenance; emergency services; health providers; general construction; and more.
- **Delivery.** Includes business-to-business (B2B) goods related to manufacturing, construction, industrial supply, and warehousing typically delivered by rail or heavy trucks, as well as retail, office, food and grocery, and residential goods and parcels delivered by light trucks, parcel vans, and e-bikes.

This Element focuses primarily on urban truck movement to support Seattle's increasing demand for delivery of goods and services in a safe and reliable manner. While railroad, marine, air freight, and more play critical roles in our freight system, because the roadway network is within the city's purview, we focus on how trucks provide access to these other modes.

KEY FREIGHT PARTNERS

Given the number of freight modes, the Seattle freight network has many interested parties. These include local business and industry and local, regional, state, and federal agencies. The Port of Seattle is the government agency that oversees the seaport, while the Northwest Seaport Alliance is a marine cargo operating partnership with the Port of Tacoma. Other important agencies include the Federal Highway Administration (FHWA), the Federal Railroad Administration (FRA), the Washington State Department of Transportation (WSDOT), and the

Puget Sound Regional Council (PSRC), all of whom fund investments (e.g., award grants) to improve the freight network. Due to their size and costs, many freight capital projects are delivered through agency and industry partnerships.

MANUFACTURING/INDUSTRIAL CENTERS

Seattle has 2 of the Puget Sound Regional Council's (PSRC) 10 regionally designated manufacturing/ industrial centers (MICs)[5]:

Ballard/Interbay Northend (BINMIC) and Duwamish MIC. Most industrial land in Seattle is located within the MICs, and they are identified in Seattle's Comprehensive Plan. MICs ensure adequate accessible industrial land is available to promote a diversified employment base and sustain Seattle's contribution to regional living-wage job growth. Maritime and manufacturing activities are supported by our industrial lands and have long benefitted Seattle by contributing to the city's identity, supporting family-wage jobs, and providing economic diversity.

Activities on industrial lands make significant revenue contributions to the local and regional economy, due in large part to the volume of products manufactured or received in Seattle and exported domestically within the U.S. and worldwide. Around 95,000 people, or 15%of all jobs in Seattle, are employed within these MICs. A network of marine terminals, railroads, roadways, and airports serve the MICs, creating a need to designate, protect, and plan for a variety of needs—oftentimes overlapping with other demands on city streets.

FREIGHT NETWORK ASSETS

Seattle's freight infrastructure is key to maintaining economic and locational competitive advantage. Keeping goods moving efficiently is not just vital for Seattle's economy, but also for the region, Washington state, and other parts of the country. Our waterway, rail, air, and roadway infrastructure is critical to support freight logistics and shipping.

As noted in the introduction, this element focuses on goods movement by truck, as that is the mode the city has the most ability to influence. However, our ability to provide reliable truck travel to and from the region's port facilities, airports, and intermodal terminals is critical to the city's livability and economic health.

Key freight network assets are discussed in this section and include:

- Seattle's freight roadway network
- Waterways and the Port of Seattle
- Railroads
- Intermodal and transload facilities
- Airports

[5] https://www.psrc.org/our-work/centers

Seattle's Freight Roadway Network

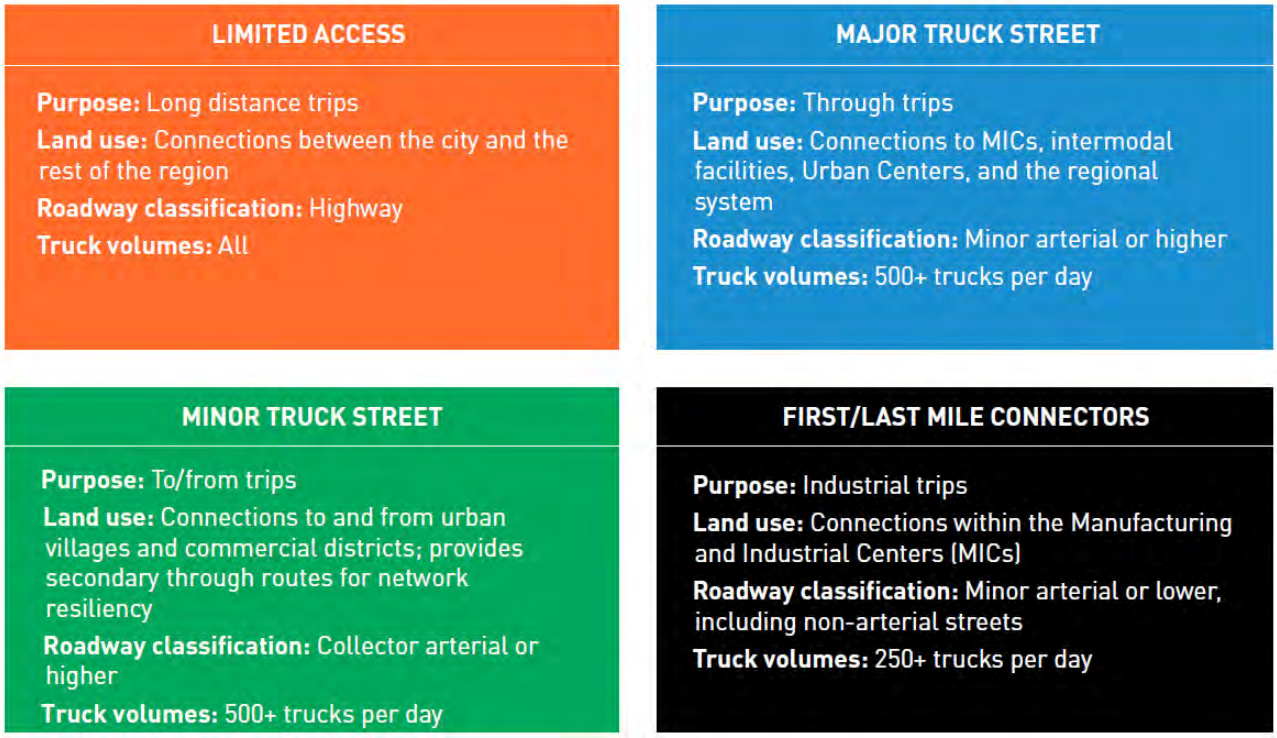
Nearly all the streets under the city's jurisdiction are used by trucks, whether designated for freight or not. Specific freight network designations are based on truck volumes and connections to key freight traffic generators and other land uses. The city also operates moveable bridges that support efficient freight movement across our waterways.

Freight Street Classifications

Freight street classifications highlight key elements of the street network serving freight vehicles. They cover functional classification, truck volumes, street types, design guidance, spatial characteristics, and more and are considered when designing streets or determining how to operate the system.

Seattle's Freight Master Plan (FMP; 2016) identified a Freight Network Classification that includes four designations based on truck volumes, land use connections, network connectivity, and roadway classifications. **Figure 1** presents the freight network designations.

Figure 1: Freight Network Designations



The freight network designations indicate key routes that trucks use to access the Port, key freight designations, and the regional highway system. Limited access facilities are connected to major truck streets and, to a lesser degree, by minor truck streets. First-/last-mile connectors are primarily accessed by major and minor truck streets and are located within the MICs. Trucks are permitted to operate on most streets in Seattle, whether or not they are designated as part of the freight network.

The Freight Network

The freight network map is depicted in **Figure 2**. In general, limited access facilities are accessed by major truck streets and, to a lesser degree, by minor truck streets. First-/last-mile connectors are primarily accessed by major and minor truck streets and are located with the MICs.

Figure 2: Freight Network Map

Over-Legal and Heavy Haul Networks

Seattle has specific routes that provide for oversized and overweight trucks, referred to as "over-legal." Permits are required to operate these vehicles on designated over-legal streets. The over-legal routes can accommodate trucks with larger loads that require a 20-foot by 20-foot envelope, although specific segments may not handle both excess width and height dimensions. **Figure 3** presents the Freight Network with the Heavy Haul Network and over-legal routes.

Downtown Traffic Control Zone

The movement of large trucks is restricted within the core of the city. Vehicles 30 feet or longer may operate by permit on weekdays between 9 AM and 3 PM, and without a permit from 7 PM to 6 AM. Curfews are in effect during weekday peak traffic periods.

Waterways and the Port of Seattle

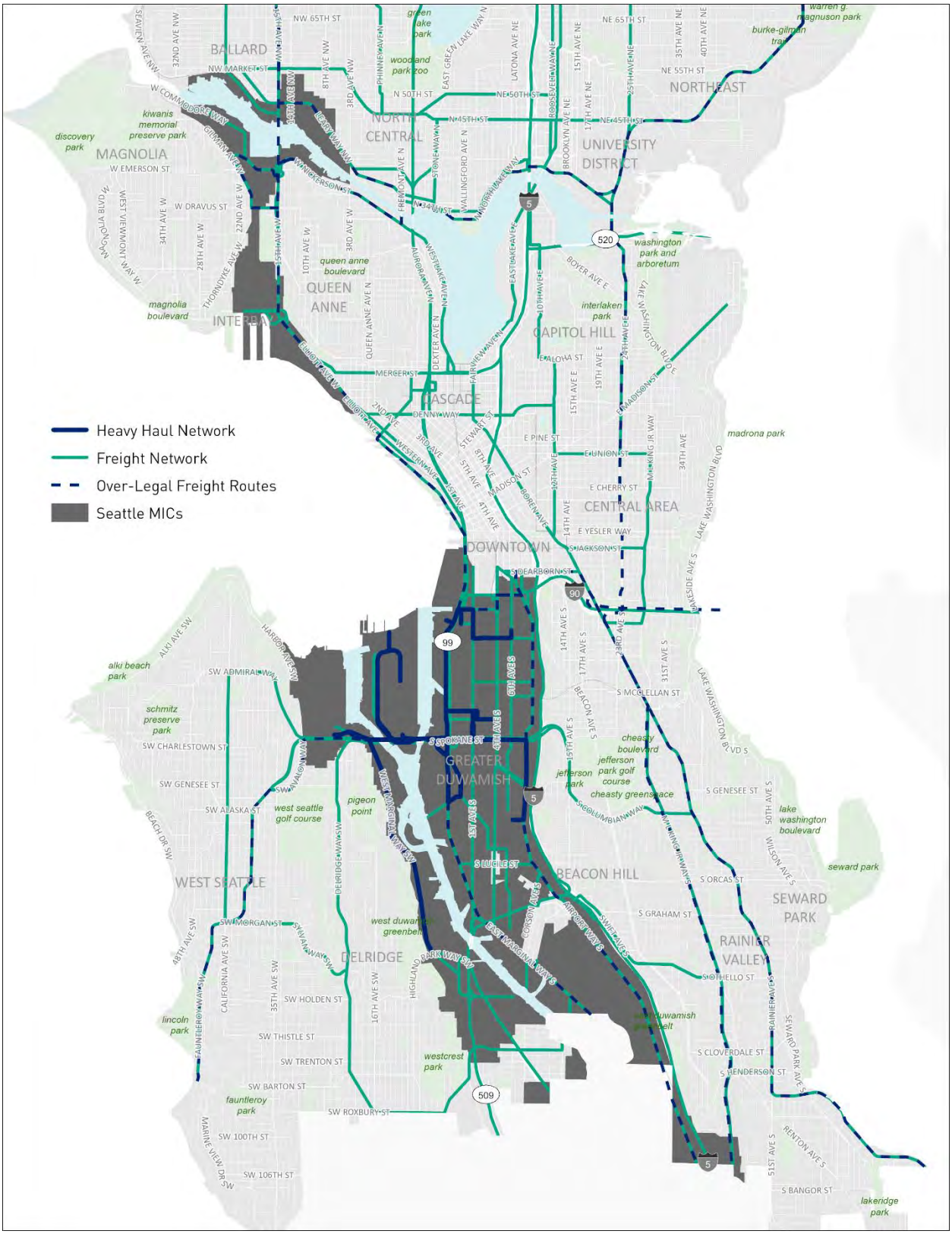
Water transport has continuously been the largest carrier of freight, as virtually any material can be moved by water. The Port of Seattle (Port) consists of numerous facilities throughout the city that are located on Puget Sound and other navigable waterways, such as the Lake Washington Ship Canal. Facilities include container terminals, general-purpose marine/cargo terminals, commercial and recreational moorage, industrial and commercial properties, a grain terminal, and cruise ship terminals. The Northwest Seaport Alliance (NWSA) is a marine cargo operating partnership of the Port of Seattle and the Port of Tacoma and operates the container terminals in the city. The Port of Seattle also operates Fishermen's Terminal and the Maritime Industrial Center along the Lake Washington Ship Canal.

The Port is responsible for ensuring that cargo efficiently moves through the network to its next destination. The import and export of these goods create individual jobs and economic development for the region.

Railroads

Two Class I railroads (annual revenues of more than $500 million) and a single Class III railroad (annual revenues less than $40 million) operate in Seattle—BNSF Railway, Union Pacific Railroad (UPRR), and Ballard Terminal Railroad (BDTL). Ballard Terminal Railroad provides a handful of industry customers access to rail and connection with BNSF. Union Pacific is the second-largest railroad in the U.S., and Seattle is the terminus of its west coast operations. UPRR Seattle rail traffic is primarily industrial service, focused on moving goods for local customers to the transcontinental rail system. BNSF is the largest railroad in the U.S., running trains through Seattle north to British Columbia, south to San Diego and east to Minneapolis. BNSF leases track and time to Amtrak passenger rail and Sound Transit Sounder commuter trains here in Seattle. Rail transport is most competitive with long-distance trucking and barge transport.

Figure 3: Freight Network Overlayed with Heavy Haul Network and Over-Legal Routes



Intermodal and Transload Facilities

Intermodal freight transport involves the transportation of freight in an intermodal container or vehicle, transferring shipments from one transportation mode to another as the shipment moves from origin to destination, without any handling of the freight itself when changing modes. Freight moves from port to truck, port to rail, port to port, port to air, rail to rail, truck to rail, rail to truck, and every combination in between. Intermodal facilities work cooperatively in anticipation of freight arrivals and departures, as well as up- or downstream of supply chain issues, and to alleviate industry pinch-points. Transload facilities repack goods between 40' standard ocean-going containers and 53' rail industry containers, which increases efficiency of goods movement between sea and rail modes.

The type and capacity of an intermodal facility can vary depending on the nature and type of intermodal connector (e.g., rail, maritime, air, and highway). Intermodal facilities are key to railroad operations. It is here that trains are made and disassembled; cargo headed to and from the Port of Seattle and Port-affiliated facilities make their way north, south, and east from these yards. The Argo Yard is UPRR's sole hub in Seattle, while BNSF has numerous facilities—Stacy Yard, Balmer/Interbay Yard, and South Seattle—supporting freight movement.

Airports

The King County International Airport (KCIA, or Boeing Field) is the only airport within the city's boundary. The Boeing Company has been a central part of both KCIA's operations and the regional economy, and its presence attracts a significant number of auxiliary manufacturing businesses.

Seattle's rail, intermodal, and airport facilities are shown in **Figure 4**. Most of these assets are located in the Ballard/Interbay and Duwamish manufacturing/industrial centers and along waterways. **Figure 5** depicts the locations of Seattle's maritime assets. These include numerous Port of Seattle facilities, Fisherman's Terminal, the Ballard Locks, and various shipyards.

Figure 4: Seattle's Rail, Intermodal, and Airport Facilities

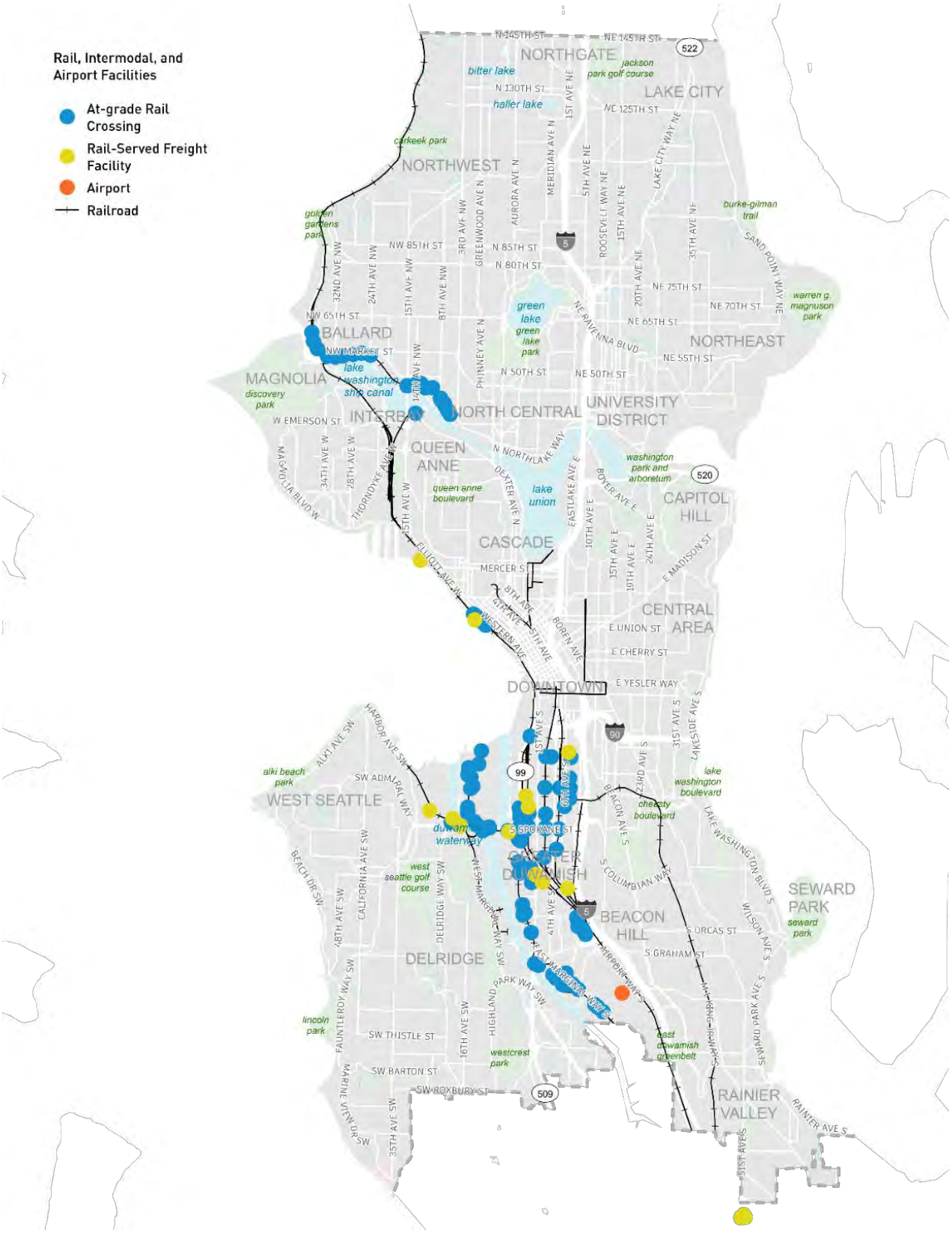
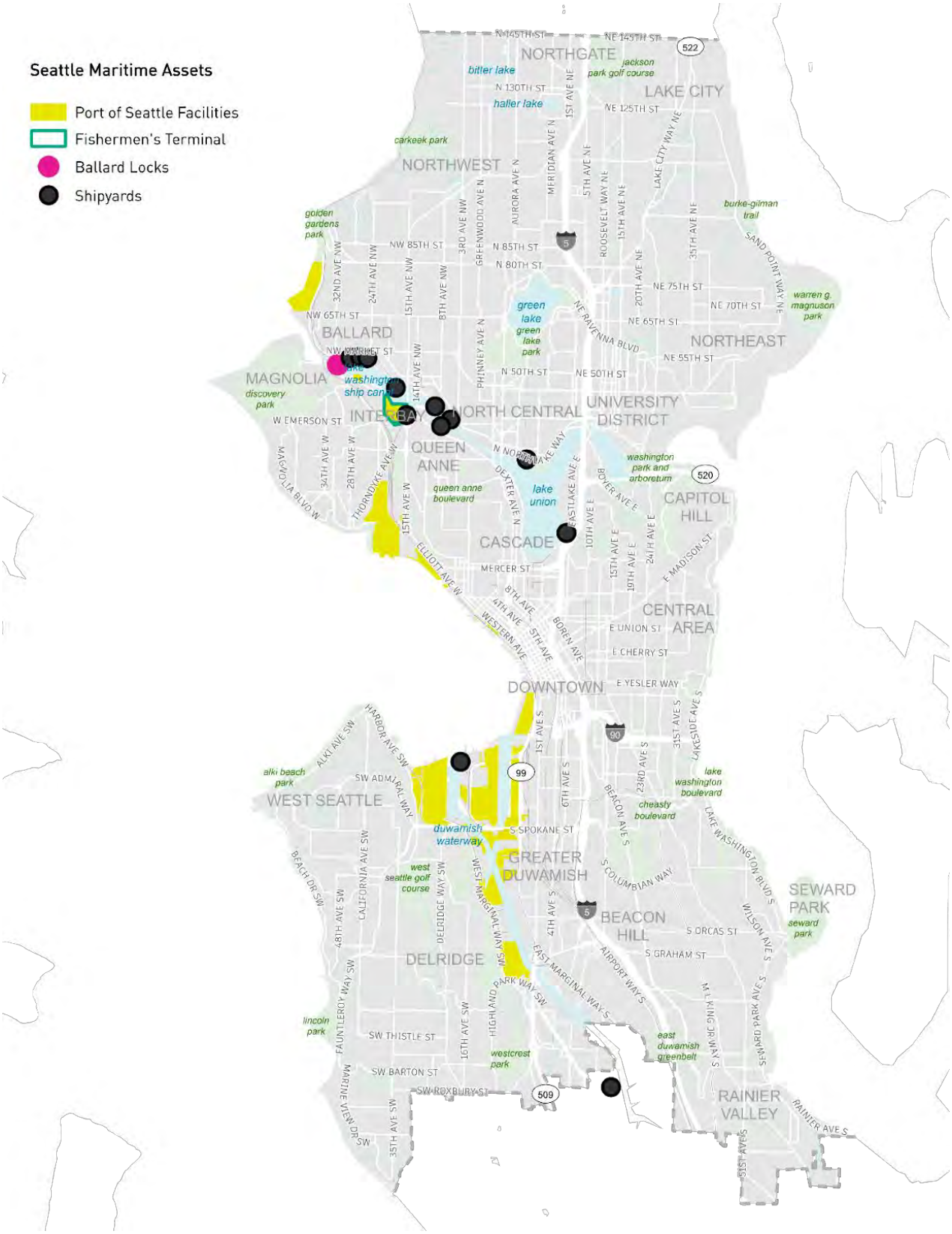


Figure 5: Seattle's Maritime Assets



SPATIAL REQUIREMENTS AND OPERATIONAL CONSIDERATIONS

When designing and operating the transportation system to support freight and goods movement, there are a number of spatial needs and operating conditions that must be considered. Our urban operating environment is complex and requires close coordination with industry partners, community, and other interested parties. To support the work outlined in this Element, SDOT will seek to:

Table 2 presents how spatial and operating needs vary by freight network street type, street function, and several other major characteristics that require guidance to provide safe and efficient access for trucks. This table serves as a starting place for a more detailed toolbox for freight and truck facilities.

Provide for the safe and predictable movement of goods. SDOT's work includes designing the network for the safe and predictable movement of trucks and delivery and services vehicles. Our truck and heavy vehicle design guidance allows for safe truck movements and integrates with other travel options. Truck collisions are generally concentrated on freeways and arterials serving the BINMIC and Duwamish MIC, requiring extra focus. At a broader level, we should also consider that the MICs sit on environmentally sensitive land with greater exposure to various hazards—tsunami, subsidence, earthquake, sea level rise. We can prepare for our freight networks' resiliency in partnership with local, regional, and state agencies.

Provide for loading and access. The provision of adequate on-street commercial vehicle loading zones, other curbside spaces, and alleys for loading and unloading of goods is a major consideration for freight. Since anyone with a business license can obtain a Commercial Vehicle Load Zone permit regardless of vehicle size, this increases competition for already limited parking spaces that can accommodate trucks. Most buildings in downtown lack off-street loading bays, which increases pressure on streets and alleys. The ability move goods the "final 50 feet" to their destination is a major challenge, requiring that we manage use of curbspace and alleys, while also influencing building design for off-street accommodations.

Table 2: Spatial and Network Guidance for the Freight Network Street Types

Factor	Description	Roadway Network Factors	Roles & Responsibility	Major Truck Street		Minor Truck Street		Limited Access	
				Through Connector	Servicing Destinations	Through Connector	Servicing Destinations	Industrial Trips	Regional Trips
Land Use Context	Business type and commercial activity	Land use determines truck activity levels	City of Seattle property owners	Primary connectors to/from MICs, intermodal facilities, regional freeways	High-activity commercial generators, limited residential	Connecting to/from major truck streets, urban commercial districts	Low-activity commercial generators, some residential neighborhoods	MICs	N/A
Curbside Loading Needs and Parking Design	Parking and loading designs	Truck size and loading requirement affects space needs	SDOT, private owners	Requires special considerations to accommodate truck loading given higher traffic, transit, and other activity on these corridors	Requires a high number of commercial loading spaces that can accommodate large trucks	Requires assessments to determine appropriate parking	Requires a minimum of commercial loading spaces that can accommodate smaller single-unit delivery vehicles	N/A	N/A
Time-of-Day Delivery Feasibility	Times when businesses can send/receive deliveries	Impacts commercial loading or truck access hours	Private entities, Port of Seattle	N/A	N/A	N/A	N/A	N/A	N/A
Physical Roadway Design	Roadway design features	Appropriate lane widths, turn radii, driveway aprons	SDOT, WSDOT, FHWA	Maintain standard travel lanes and turn radii	Provide standard turn radii	Maintain standard travel lanes and turn radii	Provide designs that accommodate smaller trucks	Maintain standard lane widths and highway design standards	Maintain standard lane widths and highway design standards
Safety Treatments	Types and application of road safety, traffic calming treatments, at-grade crossing improvements	Truck streets require special consideration for safety measures	SDOT, WSDOT, FHWA, BNSF, UPRR, BDTL, FRA	Provide truck-compatible traffic calming features	Minimize use of median barriers	Coordinate traffic calming and safety treatments on streets with higher truck volumes	Apply safety treatments that can accommodate smaller single-unit delivery	Prioritize truck safety treatments	Prioritize freeway truck safety treatments

Advance at-grade rail crossing safety to align with safety goals. We can support improved safety by developing new designs for urban roundabouts to separate turning movements from pedestrians and bike facilities, alongside other truck-compatible traffic calming measures.

Develop and preserve a secure freight network that supports a thriving and diverse economy for Seattle and the region. We will continue to work with partners to educate stakeholders (including the public at-large) about the importance of freight mobility to the local and regional economies. A well-maintained freight network is necessary to support and grow freight dependent family-wage jobs.

Reliably connect manufacturing/industrial centers and business districts within Seattle and the region. Access between Seattle's MICs, port facilities, and the regional highway system is important to maintain and improve. Most interstate and state highways in the Seattle area are at or near capacity during peak periods. This delays not only local traffic and truck mobility, but longer-distance through-trips as well. I-5, and to a lesser degree, SR 99, are congested during peak periods. Working with the Port of Seattle, the Northwest Seaport Alliance, business and industry organizations, and intermodal partners, we can support efficient access to core intermodal facilities. We'll also explore the use of truck-only lanes and freight and bus (FAB) lanes to improve freight mobility on streets with high truck volumes.

Support efforts to increase safety for freight operators and their employees. Many people are employed in the freight and logistics industries. We can support health and safety by prioritizing services that meet basic human needs for freight employees along the freight network, including truck parking areas (staging); access to restroom, food, and fuel; and other provisions to support well-being of freight industry workers and ability to meet federal hours-of-service (HOS) requirement or daily work limits.[6]

Involve interested parties in the planning and design process to help build an efficient and effective network. SDOT staffs and supports the Seattle Freight Advisory Board and regularly engages freight operators and other interested parties. Many ethnicities and over 20 distinct languages are represented in the freight community. By engaging with and connecting to these diverse communities on a regular basis, we can improve the planning and design of freight-related investments and interventions that improve freight mobility and meet community needs.

Develop funding strategies across multiple partners. Freight network Investments cannot be accomplished without strong partnership and regional coordination. We will continue to coordinate funding strategies across stakeholders to raise investment for large and complex freight projects.

Identify and address communities and families specifically affected by freight and related industries. Engaging and co-creating solutions with communities, freight operators, and related industries—from logistics warehousing to the delivery of goods and services—can help

[6] WA State Freight System Plan and Appendices 2022

mitigate the negative impacts of goods movement. By working with the diverse set of communities, we can work to resolve or reduce negative externalities of freight related to air quality, emissions, safety, and congestion. (Supports TEF 20.5) We will also explore effective policies for delivery to the home and small commercial areas. We'll work in partnership with the freight community to continue supporting living wages for families dependent on freight jobs.

Reduce environmental footprint of the freight fleet. SDOT supports the use of alternative fuel trucks and advance electric options throughout the city (supports TEF 36.2), in the broader effort to reduce greenhouse gas (GHG) emissions produced by freight. Anti-idling policies and other best practices play an important role. We'll continue to support the development of clean delivery and localized goods production to minimize travel, alongside the "greening" of infrastructure on freight routes and in the MICs. (Supports TEF 56.4 and 56.5). Additionally, developing subarea plans can promote coordinated land use and transportation decision-making for industrial areas and locations with heavy truck volumes. Subarea plans can enable better identification of specific solutions tailored to the local context.

To support this work, we will explore increasing the application for permitted uses and reduce unpermitted uses and seek to tie allowable uses to responsible partnership with existing environmental requirements for stormwater discharges, dust control, and other requirements. These actions aim to assist in managing industrial operating permits and reporting non-compliance in the MIC's and communities experiencing disproportionate exposure to pollution.

Eliminate maintenance backlog at public at-grade rail crossings. We can support this work by streamlining railroad applicant permit process, pursuing "adverse abandonment" process for inactive rail removal, and completing triennial grade crossing inspection and reporting requirements. We will continue to actively pursue and maintain railroad partner relationship and work to apply safety modifications necessary at locations identified in the Washington State Rail Plan. We'll also seek to eliminate redundant rail crossings in residential communities, such as Georgetown.

Develop and advance an active planning cycle for freight project design and grant funding. SDOT routinely maintains awareness of Federal Railroad Administration (FRA), FHWA, Federal Transit Administration (FTA), and other federal grants available to address freight improvements. To support this work, we develop strategies to regularly pursue grants that align project delivery timelines with federal funding opportunities. We will seek to advance entire corridor improvements that can be constructed in partnership with public and private-sector stakeholders, and coordinate funding strategies across multiple stakeholders to raise investment for complex freight projects.

THE FREIGHT TOOLBOX

The freight toolbox offers a variety of strategies to address freight mobility and safety needs, while also incorporating new tools as best practices evolve. The toolbox provides a menu of options that may be used alone or in combination with others to address freight system issues including:

Maintenance and Preservation

Maintenance and preservation include pavement and bridge investments, such as repaving roads in poor condition, paving unpaved roads and shoulders, and seismic upgrades of existing infrastructure. These projects are especially important on routes with high truck volumes, including the Heavy Haul Network. Information from the city's pavement management database is used to determine paving needs, which helps preserve infrastructure investments and improve conditions for all roadway users.

Intelligent Transportation System (ITS) Applications

ITS provides for communications with the city's central Transportation Operations Center (TOC) and allows the TOC to provide real-time intervention to adapt signal timing to traffic conditions. This communication provides real-time traveler information on bottlenecks and current travel time to truck drivers and dispatchers. ITS projects offer decision-making tools for both system users and managers to improve mobility and operations.

ITS applications include a variety of technologies to improve travel across the city and address safety and mobility needs, including:

- Closed-circuit television (CCTV) traffic cameras
- Dynamic message signs
- Portable changeable message signs
- Traveler's information website and apps
- Traffic signals, including detection, signal priority, and pedestrian count-down signals
- New and emerging technologies

Implementation of ITS applications may require private and public collaboration to ensure that benefits are fully realized. Intersection signal operations also fall under ITS applications. They can include a range of signal timing improvements on truck corridors, such as signal priority or adjusting signal timing to facilitate heavy truck movements. These signal improvement strategies can significantly improve truck mobility and access.

Wayfinding

Something as simple as clear and legible wayfinding improves overall safety by indicating which streets are best suited for trucks. Wayfinding for trucks may include signs, and striping and roadway markings on city streets, at intermodal facilities, and on state highways to:

- Improve route decisions
- Reduce illegal movements

These are quick, low-cost strategies to help truck drivers identify truck routes and avoid routes with height and weight restrictions. Signs and maps, such as the South Seattle Truck Routes map, must be clear, intuitive, and standardized.

Geometric Improvements

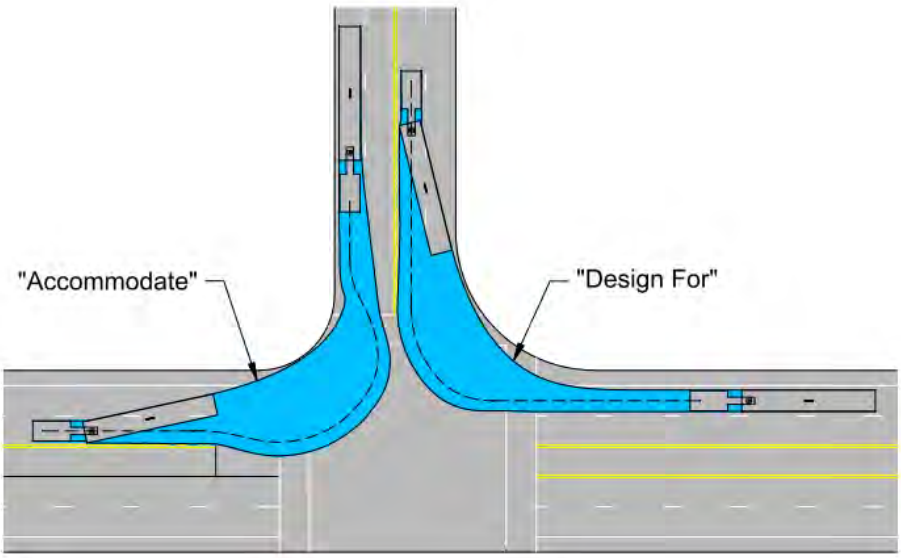
Improved constructed roadway geometry supports freight movement and allows truck traffic to blend in harmoniously and travel predictably with other roadway users. Small-scale geometric improvements for better truck mobility and access include:

- Adding left-turn lanes at critical intersections
- Adding truck-only lanes on highly used truck routes
- Repositioning utility poles
- Widening lanes
- Modifying curbs and/or providing recessed stop bars to allow long trucks to easily turn corners

A key concept in the design of a project is the "design for" versus "accommodate" trucks, especially as they make turns at an intersection. With the safety of all users in mind, the goal is to allow truck movements for specific truck types at specific locations (context-sensitive), while incorporating the smallest possible curb radius to limit pedestrian crossing distances at intersections and provide pedestrian safety. This is in line with the city's Vision Zero goals to eliminate serious injury and fatal crashes.

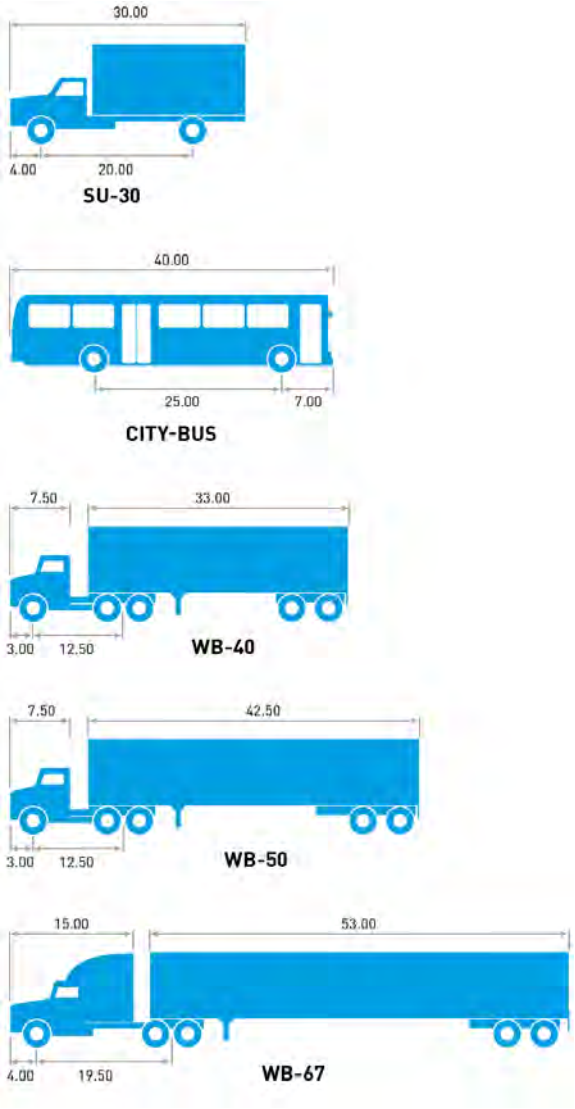
Accommodating a vehicle allows for encroachment of other lanes, shoulders, or other elements to complete the required maneuver. Designing for a vehicle does not require encroachment onto those elements. *Streets Illustrated (Seattle Right-of-Way Improvements Manual)* defines when "designed for" versus "accommodate" should be employed for street designs, including for the freight network and transit networks that must address large vehicle movements. The concept of design for versus accommodate is depicted in **Figure 6**.

Figure 6: Designing for Versus Accommodating Vehicles



As shown in **Figure 7**, there are various types of freight trucks traveling on city streets, each with their own unique design characteristics. These include weight, distribution over axels, dimensions (width and height), and turning radius. Providing adequate right-of-way for freight movements by a range of truck types is critical to the network's ability to operate in a safe and efficient way.

Figure 7: Typical Vehicle Designs



Typically, an intersection turn movement is considered "designed for" if the design vehicle is allowed to encroach on the lane adjacent to the typical receiving lane for the turn movement (right lane for right turns), provided that encroachment is not into opposing traffic. When accommodating truck turning movements, over-steering of the truck into adjacent lanes is generally assumed to occur within the intersection. This may require a setback of the stop bar for opposing traffic.

Freight Operations Management

Freight operations management includes a range of treatments such as truck restrictions, time-of-day variations, idling control, and loading zone control. Options include management of traffic to prioritize freight movements during certain times of the day, areas, or street segments, such as establishing delivery windows and off-peak delivery. These projects can reduce traffic congestion and improve parking conditions on congested urban streets with limited additional physical capacity or infrastructure.

Capital Investments

Capital investments can address a range of mobility and connectivity needs. They may be large investments (costing $100M or more) or smaller-scale spot improvements (typically under $500,000). These types of improvements include:

- Grade-separation of roadways
- Bridge replacement or retrofit
- New roadway connections
- Direct freeway access ramps
- Truck-only lanes

Large capital projects may consist of packages of smaller-scale projects that can be implemented in phases. We also make spot improvements—small-scale projects that improve truck mobility through key bottleneck locations. A dedicated spot improvement program allows the city to be more responsive to smaller, unforeseen needs as they arise.

Freight Mitigation

Freight projects can also include elements to mitigate the impacts that freight may have on the environment or surrounding neighborhoods. These projects may overlap with other toolbox items, like paving unpaved roads and shoulders, or incorporating stormwater management into a project. Additional strategies include increasing the tree canopy, reducing truck idling, and promoting use of cleaner running trucks to improve air quality in areas highly affected by freight.

Modal Conflict Resolution

Specific locations may require improvements to alleviate conflicts with other travel modes and increase safety. These conflicts may be with other freight modes, such as at-grade railroad crossings, or with transit and people walking or bicycling. Improvements could include grade separations at railroad crossings or separated facilities (such as protected bike lanes where appropriate) to provide for the predictable movement of all users.

A bicyclist and vehicle wait at an at-grade rail crossing for a BNSE train to pass at Alaskan Way and Broad St in Downtown Seattle. Shared bikes and scooters are parked nearby. Image Source: SDOT

PROGRAMMATIC ACTIVITIES

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

Urban Goods Movement and Delivery Planning

On-demand goods and service delivery has increased significantly as customers purchase and receive products online. Growth in e-commerce has increased pressure on limited curbside space in our urban neighborhoods and business districts, especially those locations with limited off-street parking and loading opportunities. We will seek to develop long-term strategies for promoting urban goods delivery. See the Curbside Management Element for more information.

Additional freight and urban goods strategies and actions may include:

- Establish minimum distances for loading opportunities from any business address, either in on-street, alley, or off-street locations; maintain or reassign loading locations when designing transportation and private development projects
- When alleys are vacated, address loading and circulation impacts to adjacent/nearby properties
- Improve enforcement of commercial vehicle load zones
- Expand commercial vehicle load zone hours to 24 hours a day, 7 days a week in select locations
- Review commercial vehicle load zone permit process and pricing to manage demand, access, and types of user
- Consider potential expansion of the Downtown Traffic Control Zone in a manner that improves daytime street network reliability but still provides sufficient urban good delivery access
- Recommend on-/off-street tactics for bicycle, non-truck, and small truck deliveries in dense areas
- Explore best off-street loading practices, including loading dock development and use standards
- Develop a pilot program for off-hours delivery in areas with a mix of residential and commercial land use to facilitate truck movement
- Explore freight demand management strategies to consolidate freight delivery trips and ensure vehicles are rightsized for an urban environment
- Identify and employ innovative uses of technology to guide urban good deliveries to destinations and manage access to loading locations

- Develop a data collection plan and seek funding to regularly monitor on-street and off-street commercial loading locations and gather user input
- Reevaluate and update design requirements in new development to create and maintain a citywide truck data collection program.
- Gather data required for triennial grade crossing reporting through Federal Railroad Administration's (FRA) Grade Crossing Inventory System via Washington State Utilities and Transportation Commission, including annual average daily traffic (AADT), percentage of trucks, percentage of school buses, emergency vehicle routes, etc.

Critical Access Needs (CAN) Curbside Review

Critical access needs at the curbside include passenger and goods loading/unloading, waste staging/collection, building maintenance, and more. During project development processes, CAN reviews should consider safe and efficient access for freight and goods deliveries. Such reviews should be conducted when a project physically and/or programmatically alters curbside access for an adjacent property and limits or eliminates building critical access needs.

Neighborhood Delivery Hubs

Zero-emission neighborhood delivery hubs in key areas of the city can support growth in urban goods deliveries while advancing the STP goals. By partnering with off-street parking lot operators, we can open and manage delivery hubs to provide additional support to freight partners in need of off-street delivery space for e-cargo bike coordination and to further improve last-mile delivery efficiency. We can look to other peer city partners that are launching similar programs, such as in New York City and Portland, OR. Activities to explore and develop neighborhood delivery hubs may include:

- Identify and fund program development and partnerships
- Examine land use code zoning for opportunities and barriers for neighborhood, micro-hub type developments
- Explore implementation of urban consolidation centers, joint distribution centers, or local building logistics centers in Seattle
- Work with other City departments and agencies to conduct a feasibility study to create urban consolidation centers, joint distribution centers, or local building logistics centers
- Assess real estate opportunities, site development needs, and partner options, including third-party logistics firms

Support for Low- and No-Emissions Vehicles

The curbside element plays an important role in meeting our ambitious climate goals, including support for the shift toward electric vehicles. Freight and commercial goods are an important part of our economy. However, almost all commercial deliveries to bring packages to residents and businesses are made by gas or diesel-powered vans and trucks, which contribute to poor air quality, congestion, and safety issues. We will work collaboratively with the private sector

and our local business community to be a liaison for the zero-emission transition, including the use of rightsized personal delivery devices (PDDs) to support urban goods movement.

Low- and Zero-Emission Loading

Setting loading zone standards can help drivers better navigate traffic and achieve more efficient deliveries, reducing circling for parking and associated emissions. To further Seattle's climate goals and urban delivery improvements, climate-friendly loading facilitated through a low- and zero-emission loading program would provide priority access for climate-friendly vehicles and incentivize freight companies to transition to EV alternatives. Development of this program would build upon work with the C40 Zero-Emission Freight Project and the Green and Healthy Streets Accelerator signatory cities and partners, aiming to accelerate the uptake of zero-emission vehicles (ZEVs) and infrastructure for zero-emission urban goods and servicing transportation. See Curbside Management Element for more.

Commercial Cargo E-Bike Program

Development of a commercial e-cargo bike program is another way to reduce freight-related emissions. This includes design of e-cargo bike standards, rules of operation, and new curb space allowances in the ROW for parking and loading. Program development will include legislation, outreach, and monitoring for the duration of the program.

Electric pallet used for goods delivery
Image Source: UW Freight Lab

Other elements of a commercial cargo e-bike program could build upon the findings of two relevant study efforts. In 2020, the University of Washington's Urban Freight Lab (UFL) published a report on a test delivery pilot in Seattle for cargo e-bikes. The study evaluated the implementation of e-bikes with removable cargo containers to perform last-mile deliveries in downtown Seattle. The study compared truck versus e-bike metrics for time spent cruising for parking, delivery distance, and dwell time. The results also included evaluations for delivery area, number of delivery locations, number of packages delivered, and failed first delivery rate.

SDOT's 2023 Zero Emissions Freight report (funded by C40 Cities) evaluated e-cargo bike program typologies across North America to determine the best approach for a Seattle commercial e-cargo bike program. The final report identifies a three-tiered program approach to for cargo bikes to operate safely and efficiently on Seattle streets. Pursuit of zero emission freight curb management programs supports Mayor Harrel's 2022 Climate Executive Order.

E-Cargo Bike Lending Libraries

Due to the cost-prohibitive nature of many zero emission delivery vehicles, including e-cargo bikes, additional programmatic support is needed to ensure the city's small to medium business community is supported in the transition. One way to do this is to launch e-cargo bike lending libraries at community hubs to provide bikes on a lease-to-own basis. Similar to ride and drive events for electric vehicles, these libraries would allow businesses to test e-cargo bikes and learn from community advisors how they may fit into their existing operations before making a purchase. Development and management of E-cargo Bike Lending Libraries may include:

- Identification of external funding and vendor selection process
- Incentive program development to pair equipment discounts with library launches
- Ongoing staff management and business outreach support

Green Infrastructure in Industrial Areas

To support of climate and livability goals, we will seek to plan, design, and construct green infrastructure, such as tree canopy and bioswales, in the MICs. Complementary strategies and actions include:

- Assess landscaping in the right-of-way to reduce truck-specific sightline issues on the freight network
    - Regularly maintain landscape complexes
    - Integrate the freight network into landscape maintenance management plans
- Assess street trees in the right-of-way to reduce truck-specific sightline issues on the freight network
    - Evaluate overlap of the freight network with SDOT-maintained street trees and integrate the freight network into tree maintenance plans
    - Assess and enforce tree clearance issues along the freight network for trees that are privately owned and maintained

Freight and Bus (FAB) Lanes

Our efforts to pilot and evaluate performance of FAB lanes in strategic street segments in the city will require close coordination with associated transit improvement projects and development of transit infrastructure. Learnings from the pilot can be used to formalize and update the freight lane policy and finetune evaluation and design criteria to ensure that freight and transit can coexist in, and benefit from, a shared lane. Implementation of a FAB lane is not intended to remove a road segment's freight network designation.

MAINTENANCE AND MODERNIZATION

Maintaining and improving the freight network is essential to preserving access and mobility for goods movement throughout the city, as well as advancing our safety, climate, and equity goals. Alongside maintenance, we seek to continually modernize supportive infrastructure, which includes updating our policies, processes, and procedures to align our work with our goals, and as new and emerging best practices become available. A summary of key actions related to maintenance and modernization is included below.

Update Streets Illustrated (Seattle Right-of-Way Improvements Manual)

Based on the tools in the freight toolbox, update Streets Illustrated to reflect best practices in design guidance and standards. Additional strategies to increase safety between and among modes when updating Streets Illustrated include:

- Integrate planning for freight with other modes. Use the multimodal right-of-way allocation process within the updated Comprehensive Plan to move people and goods as safely as possible.
- Assess conflicts between transit and freight mobility. Design transit waiting and boarding facilities to minimize conflicts with goods movement and deliveries.
- Assess conflicts between bicycle and freight mobility. Address freight delivery needs, including alley access and Commercial Vehicle Load Zone locations, when developing bicycle infrastructure projects to minimize conflicts with goods movement and deliveries.
- Design bicycle facility treatments to provide predictable movement of people on bicycles and to minimize conflicts with goods movement and deliveries. Assess conflicts between pedestrian and freight mobility.
- Design pedestrian facility treatments to provide predictable movement of people and to minimize conflicts with goods movement and deliveries.
- Review pedestrian crossing opportunities on streets in the freight network and provide controlled or pedestrian-activated crossings, where appropriate

Rail Safety and Maintenance

A rail program that outlines a range of initiatives to improve safe interactions between various travel options and trains at rail crossings could include:

- Staff for onsite inspections to field-verify conditions and needs and perform required triennial inspections for USDOT inventory updates
- Necessary enhancements to address any safety concerns
    - Duty to maintain crossings
- Railroad responsibility to maintain crossings per RCW 81.53.90
    - Traffic signal preemption and active warning devices

- Partnerships with railroad companies to evaluate and make improvements at at-grade rail crossings; upgrades should be coupled with multimodal, environmental, drainage, and greening improvements for freight and other modes
- Assess conflicts between pedestrians and freight, as well as between bicycles and freight
    - Out-of-service track removal and street surface repairs
- Track removal may require additional legal proceedings. In some cases, it may only require the railroad to "retire" the track. Full street rehabilitation will require a full capital program—it is not a spot improvement.
    - Surface light-rail and streetcar corridor safety enhancements
- Collaborate with transit partners to ensure safety in these corridors as they relate to freight mobility
- Assess conflicts between transit and freight mobility
- Increase security around railyards and rail corridors, including anti-trespassing measures (fencing, etc.) being forwarded by Federal Railroad Administration (FRA), Federal Highway Administration (FHWA), and Washington State Utilities and Transportation Commission.

RAILROAD CROSSING SAFETY

Collisions between trains and vehicles at grade crossings are the second leading cause of rail-related fatalities across the U.S. Between 2012 and 2021, about 364 highway-rail grade crossing incidents occurred in Washington (including 53 incidents with Amtrak trains), leading to 54 deaths and 104 injuries. Nearly 80 percent of the incidents were at public highway-rail crossings.

Railroad crossings that are blocked by slowly moving, extremely long, or stopped trains are also a concern across the state, especially as freight and passenger traffic increases on both roadways and rail lines. Blocked rail crossings can create safety risks to local communities by temporarily increasing emergency response times.

An increase in train lengths following the implementation of precision scheduled railroading (PSR) operating practices on Class I railroads is a safety and mobility concern for communities living near at-grade crossings in Washington.

From WA State Freight System Plan & Appendices, 2022, page 35

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 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 freight-friendly city supports the efficient movement of goods to help strengthen the economy for the city and the region. It provides safe operating environments—separation of travel modes and predictable movements for all travelers on city streets. It also includes:

- **Reliable access** to/from manufacturing/industrial centers and intermodal hubs
- **Reduced freight-related impacts** on nearby historically underserved communities adjacent to the industrial lands
- **Reduced carbon emissions and noise pollution** by promoting the transition to low- or zero-emission truck fleets and incorporating consolidated delivery hubs with electric vehicles
- **Keep up well-maintained truck facilities** including loading zones, truck routes, wayfinding signs, truck parking, and other assets related to goods movement
- **Reduced impact to emergency response vehicles**
- **Critical freight and goods delivery access** to buildings
- **Responsiveness to changing trends** and increased demand for urban goods and e-commerce parcel deliveries
- **Proactive maintenance** of at-grade rail crossings and consistent railroad interactions
- **Safe, clean, and comfortable spaces** for employees and travelers in industrial areas to rest outside of work and vehicles

MEASURABLE OUTCOMES

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

- **Tier 1:** Overarching outcome-based measures are identified in the STP implementation strategy (see Chapter 4 of the Part I document). Generally, they are tracked at a citywide scale, and SDOT may not have primary control over their achievement. Examples include a reduction in vehicle-miles traveled and the percentage of household income dedicated to transportation.
- **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 percentage of fleet vehicles that are zero emissions and increasing the percentage of Major Truck Streets with fair or better pavement condition.
- **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 might include increasing the number of truck street segments with annual truck counts and the lane miles of heavy haul network reconstructed.

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.[7]

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. SDOT will continue to evaluate resource availability before performance measures are set in the final recommended STP.

Table 3 on the following page identifies the Tier 2 performance measures that will be tracked for the Freight Element.

[7] https://data.seattle.gov/dataset/Racial-and-Social-Equity-Composite-Index-Current/w3kz-xtmq

Table 3: Freight and Urban Goods Movement Performance Measures

Desired Outcome	Related STP Goal	Performance Measure (source)	Target or Desired Trend	Track measure by RSEI and/or race	Baseline
End traffic deaths and serious injuries on city streets	Safety Mobility Equity Livability Maintenance & Modernization	Number of fatal and serious injury crashes involving trucks or rail (SPD collision report data)	Zero	Yes	In development
Improve reliability of freight corridors	Mobility Maintenance & Modernization	Truck travel time reliability; measured using "Travel Time Index" (TTI) – ratio of actual to free-flow travel time on a segment (Iteris)	Decrease in actual travel time compared to free-flow conditions on select Major and Minor Truck Streets	Yes	In development
Decrease the carbon footprint of in-City package delivery	Sustainability Mobility Livability Maintenance & Modernization	Percentage of fleet vehicles that are zero emissions (TBD)	30% of goods delivery fleet is zero emissions by 2030	No	In development
Support a well-maintained freight network	Mobility Maintenance & Modernization	Percentage of Major Truck Streets with fair or better pavement condition (SDOT)	Increase the percentage of Major Truck Street segments with fair or better pavement conditions	Yes	In development
NOTE: Many of the STP performance measures targets and baselines are still under development.					

RELEVANT TEF TACTICS

TEF 17.3—Provide low-tech and language-accessible information to businesses about parking/loading and how communities can make requests for load zones or other curbside uses.

TEF 20.5—Consider travel time and air quality impacts of changes to roadway configurations. Use this information to make equitable investment decisions that consider travel time and air quality impacts and benefits, and to communicate those benefits and impacts to community.

TEF 22.1—Analyze how movement of goods were impacted during COVID-19 and whether there are specific ways we can maintain any benefits that were seen.

TEF 36.2—Support transition to EVs for all segments of transportation, including personal mobility, goods movement, and services (e.g., skilled labor/repair, landscapers, home health care workers, trash collection) through targeted, equitable incentives and policy design. Implement related actions in the Transportation Electrification Blueprint.

TEF 37.4—Identify and allocate funds to new or existing programs to address pedestrian safety concerns that are reflected from community data collection.

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 40.3—Include individual and community's crossing needs and challenges into data storytelling and incorporate this qualitative data into SDOT decision-making processes.

TEF 56.4—Improve, identify, and maximize current opportunities for street trees and greenscapes in SDOT activities ranging from routine maintenance to capital project delivery; ensure design guidance and functions of maintenance include this consideration for long-term sustainability.

TEF 56.5—Increase open space for improved air and water quality, implement de-paving projects, and commit right-of-way (ROW) allocation in areas that are impacted by nearby industrial land uses.

APPENDIX A: FREIGHT PROJECTS

Table A-1 below includes key freight projects building upon the 2016 Freight Master Plan (FMP) and the 2020 Freight Program Report. The project number associated with each project in the FMP is included for reference. Projects 1 through 5 are large catalyst projects that will require multiple funding partners to implement. Omitted FMP project numbers represent projects completed since adoption of the Freight Master Plan.

Table A-1: Freight Projects

FMP No.	Project Name	Project Description
1	Ballard Bridge Project	Replace structure to increase capacity and improve access.
3	SODO Rail Corridor Grade Separation	Improve access to manufacturing and industrial center and Port of Seattle facilities. May include non-motorized grade separation to increase safety and reduce modal conflicts.
4	4th Ave S Viaduct Replacement (4th Ave S grade crossing over Union Pacific Railroad Argo Yard)	Replace the viaduct structure spanning the Union Pacific Railroad (UPRR) yard at the conclusion of its service life, which is expected to occur within the 20-year planning timeframe (by 2035). The new structure will increase vertical clearance above the railroad tracks to improve safety and rail operations. Columns and pier walls will be removed to increase and optimize rail yard functionality and operations.
5	1st Ave S Viaduct Replacement (Grade crossing over Union Pacific Railroad Argo Yard)	Replace the existing viaduct structure spanning the Union Pacific rail yard at the end of its useful life span
6	BINMIC Truck Route Improvements (Area bounded by W Dravus St, W Nickerson St, NW Market St, and Fremont Ave N)	This project will evaluate truck freight movements to identify projects to address geometric and operating challenges for trucks. The projects will be focused on readily implementable improvements with primary consideration given to safety and freight connectivity. They may include signal timing adjustments, additional signage or wayfinding, larger intersection turn radii, lane width adjustments, and joint use of bus lanes. • Phase I: Collect data on needs through a detailed assessment of truck volumes, truck sizes, and over-dimensional truck activity. Build from the forecasts developed in the Freight Access Project and work with stakeholders to identify and prioritize specific truck route projects. • Phase II: Implement top priority projects given funding availability and opportunities. Develop a long-term budget and funding strategy to implement remaining projects.
7	15th Ave W Spot Improvements at W Dravus St and W Emerson St	This project addresses turn radii issues for trucks and enhanced multimodal operations through small-scale geometric and intersection operational improvements along 15th Ave W. Trucks of all sizes experience challenges traveling on the elevated structures at W Emerson St and W Dravus St. 15th Ave W, W Emerson St, and W Dravus St are vital connections for freight traveling to and from the Ballard-Interbay-Northend Manufacturing/Industrial Center (BINMIC). This project includes two components to implement changes at these locations.

		• The W Emerson St ramp over 15th Ave W serves trucks going to and from W Nickerson St. This component includes moving the centerline on the ramp to provide a greater turning radius for trucks and making adjustments to the stop bars channelization at the intersection on the west side of the ramp. • W Dravus St is used by trucks of all sizes, including over-legal vehicles unable to pass underneath the bridge on 15th Ave W. Northbound trucks have particular difficulty turning left onto W Dravus St from the off-ramp. This component of the project includes upgrading signal timing and hardware at the ramp terminals to ensure vehicle queues on the bridge clear to allow trucks adequate space to turn at the intersection. This project can be bundled with Ballard Bridge Access improvements.
8	15th Ave NW/ NW Market St Intersection Improvement	Improve southeast corner curb radius, which would impact existing signal equipment.
9	15th Ave W/ Elliot Ave	Reconstruct and make operational/ ITS improvements to 15th Ave W/Elliott Ave W.
10	Dynamic message signs along 15th Ave NW corridor (Ship Canal to Holmon Rd NW)	Install dynamic message signs to provide travel conditions on major freight corridors prior to connecting to major truck streets.
11	NW Leary Way at NW 46th St or NW 45th St (NW 46th St to Shilshole Ave NW)	Intersection operations should be evaluated and treatments considered to improve access to/from NW 46th Street or NW 45th St. Type of improvements to be coordinated with outcomes of the BINMIC Truck Route Improvements.
12	W Emerson St/21st Ave W/W Commodore Way Corridor Improvements	Reconstruct the existing intersection at 21st Ave NW and W Commodore Way to improve truck safety and mobility and improve bike/ped/truck facilities on W Emerson Place and 21st Ave W.
13	NW Market St / Leary Way NW / N 36th St Improvements	Reconstruct and make operational/ITS improvements to Leary Way NW corridor to facilitate freight movement. This project would coordinate specific truck operational improvements with the BINMIC Truck Route Improvements.
14	Mobility improvements along NW Market St between 8th Ave NW and Stone Way N	Restrict left turns at non-critical intersections to improve east/west mobility for freight.
16	Intersection Improvements at 4th Ave N, Westlake Ave N, Dexter Ave N, and Nickerson St	Evaluate the intersection of 4th Ave N, Westlake Ave N, Dexter Ave N, and Nickerson St to improve freight mobility.
17	Intersection Improvements at 6th Ave NE and NE 40th St	Eliminate the height restriction and turning movement conflicts on 6th Ave NE at the Burke-Gilman Trail bridge.
18	3870 Montlake Blvd NE - Montlake Blvd NE height restriction	Eliminate the height restriction on Montlake Blvd NE at the pedestrian bridge connecting UW to the Alaska Airlines Arena.
19	Ballard Bridge Access and Seismic Improvements	Address capacity constraints for bikes and pedestrians and seismic improvements to the Ballard Bridge.

20	7th Ave NE/ NE 40th St Intersection improvements	Reconfigure intersection to facilitate turning and crossing movements at 5-leg intersection.
21	Integrated corridor management system on N 85th St between 15th Ave NW/Holman Rd NW and I-5	Implement Integrated Corridor Management (ICM) and provide the opportunity for freight to avoid congestion on a given facility when it is present. Consider dynamic message sign and/or push out data on I-5 conditions and back-ups. Implement additional permanent surface street data collection.
22	ITS Improvements N 85th St from Aurora Ave N to I-5	Install traffic signal control improvements (either traffic adaptive or responsive) to provide consistent travel times on freight corridor. Implement additional detection to provide congestion information.
23	Dynamic message signs along 25th Ave NE corridor (Ship Canal to Montlake Blvd NE / NE 75th St)	Install dynamic message signs to provide travel conditions on major freight corridors prior to connecting to Major Truck Streets
24	ITS improvements Aurora Ave N	Modify signal timing on northbound Aurora Ave N to improve freight traffic during the morning peak.
25	W Galer St Interchange Ramp	Construct ramp to improve access over BNSF mainline tracks and storage yard.
26	Nickerson St / W Nickerson St Reconstruction	Reconstruct Nickerson St and improve freight movement alternatives in the Ballard-Interbay-Northend Manufacturing/Industrial Center.
27	Denny Way ITS (Denny Way from I-5 to Western Ave)	Update signal timing, vehicle detection, CCTV cameras, dynamic message signs, and fiber communications to improve traffic flow and provide enhanced traveler information along Denny Way from I-5 to Western Ave.
29	I-5 Connector ITS (areas surrounding I-5)	Installation of CCTV cameras along streets that provide Center City access to I-5/I-90 to provide congestion monitoring of traffic interchanging with the freeway.
30	ITS upgrades on Boren Ave from Howell St to S Jackson St (Rainier Ave S to Denny Way)	Upgrade all signals in Major Truck Street corridor to current-standards and improve north-south mobility in center city.
31	East Marginal Way S Corridor Reconstruction and Safety Enhancements (S Spokane St to S Michigan St)	Reconstruct a core freight route to heavy haul vehicle standards, add safety and advanced management systems and incorporate separate bicycle and pedestrian facilities while maintaining freight efficiency. Central Segment: S Spokane St to Diagonal Ave S; South Segment: Diagonal Ave S to S Michigan St. (Project is projected to be completed in 2024.)
32	East Marginal Way S / 8th Ave S / S Myrtle St Intersection Improvements	Improve intersection geometry, revise signalization, upgrade drainage, rehabilitate pavement at railroad tracks, and install streetscaping. Project should be coordinated with Next Generation ITS.
33	East Marginal Way S/ S Hanford St Intersection Improvements	Upgrade the signal, lengthen the northbound right-turn lane, improve the railroad crossing pavement, and evaluate the need for railroad crossing gates at the Whatcom track crossings. The project also includes rebuilding the intersection and its approaches to Heavy Haul route requirements. This project will also more clearly delineate parking on the southeast corner of the intersection. (Project is projected to be completed in 2024 with Project 31: East Marginal Way S Corridor Reconstruction and Safety Enhancements.)

35	Duwamish Local Freight Access Improvements (S Holden St/ 5th Ave S/ S Kenyon St/ 8th Ave S)	Reconstruct roadway with drainage, curb, sidewalks, and landscaping. Coincides with W Duwamish Trail construction and, Seattle Public Utilities drainage substation proposal.
36	S Spokane St Freight-only Lanes Pilot	Pilot project to design, implement, and evaluate freight-only lanes on the corridor. The first phase of the project would determine project limits and identify design options, and new infrastructure needed to implement the pilot. The second phase would implement modifications to roadway channelization for truck-only lanes, install signal and signage upgrades, and provide ITS equipment such as variable message signs and detection equipment. The project would evaluate time-of-day operations, while providing a contingency for allowing all traffic to use the lanes in the event of an incident on the upper bridge.
37	S Holgate St Rail Crossing Improvements (S Holgate St from Occidental Ave S to 4th Ave S)	Reconstruct the pavement to Heavy Haul route requirements, and improve channelization, signage, and pedestrian and bicycle environment.
38	S Atlantic St Corridor Reconstruction (S Atlantic St - Alaskan Way to 1st Ave S)	Reconstruct and make operational ITS improvements.
39	S Spokane St ITS Upgrades (Chelan Ave SW to S Airport Way)	Install ITS equipment along the corridor to collect and provide real-time travel time information for trucks and the general public. Specific equipment would include Bluetooth readers and dynamic message signs installed along the corridor to collect and disseminate travel time information between S Airport Way and Chelan Ave SW, including access to Port Terminal 5. An additional project component, which has not yet been evaluated for cost, may be to improve the signal system at the intersection of Chelan Ave SW at the western terminus of the corridor.
40	SW Spokane Pl Reconstruction	Reconstruct and make operational/ITS improvements to SW Spokane Pl.
42	Railroad Crossing Delay Warning System (S Holgate St, S Spokane St, and S Horton St)	Install ITS equipment to monitor and inform the public of road closures due to train activity and provide alternative routing options via of dynamic message signs that display real-time information to drivers at key locations.
43	S Hanford Reconstruction	Improve access to the Main Seattle International Gateway (SIG) Yard. Examine the feasibility of installing a traffic signal and other potential changes to facilitate traffic flow in the area. If or when warranted, a traffic signal at the Main SIG entrance could alleviate congestion and allow for improved truck access to the yard. This project also rebuilds the segment of Hanford St between the East Marginal Way S and 1st Ave S to Heavy Haul route standards, including new pavement at railroad crossings. It may include rail crossing gates or other devices, if needed.
44	S Michigan St ITS Improvements (East Marginal Way S to Corson Ave S)	Update signal timing, vehicle detection, CCTV cameras, dynamic message signs and fiber communications to improve traffic flow and provide enhanced traveler information along S Michigan St
45	West Marginal Way SW/ Chelan St SW	Intersection signal operational improvements for freight. There is another study underway to improve access for cyclists. (Expected project completion in 2024)

	Intersection Improvement	
46	W Marginal Way SW Reconstruction	Reconstruct and make operational/ITS improvements to West Marginal Way SW.
47	1st Ave S Bridge ITS	SDOT and Port of Seattle partnership to determine best mode to disseminate route information to area trucking industry. Provide information and advance warnings about bridge openings during peak travel times for freight based on historical statistics and real-time information.
48	Airport Way S / S Edmunds St intersection improvement	Monitor and evaluate for future signal warrants and address geometric issues.
49	S Bailey St Channelization and Operational Improvements (S Michigan St to Carleton Ave S)	Improvements for the eastbound left-turn movement to access the I-5 ramps, including a review of signal operations and channelization changes.
50	16th Ave S and East Marginal Way S Intersection Improvements	Improve northbound right-turn curb radius.
51	S Lucile St Reconstruction (S Airport Way to SR 99)	Reconstruction and make operational/ITS improvements.
52	S Massachusetts St Rebuild (access road - Colorado Ave S to 1st Ave S)	Reconstruct S Massachusetts St to improve safety and access to North SIG Yard, while maintaining two-way operations. Seek to provide separated travel lanes for general purpose and truck traffic. Provide improved truck access/operations at the 1st Ave S / S Massachusetts St intersection.
53	Diagonal Ave S / S Oregon St / Denver Ave S Reconstruction (East Marginal Way (SR 99) to Union Pacific Argo Yard)	Rebuild existing truck route facility.
54	S Dallas Ave / 14th Ave S Intersection Improvement	Improve curb radius for northbound and westbound turning movements.
55	West Seattle Bridge access to Port Terminal 18 and Terminal 5	Provide access improvements from the West Seattle Bridge to Terminal 18 and/or Terminal 5 from West Seattle Bridge.
57	SODO Phase 1 ITS (SODO area)	Provide advanced warning for railroad closures to minimize queuing as well as improve traffic monitoring capabilities for major haul routes in the SODO area.
58	S Holden St Reconstruction	Reconstruct and make operational/ITS improvements to S Holden St.
59	1st Ave S Reconstruction	Reconstruct and make operational/ITS improvements to 1st Ave S.
60	6th Ave S Reconstruction	Reconstruct and make operational/ITS improvements to 6th Ave S.
61	Duwamish Ave S Reconstruction/East Marginal Way Grade	Reconstruct and make operational/ITS improvements to Duwamish Avenue S, Duwamish Ave Bridge and S Spokane St.

	Separation Reconstruction	
62	Harbor Island Access Improvements	Reconstruct and make operational/ITS improvements to 11th Ave SW, SW Florida St, 16th Ave SW and Klickitat Ave SW. Project does not include non-City right of way (T18 access portions).
63	SW Klickitat Way Reconstruction	Reconstruct and make operational/ITS improvements to SW Klickitat Way.
65	4th Ave S Reconstruction and ITS Implementation	Reconstruct and make operational/ITS improvements to 4th Ave S.
66	S Industrial Way	Reconstruct and make operational/design improvements to S Industrial Way.
67	Citywide Small Spot Improvement Program	Freight spot improvement program to help trucks move more quickly at key bottlenecks.
68	Integrated Corridor management on WSDOT operated facilities • NB SR 99 at SW 103rd St • SB SR 99 at N 145 St • I-5 at NE 145th St • Northgate Way between SR 99 and SR 522	Implement integrated corridor management (ICM) by establishing relationships with other jurisdictions to install dynamic message signs ahead of major connections between I-5, SR 99 and SR 522 that would provide the opportunity for freight to avoid congestion on a given facility when it is present. Install dynamic message sign and/or push out data on I-5 conditions and back-ups. Implement additional permanent surface street data collection.
New	Railroad Crossing Program	Maintain and update Rail crossings in coordination with railroads (Class I and Short line).
New	Railroad Removal Program	Remove identified unused rail to upgrade street pavement.
New	Freight Program (vs. Freight Spot Improvement Program)	Planning, design, research, and program management.

GLOSSARY

ADA: Americans with Disabilities Act

Annual Average Daily Traffic (AADT): The total volume of vehicle traffic on a roadway for a year divided by 365 days.

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.

C40 Green and Healthy Streets Accelerator: An initiative by C40 in partnership with mayors of signatory cities to transform cities into greener, healthier, and more prosperous places to live. To achieve this, signatory cities commit to work with partners to procure zero-emission buses from 2025 onward; and to ensure a major area of the city is zero-emission by 2030. The City of Seattle committed to the actions of the initiative in 2017.

C40 Zero Emission Freight Project: A collaboration between C40 cities to accelerate the adoption of zero-emission vehicles and goods delivery.

Community and Mobility Hubs: Community and Mobility Hubs are 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.

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).

Critical access needs (CAN): The services necessary for a building to perform its core operating functions safely and successfully. These include goods delivery, designated parking and loading spaces, and building spaces.

E-cargo bikes: Human-driven bikes with battery-powered pedal assist that can transport packages or other small goods in a front-mounted wagon or rear-hitched trailer.

E-commerce: The buying and selling of goods online that are then delivered directly to a home or business. Examples include Amazon and eBay.

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 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.

FHWA: Federal Highway Administration

FRA: Federal Railroad Administration

FRA Grade Crossing Inventory System: The FRA's inventory on physical rail and road attributes, collision records, and unique coding for the over 200,000 railroad crossings in the US.

Freight Advisory Board: Founded by City Council in 2010, the Freight Advisory Board consists of 12 members – 6 appointed by the Mayor, 5 appointed by City Council, and 1 appointed by the Port of Seattle – that work with the City on matters related to urban freight to make Seattle's freight network efficient and reliable.

Freight Master Plan (FMP): A long-range plan developed by SDOT to ensure Seattle's freight network can safely and reliably deliver freight and goods to meet City goals for social equity, economic productivity, sustainability, and livable neighborhoods. The Freight Element builds on the FMP.

FTA: Federal Transit Administration

Grade crossing: An intersection where general purpose traffic and rail tracks cross at the same level.

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.

Hours of Service (HOS): The maximum amount of time drivers of commercial freight vehicles can drive in a day, set by the Federal Motor Carrier Safety Administration.

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.

Low-emission neighborhood: Low-emission neighborhoods, sometimes called low-pollution neighborhoods, prohibit or restrict the types of vehicles allowed within an area and encourage zero- and low-emission travel options like walking, biking, electric vehicles, and deliveries by e-cargo bike. Implementation of these concepts will vary by neighborhood and are co-created with local communities.

Micro-hubs: Small-scale urban logistics facility located in between a major warehouse and the final delivery destination implemented to reduce vehicle emission trips by shifting to low or zero-emission modes (walking, biking). Goods are transferred from larger freight vehicles to smaller, lower emission modes for final delivery. Micro-hubs can be used by 1 or more carriers/operators based on the location to support consolidation efforts.

MICs: Manufacturing and Industrial Centers

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.

Operation Lifesaver: Operation Lifesaver is a program dedicated to improving safety at railroad crossings and near trains.

Personal delivery devices (PDDs): Small automated or remotely piloted robots designed for short deliveries carrying food, packages, or other goods

PSRC: Puget Sound Regional Council

RCW: Revised Code of Washington

RCW 81.53.90: A section of the Revised Code of Washington (RCW) that specifically speaks to the railroad's responsibility to maintain crossings.

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 non-motorized 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

The goals of the approach are to create safer vehicles, speeds, roads, and people and provide post-crash care.

SDOT: Seattle Department of Transportation

Shared micromobility: Shared bikes and scooters that offer low-cost option 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.

Standard Plans and Specifications: City standards that apply to any public or private construction in the right-of-way. The document standardizes terminology, abbreviations, and symbols to be used in construction plans.

STP: Seattle Transportation Plan

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

TNC: Transportation network company (e.g., Uber and Lyft)

Traffic calming: Physical changes to street design that slow traffic and make the street safer for all travelers. Examples include traffic circles, speed humps, and narrow lanes.

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.

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: The 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

Vulnerable traveler: As defined in City Code, "a pedestrian, a person riding an animal, or a person operating or riding any of the following on a public way: a farm tractor or implement of husbandry, without an enclosed shell, a bicycle, an electric-assisted bicycle, an electric personal assistive mobility device, a moped, a motor-driven cycle, a motorized foot scooter, or a motorcycle." The STP intentionally uses the term "vulnerable traveler" instead of "vulnerable user" to better reflect that people are traveling in the public way.

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.

Washington State Rail Plan: The state's rail plan is an integrated plan for both passenger and freight rail and is the planning foundation for future actions. The plan addresses rail system challenges and identifies opportunities for improvement; the plan describes the rail system and the state's interest in it. The plan identifies potential actions to improve the rail system and recommends strategies consistent with Washington's' transportation policy goals of economic vitality, preservation, safety, mobility, environment, and stewardship.

WSDOT: Washington State Department of Transportation

WSDOT Freight System Plan: The Washington Freight System Plan examines all modes of freight movement – including trucks, airplanes, rail, barges, and cargo ships. The efficient, safe, and reliable transportation of goods throughout Washington is critical to every aspect of economic and community vitality in the Pacific Northwest. The plan sets the vision for the state's multimodal freight system and supports collaboration with public and private partners. WSDOT will update the plan every 4 years, with the most recent update in 2022.

Zero-emission travel: Modes of transportation that do not emit any greenhouse gases (GHGs).

Seattle Department of Transportation

DRAFT SEATTLE TRANSPORTATION PLAN

Pedestrian Element

August 2023

Seattle Department of Transportation

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Walking or rolling in Seattle is a basic activity and way of getting around that should be safe and accessible for people of all ages and abilities—whether 8 years old or 80, and whether riding in a stroller or navigating streets in a wheelchair. (Supports TEF 43.4)[1] A quality pedestrian network is at the core of an equitable and accessible transportation system, providing a form of transportation that requires no monetary cost, age limit, or ability to operate equipment.

Walking is essential for seniors, children and young adults, people with limited mobility, and people in places with fewer transportation choices. A well-connected, safe, and comfortable pedestrian network also promotes physical activity, with broad co-benefits for community health. Walking also leaves less wear on existing infrastructure.

Our definition of walking includes mobility for all—people of any age, people who use wheelchairs or mobility devices, and people with visual, hearing, or other impairments.

When people choose to walk instead of drive, it reduces vehicle trips and transportation emissions, making our streets safer and more comfortable. This makes walking an important component of fighting climate change and achieving Seattle's Vision Zero safety goal of ending traffic deaths and serious injuries on city streets.

HOW THE PEDESTRIAN ELEMENT ADVANCES THE STP

The Pedestrian Element of the STP is a blueprint to create a more walkable Seattle. It highlights the needs of pedestrians and guides future investments to achieve STP goals. Already one of the most walkable cities in the US, and one of only five cities across the country to have earned the Platinum level Walk-Friendly City designation,[2] we continue to improve the walkability of Seattle through a variety of existing and emerging programmatic activities and initiatives.

Seattle adopted its first Pedestrian Master Plan (PMP) in 2009 and developed a substantial update to that plan in 2017. The Pedestrian Element builds on and supersedes the 2017 Pedestrian Master Plan (PMP). The Seattle PMP:

- Adopted a strong vision for a pedestrian-friendly environment in the City of Seattle
- Committed to development of a safe and connected pedestrian network that helps provide a high quality of life for residents
- Produced a robust data-based framework for evaluating needs and priorities across the city
- Identified a Priority Investment Network (PIN) with a focus on safe access to schools and transit
- Directed capital investments and programs throughout the city

[1] TEF refers to SDOT's Transportation Equity Framework. A complete list of the TEF tactics referenced is located at the end of the element. Learn more at Seattle's Transportation Equity Framework - Transportation | seattle.gov

[2] Walk Friendly Communities. https://www.walkfriendly.org/communities/

Between 2016-2022, we built more than 204 blocks of new sidewalks and implemented 128 crossing improvements. To further improve walkability, the Seattle Transportation Plan (STP) envisions comfortable pedestrian accommodations on all Seattle streets.

RELATIONSHIP TO STP GOALS

Walking plays an important role in meeting the STP's goals for **safety, equity, sustainability, mobility, livability**, and **maintenance and modernization**. Walking is one of the most efficient, affordable, and environmentally friendly forms of transportation.

Prioritize safety for travelers in Seattle, with no serious injury or fatal crashes. Because people walking are the most vulnerable road travelers and nearly all trips include walking, improved safety for people walking effectively makes streets safer for all road travelers.

Co-create with community and implement restorative practices to address transportation-related inequities. The pedestrian network plays a vital role in connecting people of all ages and abilities, especially people living with disabilities or physical limitations. It increases access to jobs and other opportunities, especially those located near transit stops and stations and where people live.

Respond to climate change through innovation and a lens of climate justice. High-quality, attractive pedestrian, bike, and transit networks provide the underlying backbone of a low-carbon transportation system. Walking is emission-free, and most transit, car, and even bike trips also include some amount of walking. Street trees incorporated into the pedestrian realm sequester carbon and provide other environmental benefits.

Provide reliable and affordable travel options that help people and goods get where they need to go. Walking supports the transition of vehicle trips to active, sustainable modes. A quality pedestrian experience in every neighborhood promotes walking for short trips, such as running errands. For long trips, walking is how most people access transit stops and stations, and pedestrian improvements can increase the number of households who can safely and comfortably walk to transit stops and stations.

Reimagine our streets as inviting places to linger and play. Walkability contributes directly to community health, independence, and social cohesion. Increased walking and physical activity are linked to reduced obesity, improved mental health, and decreased likelihood of several chronic diseases. Walking provides independent mobility for kids and for older adults, enabling seniors to age in place, and facilitates the casual social interactions that nurture a sense of community. Incorporation of trees into the pedestrian realm provides shade, reduces urban heat islands, improves air quality, and enhances neighborhood livability.

Improve city transportation infrastructure and ready it for the future. Walkability has the potential to lower maintenance burdens by reducing the use of private vehicles, which contribute to significant routine wear and damage to city streets. Implementing "upstream improvements," such as reducing the number of lanes, can reduce upfront and lifecycle costs of pedestrian crossings. Taking a holistic life-cycle cost analysis of quick-build pedestrian treatments as compared to standard treatments helps better understand total cost and material use differences.

IMPLEMENTING THE KEY MOVES

The Seattle Transportation Plan (STP) Part I includes a collection of Key Moves, or strategies, to advance the STP goals. Each Functional Element serves an important role in making these Key Moves and their supporting actions.

Table 1 below summarizes the Key Moves and specific actions the Pedestrian Element helps to accomplish. They are nested under the primary STP goal they seek to advance. Many actions are cross-cutting, and they appear in all Functional Elements as important commitments and initiatives. Other actions are specific to one or more Functional Elements and are marked with an asterisk (*) to indicate that this Element plays a critical role in operationalizing or supporting that action.

Additional details on SDOT's roles and the ways we'll tackle this work are included in the "Walking and Rolling in Seattle" section below. Actions that implement tactics from SDOT's Transportation Equity Framework (TEF) are noted in parentheses; these tactics are listed at the end of this element.

Table 1: Key Moves and Pedestrian Actions

Key Moves
Actions

Key Moves and Pedestrian Actions		STP Goals Supported					
		Safety	Equity	Sustainability	Mobility	Livability	Maintenance & Modernization
SAFETY KEY MOVES							
Reduce vehicle speeds to increase safety (S1)							
P1*	Design all streets using context-appropriate traffic-calming treatments that are proven to reduce speeds and encourage people driving to travel at the posted speed limit. This should include strategies to narrow the street, coordinate traffic signals, and plant street trees. (S1a)	✓					
P2*	Implement traffic calming strategies, such as traffic circles, speed humps, cushions, and tables, and leverage them with programs that deliver educational campaigns to reduce speeding. (S1b)	✓					
P3*	Develop a policy for automated speed enforcement and potential expansions, to be informed through community engagement to address equity concerns. (S1f)	✓	✓				
Concentrate safety investments at the most collision-prone locations (S2)							
P4*	Incorporate Vision Zero and Safe System approaches into every project and program. (S2a)	✓					

* Indicates this Element plays a key role in advancing this action.

Key Moves and Pedestrian Actions		STP Goals Supported					
		Safety	Equity	Sustainability	Mobility	Livability	Maintenance & Modernization
P5*	Prioritize pedestrian safety improvements that are on the high-injury network, have high levels of travel stress, or are identified through the Seattle Bicycle and Pedestrian Safety Analysis. (Supports TEF 19.2) (S2b)	✓			✓		
P6*	Pilot and evaluate new and emerging safety treatments in locations where proven interventions are infeasible or do not address the identified safety issues. (S2c)	✓					
Make all journeys safer, from departure to destination (S3)							
P7*	Create a baseline policy across Seattle to identify a standard for a maximum distance between controlled crossings or enhanced uncontrolled crossings.	✓					
P8*	Construct new sidewalks, crosswalks, and multi-use trails where there are gaps or opportunities for new connections, prioritizing places with the greatest safety concerns. (S3a)	✓			✓		
P9*	Harness funding and opportunities when private development occurs to build planned new network facilities and prioritize mobility for people walking and rolling when construction occurs. (S3b)	✓			✓		✓
P10*	Upgrade existing facilities for people walking and rolling to be safer and accessible for people of all ages and abilities. (Supports TEF 7.1 and 43.4) (S3c)	✓			✓		
P11*	Accelerate implementation of research-backed improvements that are proven to make streets safer for everyone, such as hardened centerlines, leading pedestrian intervals (LPIs) at signals, No Turn on Red Signs at signalized intersections, and road diets. (S3d)	✓			✓		
P12*	Make people walking and rolling more visible by improving sight lines at intersections through treatments such as curb bulbs, No Parking signs, improved lighting, and refuge islands with a focus on High Injury Corridors. (S3e)	✓			✓		
P13*	Expand opportunities to more safely cross busy arterials by installing enhanced crossings. (Supports TEF 40.6) (S3f)	✓			✓		
P14*	Expand safety education for all travelers. (S3h)	✓					
Provide safer routes to schools, parks, transit, community gathering spaces, and other common destinations (S4)							
P15*	Expand the Home Zone program, which collaborates closely with communities to develop a holistic approach to making residential streets more walkable within a neighborhood using quick-build solutions.	✓				✓	
P16*	Construct the networks for walking, rolling, and People Streets and Public Spaces as outlined in this Plan (S4a)	✓	✓	✓	✓	✓	✓

* Indicates this Element plays a key role in advancing this action.

Key Moves and Pedestrian Actions		STP Goals Supported					
		Safety	Equity	Sustainability	Mobility	Livability	Maintenance & Modernization
P17*	Make investments near light rail stations and busy transit stops that make it safer to walk and roll to transit. (S4b) Establish a Safe Routes to Transit program.	✓		✓	✓	✓	
P18*	Develop station access plans for future light rail stations and enhance the experience and quality of existing facilities that connect people walking and rolling along and across major transit corridors. (Supports TEF 40.2) (S4c)	✓		✓	✓	✓	
P19*	Serve every public school with all ages and abilities pedestrian facilities. (Supports TEF 43.4) (S4d)	✓	✓	✓	✓	✓	
P20*	Expand permanent Healthy Streets to all neighborhoods as a way of providing low stress connections to common destinations for people walking, biking, and rolling, regardless of age or and ability. (Supports TEF 43.4 and Executive Order 2022-07) (S4e)	✓	✓	✓	✓	✓	
P21*	Provide pedestrian-scale lighting to make people walking more visible to people driving vehicles and to increase personal safety. (S4f)	✓				✓	
P22*	Make investments that make it safer to walk and roll to parks, community gathering spaces, and other common destinations. (S4g) Establish a Safe Routes to Parks program.	✓					
EQUITY KEY MOVES							
Center the voices of communities of color and underrepresented groups in planning and decision-making process (TJ1)							
P23*	Expand the Neighborhood Street Fund and include more communities in the project idea generation and selection processes.		✓				
P24	Implement the Transportation Equity Framework (TEF) to grow transparency, accountability, and shared power when making transportation decisions with community members. (TJ1a)		✓				
P25	Feature community voices in planning documents. (TJ1b)		✓				
P26	Continue to build and maintain relationships with vulnerable communities and underrepresented groups. (Supports TEF 29.1 and 41.6) (TJ1c)		✓				
P27	Meet early and often to provide opportunities to influence projects before they are fully developed. (Supports TEF 3.4) (TJ1d)		✓				
P28*	Build trust and capacity within organizations prioritizing our vulnerable communities focused on increasing walking and rolling and learn from the leaders active in these spaces. (Supports TEF 31.4) (TJ1e)		✓				
P29	Normalize the practice of making decisions about policies and right-of-way (ROW) allocations with input from vulnerable communities. (Supports TEF 19.1 and 25.4) (TJ1f)		✓				

* Indicates this Element plays a key role in advancing this action.

Key Moves and Pedestrian Actions		STP Goals Supported					
		Safety	Equity	Sustainability	Mobility	Livability	Maintenance & Modernization
P30	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 TEF 17.1, 21.2 and 16.1) (TJ1h)		✓				
P31	Compensate community partners for their valuable work to connect and communicate with their networks and uplift community-driven initiative. (TJ1i)		✓				
Address inequities in the transportation system by prioritizing investments for impacted communities (TJ2)							
P32*	Prioritize walking and rolling investments that benefit people and local businesses who currently and historically experience high transportation burdens and those at high risk of displacement. (TJ2a)		✓		✓	✓	
P33	Collaborate with municipal, county, regional, and state transportation partners to consider the transportation needs of people who have been displaced from Seattle. (TJ2b)		✓				
P34	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 TEF 14.3 and 15.2) (TJ2c)		✓		✓	✓	
P35	Identify actions to address inequities experienced by vulnerable community members who walk, bike, and roll, and provide capacity-building support to BIPOC-led organizations that focus on increasing active transportation. (Supports TEF 31.4) (TJ2d)		✓		✓		
P36	Develop policies to prevent and mitigate transportation projects, both past and present, from contributing to future displacement. (TJ2e)		✓				
P37	Implement improvements to make traveling in Seattle more accessible for everyone, such as curb ramps, accessible pedestrian signals, accessible parking, and accessible transit stops. (TJ2f)	✓	✓		✓		
P38	Partner with other departments and agencies to deploy anti-displacement programs, investments, tools, and mitigation efforts. (TJ2g)		✓				
P39	Conduct and implement racial equity assessments at the program level. (TJ2h)		✓				
Remove cost as a barrier so everyone can take the trips they need to make (TJ3)							
P40*	Construct the walking and rolling network outlined in this plan. Expanding access to this affordable mobility option makes it easier to get around without the expense of automobiles. These networks provide 24/7 access, benefitting people who need to travel outside of 8 AM to 5		✓		✓	✓	

* Indicates this Element plays a key role in advancing this action.

Key Moves and Pedestrian Actions		STP Goals Supported					
		Safety	Equity	Sustainability	Mobility	Livability	Maintenance & Modernization
	PM, especially those who are low-income people of color, and those who rely heavily on public transportation. (TJ3a)						
SUSTAINABILITY KEY MOVES							
Improve neighborhood air quality and health outcomes by promoting clean, sustainable travel options (CA1)							
P41	Expand beyond employer-based travel demand management programs to include residential and neighborhood-based strategies as well as lifecycle-based strategies (for example after a move or the birth of a first child) that encourage non-driving travel choices for all trips. (CA1a)			✓			
P42*	Expand public education campaigns to encourage bicycling, using e-mobility, walking, rolling, and taking transit. (CA1b)			✓			
P43	Develop and expand programs that incentivize sustainable alternatives to driving for large events and as a primary congestion mitigation tool during major construction projects. (CA1c)			✓			
P44	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). (CA1g)	✓		✓	✓		
Green city streets through landscaping and street trees to better handle changing climate (CA2)							
P45*	Encourage the maintenance and installation of green infrastructure—such as street trees, rain gardens, landscaping, natural drainage systems, bioswales, and pervious materials—as other improvements occur in the right-of-way. (Supports TEF 56.4) (CA2a) Consider locations for de-paving projects that will expand green spaces and improve climate resiliency.			✓			
P46*	Prioritize tree planting and maintenance in historically under-invested communities, as we continue to increase tree canopy coverage citywide. (Supports TEF 56.6) (CA2c)			✓			
P47	Partner with local communities to co-create green landscape and urban forest improvements that increase resilience to climate impacts. (Supports TEF 56.4) (CA2d)			✓			
P48	Install green stormwater infrastructure to address streets that already and will continue to flood frequently. (CA2e) Explore opportunities and new roadway designs to implement joint sidewalk and green stormwater infrastructure (GSI) projects.			✓			

* Indicates this Element plays a key role in advancing this action.

Key Moves and Pedestrian Actions		STP Goals Supported					
		Safety	Equity	Sustainability	Mobility	Livability	Maintenance & Modernization
Foster neighborhood vitality and improved community health (CA3)							
P49	Co-create low-emission neighborhoods with communities so the benefits of cleaner air and safer streets are shared equitably. (CA3a)			✓			
P50	Design for people-first streets to make sustainable travel choices the default and easy choice for neighborhood trips and to increase neighborhood business district activity. (CA3d)			✓	✓		
MOBILITY KEY MOVES							
Create seamless travel connections (PG1)							
P51	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 and rolling. (Supports TEF 19.6 and TEF 43.4). (PG1a)				✓		
P52*	Expand the pedestrian wayfinding program, including at transit stations and stops, in collaboration with community and regional partners. (Supports TEF 48.1) (PG1f)				✓		
Make walking, biking, and rolling easy and enjoyable travel choices (PG2)							
P53*	Add, enhance, and maintain dedicated pedestrian spaces in the form of sidewalks, walkways, and shared streets with appropriate traffic calming to provide a safe and accessible pedestrian environment. (PG2a)				✓		
P54*	Create new street crossing opportunities and enhance existing crossings to improve safety and access for people walking and rolling. (PG2b)				✓		
P55*	Improve pedestrian lighting, especially along transit routes and where connections between different travel options are made. (Supports TEF 45.1) (PG2c)				✓		
Create world-class access to transit and make service more frequent and reliable (PG3)							
P56	Prioritize low-carbon travel options through seamless, direct walking and rolling connections to community and mobility hubs. (PG3i)				✓		
Manage curbspace to reflect city goals and priorities (PG5)							
P57	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 develop decision frameworks to prioritize these functions based on local area and system needs. (PG5a)			✓	✓	✓	

* Indicates this Element plays a key role in advancing this action.

Key Moves and Pedestrian Actions		STP Goals Supported					
		Safety	Equity	Sustainability	Mobility	Livability	Maintenance & Modernization
LIVABILITY KEY MOVES							
Boldly reallocate street space to prioritize people while preserving access for goods delivery and emergency response (PP1)							
P58	Reallocate street space currently used for vehicle storage and general-purpose travel to support a variety of people-oriented uses, such as gathering, playing, walking, and biking in strategic locations (PP1a)	✓	✓	✓	✓	✓	
P59	Implement car-free and car-light streets, such as Café Streets and Neighborhood Greenways, to reclaim public space for communities. (PP1b)	✓				✓	
P60	Update Seattle's Right-of-Way Improvements Manual (Streets Illustrated) to implement actions and strategies outlined in this Plan. (PP1d)	✓		✓	✓	✓	
Transform community and mobility hubs into welcoming places (PP2)							
P61*	Improve walkability at every community and mobility hub by providing pedestrian infrastructure such as lighting, wayfinding, seating, and landscaping. (PP2b)	✓			✓	✓	
P62*	Provide a safe and comfortable experience moving in and around community and mobility hubs. This includes better crossings and intersections, slower speeds and rightsized travel lanes, decluttered sidewalks, universal access, and more. (PP2c)	✓			✓	✓	
Co-create and enhance public spaces for playing and gathering to improve community health (PP3)							
P63	Develop a network of park-like Strolling Streets that serve as "lungs" to protect air quality in denser communities and support climate resiliency in vulnerable neighborhoods through strategies such as installing green stormwater infrastructure, removing paving, adding trees, installing climate resilient landscaping, and more. (PP3c)			✓		✓	
Activate and maintain public spaces to create a welcoming and age-friendly public realm (PP4)							
P64	Better maintain public spaces through dedicated resources and continued partnerships with local communities and businesses to reduce the burden of maintenance on historically underinvested communities. (PP4a)					✓	✓
P65	Implement seasonal street closures (e.g., summer streets), recurring closures (e.g., every Saturday), night-time closures, or limited-time closures to vehicles. (PP4c)	✓				✓	

* Indicates this Element plays a key role in advancing this action.

Key Moves and Pedestrian Actions		STP Goals Supported						
		Safety	Equity	Sustainability	Mobility	Livability	Maintenance & Modernization
MAINTENANCE & MODERNIZATION KEY MOVES							
Transform city streets and extend the life of assets through optimal timing of maintenance and replacement (MM1)							
P66	Use asset maintenance and replacement opportunities to not only improve the condition of transportation infrastructure and equipment, but to also enhance safety, reduce dependence on driving, promote sustainable travel options, and support economic vitality. (MM1a)	✓		✓	✓		✓
P67*	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. (MM1b)						✓
P68	Collect feedback on asset conditions as part of community engagement on transportation system planning, design, and co-creation. (MM1c)						✓
P69	Conduct asset maintenance in accordance with the priority investment and emergency response route networks to guide asset maintenance, especially when investment supports walking, biking, transit, and freight. (MM1d)						✓
Reduce neighborhood disparities in the quality of streets, sidewalks, public spaces, and bridges (MM2)							
P70	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 TEF 19.3) (MM2a)		✓				✓
P71*	Focus resources for maintenance and improvements in neighborhoods that have been historically or are currently underserved. (Supports TEF 19.4) (MM2b)		✓		✓		✓
P72*	Study the potential for an income-based, cost-sharing, sidewalk repair program for low-income property owners. (Supports TEF 38.2 and 38.6) (MM2d)						✓
Ready city streets for new travel options and emerging trends and technologies (MM3)							
P73	Collect, monitor, and use data to inform changes to the transportation system. (MM3a)	✓	✓	✓	✓	✓	✓
P74	Anticipate and leverage innovative transportation technologies so they are shaped to meet community values and goals, including safety, equity, and climate response. (MM3b)						✓
P75*	Develop and maintain up-to-date asset data, including digital inventories of physical assets. (MM3e)	✓			✓		✓

* Indicates this Element plays a key role in advancing this action.

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 walking and rolling. 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 continue to evolve in the years to come.

OPPORTUNITIES AND EMERGING TRENDS

Supporting a walkable city that is safe, vibrant, equitable, and healthy is key to our collective quality of life. There are exciting opportunities and emerging trends (and several challenges) as we build a city that is safer and more accessible for people walking.

There are a number of developments that present opportunities to improve walkability in Seattle:

- **Light rail and high-frequency transit expansion.** The West Seattle, Ballard, East Link, and Lynwood Link light rail extensions and the revised bus networks to connect to them will put more households within walking distance of high-frequency transit stops, increasing walking trips and decreasing reliance on private vehicles.
- **Improved safety data**. Data and findings from the Bicycle and Pedestrian Safety Analysis (BPSA)[3] and 2023 Vision Zero "Top to Bottom" Review"[4] will help guide strategic and equitable investments in safety for people walking and biking.
- **Low Pollution Neighborhoods Pilot.** Executive Order 2022-07 on transportation emissions will further promote walking and bicycling for transportation within proposed low-pollution neighborhoods. Low-pollution (low-emission) neighborhoods restrict or prohibit the types of vehicles allowed within the neighborhood and encourage other, zero- to low-emission modes like biking, walking, e-cargo deliveries, etc. (Supports TEF 19.7)
    - Other elements from Executive Order 2022-07, such as the **Youth Transportation Summit**, the commitment to 20 miles of **permanent Healthy Streets**, the

[3] www.seattle.gov/documents/departments/besupersafe/bicyclepedestriansafetyanalysis.pdf
[4] https://www.seattle.gov/documents/Departments/SDOT/VisionZero/SDOT-Vision-Zero-TopToBottomReview-FullReport.pdf

expansion of the School Streets program, and the commitment to an **all ages and abilities bike facility that serves every public school** will also support pedestrian element goals. See the STP People Streets and Public Spaces Element for more information.

- **Expanded approaches**. In recent years Seattle has expanded our approach to treatments and programs that address walkability and safety (e.g., Home Zones, Healthy Streets, School Streets, Superblocks, Low Pollution Zones, and Alternative Walkways). These approaches provide additional tools and treatments that we can use to create pedestrian-oriented streets. See the STP People Streets and Public Spaces Element for more information on Healthy Streets, School Streets, and Shared Streets.
- **Partnerships with Seattle Public Utilities.** The city has expanded and improved partnership projects between SDOT and Seattle Public Utilities that construct new sidewalks and walkways with natural drainage elements. Continuing to pursue these partnership projects will allow us to further develop the sidewalk network while advancing the city's goals of capturing and naturally filtering stormwater runoff.
- **Participatory budgeting**. There is an opportunity to build on the success of the Neighborhood Street Fund and Your Voice, Your Choice programs. SDOT pedestrian programs can incorporate community-driven opt-in planning approaches to improve walkability and pedestrian safety.
- **Policy changes**. Seattle recently revised its policies to allow for a more proactive and predictable network of enhanced pedestrian crossings, more automatic walk signals at signalized intersections, and longer crossing clearance time for people who walk. We have the opportunity to continue to update these policies over the next 20 years.
- **Complete neighborhoods.** The One Seattle Comprehensive Plan will update Seattle's growth strategy, planning for more destinations within walking distance of peoples' homes.
- **Working from home**. More people are working from home, which has led to more neighborhood-based trips that can be made by walking and rolling.
- **Vehicle technology.** Active safety systems—such as autonomous emergency braking, cellular vehicle-to-everything (C-V2X) technology, and intelligent speed assistance—could curb risky driving behavior and reduce crashes, including pedestrian crashes. That said, these technologies are also a potential safety challenge until technology advances.
- **Implementation of pedestrian related TEF Tactics**. Tactics outlined in the Seattle Transportation Equity Framework (TEF) provide a roadmap to address historical disinvestment and the resulting disparities in mobility, including safe pedestrian facilities and walkability. Pedestrian-related TEF tactics are referenced throughout this element, and a complete list of tactics is included at the end of this element.

CHALLENGES

The following issues present challenges to the development of a safe, connected, and accessible pedestrian network:

- **Pedestrian safety.** The recent increase in pedestrian crashes and fatalities challenges Seattle to do more to improve pedestrian safety. Concerns about personal safety also make people feel unsafe walking.
- **Costs.** About 26% of city streets are missing sidewalks, and there is a significant need for enhancements that make it safer and more convenient for people to cross busy streets. Seattle faces increasing costs to implement these missing sidewalks and other infrastructure.
- **Environmental and drainage constraints.** Many areas that do not have sidewalks face complex and costly constraints with respect to environmentally sensitive areas, narrow rights-of-way, and drainage.
- **Geographic pinch points.** Seattle's steep topography and water bodies create pinch points where freight, transit, bicycle, and pedestrian access needs compete for limited space on existing bridges and street rights-of-way.
- **Cultural changes.** American culture has historically been car centric, which poses a cultural challenge to moving additional trips away from private vehicles to other modes, such as walking.
- **Urban heat island effect.** As climate change accelerates and extreme weather events continue to include longer periods of hotter, dryer weather, active transportation is made more difficult. Areas lacking tree canopy are most impacted by these weather conditions.
- **Accessibility barriers.** The city's pedestrian network still presents significant barriers for people walking, particularly for those with mobility limitations or disabilities. These barriers include approximately tens of thousands of sidewalk uplifts, obstructions, cross slope issues, and curb ramps needing remediation or construction. In addition, only a small fraction of Seattle's pedestrian signals include accessible pushbutton equipment.[5] Sidewalk clutter from improperly parked shared micromobility devices also poses a challenge to pedestrian accessibility. Solutions will require close coordination with operators to expand rider etiquette education to deter sidewalk riding and parking devices in a manner that obstructs access.

[5] Seattle Department of Transportation. (2020). The Americans with Disabilities Act (ADA) Transition Plan for the Seattle Public Right of Way.

COMMUNITY ENGAGEMENT

From May 2022 through February 2023, SDOT conducted citywide public engagement as part of the Seattle Transportation Plan development process, using a variety of tools. Frequently cited locations for pedestrian improvements include Columbia City, Rainier Ave, the Mt. Baker Light Rail station, Bitter Lake, and South Seattle.

As part of this engagement process, we used two iterations of an online webmap. The first webmap allowed people to drop pins, trace routes, and draw areas where they want to see improvement in Seattle's transportation system. We heard the need for actions that improve safety, transportation choice, equity, and maintenance. We received over 2,940 pedestrian-related comments on this first interactive map (May to August 2022). See **Figure 1.**

In the second interactive map (December 2022 to February 2023), people could drop pre-set pins and leave comments that helped shape our pedestrian networks. We received over 520 pedestrian-related pins that showed where people wanted to see new pedestrian connections or that identified an important destination to walk to. See **Figure 2** for pedestrian-related comments.

Key themes related to the pedestrian network and policies include:

- **Sidewalk gaps**: the city should work to quickly fill in gaps to create a complete sidewalk network.
- **Maintenance and widening**: maintaining sidewalks and staircases should be prioritized as well as upgrading existing sidewalks that are too narrow—reclaiming space from vehicle parking or travel lanes as needed.
- **Safe and frequent crossings**: marked crosswalks, median islands, curb bulbs, and other safety features should be used to improve safety at crossings.

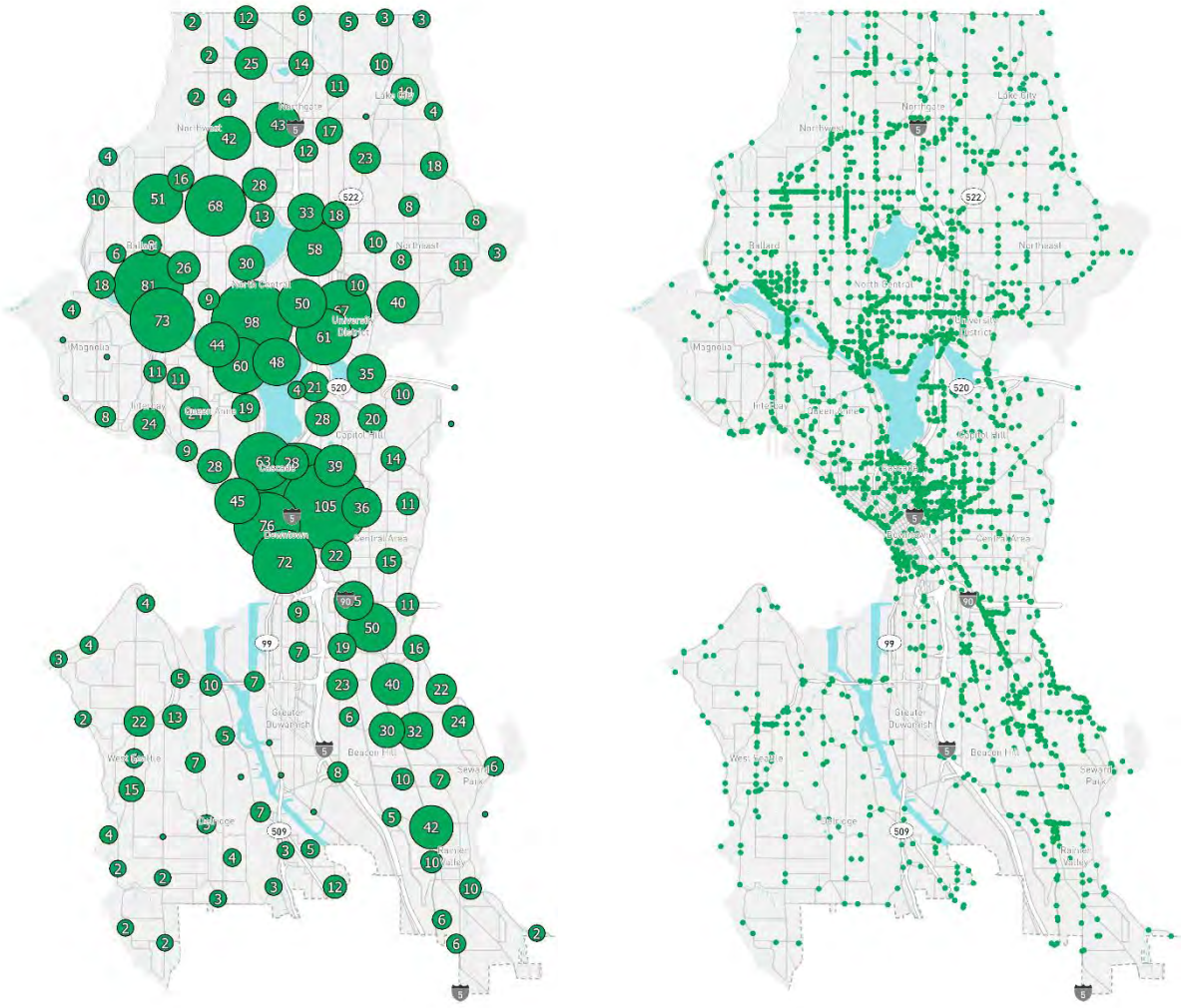
Feedback from Black, Indigenous and People of Color (BIPOC) communities focused on:

- **Underserved areas:** no neighborhood should be without sidewalks. Seattle needs to focus on providing sidewalks and safe crossings in underserved areas.
- **Traffic calming**: driver speeds should be reduced citywide to keep people walking and rolling safely, especially in residential areas lacking dedicated sidewalks or walkways for people walking.
- **Personal safety**: people feel uncomfortable or unsafe walking or rolling in certain areas, such as Downtown Seattle. Many asked for better lighting, particularly on trails, parks, and at bus stops.

> *"Lack of sidewalks in many neighborhoods make it less safe and even dangerous for people to walk since they have to use the street. Elderly residents and people with disabilities are disproportionally impacted. The lack of safely and comfort on the streets in their neighborhoods impacts their health and wellbeing."*
>
> *– Quote from Survey Respondent*

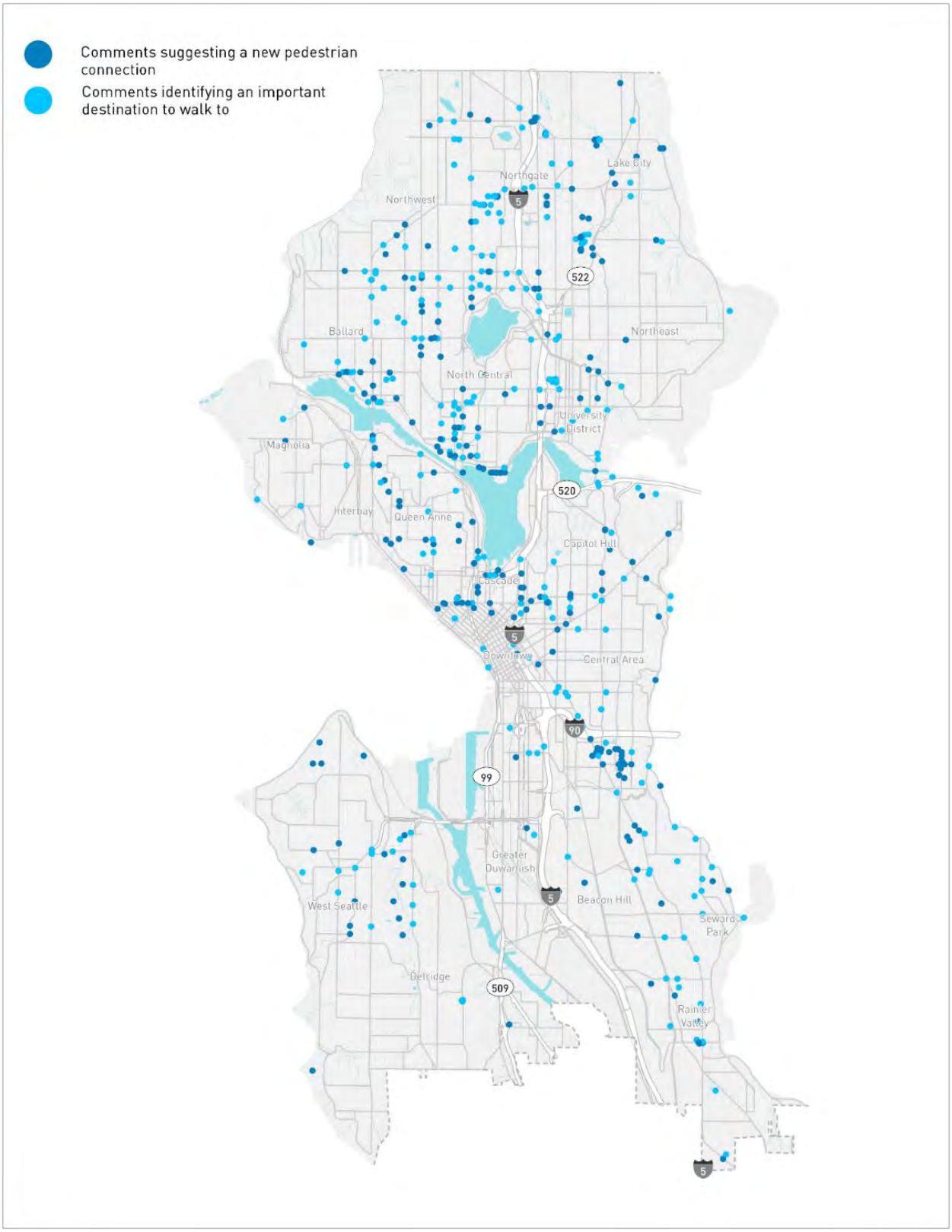
Feedback from the community directly informed the network development and policies included in this Plan. Public feedback is reflected in policies such as the Pedestrian Level of Service, proposed actions, and programs that provide safe access to transit stops and stations. Public feedback also shaped the network development strategy, which emphasizes filling sidewalks gaps, upgrading deficient sidewalks, and providing safe crossings at regular intervals.

Figure 1: Pedestrian-related Comments on Webmap #1



The map on the left shows clusters of pedestrian-related comments received on the first webmap. The map on the right shows the location of each individual pedestrian-related pin on the first webmap.

Figure 2: Pedestrian-related Public Comments on Webmap #2

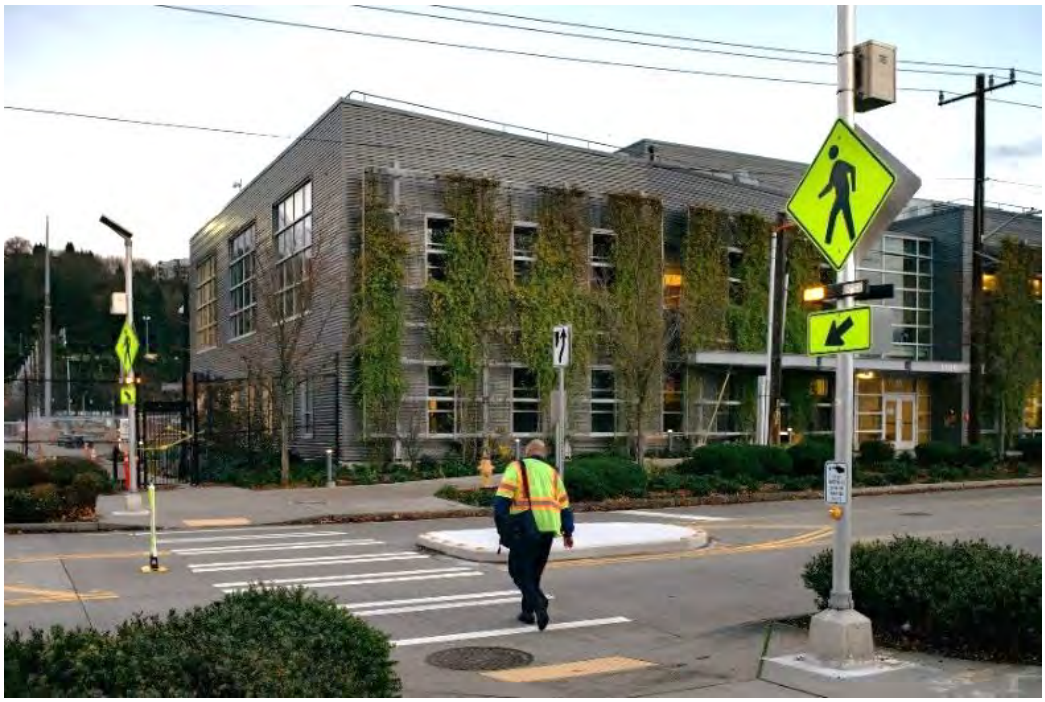


WALKING AND ROLLING IN SEATTLE

To make walking a viable and attractive mode of transportation for a greater number of Seattleites and visitors, all streets in Seattle should be designed to accommodate people walking safely and comfortably. This means the pedestrian network must be accessible, well-connected, comfortable, safe, and provide an intuitive network of sidewalks, crossings, paths, plazas, and staircases for all users.

Street Crossings

Seattle's pedestrian network requires safe, frequent, and timely street crossings. Street crossing improvements include enhancements to existing infrastructure or the provision of missing infrastructure. Improvements to the pedestrian crossing network can also include modifications to signal phasing and timing and improved lighting conditions.



Person crossing the street in a marked crosswalk with a Rectangular Rapid Flashing Beacon (RRFB)

Sidewalks

The city's pedestrian network aims to provide an accessible space for walking and rolling, with adequate width and protection from vehicles in the form of a sidewalk, an alternative walkway, a shared street, or a dedicated pedestrian space. The appropriate type of pedestrian space depends on the roadway type, average number of vehicles on the road, and expected pedestrian volumes, which are likely to be higher adjacent to transit stops and stations and within Urban Centers and Urban Villages. Of the roughly 45,000 block faces in Seattle, about 11,000 are missing sidewalks.

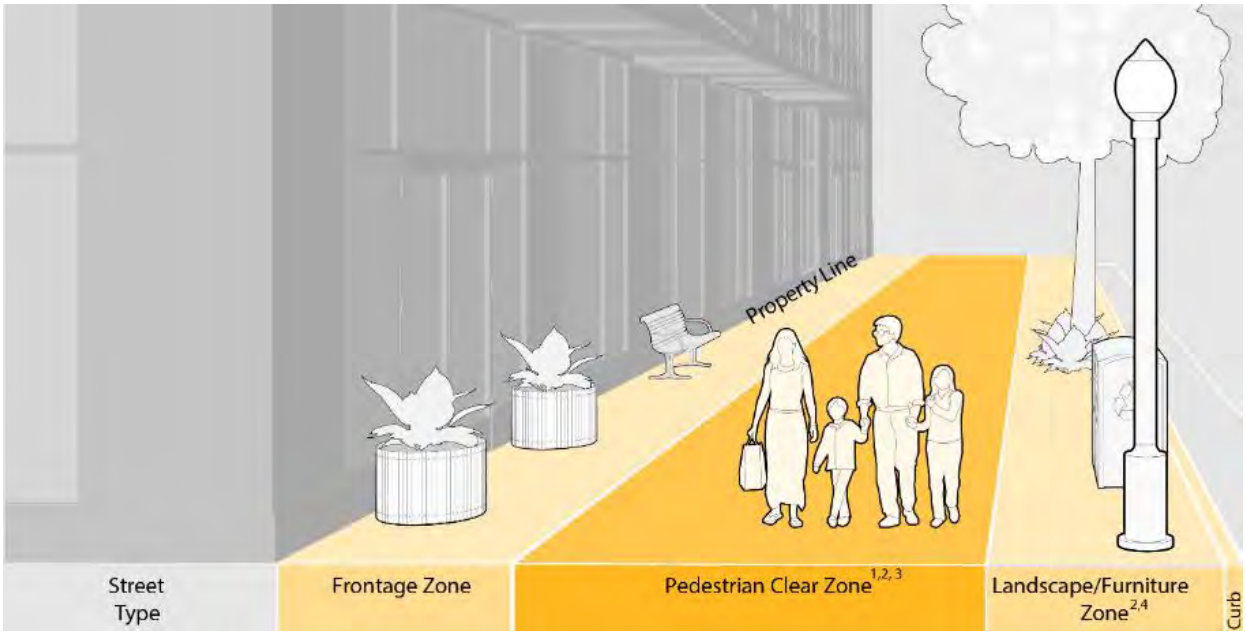
Sidewalks contribute to a safe, accessible, and vibrant pedestrian environment in multiple ways, which can be better understood by breaking them up into three parts: the **Frontage Zone**, the **Pedestrian Clear Zone**, and the **Landscape/Furniture Zone**. These zones are defined in *Streets Illustrated*, Seattle's *Right-of-Way Improvements Manual*.[6] See **Figure 3** below.

The **Frontage Zone** is defined as the area between the property line and pedestrian clear zone. Depending on the size of the frontage zone, it may accommodate sidewalk cafes, store entrances, retail display, landscaping, transit stop amenities, or other features that activate and enhance the pedestrian environment. Wider frontage zones provide more room for future tenants and residents to activate the public right-of-way in a manner compatible with street trees and other required features between the frontage zone and curb.

The **Pedestrian Clear Zone** is the area of the sidewalk corridor that is specifically reserved for pedestrian travel. Street furniture, street trees, planters, and other vertical elements, such as poles, fire hydrants, and street furniture—as well as temporary signs and other items—should not protrude into the pedestrian clear zone.

The **Landscape/Furniture Zone** (including the curb) is defined as the area between the roadway curb face and the front edge of the pedestrian clear zone. In certain locations, this zone does not exist due to limited right-of-way widths. This zone buffers people walking from the adjacent roadway and is the appropriate location for bioretention cells, rain gardens, street furniture, art, street trees, and vegetation. It is also the preferred location for other elements, such as signage, pedestrian lighting, hydrants, and above- and below-grade utilities.

Figure 3: Sidewalk Zones



Source: Seattle *Streets Illustrated*

[6] https://streetsillustrated.seattle.gov/design-standards/sidewalks/

Traffic Calming

The speed and volume of vehicular traffic is a major factor in the safety and comfort of people walking. Traffic calming to reduce driving speeds is particularly important on shared streets, which are intended to be accessible for all people and designed to slow vehicles to the walking speed of people on foot. Traffic calming measures can also be used to reduce vehicle volumes, particularly on shared streets.

Lighting

Pedestrian-scale lighting is essential for creating pedestrian spaces and streets that feel welcoming and safe. It improves accessibility by illuminating sidewalks, crosswalks, curbs, curb lamps, and signs as well as barriers and potential hazards. Lighting is especially important along People Streets and Public Spaces, high ridership transit routes and transfer points, and areas that lack other pedestrian improvements.

Street Trees and Greening

Trees and green spaces provide multiple benefits to Seattle. They shade pavement, lower temperatures, intercept rainfall, absorb stormwater runoff, clean the air, provide habitat, and beautify neighborhoods. Landscaped planting strips adjacent to sidewalks calm traffic, soak up stormwater, and green neighborhoods.

Investing in the care of new and established trees can preserve and promote tree canopy. Large street trees are especially important in environmental justice priority communities lacking in tree canopy. As new street trees are planted, they should have adequate soil volume to support large, healthy tree canopies and eliminate or minimize conflicts with sidewalks and utilities, especially along transit corridors and in dense urban areas. On space-constrained sidewalks without landscape/furniture zones, street trees could be considered in the adjacent parking or flex lanes.

Wayfinding

Pedestrian wayfinding helps people confidently and comfortably find their way along the pedestrian network. Seattle's wayfinding program, Seamless Seattle, encompasses modal integration by providing:

- Walking information at transit stations, stops, and community and mobility hubs.
- Local distinctiveness with a city-wide standard that allows for local content and design.
- Design for all through prioritization of safe and accessible walking routes and inclusive design principles.
- Systemization through common design standards and a back-of-house content management system to provide system integrity.

THE PEDESTRIAN NETWORK

Every street within Seattle is part of the pedestrian network and should be walkable. The pedestrian network is detailed in 4 sets of maps. Three of these maps are Priority Investment Network (PIN) maps that identify and categorize locations into priority tiers for pedestrian improvements. The fourth map shows a network of prioritized streets for improvements along key transit networks.

Priority Investment Network (PIN) Maps

Each of the three Priority Investment Network (PIN) maps use a deficiency analysis as the base starting point for the network prioritization work. They then consider proximity to high pedestrian trip areas, safety, and equity to tier each street or intersection on the map. For additional information on the methodology used for the PIN maps, please see the Pedestrian Map Methodology section at the end of this chapter.

- **Proximity to High Pedestrian Trip Areas.** Pedestrian improvements are prioritized in locations where adjacent land use generates higher pedestrian volumes. This includes K-12 public schools, parks, transit stops and routes, and Comprehensive Plan land use areas, such as Pedestrian Zones, Urban Centers, and Urban Villages.[7]
- **Safety.** Pedestrian improvements are prioritized at locations with a demonstrated safety need. For the crossing maps, the safety score inputs include Priority Pedestrian Locations in the Bicycle and Pedestrian Safety Analysis (BPSA), locations with 3+ pedestrian crashes, and locations with 3+ lanes. The BPSA analysis uses a model that identifies design and behavioral factors that may be correlated with collisions involving people walking. These factors include arterial classification, roadway width, driver (vehicle) speeds, and controlled crossing spacing (supports TEF 40.1). For the sidewalk maps, 85 percentile vehicle speeds are used to determine the safety scoring.
- **Equity.** Pedestrian improvements are prioritized using the city's Race and Social Equity Index.[8] Based on guidance from the Pedestrian Racial Equity Analysis,[9] specific improvements in future implementation plans will be chosen using an inclusive community engagement process in equity-priority communities, with a particular emphasis on creating safe connections between transit stops and key community assets. (Supports TEF 45.6)

[7] These land use areas include important pedestrian trip generators (such as: grocery stores, libraries, medical centers, assisted living centers etc.). For example, over 90% of all grocery stores are included in the land use zones that are used in the prioritization land uses (Urban Centers, Urban Villages, Pedestrian-Zones) or within the buffer distances around them.

[8]The Race and Social Equity Index is a tool produced by the Office of Planning and Community Development to aid in the identification of city planning and investment priorities. It combines information on race, ethnicity, and related demographics with data on socioeconomic and health disadvantages to identify where priority populations make up relatively large proportions of neighborhood residents.

[9] https://www.seattle.gov/transportation/projects-and-programs/programs/pedestrian-program/pedestrian-program-racial-equity-analysis

Missing Sidewalks

Figure 4 through **Figure 9** show all street segments that currently lack sidewalks. Each identified street segment is given a prioritization score based on three factors: 1) proximity to high pedestrian trip areas, 2) safety, and 3) equity. Tier 1 segments are the highest priority. This PIN helps identify locations where there may be opportunities to improve conditions for people moving along the street by installing conventional sidewalks, alternative walkways, or traffic calming features that create a safe and comfortable shared street environment.

Sidewalks with Sub-Standard Widths

Figure 6 through **Figure 15** identify all streets with sidewalks that are significantly narrower than current standards, as identified in Seattle's *Streets Illustrated*. Each identified street segment is given a prioritization score based on three factors: 1) proximity to high pedestrian trip areas, 2) safety, and 3) equity. Tier 1 segments are the highest priority. This PIN identifies locations where there may be opportunities to improve conditions for people walking or moving along the street.

Enhanced Street Crossings

Figure 11 through **Figure 21** depict intersections that are not currently enhanced and are 600 feet or more away from the closest enhanced crossing. Enhancements include treatments such as a marked crosswalk, all-way stop, or signal. This map shows areas prioritized for creating a higher density of enhanced crossings and will be used to identify future corridor studies to determine the appropriate improvement and location for new enhanced crossings. (Supports TEF 40.2 and TEF 40.5) Note that this map does *not* propose a set distance between enhanced crossings. Each intersection is given a prioritization score based on three factors: 1) proximity to high pedestrian trip areas, 2) safety, and 3) equity.

Transit Connection Corridors

Figure 22 shows Transit Connection Corridors, which are streets along important transit routes. This map is a prioritization map and will be used to identify corridor-based improvements, primarily in partnership with transit-related projects. Improvements include sidewalk installation or repair, upgraded crossing treatments, and pedestrian features, such as benches and lighting. This map also shows streets with a People Streets and Public Space designation, which complement Transit Connection Corridors at locations in the heart of neighborhoods with a high density of destinations. See the People Streets and Public Spaces Element for more information.

Figure 4: Missing Sidewalks Priority Investment Network (Northwest)

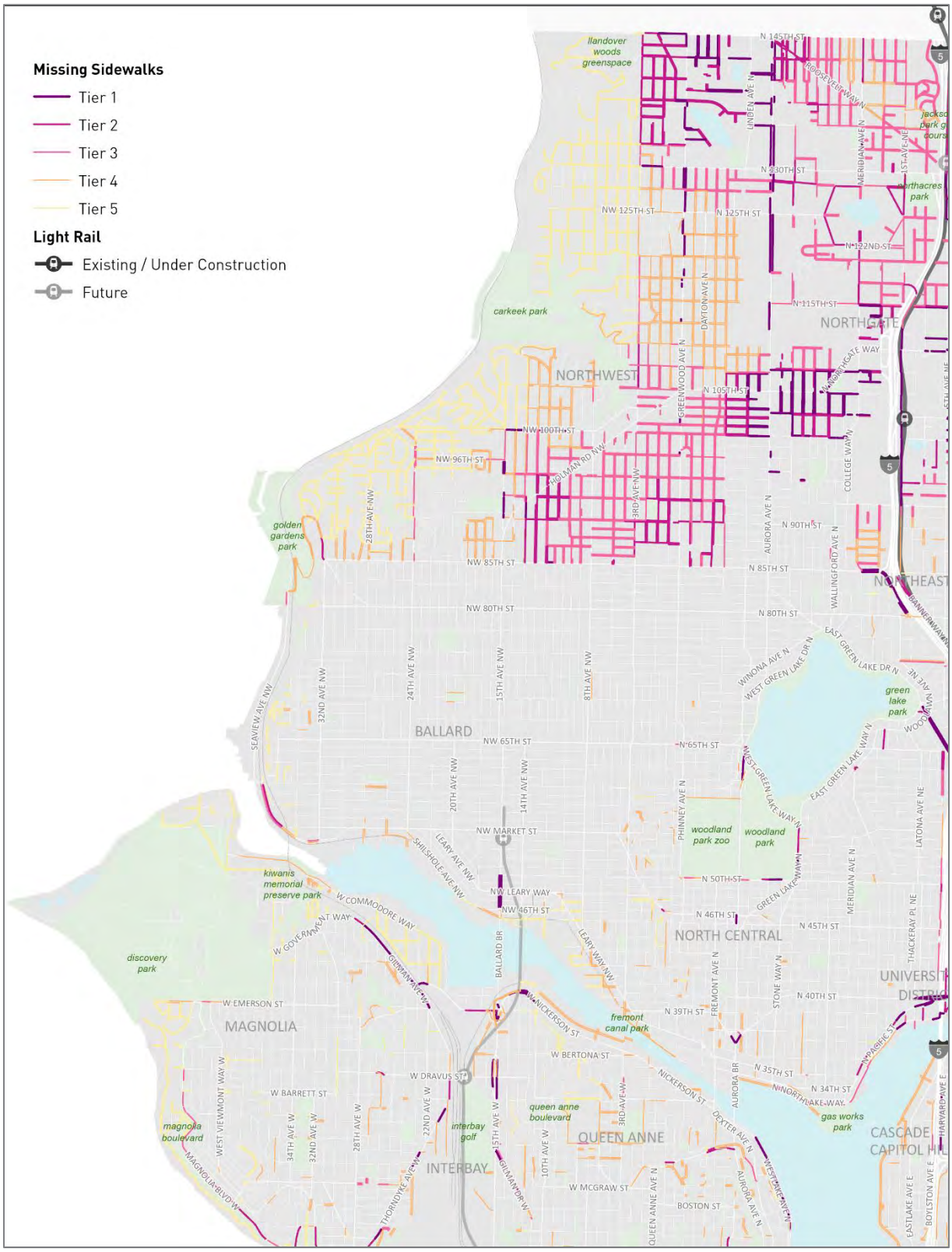


Figure 5: Missing Sidewalks Priority Investment Network (Northeast)

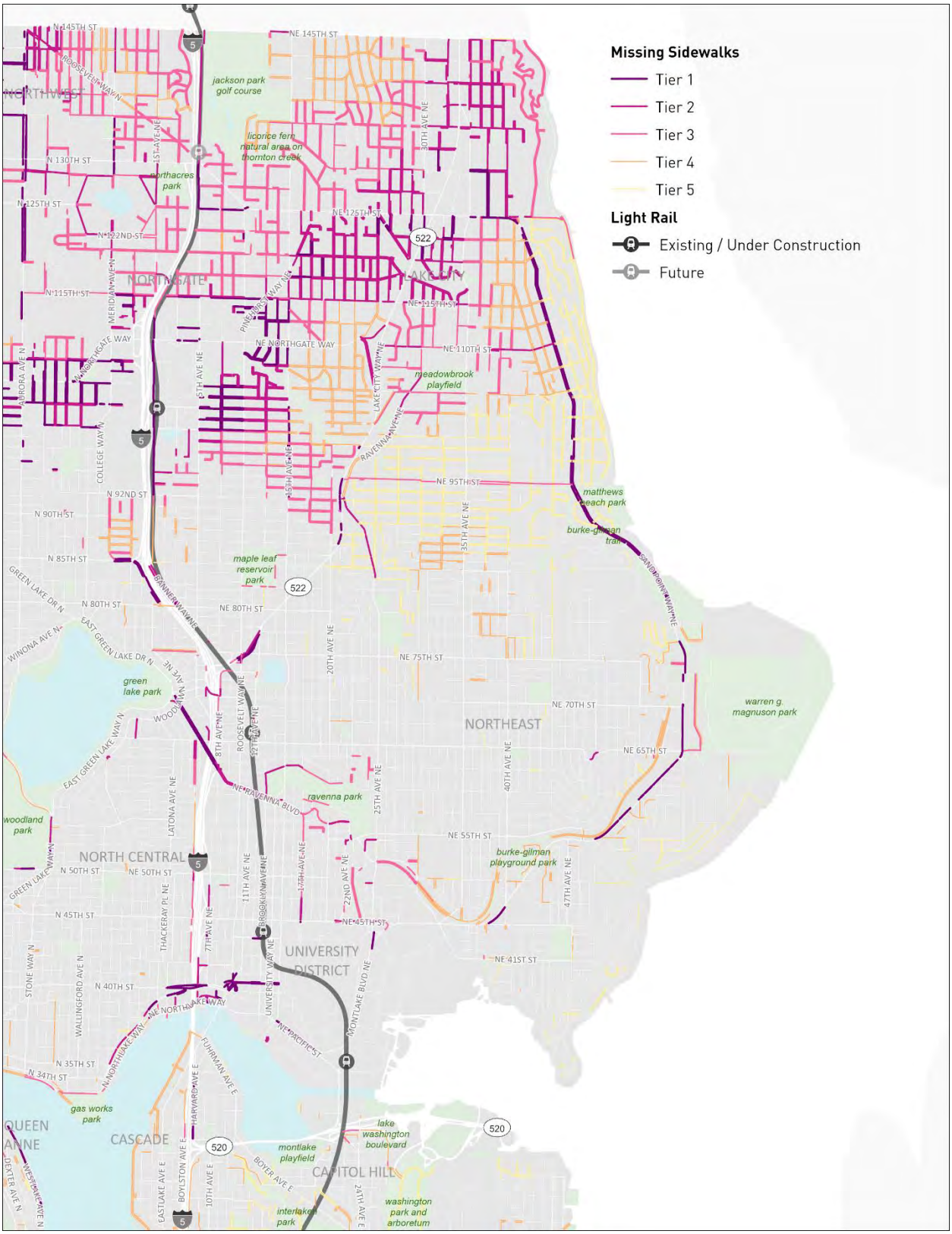


Figure 6: Missing Sidewalks Priority Investment Network (West)

Figure 7: Missing Sidewalks Priority Investment Network (East)

Figure 8: Missing Sidewalks Priority Investment Network (Southwest)

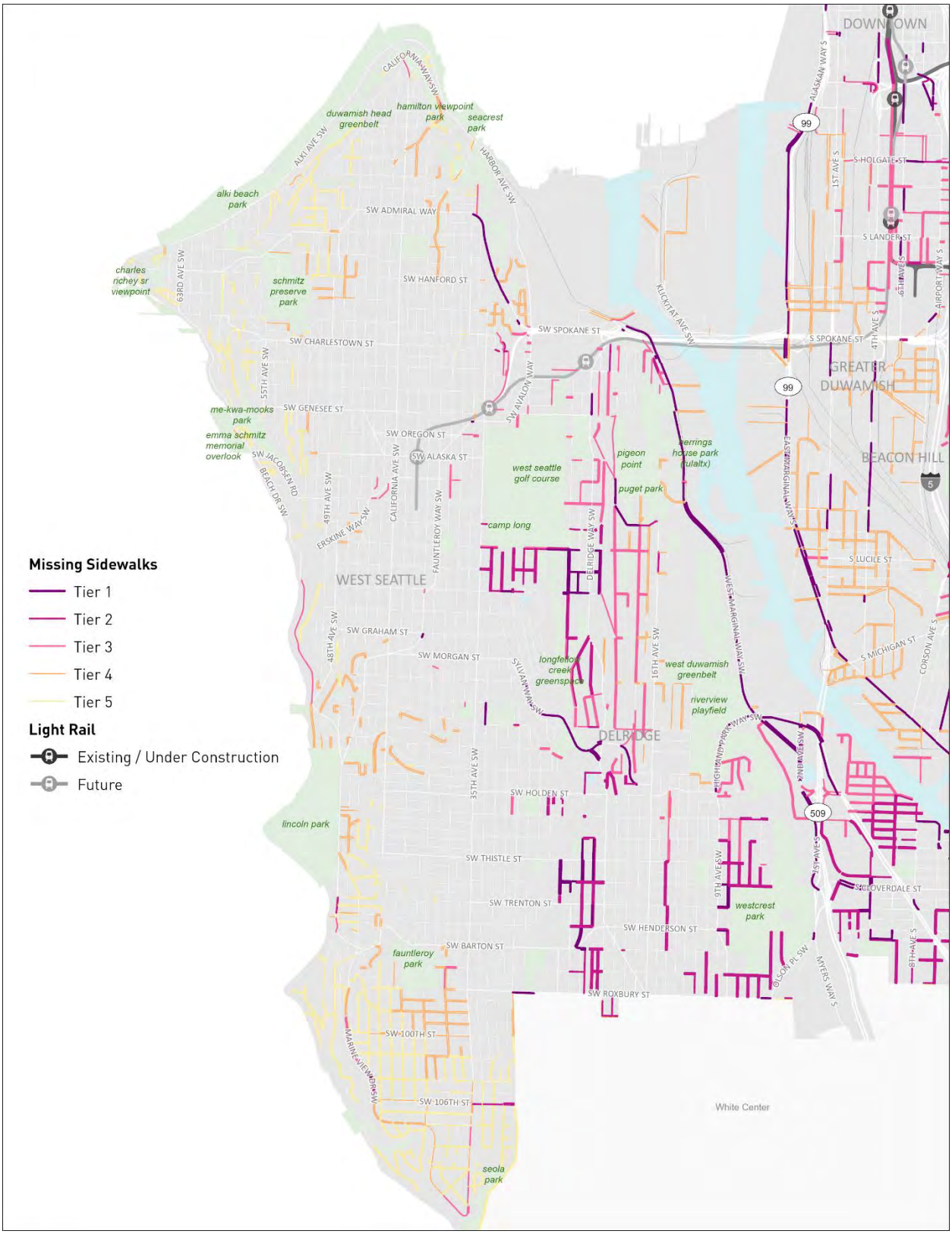


Figure 9: Missing Sidewalks Priority Investment Network (Southeast)

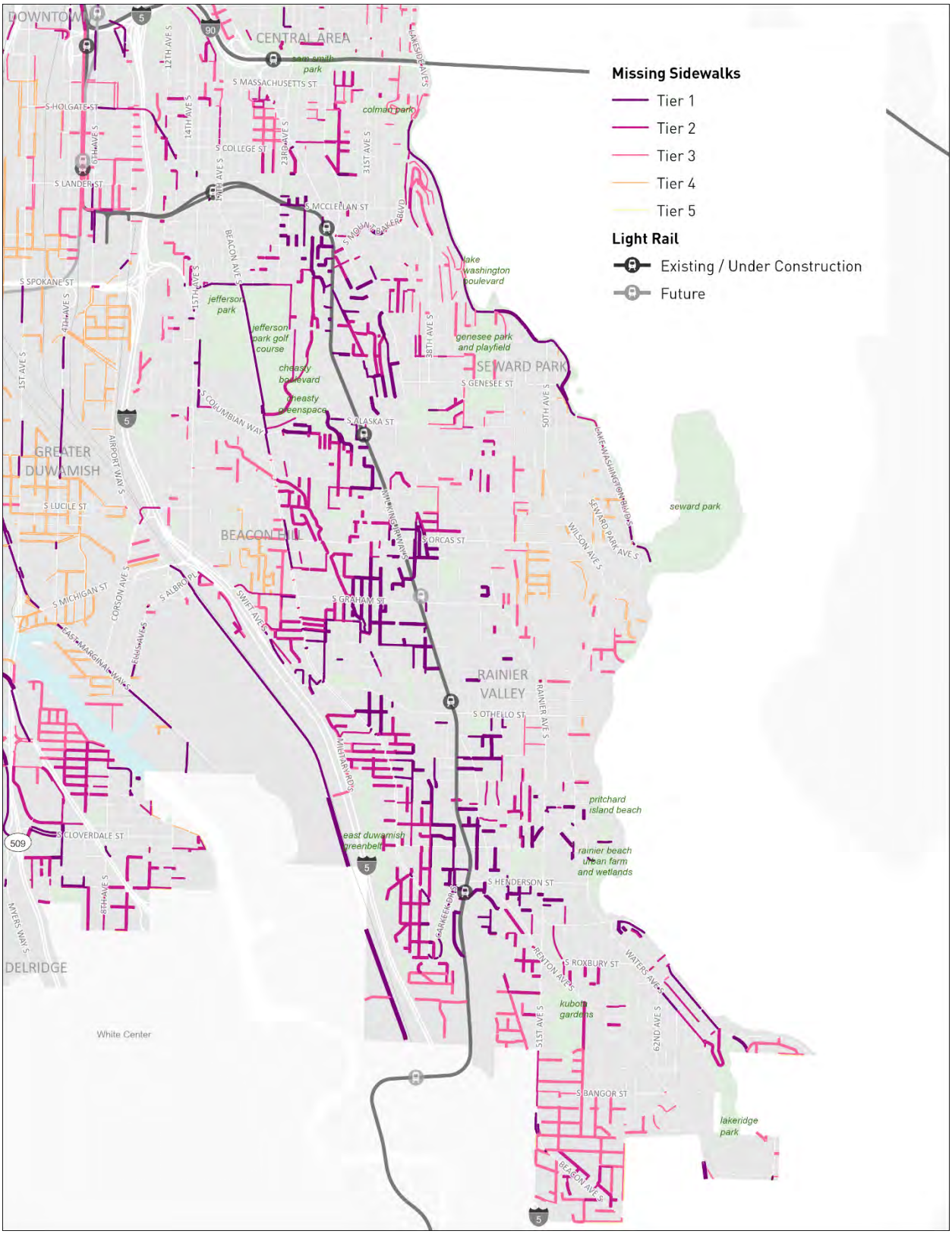


Figure 10: Sidewalks with Substandard Widths Priority Investment Network (Northwest)

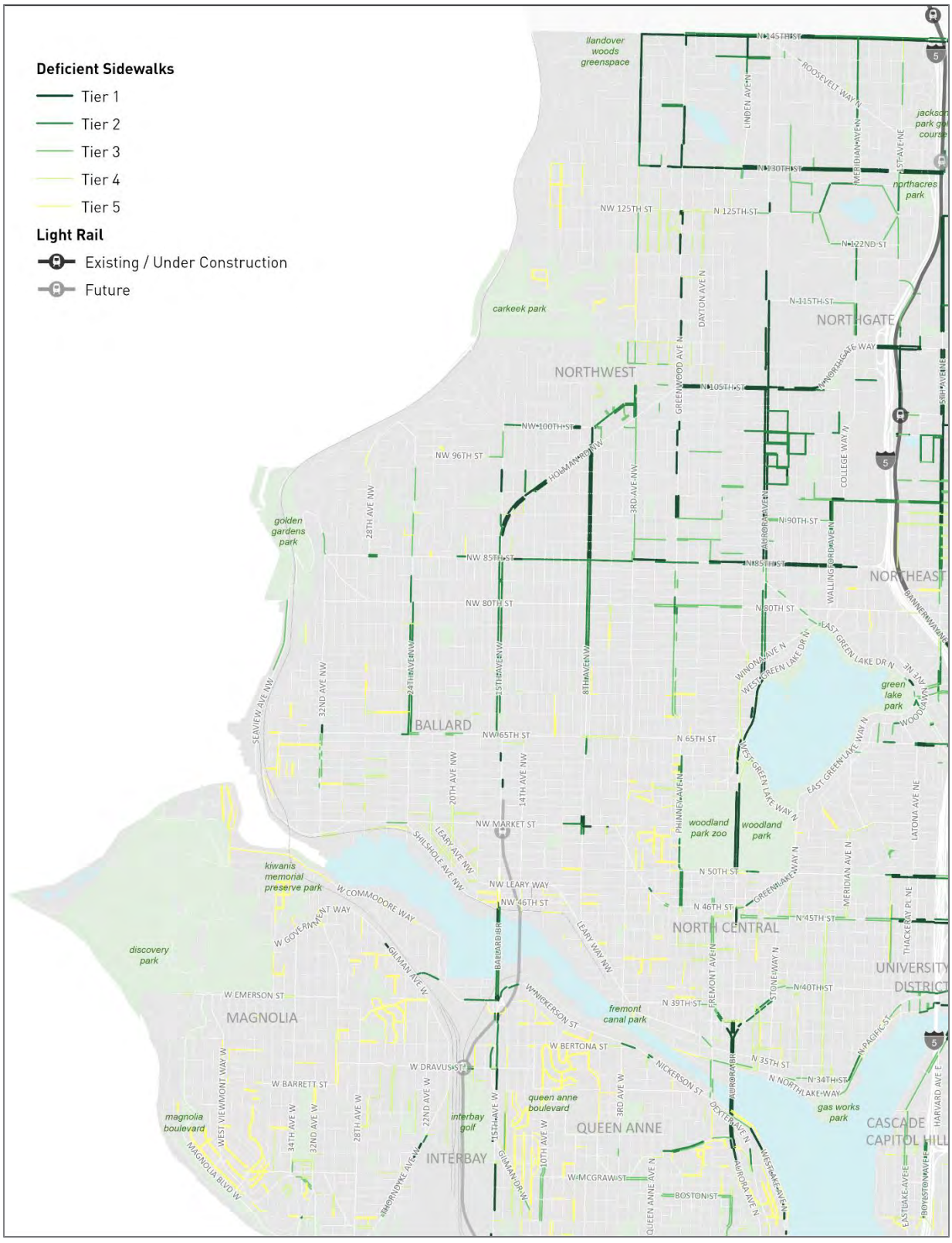


Figure 11: Sidewalks with Substandard Widths Priority Investment Network (Northeast)

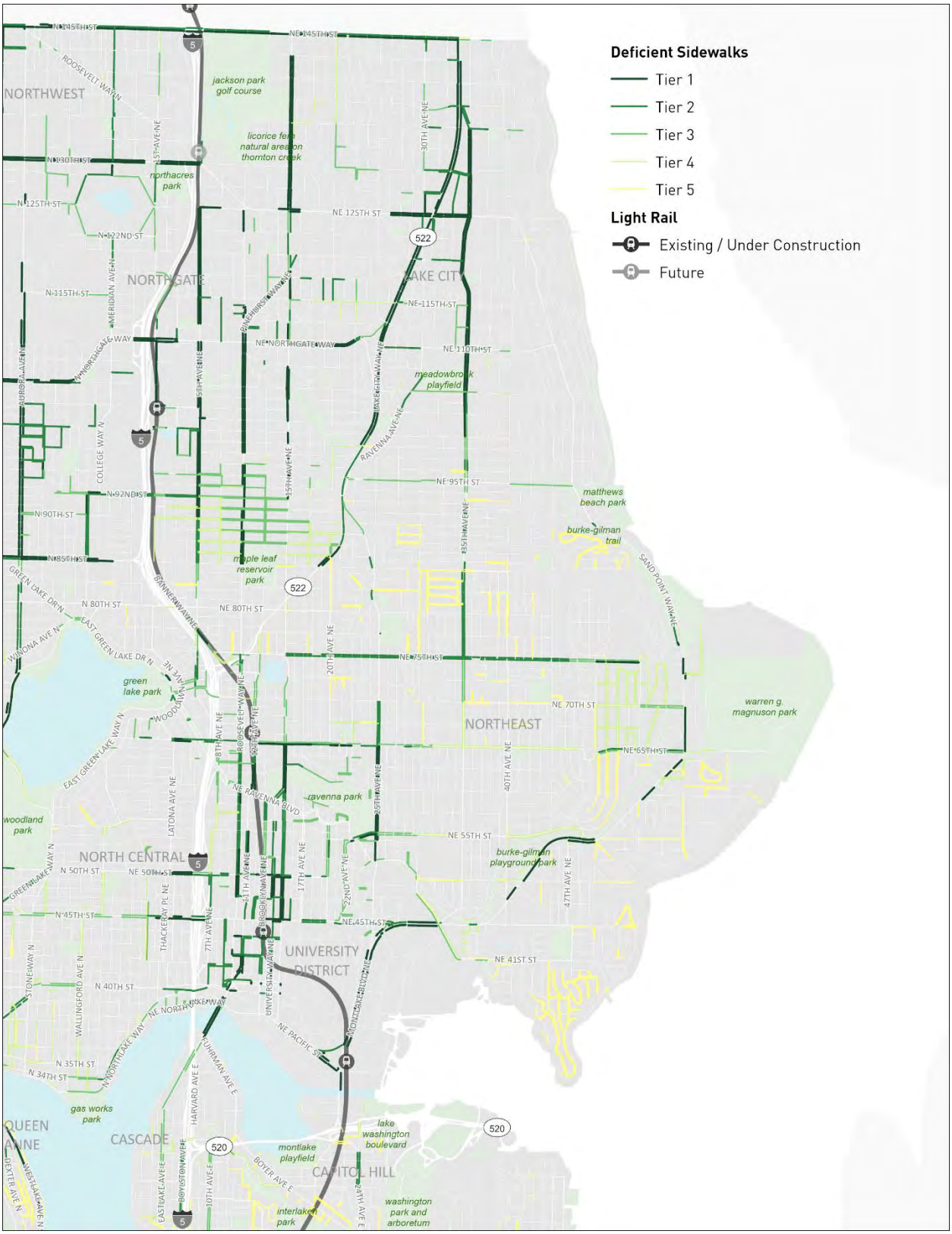


Figure 12: Sidewalks with Substandard Widths Priority Investment Network (West)

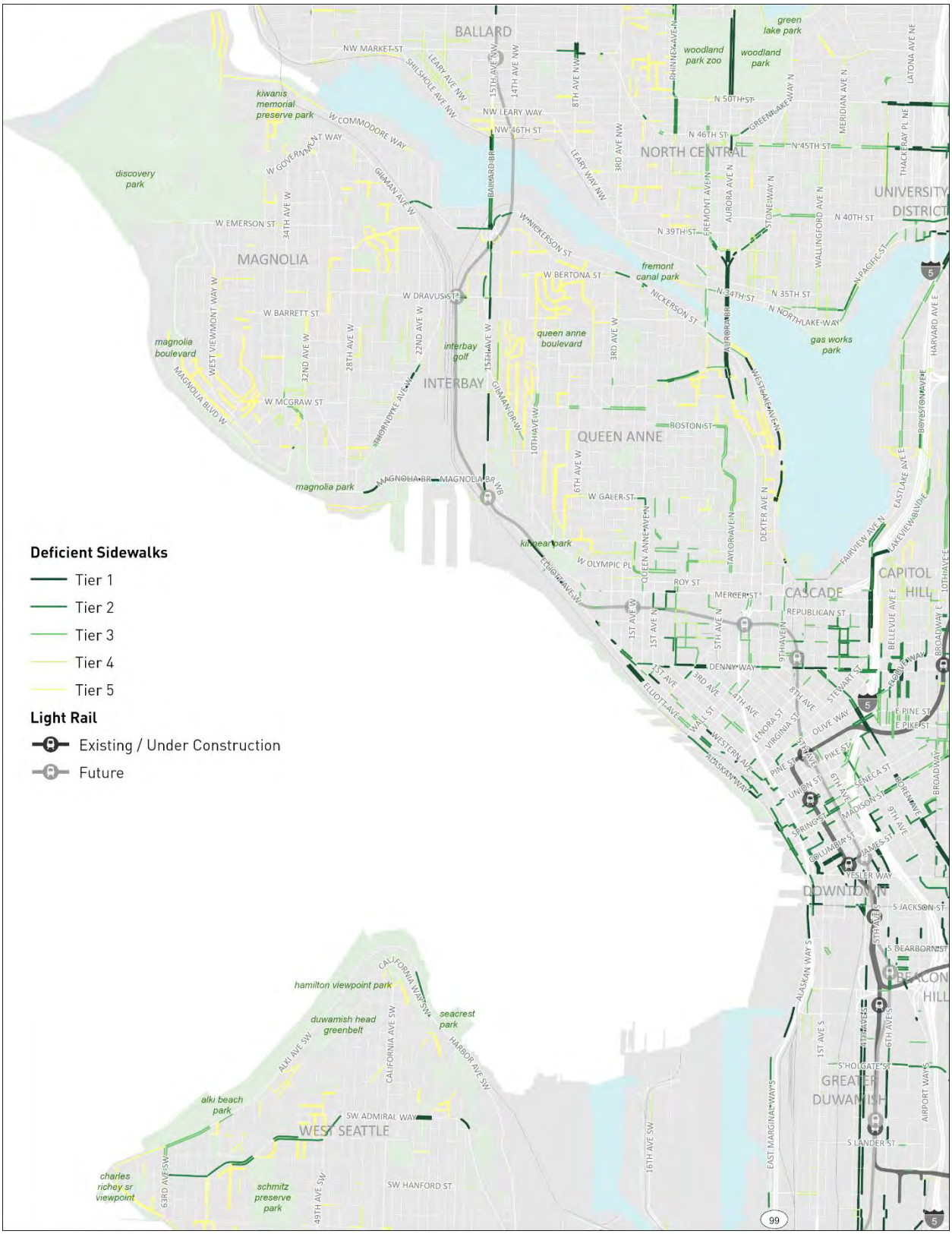


Figure 13: Sidewalks with Substandard Widths Priority Investment Network (East)

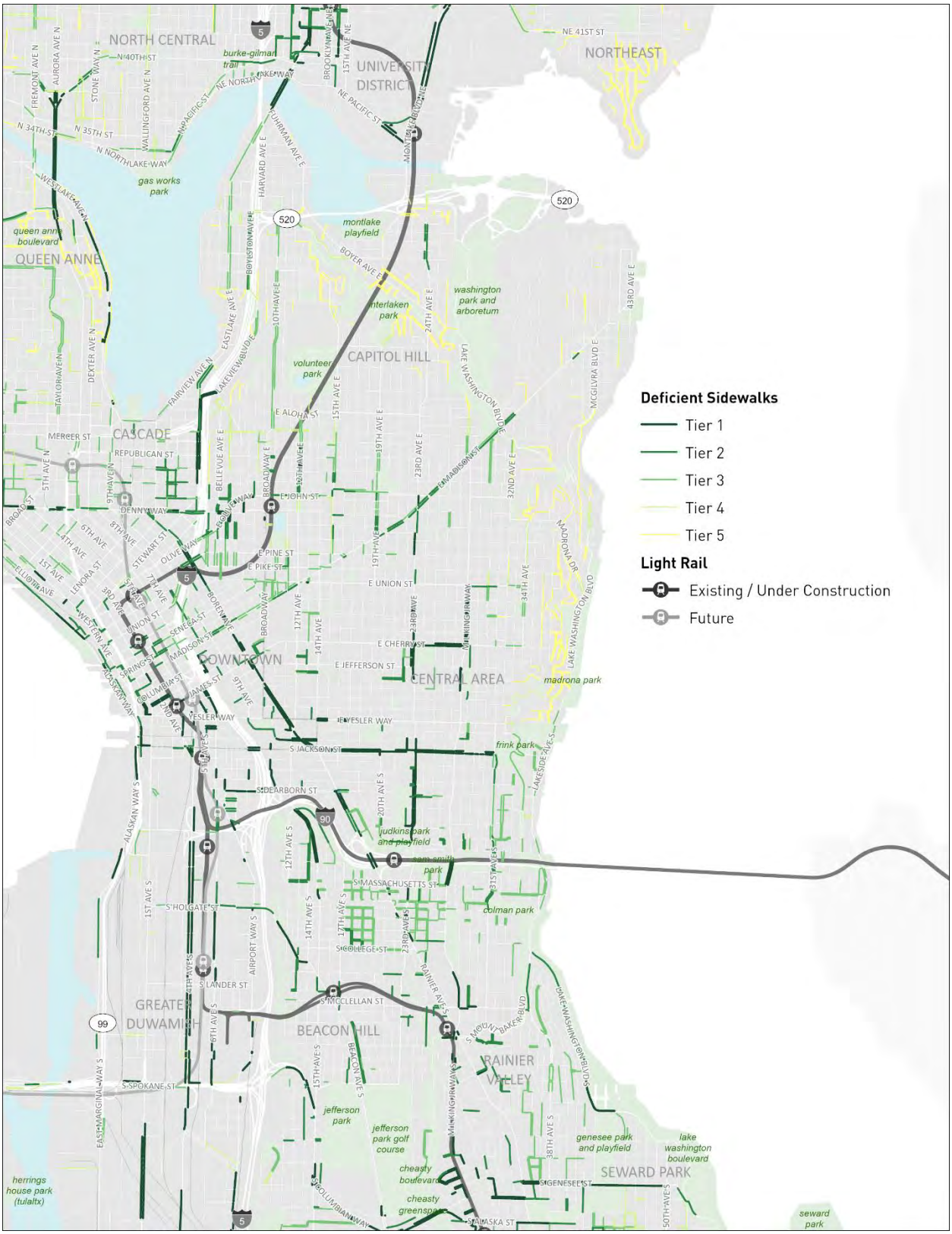


Figure 14: Sidewalks with Substandard Widths Priority Investment Network (Southwest)

Figure 15: Sidewalks with Substandard Widths Priority Investment Network (Southeast)

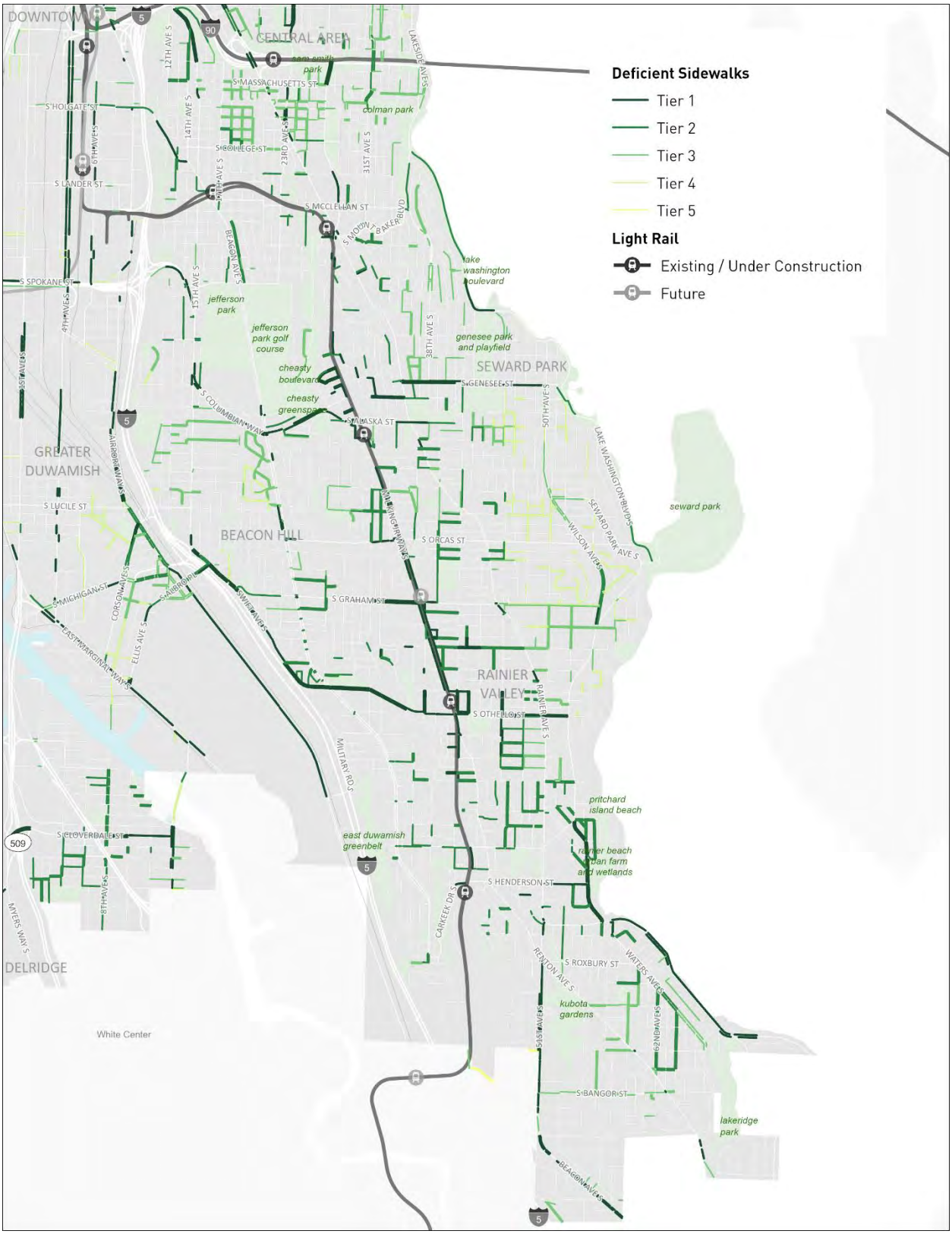


Figure 16: Enhanced Street Crossings Priority Investment Network (Northwest)

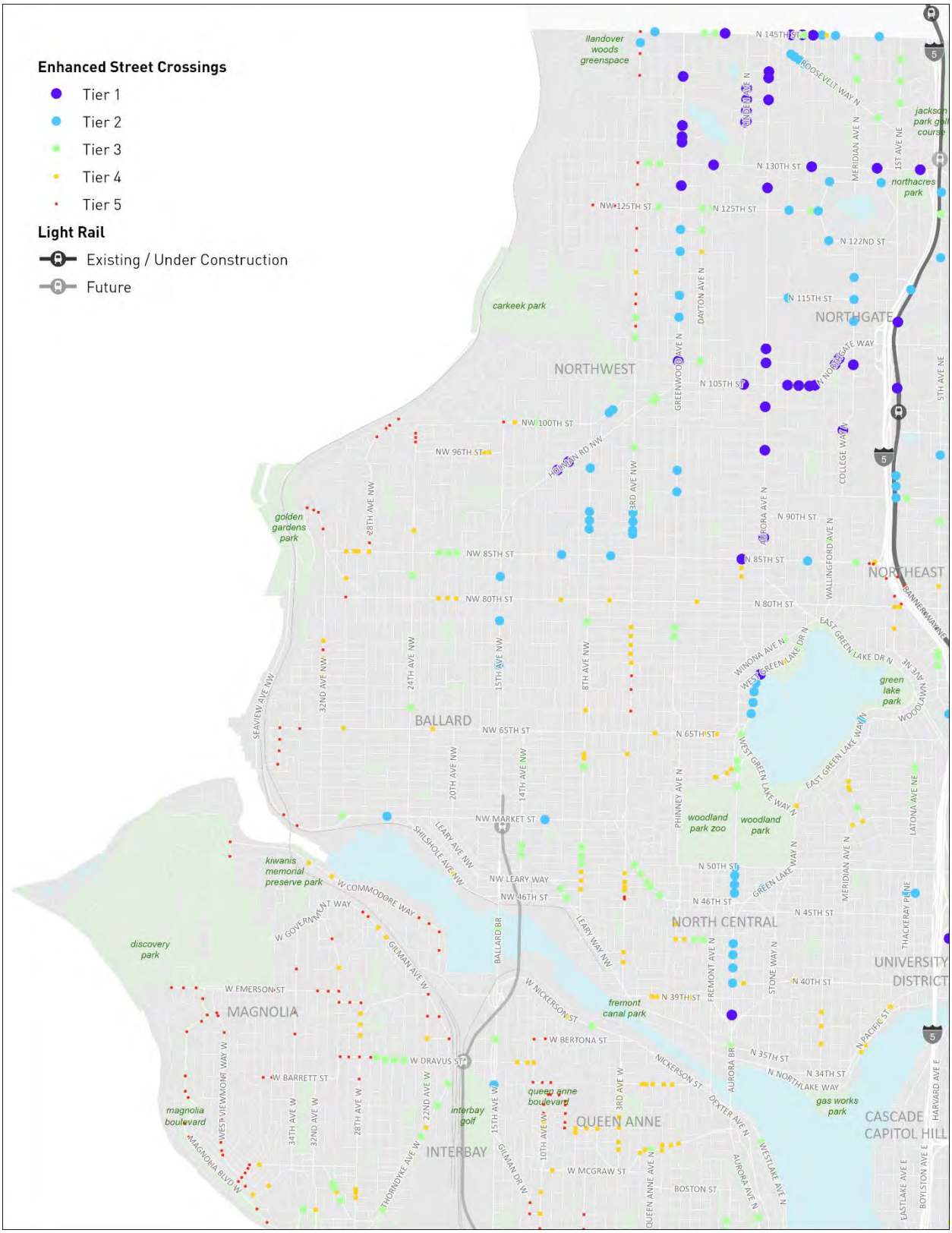


Figure 17: Enhanced Street Crossings Priority Investment Network (Northeast)

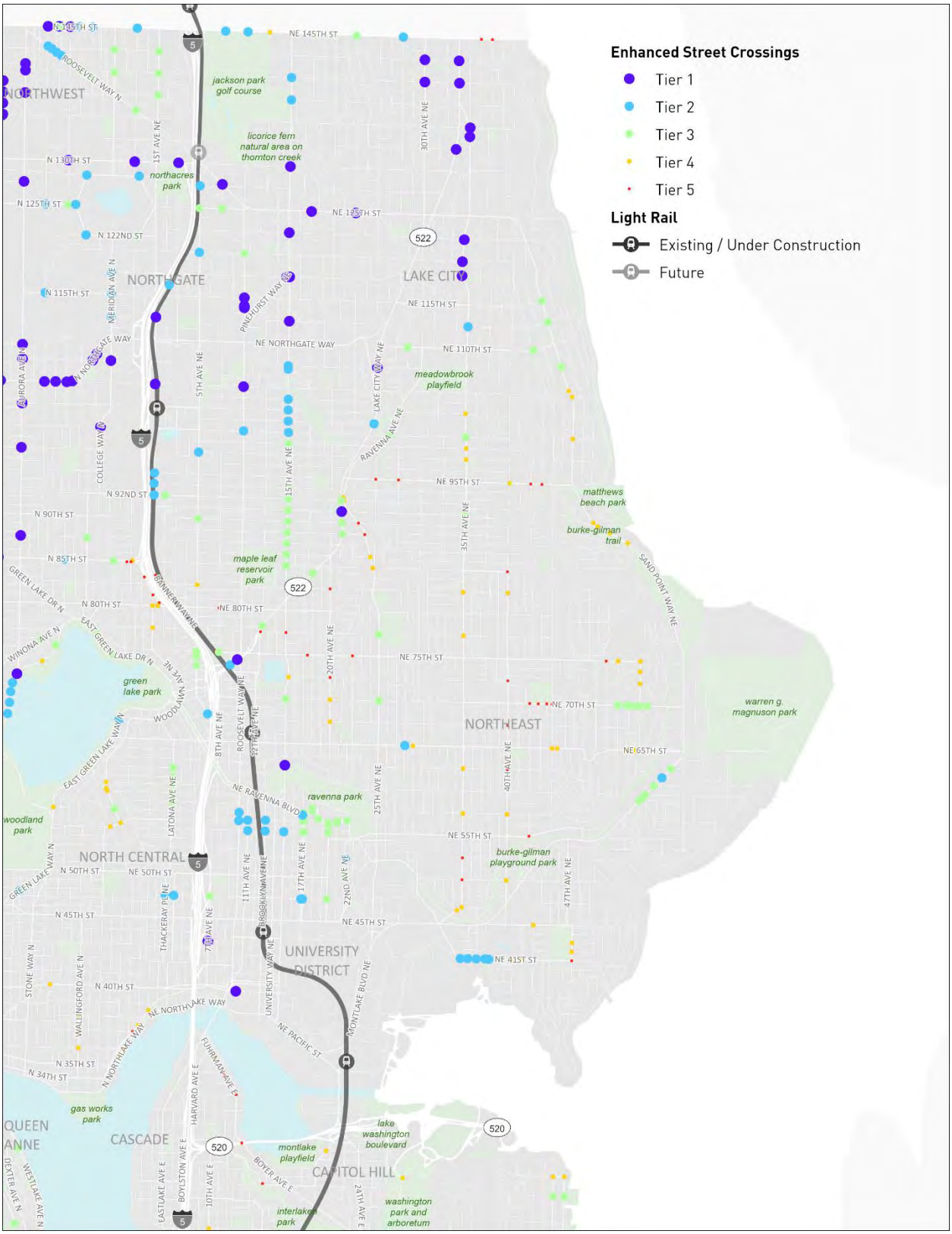


Figure 18: Enhanced Street Crossings Priority Investment Network (West)

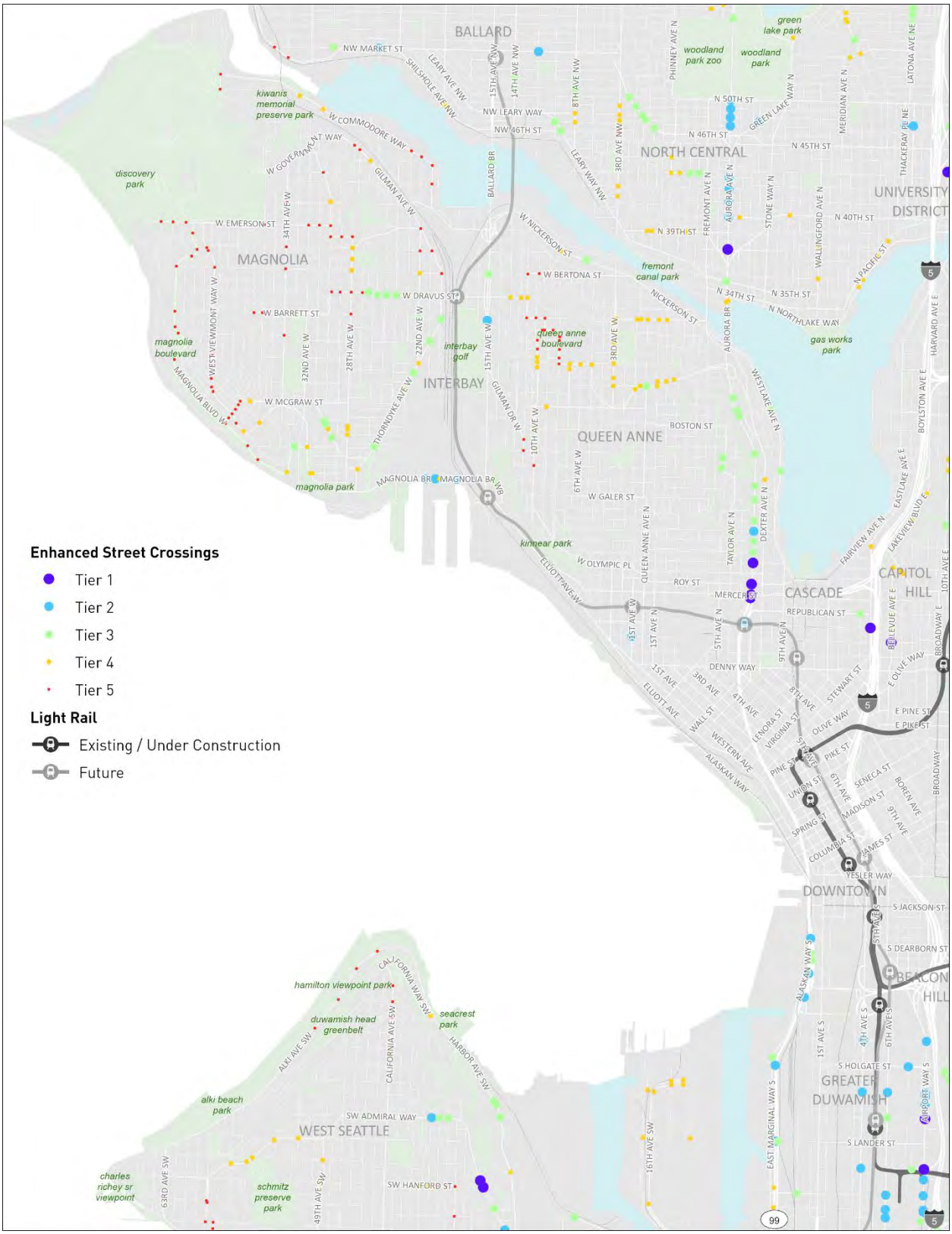


Figure 19: Enhanced Street Crossings Priority Investment Network (East)

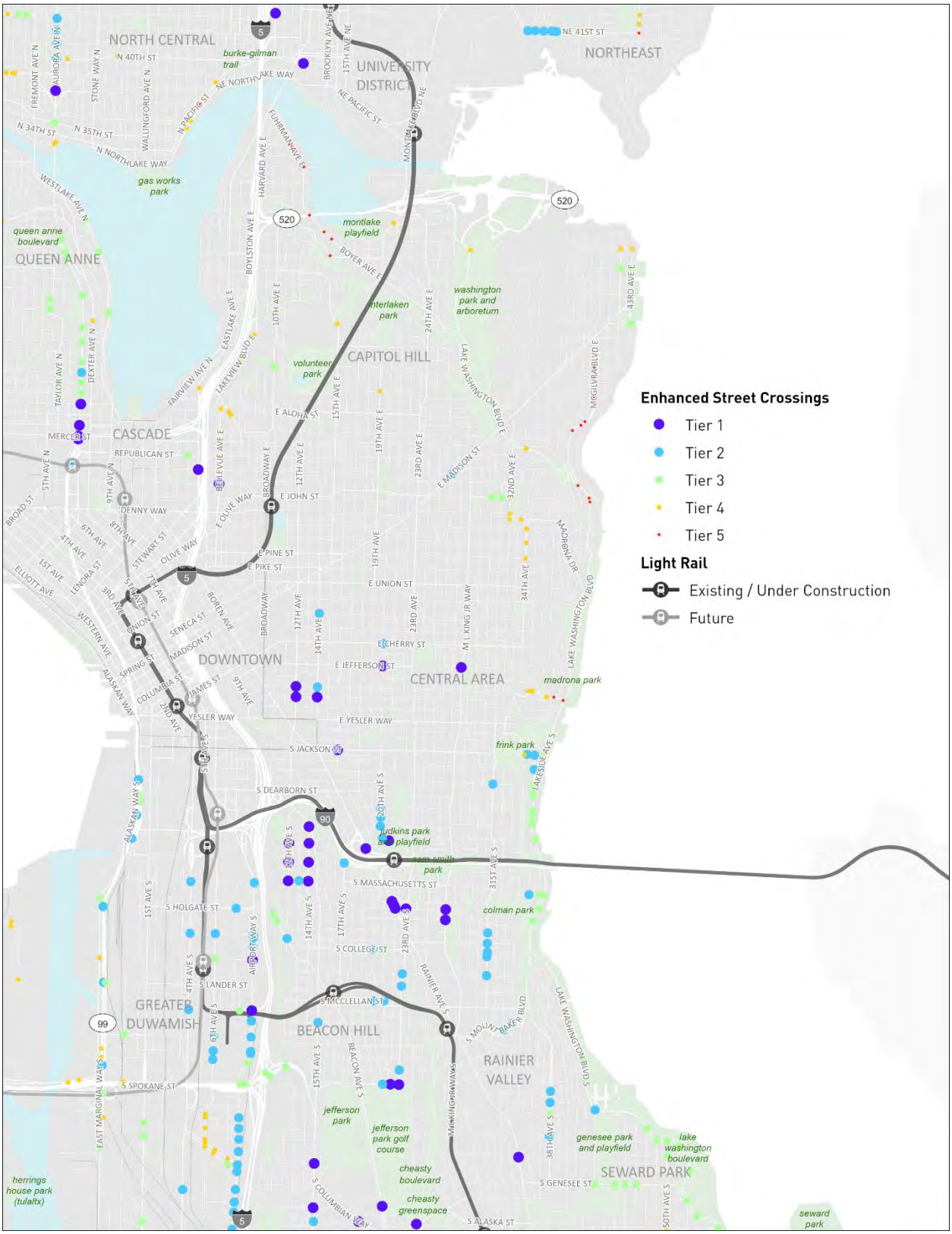


Figure 20: Enhanced Street Crossings Priority Investment Network (Southwest)

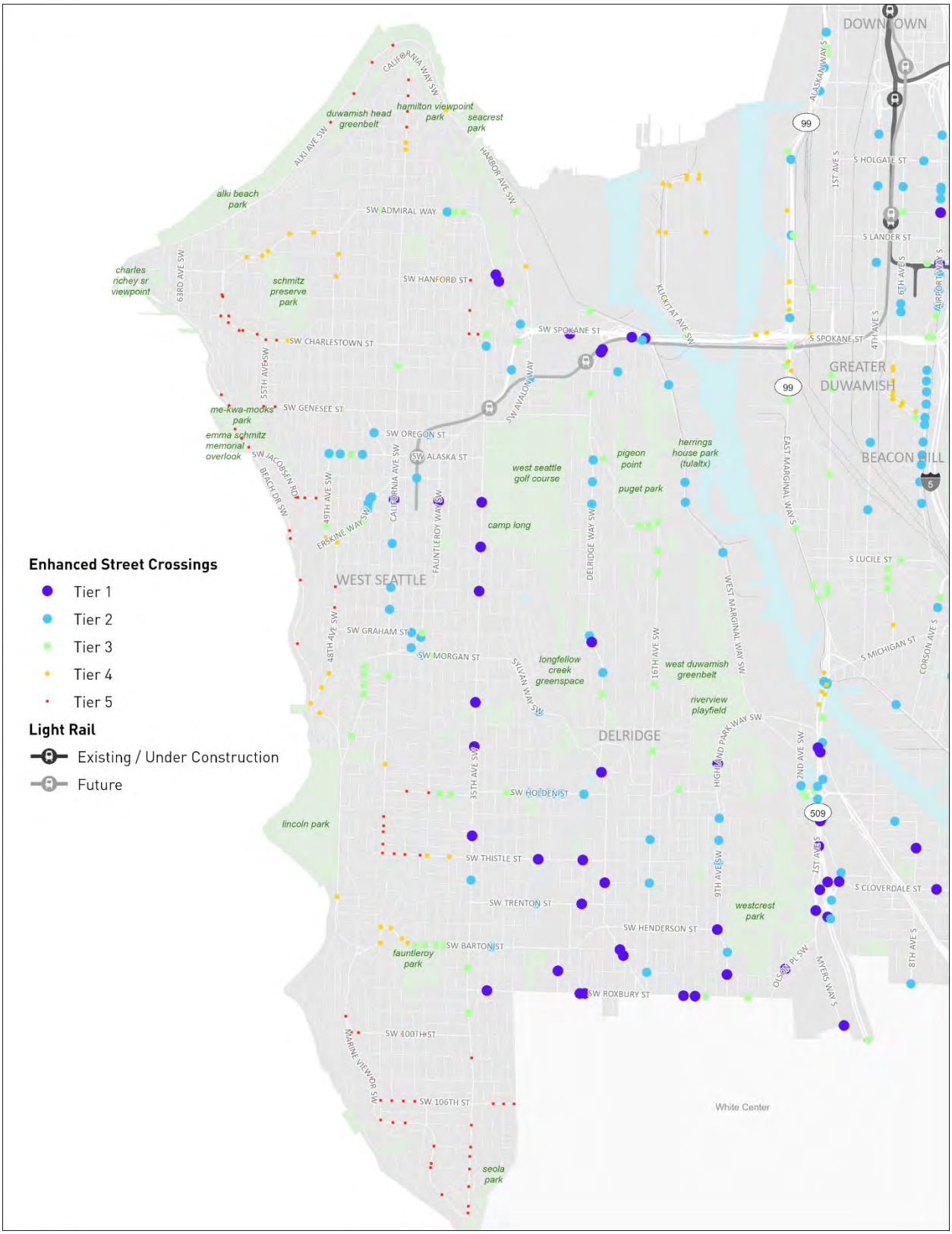


Figure 21: Enhanced Street Crossings Priority Investment Network (Southeast)

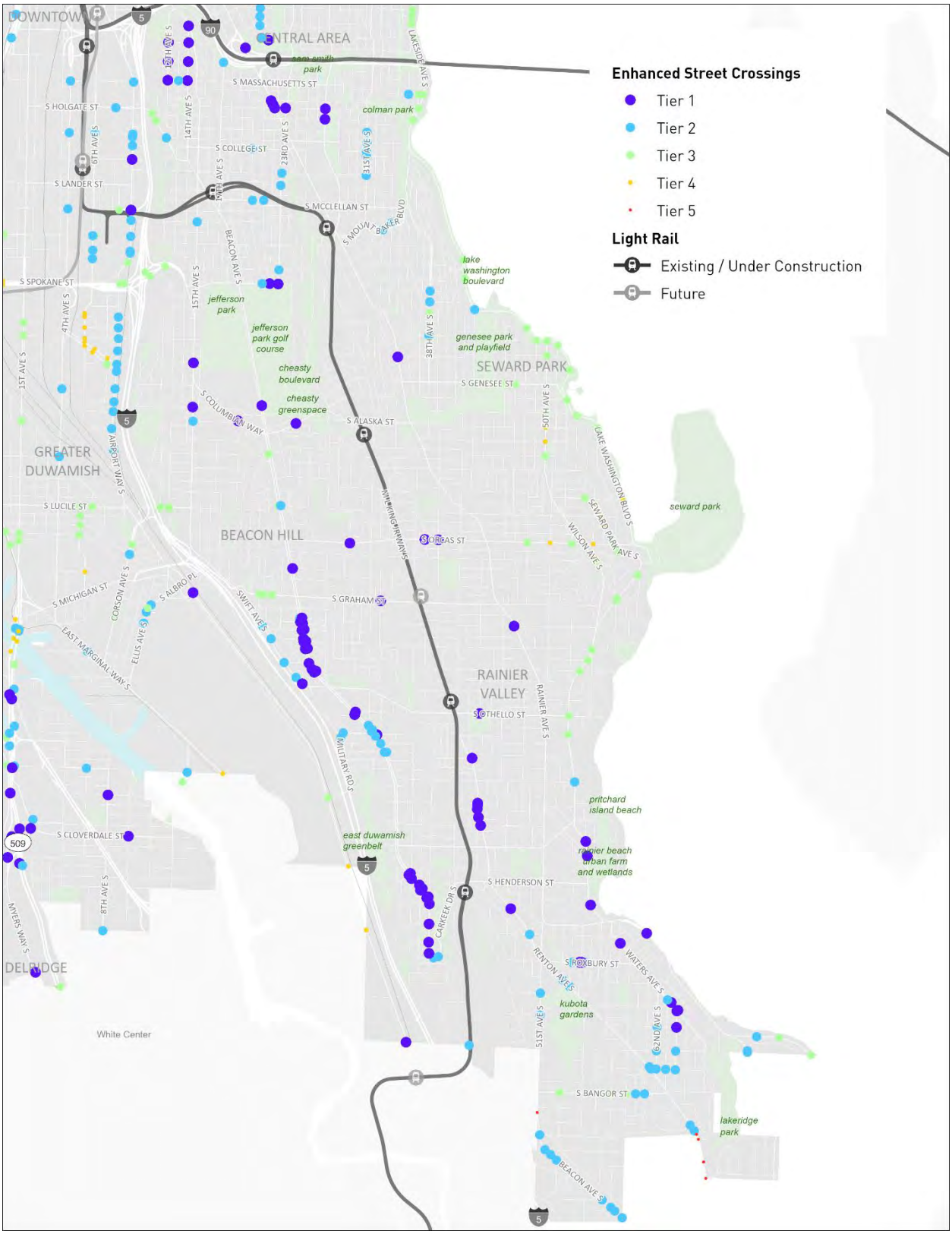
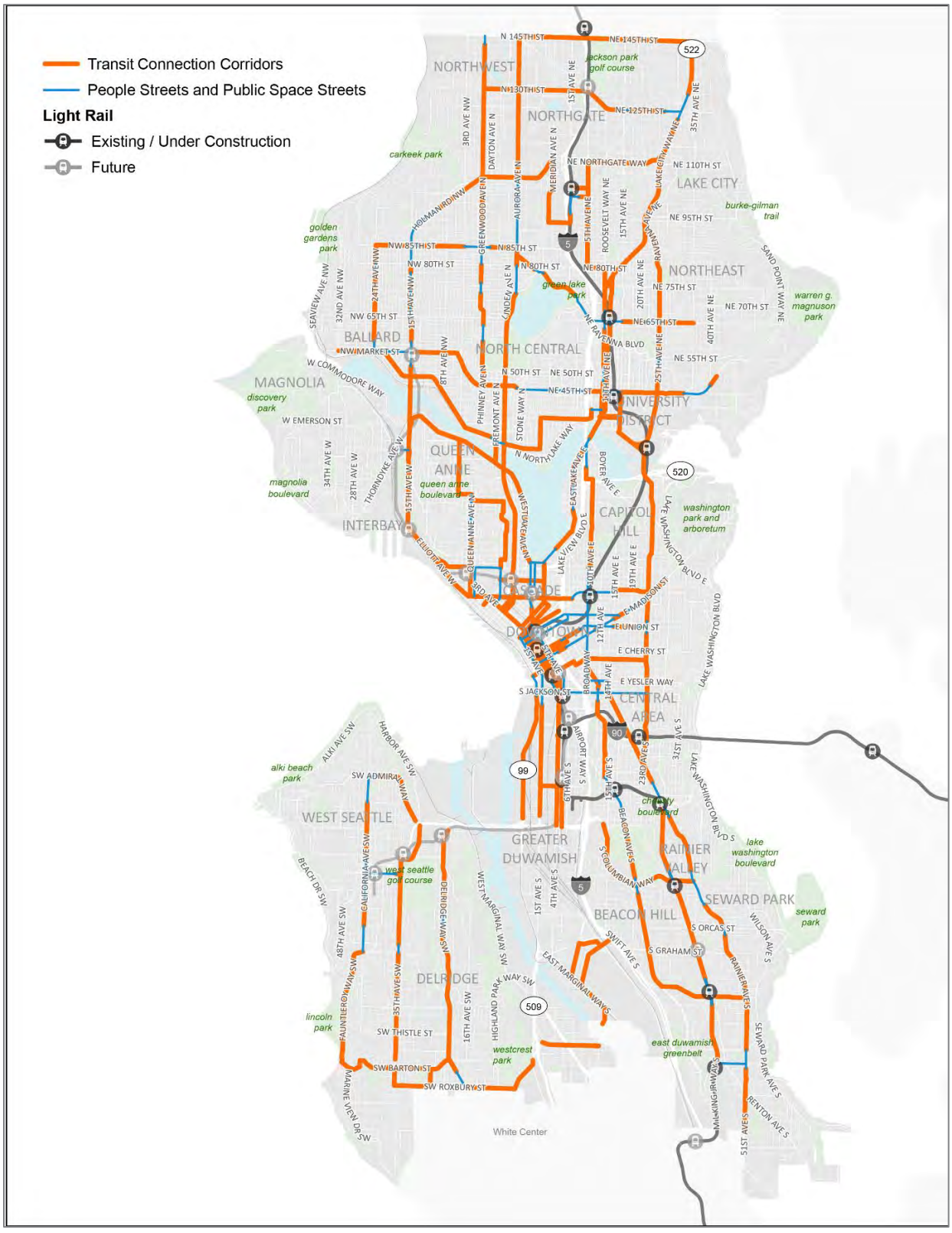


Figure 22: Transit Connection Corridors



*See the People Streets and Public Spaces Element for more information on People Streets and Public Space streets.

CATALYST PROJECTS

Beyond the three PIN maps and the Transit Connection Corridors, there are several key pedestrian-related, large-scale catalyst projects. These are projects that overcome major connectivity barriers and are often complex projects requiring creative solutions, large capital investments, and in some cases, coordination among multiple stakeholders internal and external to the City. See the STP Implementation Chapter for a complete list of catalyst projects and the STP Bicycle Element for more information on key bicycle catalyst projects, many of which also improve pedestrian mobility. Additional pedestrian-focused catalyst projects include the Aurora Ave Corridor project and the Lake City Way Corridor.

KEY CONSIDERATIONS AND PROGRAMMATIC ACTIVITIES

SDOT engages in a variety of programmatic activities (that is, activities that relate to programs or are ongoing, rather than specific to a project) 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 we will employ to manage the transportation system.

Safety Considerations

To address pedestrian injuries and fatalities, we'll need to take a comprehensive, data-driven, Safe System approach. Implementing proven techniques systemwide can help further Seattle's goal of ending traffic deaths and serious injuries on city streets (see below).

We're also committed to Vision Zero, our goal to eliminate fatal and serious injury crashes on our streets, and safety is a leading goal for the STP. Achieving Vision Zero requires making changes to our streets to reduce vehicle speeds and minimize conflicts between people driving and people walking. *See the SDOT Vision Zero Top to Bottom Report (2023) and the Bicycle and E-Mobility Element for more information about Vision Zero.*

To accomplish this, we'll need to adopt clearer and stronger guidance for facility design and clarify and streamline internal decision pathways. We also must be willing to reduce driver speeds, which can impact convenience. Lowering vehicular speeds is a key piece of our Vision Zero efforts because speed is the critical factor in the frequency and severity of crashes. When drivers slow down by just a few miles per hour, it has two main powerful impacts. First, it makes crashes less likely to occur in the first place. And second, a person who is hit by a driver traveling a lower speeds is much more likely to survive the incident.

Nine out of 10 people walking survive when hit by a vehicle traveling at 20 MPH, but only five do when hit at 30 MPH and only one when hit at 40 MPH. US DOT NHSTA (1999)

Developing holistic strategies for traffic calming and pedestrian-friendly street design is core to our work. This includes arterials, as well as local streets. Traffic calming measures can be used to reduce vehicle volumes, particularly on shared streets. To the extent that this strategy considers automated traffic enforcement, we should adopt an equitable approach and explore non-punitive outcomes and income-based fines. By creating safer streets with lower driver speeds, we can minimize or eliminate the need for speed enforcement. Revenues from citations for local safety improvements can be used to reduce or eliminate the need for enforcement.

PROVEN PEDESTRIAN SAFETY COUNTERMEASURES

The Federal Highway Administration's (FHWA) Proven Safety Countermeasures Initiative is a collection of 28 actions and strategies effective in reducing roadway fatalities and serious injuries. Countermeasures known to address fatal and severe pedestrian crashes include crosswalk visibility enhancements, leading pedestrian intervals, medians and pedestrian refuge islands, rectangular rapid flashing beacons (RRFB), road diets, and walkways.

To support our pedestrian safety efforts, we will seek to address the following considerations:

- **Vision Zero and Safe Systems.** Incorporate Vision Zero and Safe Systems approaches into every project and program, including maintenance and asset management programs.
- **Community Requests.** Improve SDOT's customer service response process, developing standard guidance on how to engage and follow-up with community members when safety requests are reported and addressed. (Supports TEF 41.3) See the SDOT Vision Zero Top to Bottom Report for more information.[10]
- **Automated Enforcement.** Complete a racial equity analysis of automated enforcement. Address inequities, and where appropriate, use automated enforcement as a tool.
- **Crossing Safety.** Creating new crossing opportunities or upgrade existing enhanced crossings can improve pedestrian mobility to transit stops and stations and other destinations, respond to community requests, make crossing the roadway safer, improve the pedestrian experience, and leverage other capital investments.
    - Provide high visibility crossing treatments in the Priority Investment Network, including flashing crossing beacons and signage.
    - To shorten pedestrian crossing distances, seek to minimize the number of travel lanes and provide curb bulbs, pedestrian crossing islands, pedestrian refuges, and other appropriate treatments when possible.
    - Optimize pedestrian crossings at traffic signals
        - Identify a standard for maximum wait time for pedestrians at signalized intersections.
        - Identify a standard for a maximum distance between controlled crossings or enhanced uncontrolled crossings including multilane arterials.
        - Always provide a walk phase without activation by push button and provide Accessible Pedestrian Signals (APS) at as many locations as feasible. Identify a standard for maximum wait time for pedestrians at signalized intersections.
- **Pedestrian Lighting.** Revisit the 2012 Pedestrian Lighting Master Plan to assess current "pedestrian lighting deserts."
    - Identify and prioritize critical locations on trails, off-street connections, and streets where it is dark and challenging to navigate at night.
    - Identify opportunities for closer collaboration and cost sharing with Seattle City Light for pedestrian lighting (supports TEF 45.1).
    - Prioritize People Streets and Public Spaces, high ridership transit routes and transfer points, and equity needs.

[10] https://www.seattle.gov/documents/Departments/SDOT/VisionZero/SDOT-Vision-Zero-TopToBottomReview-FullReport.pdf

- **Intersection Turning Movement Conflicts.** Review signal phasing for opportunities to eliminate shared phases that create conflicts between pedestrians and vehicles.
    - Eliminate permitted "turn on red" and dual turn-lane locations, where appropriate, and implement pedestrian-only phasing (including scramble or all way walk signal phases) where appropriate.
    - Implement Leading Pedestrian Intervals (LPIs) where appropriate.

People crossing the street with a baby stroller. Image Source: SDOT

- **"Along the Roadway" Improvements.** Build and maintain the Sidewalk Priority Investment Networks, prioritizing safe and accessible connections to schools, transit stops and stations, parks, and other community destinations. Investments can include sidewalks, walkways, shared streets with appropriate traffic calming, and low-cost improvements on non-arterial streets.
    - Emphasize locations along the Frequent Transit Network; areas around Link light rail and community and mobility hubs; and corridors that provide access to schools, parks, and community destinations.

NACTO GUIDANCE ON SHARED STREETS

The National Association of City Transportation Officials (NACTO), of which SDOT is a member, convened a working group of major US cities to develop new robust guidance for setting speed limits on urban streets to provide an alternative to the highway-focused federal recommendations. The resulting guidance, City Limits, provides cities with clear technical and policy guidance on setting safe speed limits on city streets. All of NACTO's Member Agencies (81 members at the time of final review) have approved this guidance. For streets where people are expected to share the roadway with motor vehicles, a speed limit of 10 mph is recommended.

- **Safe Routes to School.** Implement the Safe Routes to School program to deliver engineering improvements that improve pedestrian safety within school walksheds as well as education and encouragement campaigns at public and private schools throughout Seattle.
- **Safe Routes to Transit.** Implement Safe Routes to Transit to coordinate bicycle and pedestrian improvements around Link light rail, community and mobility hubs, and frequent transit network stops.
    - Improve station access planning for future light rail stations.
    - Implement pedestrian improvements along and across major transit spines to enhance transit access and experience. (Supports TEF 40.2)
- **Safe Routes to Parks.** Implement a Safe Routes to Parks program to coordinate bicycle and pedestrian improvements to parks.
    - Make investments that make it safer to walk and roll to parks. This includes improving sidewalks and crossings within and adjacent to parks.
    - Build on our existing partnership with Seattle Parks and Recreation and efforts to create these kinds of connections.
    - Collaborate with other departments to explore these types of connections.
- **Sidewalk Safety Repair.** Provide safe and accessible sidewalks by proactively identifying issues, implementing temporary measures as needed, and conducting permanent repairs when it is determined to be the City's responsibility, with a focus on underinvested neighborhoods. (Supports TEF 38.2 and 41.6)
    - Develop an income-based cost-sharing sidewalk repair program for lower-income property owners. (Supports TEF 38.6)
- **Multi-Use Trails.** Leverage our work to expand and connect multi-use paths to improve pedestrian access, particularly in areas lacking adequate comfortable on-street connections.

- **Neighborhood Greenways.** Neighborhood Greenways and Healthy Streets provide people opportunities to walk and roll on quieter local streets instead of busier arterial streets. Expanding and upgrading neighborhood greenways can help to prioritize people walking and people riding bikes traveling along roadways with low traffic volumes, slower driver speeds, and gentle grades.
    - Explore opportunities for expanding neighborhood-based events, play streets, and block parties on Neighborhood Greenways and Healthy Streets.
    - Educate people so they are aware of new greenways in their neighborhood.
- **New Technologies.** Support research on emerging technologies that improve pedestrian safety, access, and system management. Identify and employ innovative uses of technology to improve pedestrian safety and access.
- **Multimodal Traveler Safety Education and Encouragement.** Expand driver education courses for traffic citations within the City of Seattle and include an expanded pedestrian safety curriculum.
    - Continue the use of the Safe Routes to School program to provide bicycle and pedestrian safety training and encouragement to all public elementary schools.
    - Create public outreach tools to communicate the top factors contributing to collisions in Seattle.

Accessibility

SDOT will continues to implement existing accessibility improvements identified and prioritized in the *2020 Americans with Disabilities Act (ADA) Transition Plan for the Seattle Public Right-of-Way* and future updates to the plan. Universal design best practices and other guidance should incorporate features and elements beyond ADA compliance, such as tactile wayfinding, to enhance the public right-of-way for all users. Accessibility improvements should be integrated with all new along-the-street and crossing-the-street projects.

To support this work, we will seek to:

- Achieve accessibility and ADA compliance in SDOT programs and projects.
- Promote and enforce the importance of keeping the pedestrian clear zone free of objects or impediments, including propped doors, A-frame signs, landscaping, outdoor seating, displays, and shared micromobility devices. Work with micromobility operators to expand rider etiquette education to deter sidewalk riding and parking of devices in a manner that obstructs access. Provide more dedicated, non-sidewalk parking spaces for bikes, scooters, and other e-mobility devices, along with our continued investment in infrastructure to encourage sustainable travel choices.
- Expand the scope of the ADA Program to encompass a more holistic view of ADA accessibility in the public right-of-way, including sidewalks, pedestrian crossings, accessible parking and passenger loading, and improvements in communication and outreach to the disability community.

- Continue to educate SDOT staff on ADA requirements, accommodations, and effective communication, consistent with SDOT Title II requirements to provide a more inclusive environment and one that is not reactive based on requests alone.[11]

A crowd of people with mobility assistance devices and strollers cross a busy street. Image Source: SDOT

People Streets and Public Spaces

The Seattle Transportation Plan People Streets and Public Spaces element identifies a suite of programmatic actions for equitable investments in people streets and public spaces intended to make neighborhoods more livable, climate resilient, and vibrant places for people to meet their daily needs. [12]

To support this work, SDOT will seek to:

- Expand the number of streets that are car-free and car-lite that support a variety of people-oriented uses, such as gathering, playing, walking, and biking. Maintain urban good delivery and emergency service access as appropriate.
- Implement policies to enable low-emissions neighborhoods. (Executive Order 2022-07)

[11] https://streetsillustrated.seattle.gov/design-standards/access-criteria/
[12] See the Public Streets and Public Spaces Element for additional details on the expanded and new programs.

Livability Considerations

- **Public Space Management.** Continue public space management programs that work with residents, organizations, and businesses to enhance neighborhoods, strengthen communities, enliven public spaces, and promote economic vitality.
- **Pedestrian Wayfinding.** Expand existing wayfinding program to increase directional awareness and proximity to destinations.
    - Emphasize wayfinding to transportation services and transit to assist travelers with decisions about travel options and assist with travel connections.
    - Increase coordination with other agencies to provide consistency in what destinations are called, iconography, and format for secondary languages.
- **Streets Trees and Green Infrastructure.** Street trees, landscaping and other green infrastructure make walking more comfortable and enjoyable, while also providing important benefits for environmental and community health. In neighborhoods where tree canopy is low, fund projects to create tree planting locations with adequate soil volumes to support large, healthy canopy trees. Large street trees are especially important in environmental justice priority communities lacking in tree canopy. To support this work, SDOT will seek to:
    - Explore options for establishing a capital budget to provide new street trees and landscaping within the right of way and increase funding for street tree management and maintenance.
    - Preserve, restore, and enhance the tree canopy on public rights-of-way, with an emphasis on environmental justice by prioritizing communities with transportation equity disparities and urban heat islands.
    - Partner with the community to help care for Seattle's urban forest.
    - Identify and implement management actions that increase the urban forest's resilience to potential impacts, including climate change. See the 2020 Urban Forest Management Plan for additional details.13 (Supports TEF 56.4)
    - Promote and maintain green infrastructure in the right-of-way.
    - Strengthen partnerships with Seattle Public Utilities to expand the use of green stormwater infrastructure with sidewalk and walkway projects and encourage the installation of sidewalks on one or both sides of the street when new natural drainage elements are constructed in the public right-of-way. (Supports TEF 56.4)

Maintenance and Modernization Considerations

In order to build out the pedestrian networks and stretch limited funding, we can explore cost-effective treatments and cost-sharing partnerships with other City departments and private entities.

[13] https://www.seattle.gov/Documents/Departments/Trees/Mangement/UrbanForestManagementPlanFinal.pdf

To support this work, SDOT will seek to:

- **Quick-build Solutions.** Explore options for quick-build solutions where appropriate. Selection protocols should consider lifecycle costs.
    - For crossings, use quick-build treatments (e.g., paint and post) as an interim solution to address safety and comfort until more permanent capital improvements can be made.
    - For along-the-roadway treatments, explore options to implement alternatives to conventional curb and gutter sidewalks on both sides of neighborhood streets, including alternative walkways, constructing sidewalks on one side of the street, and traffic calming and other treatments to create safe and comfortable shared street environments.
- **City Partnerships.** Explore opportunities to implement sidewalks or walkways with green stormwater infrastructure (GSI) projects completed by other City departments.
- **Home Zones.** Strengthen the Home Zone program, which collaborates closely with communities to develop a holistic approach to making residential streets more walkable within a neighborhood using quick-build solutions.
- **Private Partnerships and Investments.** Explore opportunities to incentivize pedestrian realm improvements above and beyond existing land use code requirements.
    - Evaluate land use code revisions that result in the construction of more sidewalks and pedestrian walkway connections.
    - Explore options for developers to provide alternative mitigation in addition to required sidewalk construction.
    - Consider working with large sponsors to develop a private partnership program devoted to the construction of new sidewalks.
- **Maintenance.** Periodically review and adjust resources for maintenance equipment, labor, and program management to be proportionate to a growing pedestrian network.
    - Promote use of sustainable construction materials that are durable and have lower lifecycle costs to replace and maintain, such as permanent barriers.
    - Negotiate maintenance agreements with partners.
    - Leverage opportunities to implement joint sidewalk and green stormwater infrastructure (GSI) projects.
    - Improve and promote the Find It, Fix It app to make it easier for community members to report maintenance issues, including sidewalk specific issues.

Neighborhood Street Fund

The Neighborhood Street Fund is a city program, running on 3-year cycles, that enables the community to propose and help prioritize transportation-related projects that are then built by the Seattle Department of Transportation. (Supports TEF 43.4) Since 2015 over 20 projects have been designed and constructed. Projects fall into various categories such as art, community placemaking, and safety improvements. (Supports TEF 19.4 and TEF 45.3)

This is a popular program and multiple requests go unfulfilled in each of the 3-year funding cycles. Expanding the program could enable an increase in the number of projects selected and seek ways to continue to advance equity and transportation justice in project identification and selection.

Policy and Legislative Initiatives

Shaping and implementing well-designed policies can help achieve desired safety and equity outcomes. Key considerations include:

- **Pedestrian Crossing level of service (PLOS) policy.** SDOT should seek to create a baseline pedestrian crossing level of service (PLOS) policy across Seattle to identify a standard for a maximum distance between controlled crossings or enhanced uncontrolled crossings. This distance could be set for all streets and may vary by street type, land use context, presence of transit, and other factors. The PLOS would also include policy to reduce pedestrian wait times at signals.

  As part of this policy, review and update current crossing treatment implementation strategies to center the safety needs of communities. This includes policy, design, and implementation guidelines to address and improve crosswalk and pedestrian safety from a community-specific context, e.g., improving visibility for crossings and reducing turning movement conflicts at intersections. (Supports TEF 40.6)

- **Olmsted Boulevards.** Explore with Seattle Parks and Recreation the potential for changes in policy and operation of Olmsted Boulevards to allow more flexibility to create better walking, strolling, and biking experiences. These changes could enable more opportunities for healthy recreation opportunities year-round instead of only on summer weekends. (Supports TEF 43.4)

- **Replace punitive enforcement with education strategies.** Coordinate with community-based organizations (CBOs) and legislators to revise or remove punitive pedestrian crossing laws (i.e., jaywalking) that result in harm to Black, Indigenous, and People of Color (BIPOC) communities. Replace these laws with educational outreach that promotes safe walking, rolling, and bicycling behaviors. (Supports TEF 43.2)

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 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 walkable city provides an accessible, well-connected, comfortable, safe, and intuitive network of sidewalks, crossings, paths, plazas, and staircases for all users. It includes:

- **Direct connections to key destinations**, including convenient and safe ways for people of all ages and abilities to cross the street
- **Clear and inviting spaces** for people walking to move along every street at all hours of the day and night, including safe and barrier-free sidewalks or walkways on roads with low vehicle volumes and speeds at or below 25 mph
- **Public right-of-way designed and operated at a human scale,** including putting the needs of the most vulnerable road users first. The right-of-way has fewer vehicles, both stationary or moving through it, to reduce air and noise pollution and traffic violence and to improve the traveler experience for those outside of vehicles
- **Compact neighborhoods** with transit stops and stations, schools, jobs, and services within walking distance
- **Streetscapes that include features for people**, including benches, sidewalk cafes, pedestrian lighting, trees, vegetation, restrooms, water fountains, culturally appropriate and in-language wayfinding, protection from rain and sun, and public art
- **Places of respite** that invite conversation, encourage connection with nature, and provide places to play
- **Proactive maintenance** to provide accessibility for all, including people using wheelchairs and other mobility devices

AGE FRIENDLY SEATTLE

A safe, complete pedestrian network supports Seattle's Age Friendly efforts to make our communities great places to grow up and grow old. A quarter of Seattle residents are under age 25. For young people, walking affords a sense of independence. Seattleites over age 65 currently comprise around 15% of the City's population and are expected to grow to 25% of the population by 2040. For seniors, walking or rolling is an effective means to stay physically and socially active and is important to enable aging in place.

MEASURABLE OUTCOMES

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

- **Tier 1:** Overarching outcome-based measures are identified in the STP implementation strategy (see Chapter 4 of the Part I document). Generally, they are tracked at a citywide scale, and SDOT may not have primary control over their achievement. Examples include a reduction in vehicle-miles traveled and the percent of household income dedicated to transportation.

- **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 a target to increase the city's tree canopy percentage and targets to increase the percentage of people making active trips, or the percentage of block faces that are compliant with the Americans with Disabilities Act accessibility requirements.

- **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 track productivity and to help allocate resources. Examples may include the number of blocks of sidewalks or crossing improvements created each 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.[14]

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. SDOT will continue to evaluate resource availability before performance measures are set in the final recommended STP.

Table 2 identifies the Tier 2 performance measures that will be tracked for the Pedestrian Element.

[14] https://data.seattle.gov/dataset/Racial-and-Social-Equity-Composite-Index-Current/w3kz-xtmq

Table 2: Pedestrian Performance Measures

Desired Outcome	Related STP Goal	Performance Measure (source)	Target or Desired Trend	Track measure by RSEI and/or race	Baseline
End traffic deaths and serious injuries on city streets	Safety Equity Mobility Livability Maintenance & Modernization	Number of fatal and serious injury crashes involving people walking and rolling (SPD collision report data)	Zero	Yes	In development
Increase pedestrian and active trip mode share	Sustainability Mobility Livability	Increase in the share of active trips (walk, bike, rolling trips, micromobility devices) (PSRC)	XX% of total trips will be by active transportation by 2030; XX% by 2044	Yes	In development
Green our streets to support livability and climate targets	Sustainability Livability Maintenance & Modernization	Tree canopy in the right-of-way (SDOT)	Increase tree canopy in the ROW to 30%. Sub-measures: Utilize Urban Forestry citywide and subarea canopy goals	No	In development
Increase access to a shared street or public space	Safety Equity Mobility Livability	Percentage of households that live within a 10-minute walk of a shared street or public space (Census Bureau, SDOT)	XX% of households that live within a 10-minute walk to shared streets and public spaces by 2044 outside Regional Centers and Urban Centers XX% of households that live within a 10-minute walk to shared streets and public spaces by 2044 in Regional Centers and Urban Centers	Yes	In development
Support a well-maintained pedestrian network	Maintenance & Mobility	Percentage of sidewalks with fair or better pavement condition (SDOT)	Increase the percentage of sidewalks with a "Fair" or better pavement condition rating (out of Good/Fair/Poor)	Yes	In development

NOTE: Many of the STP performance measures targets and baselines are still under development.

RELEVANT TEF TACTICS

TEF 19.6—Prioritize person-throughput as metric rather than vehicle throughput

TEF 19.7—Do pilots to test out repurposing of streets ideas and apply learnings 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 29.1—Create publicly accessible community-oriented visuals and neighborhood-specific snapshots to capture where SDOT has built infrastructure, dedicated investments, and collected community feedback; this should be utilized by SDOT, other City departments, and transportation partners to inform future investment needs as well as planning and programmatic efforts

TEF 38.2—Explore including a dedicated funding pot in the next transportation funding package for sidewalk maintenance and repair in underinvested neighborhoods that has not been addressed by the $20 vehicle license fee (VLF)

TEF 38.6—Develop an income-based cost-sharing sidewalk repair program for lower-income property owners

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 40.2—Identify locations for new or upgraded pedestrian crossing opportunities to support access to transit

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 crosswalk and pedestrian safety from a community-specific context

TEF 41.3—Develop SDOT standard guidance across the Department 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 41.6—Create regular opportunities that are not project-specific for community conversations on safety with leadership

TEF 43.2—Coordinate with community-based organizations (CBOs) and legislators to revise or remove pedestrian crossing (e.g., jaywalking) and helmet laws that result in harm to BIPOC communities; replace with educational outreach that promotes safe walking, rolling, and bicycling behaviors

TEF 43.4—Review SDOT policies, practices, standards, and funding allocation strategies to elevate/give priority to access and use of right-of-way (ROW) for people of all ages and abilities, people recreating, shopping, walking, rolling, riding bikes, and taking transit.

TEF 45.1—Revisit the Pedestrian Lighting Master plan from 2012, assess areas of current "pedestrian lighting deserts" with transit ridership routes and transfer opportunities, and place a higher emphasis on equity. Use the findings from this assessment to inform the development of the next transportation funding package.

TEF 45.2—Identify opportunities for closer collaboration and cost sharing with Seattle City Light for pedestrian lighting

TEF 45.3—Identify spaces for equitable investment that can activate community, foster local economic development, and facilitate connections to transit

TEF 45.6—Utilize findings from the Pedestrian Racial Equity analysis and identify a plan to improve connections between transit stops and key community assets (e.g., parks, libraries, schools, employers) are safe for people walking

TEF 56.4—Improve, identify, and maximize current opportunities for street trees and greenscapes in SDOT activities ranging from routine maintenance to capital project delivery; ensure design guidance and functions of maintenance include this consideration for long-term sustainability

GLOSSARY

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

ADA: Americans with Disabilities Act

ADA Transition Plan: A federally required plan intended to identify and prioritize accessibility improvements where they may be needed for pedestrian use. The document lists potential barriers to access in the public right-of-way identified through self-assessment efforts that SDOT conducts. The plan includes methods, schedules, and reports of barrier removal in the Seattle public right-of-way.

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.

Bicycle and Pedestrian Safety Analysis (BPSA): A data-driven study conducted by SDOT to understand where, how, and why pedestrian and bike 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.

Bike+ Network: Bikeways suitable for all ages and abilities (AAA) that allow for safe, comfortable, and accessible bicycle travel, such as protected bike lanes and Neighborhood Greenways. The Bike+ Network will be seamlessly integrated with the multi-use trail network.

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.

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.

Cellular vehicle-to-everything (C-V2X): Technology that enables vehicles to wirelessly connect and interact with their surroundings, such as other vehicles and 5G service. C-V2X has the potential to make travel safer by reducing crashes and conflicts between road users.

Community and Mobility Hubs: Community and Mobility Hubs are 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.

Complete neighborhoods: Neighborhoods where residents can access all daily needs within walking distance.

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.

Curb bulbs: Extensions of the sidewalk into the street that give pedestrians a shorter distance to cross.

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

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 2028, making 20 miles of Healthy Streets permanent, hosting a Youth Transportation Summit, and making the City's fleet zero-emission by 2030.

Find It, Fix It app: A smartphone app offering mobile users a way to report selected issues to the City by submitting a photo and written description.

Frequent Transit Network (FTN): Buses, trains, and other forms of transit 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.

General purpose (GP) lane: Space in the right-of-way where all vehicular traffic is allowed.

GHG: Greenhouse gas emissions

Healthy Streets: Streets for people walking, rolling, biking, and playing. They are closed 24/7 to pass-through traffic. People driving who need to get to homes and destinations along Healthy Streets retain access and can still drive on these streets.

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.

Home Zones: A home zone is a holistic and cost-effective approach to making residential streets more walkable within a neighborhood. Rooted in successful pedestrian-focused systems from around the world, The Home Zone Program provides an alternative to traditional sidewalks and traffic calming measures. The heart of the program is its community-centered development process.

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.

Low-emission neighborhood: Low-emission neighborhoods, sometimes called low-pollution neighborhoods, prohibit, or restrict the types of vehicles allowed within an area and encourage zero- and low-emission travel options like walking, biking, electric vehicles, and deliveries by e-cargo bike. Implementation of these concepts will vary by neighborhood and are co-created with local communities.

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.

Multi-use trails: Off-street paths for people walking, biking, rolling, and using other non-motorized and e-mobility devices.

NACTO: National Association of City Transportation Officials

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.

Neighborhood Street Fund: A City program, running on 3-year cycles, that enables the community to propose and help prioritize transportation-related projects that are then built by SDOT.

OPCD: Office of Planning and Community Development

Pedestrian level of service (PLOS): A measure of the level of comfort of walking and rolling.

Pedestrian Lighting Master Plan: The Pedestrian Lighting Master Plan is a supplement to the Pedestrian Master Plan that guides how the city plans for, designs, and implements pedestrian lighting which fosters safety, security, economic development, active transportation, and access in the right-of-way.

Pedestrian Master Plan (PMP): Adopted in 2017, the Pedestrian Master Plan is a 20-year framework for making Seattle the most walkable and accessible city in the country. The Plan provides policies, programs, and projects for SDOT to achieve this goal. The Pedestrian Element builds on the PMP.

Pedestrian Racial Equity Analysis (PED REA): A study to identify racial disparities in pedestrian travel. SDOT works with community partners to understand barriers to travel, community needs, and identify community-led solutions to eliminate these barriers. The REA takes both a citywide approach and a neighborhood approach, starting with vulnerable communities in Chinatown-International District and Rainier Beach.

Priority Investment Network (PIN): Sets 5 tiers of importance of locations for investments in pedestrian infrastructure. Streets and intersections are ranked based on proximity to high pedestrian trip areas, safety, and equity. The network maps will be used to prioritize the order and type of investments.

PSPS: People Streets and Public Spaces

PSRC: Puget Sound Regional Council

Public Spaces: Plazas and Shoreline Street Ends that come in many shapes and forms. They are pedestrianized spaces that invite people to gather, play, and connect with one another. These spaces may be focal points in neighborhoods that support local businesses, venues for community gatherings, or more subtle spaces that are loved by locals and stumbled upon by visitors who delight in their discovery. They may incorporate public art, seating, games, trees and green infrastructure, and flexible space for vendors and gatherings. Public Spaces are born of inclusive, community-driven processes that inform design, programming, and long-term stewardship.

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.

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 non-motorized 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 Routes to School: A national movement to make it easier and safer for students to walk and bike to school. The program is designed to improve safety in areas around schools and to encourage more kids to walk and bike.

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

The goals of the approach are to create safer vehicles, speeds, roads, and people and provide post-crash care.

School Streets: Streets for people walking, rolling, and biking to school and playing. They are closed to pass-through traffic, including parents and guardians. People driving to homes and destinations along School Streets, including school district transportation, retain access and can still drive on these streets. They are a type of Shared Street.

SDOT: Seattle Department of Transportation

Seattle Displacement Risk Index: Areas in Seattle identified where displacement of people of color, low-income people, renters, and other populations susceptible to displacement may be more likely.

Shared micromobility: Shared bikes and scooters that offer low-cost option 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.

Speed cushion: Multiple low-rise speed humps placed together that slow vehicle speeds while still allowing emergency vehicles to pass through normally. They are used on low volume and non-arterial streets.

STP: Seattle Transportation Plan

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

Strolling Streets: Local streets used for recreation, exercise, connecting with nature or community, or traveling to specific destinations. These are typically along streets with lower vehicle volumes and speeds.

Summer Streets: Streets that are closed to vehicular traffic during certain times of the year to provide open space for events and public life.

Traffic calming: Physical changes to street design that slow traffic and make the street safer for all travelers. Examples include traffic circles, speed humps, and narrow lanes.

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 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.

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

Vision Zero Top to Bottom Review: A review of the Vision Zero program and actions. It was conducted to help the department better understand the causes of the rise in number of traffic deaths and to identify opportunities to reduce harm while creating a culture of care and dignity for all travelers.

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.

Your Voice, Your Choice (YVYC): A budget initiative that gives community members the power to decide how a portion of the City's transportation budget is allocated to park and street improvements.

APPENDIX A: PEDESTRIAN MAP METHODOLOGY

This section provides additional details on the methodology used to create the prioritization of sidewalks and intersections for the pedestrian Priority Investment Network maps. Each map was organized into five tiers based on a quintile system, with each tier receiving the same number of sidewalk block faces or intersections.

MISSING AND SUBSTANDARD SIDEWALK MAP METHODOLOGY

Category	Weighting	Measure	Score	
Proximity to land use areas	30%	Public K-12 Schools	High	1/4-mile walkshed
			Medium	1/2-mile walkshed
			Low	1-mile walkshed
		Transit	High	Along Frequent Transit Network
			High	1/2-mile walkshed of light rail
			Medium	1/4-mile walkshed of RapidRide or Streetcar
			Low	1/8-mile walkshed of FTN bus stops
		Parks	High	1/8-mile walkshed
			Medium	1/4-mile walkshed
			Low	1/2-mile walkshed
		Land Use	High	Inside of and within an 1/8-mile walkshed of pedestrian P-zones, Urban Centers, Urban Villages, etc.
			Medium	Within an 1/4-mile walkshed of pedestrian P-zones, Urban Centers, Urban Villages, etc.
			Low	Within an 1/2-mile walkshed of pedestrian P-zones, Urban Centers, Urban Villages, etc.
Safety	40%	Speeds	High	85% Speeds >35MPH
			Medium	85% Speeds 30-35
			Low	85% Speeds 25-30
Equity	30%	Race and Social Equity Index	High	Highest quintile
			Med-High	Second highest quintile
			Medium	Middle quintile
			Zero	Lowest two quintiles

ENHANCED STREET CROSSINGS MAP METHODOLOGY

Category	Weighting	Measure	Score	
Proximity to land use areas	30%	Public K-12 Schools	High	1/4-mile walkshed
			Medium	1/2-mile walkshed
			Low	1-mile walkshed
		Transit	High	1/2-mile walkshed of light rail
			Medium	1/4-mile walkshed of RapidRide or Streetcar
			Low	1/8-mile walkshed of FTN bus stops
		Parks	High	1/8-mile walkshed
			Medium	1/4-mile walkshed
			Low	1/2-mile walkshed
		Land Use	High	Inside of and within an 1/8-mile walkshed of pedestrian P-zones, Urban Centers, Urban Villages, etc.
			Medium	Within an 1/4-mile walkshed of pedestrian P-zones, Urban Centers, Urban Villages, etc.
			Low	Within an 1/2 mile walkshed of pedestrian P-zones, Urban Centers, Urban Villages, etc.
Safety	40%		High	BPSA Ped location
			Medium	3+ ped collisions in past 5 years
			Low	3+ lanes for crossing
Equity	30%	Race and Social Equity Index	High	Highest quintile
			Med-High	Second highest quintile
			Medium	Middle quintile
			Zero	Lowest two quintiles

Seattle Department of Transportation

DRAFT SEATTLE TRANSPORTATION PLAN

People Streets and Public Spaces Element

August 2023

Seattle Department of Transportation

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INTRODUCTION

Seattle's streets are the lifeblood of the city and enable people to get to the places they need to go. Making up nearly 30% of Seattle's land area, streets also play a vital role as public spaces, and their quality impacts the physical, social, and economic health of communities and people across Seattle. The city's streets are owned by the public with the Seattle Department of Transportation (SDOT) as their steward. As such, they are spaces for everyone that can be accessed in perpetuity, especially by those walking, bicycling, and rolling.

Streets are places for people to enjoy a leisurely stroll, take a brisk walk to a local business or bus stop, connect with a friend or neighbor, or grab a coffee and people-watch. Streets are for children and older adults, for interacting with people from other walks of life, for watching birds and enjoying fresh air, or for voicing opinions and exercising first amendment rights. All streets connect destinations, and when implemented with an equity focus, people-oriented streets can build enduring community health and prosperity. They can mitigate impacts related to urban heat islands and air quality to improve community climate resiliency, and they can help reduce the persistent chronic health disparities between neighborhoods across Seattle. Better people-oriented streets can help make walking, biking and transit the preferred option for more trips.

This People Streets and Public Spaces (PSPS) element presents a vision for city streets that goes beyond moving from point A to point B and conveying essential services. It presents a case and a framework for how we can better and more equitably use public streets to strengthen places and communities.

HOW THE PSPS ELEMENT ADVANCES THE STP

The PSPS element promotes the Seattle Transportation Plan (STP) vision of an equitable, vibrant, and diverse city. It encourages equitable investment in streets as places that people can enjoy, contributing directly to a more walkable, bikeable, and transit-oriented city. This element introduces the concepts of People Streets and Public Spaces and outlines how we plan to create them in Seattle. **Figure 1** below illustrates how the street is both a movement conduit and a place.

Figure 1: Movement and Place[1]

A road/street is a **movement** conduit

A road/street is also a **place**, a destination in its own right

Movement: **minimize** commute time
Place: **extend** dwell time

[1] https://www.vicroads.vic.gov.au/traffic-and-road-use/traffic-management/movement-and-place

People Streets

People Streets put people first. They offer safe, inclusive, and comfortable environments for people to walk and roll to transit, public spaces, and other destinations. They offer inviting spaces for people to linger, enjoy their surroundings, and connect with others. They support local business districts and business access. People Streets can also have generous tree cover and green infrastructure, such as rain gardens and curbside vegetation to collect and filter runoff, to make the city more climate resilient, improve air quality and health outcomes, provide shade, and bring a touch of nature into urban environment.

Ballard Ave, with its recent investments, is an example of a People Street

Public Spaces

Public Spaces come in many shapes and forms. They are inclusive, pedestrianized spaces that invite people to gather, play, and connect with one another. These spaces may be focal points in neighborhoods that support local businesses, venues for community gatherings, or more subtle spaces that are loved by locals and stumbled upon by visitors who delight in their discovery. They may incorporate public art, seating, games, trees and green infrastructure, and flexible space for vendors and gatherings. Public Spaces are born of inclusive, community-driven processes that inform design, programming, and long-term stewardship.

Detective Cookie Chess Park is an example of a Public Space

WHY DO WE NEED A PSPS ELEMENT?

Seattle has grown rapidly over the last decade, and the growth continues. This means the city has an increasing need and desire for spaces where people can gather, connect, and enjoy their city just beyond their doorstep.

Identifying a network and investment approach for People Streets and Public Spaces will help us make equitable investments in streets and spaces that make neighborhoods more livable, climate resilient, and vibrant places for people to meet their daily needs. The PSPS network will create a more walkable city and support major transit investments, furthering STP goals around climate action and mobility.

WHAT IS "PUBLIC LIFE"?

People create "public life" when they connect with each other in public places—streets, plazas, parks, and spaces between buildings. Public life is about everyday activities that people take part in when they spend time with each other outside of their homes, workplaces, and cars.

We will rethink street design and use to create better streets for active transportation and better streets for people to recreate and interact with one another, something the COVID-19 pandemic underscored as being critically important for both physical and mental health. People Streets will help systemize investments in generous tree cover and green infrastructure to make Seattle more equitable and climate-resilient and improve air quality and health outcomes. Nearly triple the amount of public land in Seattle is dedicated to public rights-of-way (i.e., streets and all the space between private property) compared to park land. For many neighborhoods, street space can become a vital part of the open space network.

The PSPS network has several ambitions:

- **People First**: Put people at the center of decisions about how we design, manage, and use streets and public spaces
- **Equity**: Systematically fund capital projects to achieve more equitable distribution of high-quality streets and public spaces
- **Community Partnerships**: Form sustained relationships with communities to develop projects and programs that respond to community place priorities, working with communities throughout the entire process—from planning to implementation and monitoring
- **Climate Action**: Contribute to Seattle's climate goals by creating welcoming places that encourage more people to walk, bike, and ride transit and incorporate sustainable stormwater management, street trees, shade, greenery, and resilient landscaping
- **Urban Tree Canopy**: Fill gaps in the urban tree canopy, particularly along arterials and freeways, to mitigate urban heat island effects and improve air quality
- **Safety**: Support the Vision Zero goal by creating safer environments for people walking, rolling, and biking

- **Public Health**: Improve mental health by providing space to recreate and foster social connection
- **Neighborhood Vitality**: Support the vitality of neighborhoods by encouraging more street-level activity, social interactions, and economic exchange

People Street on NE 43rd St in the University District with public seating, plants, lighting, bus-only traffic, and public art

People Street on Pike St near Pike Place Market

RELATIONSHIP TO STP GOALS

The PSPS network plays a critical role in advancing the STP goals of **safety, equity, sustainability, mobility, livability**, and **maintenance and modernization**. People Streets and Public Spaces will help combat climate change and contribute to livability in all neighborhoods.

Prioritize safety for travelers in Seattle, with no serious injury or fatal crashes. PSPS will increase safety by improving lighting, activating streets to have more eyes on the street, reallocating space for people, redesigning roads to reduce travel speeds, and increasing comfort along and across streets for people walking, rolling, biking, and using e-mobility. PSPS promotes public life[2] activities in the public realm, particularly at Community and Mobility Hubs, to make hubs welcoming and safe for women, BIPOC, and people of all ages and abilities. (Supports TEF 24.1, 40.1)[3]

Co-create with community and implement restorative practices to address transportation-related inequities. PSPS will co-create more free, high-quality places to gather through sustained community collaboration and capacity-building, particularly in higher-density neighborhoods in underinvested and equity-priority areas. An interdepartmental, anti-displacement centered approach will inform implementation. These places will improve air quality, mitigate noise pollution, and help address chronic health disparities while making the streets and public spaces more reflective of community identity. (Supports TEF 20.5, 45.3, 56.6)

Respond to climate change through innovation and a lens of climate justice. Implementing PSPS reclaims excessive pavement and roadway space to support public uses. It builds climate resilient landscapes and ecosystems that increase greenery and shade to mitigate the urban heat island effect. PSPS will create low-emission neighborhoods. And it promotes resilient and sustainable transportation design principles that encourage mode shift and reductions in GHG emissions and harmful particles small enough to be inhaled. (Supports TEF 45.3, 56.4, 56.5)

Provide reliable and affordable travel options that help people and goods get where they need to go. PSPS prioritizes people in the design and operation of streets with a high density of destinations. It increases the comfort and experience for people of all ages and abilities walking, biking, rolling, and using transit. (Supports TEF 19.6, 40.1, 43.4)

Reimagine our streets as inviting places to linger and play. Implementing the PSPS network creates inviting spaces that entice people to linger, walk, and enjoy Seattle's neighborhoods. It creates centers of community in every neighborhood, with a specific focus on co-creating these centers in equity-priority neighborhoods to meet community vision and objectives. It advances an age-friendly city by creating spaces that are welcoming for all ages and abilities, reducing social isolation, and improving community cohesion and social capital. (Supports TEF 45.3)

Improve city transportation infrastructure and ready it for the future. Plan and budget for long-term maintenance of PSPS, which will reduce the burden on community groups, particularly in equity priority areas. Strengthen the city's role as steward of the public right-of-way through more transparent, accountable, and responsive processes. Implement new design standards that lower the costs of implementation and maintenance of PSPS projects.

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[2] Public life is made through social connections between people in public spaces, such as streets, plazas, parks, and city spaces between buildings. Public life interactions occur outside of their homes, workplaces, and cars.

[3] You can learn more about the *Transportation Equity Framework* at https://www.seattle.gov/transportation/projects-and-programs/programs/transportation-equity-program/equity-workgroup. A complete list of the TEF tactics referenced is located at the end of the element.

IMPLEMENTING THE KEY MOVES

Part I of the Seattle Transportation Plan (STP) includes a collection of Key Moves, or strategies, to advance the STP goals. Each Functional Element serves an important role in making these Key Moves and their supporting actions.

Table 1 below summarizes the Key moves and specific actions the PSPS Element helps to accomplish. They are nested under the primary STP goal they seek to advance. Many actions are cross-cutting, and they appear in all Functional Elements as important commitments and initiatives. Other actions are specific to one or more Functional Elements and are marked with an asterisk (*) to indicate that this Element plays a critical role in operationalizing or supporting that action.

Additional details on SDOT's roles and the ways we'll tackle this work are included in the "PSPS in Seattle" section below. Actions that implement tactics from SDOT's Transportation Equity Framework (TEF) are noted in parentheses; these tactics are listed at the end of this element.

Table 1: Key Moves and PSPS Actions

Key Moves
Actions

Key Moves and PSPS Actions		STP Goals Supported					
		Safety	Equity	Sustainability	Mobility	Livability	Maintenance & Modernization
SAFETY KEY MOVES							
Concentrate safety investments at the most collision-prone locations (S2)							
PS1	Incorporate Vision Zero and Safe System approaches into every project and program. (S2a)	✓	✓		✓		✓
PS2	Prioritize safety improvements that are on the high-injury network, have high levels of travel stress, or are identified through the Seattle Bicycle and Pedestrian Safety Analysis. (Supports TEF 19.2) (S2b)	✓			✓		✓
PS3	Pilot and evaluate new and emerging safety treatments in locations where proven interventions are infeasible or do not address the identified safety issues. (S2c)	✓			✓		✓
Make all journeys safer, from departure to destination (S3)							
PS4	Harness funding and opportunities when private development occurs to build planned new network facilities and prioritize mobility for people walking, biking, and rolling when construction occurs. (S3b)	✓	✓	✓	✓	✓	✓
PS5	Accelerate implementation of research-backed improvements that are proven to make streets safer for everyone, such as hardened	✓			✓		✓

Key Moves and PSPS Actions		STP Goals Supported					
		Safety	Equity	Sustainability	Mobility	Livability	Maintenance & Modernization
	centerlines, leading pedestrian intervals (LPIs) at signals, No Turn on Red signs at signalized intersections, and road diets. (S3d)						
PS6	Make people walking, biking, and rolling more visible by improving sight lines at intersections through treatments such as curb bulbs, No Parking signs, improved lighting, and refuge islands with a focus on High Injury Corridors. (S3e)	✓			✓		✓
PS7	Expand safety education for all travelers (S3h)	✓					
Provide safer routes to schools, parks, transit, community gathering spaces, and other common destinations (S4)							
PS8*	Construct the People Streets and Public Spaces network as outlined in this Plan (S4a)	✓	✓	✓	✓	✓	✓
PS9*	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 TEF 40.2) (S4c)	✓	✓	✓	✓	✓	✓
PS10*	Serve every public school with an all ages and abilities bicycle facility. (Supports TEF 43.4 and Executive Order 2022-07) (S4d)	✓	✓	✓	✓	✓	
PS11*	Expand permanent Healthy Streets to all neighborhoods as a way of providing low stress connections to common destinations for people walking, biking, and rolling, regardless of age or and ability. (Supports TEF 43.4 and Executive Order 2022-07) (S4e)	✓	✓	✓	✓	✓	
PS12*	Provide pedestrian-scale lighting to make people walking more visible to people driving vehicles and to increase personal safety. (S4f)	✓					✓
PS13*	Make investments that make it safer to walk and bicycle to parks, community gathering spaces, and other common destinations. (S4g) Establish a Safe Routes to Parks program.	✓	✓				
EQUITY KEY MOVES							
Center the voices of communities of color and underrepresented groups in planning and decision-making processes (TJ1)							
PS14	Implement the Transportation Equity Framework (TEF) to grow transparency, accountability, and shared power when making transportation decisions with community members. (TJ1a)		✓				
PS15	Feature community voices in planning documents. (TJ1b)		✓				
PS16	Continue to build and maintain relationships with vulnerable communities and underrepresented groups. (Supports TEF 29.1 and 41.6) (TJ1c)		✓				
PS17	Meet early and often to provide opportunities to influence projects before they are fully developed. (Supports TEF 3.4) (TJ1d)		✓		✓		

* Indicates this Element plays a key role in advancing this action.

Key Moves and PSPS Actions		STP Goals Supported					
		Safety	Equity	Sustainability	Mobility	Livability	Maintenance & Modernization
PS18*	Build trust and capacity within organizations prioritizing our vulnerable communities focused on increasing biking and learn from the leaders active in these spaces. (Supports TEF 31.4) (TJ1e)		✓		✓		
PS19	Normalize the practice of making decisions about policies and right-of-way (ROW) allocations with input from vulnerable communities. (Supports TEF 19.1 and 25.4) (TJ1f)		✓		✓	✓	✓
PS20*	Partner with communities to identify opportunities for People Streets and Public Spaces in their neighborhoods. (Supports TEF 17.4) (TJ1g)		✓		✓	✓	
PS21	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 TEF 17.1, 21.2 and 16.1) (TJ1h)		✓		✓		
PS22	Compensate community partners for their valuable work to connect and communicate with their networks and uplift. (TJ1i)		✓				
Address inequities in the transportation system by prioritizing investments for impacted communities (TJ2)							
PS23*	Restructure the public benefit process to collect and apply public benefits from new developments that better align with city and community goals around equity and climate resilience.		✓	✓		✓	
PS24*	Prioritize PSPS investments that benefit people and local businesses who currently and historically experience high transportation burdens and those at high risk of displacement. (TJ2a)		✓		✓	✓	
PS25	Collaborate with municipal, county, regional, and state transportation partners to consider the transportation needs of people who have been displaced from Seattle. (TJ2b)		✓		✓		
PS26*	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 TEF 14.3 and 15.2) (TJ2c)		✓		✓	✓	
PS27*	Identify actions to address inequities experienced by vulnerable community members who walk, bike, and roll, and provide capacity-building support to BIPOC-led organizations that focus on increasing active transportation. (Supports TEF 31.4) (TJ2d)		✓	✓	✓		
PS28	Develop policies to prevent and mitigate transportation projects, both past and present, from contributing to future displacement. (TJ2e)		✓		✓		✓
PS29*	Implement improvements to make traveling in Seattle more accessible for everyone, such as curb ramps, accessible pedestrian signals, accessible parking, and accessible transit stops. (TJ2f)	✓	✓		✓	✓	✓

* Indicates this Element plays a key role in advancing this action.

Key Moves and PSPS Actions		STP Goals Supported					
		Safety	Equity	Sustainability	Mobility	Livability	Maintenance & Modernization
PS30	Partner with other departments and agencies to deploy anti-displacement programs, investments, tools, and mitigation efforts. (TJ2g)		✓				
PS31	Conduct and implement racial equity assessments at the program level. (TJ2h)		✓		✓		
SUSTAINABILITY KEY MOVES							
Improve neighborhood air quality and health outcomes by promoting clean, sustainable travel options (CA1)							
PS32*	Develop and expand programs that incentivize sustainable alternatives to driving for large events and as a primary congestion mitigation tool during major construction projects. (CA1c)			✓	✓		
PS33	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). (CA1g)			✓	✓		✓
Green city streets through landscaping and street trees to better handle changing climate (CA2)							
PS34*	Encourage the maintenance and installation of green infrastructure—such as street trees, rain gardens, landscaping, natural drainage systems, bioswales, and pervious materials—as other improvements occur in the right-of-way. (Supports TEF 56.4) (CA2a)		✓	✓		✓	✓
PS35*	Seek opportunities to install green infrastructure in new public spaces and People Streets as streets are redesigned. (CA2b)		✓	✓		✓	✓
PS36*	Prioritize tree planting and maintenance in historically under-invested communities, as we continue to increase tree canopy coverage citywide. (Supports TEF 56.6) (CA2c)		✓	✓		✓	✓
PS37*	Partner with local communities to co-create green landscape and urban forest improvements that increase resilience to climate impacts. (Supports TEF 56.4) (CA2d)		✓	✓		✓	
Foster neighborhood vitality and improved community health (CA3)							
PS38*	Co-create low-emission neighborhoods with communities so the benefits of cleaner air and safer streets are shared equitably. (CA3a)		✓	✓		✓	
PS39*	Work with local businesses in future low-emission neighborhoods to address delivery and access needs. (CA3b)		✓	✓		✓	
PS40*	Update code requirements to support creation of low-emission neighborhoods. (CA3c)		✓	✓		✓	
PS41	Design for people-first streets to make sustainable travel choices the default and easy choice for neighborhood trips and to increase neighborhood business district activity. (CA3d)		✓	✓	✓	✓	✓

* Indicates this Element plays a key role in advancing this action.

Key Moves and PSPS Actions		STP Goals Supported					
		Safety	Equity	Sustainability	Mobility	Livability	Maintenance & Modernization
PS42	Launch neighborhood delivery hubs in partnership with local businesses to create central drop-off/pick-up locations for goods and services used by multiple delivery companies, retailers, and consumers. (CA3f)			✓	✓	✓	
Support the transition from fossil fuel to electric vehicles for personal, commercial, and delivery trips (CA4)							
PS43	Support the transition to electric vehicles (EVs) for all segments of transportation, including personal mobility, goods movement and services, and fleets and transportation network companies, through equitable incentives, grant opportunities, partnerships, and pilot programming. (Supports TEF 36.2) (CA4a)			✓	✓		
MOBILITY KEY MOVES							
Create seamless travel connections (PG1)							
PS44	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 TEF 19.6 and TEF 43.4). (PG1a)				✓	✓	✓
PS45*	Improve the experience of making travel connections, especially between transit and travel options – such as personal and shared bikes and scooters – used for first-/last-mile trips. (Supports TEF 35.2 and 45.3) (PG1b)		✓		✓		✓
PS46*	Expand the pedestrian wayfinding program, including at transit stations and stops, in collaboration with community and regional partners. (Supports TEF 48.1) (PG1f)				✓	✓	
Make walking, biking, and rolling easy and enjoyable travel choices (PG2)							
PS47*	Add, enhance, and maintain dedicated pedestrian spaces in the form of sidewalks, walkways, and shared streets with appropriate traffic calming to provide a safe and accessible pedestrian environment. (PG2a)	✓			✓	✓	✓
PS48*	Create new street crossing opportunities and enhance existing crossings to improve safety and access for people walking and rolling, especially to transit. Minimize the amount of time people wait to cross. (PG2b)	✓			✓		✓
PS49*	Improve pedestrian lighting, especially along transit routes and where connections between different travel options are made. (Supports TEF 45.1) (PG2c)	✓			✓	✓	✓
PS50	Launch a citywide parking program for bicycles, scooters, and e-mobility devices, with a focus on community and mobility hubs, curbspace, and other locations. (PG2e)				✓	✓	
Create world-class access to transit and make service more frequent and reliable (PG3)							

* Indicates this Element plays a key role in advancing this action.

Key Moves and PSPS Actions		STP Goals Supported						
		Safety	Equity	Sustainability	Mobility	Livability	Maintenance & Modernization
PS51*	Enhance existing and create new Community and Mobility Hubs, with connections to high-capacity transit services. (PG3h)				✓	✓	
PS52*	Prioritize low-carbon travel options through seamless, direct walking and rolling connections to Community and Mobility Hubs. (PG3i)			✓	✓	✓	
PS53*	Enhance transit stops and the experience of waiting at them in all types of weather and at all times of day through stop improvements implemented by transit partners and leveraged via private development. (PG3j)	✓			✓		
Manage curbspace to reflect city goals and priorities (PG5)							
PS54	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 develop decision frameworks to prioritize these functions based on local area and system needs. (PG5a)		✓	✓	✓	✓	
PS55*	Work with communities to expand activated curb uses, including food truck vending, street cafes and parklets, event space, and more. (PG5d)		✓		✓	✓	
LIVABILITY KEY MOVES							
Boldly reallocate street space to prioritize people while preserving access for goods delivery and emergency response (PP1)							
PS56*	Create a People Streets and Public Spaces program.	✓	✓	✓	✓	✓	✓
PS57*	Reallocate street space currently used for vehicle storage and general purpose travel to support a variety of people-oriented uses, such as gathering, playing, walking, and biking in strategic locations (PP1a)	✓	✓	✓	✓	✓	✓
PS58*	Implement car-free and car-light streets, such as Café Streets and Neighborhood Greenways, to reclaim public space for communities. (PP1b)					✓	
PS59*	Design streets and public spaces so that goods and emergency responders can still reliably get where they need to go, while adjacent businesses prosper from an activated public realm. (PP1c)		✓		✓	✓	
PS60*	Update Seattle's Right-of-Way Improvements Manual (Streets Illustrated) to implement actions and strategies outlined in this Plan. (PP1d)	✓		✓	✓	✓	
Transform community and mobility hubs into welcoming places (PP2)							
PS61*	Create a vibrant and welcoming public realm at Community and Mobility Hubs by creating people streets and public spaces and supporting community- oriented programming, such as markets, vending, performances, and recurring events. (PP2a)		✓			✓	
PS62*	Improve walkability at every community and mobility hub by providing pedestrian infrastructure such as lighting, wayfinding, seating, and landscaping. (PP2b)	✓		✓	✓	✓	

* Indicates this Element plays a key role in advancing this action.

Key Moves and PSPS Actions		STP Goals Supported					
		Safety	Equity	Sustainability	Mobility	Livability	Maintenance & Modernization
PS63*	Provide a safe and comfortable experience moving in and around Community and Mobility Hubs. This includes better crossings and intersections, slower speeds and rightsized travel lanes, decluttered sidewalks, universal access, and more. (PP2c)	✓		✓	✓	✓	✓
PS64*	Create 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. (PP2d)		✓			✓	
PS65*	Partner with communities, other city departments, agencies such as Sound Transit and King County Metro, and local neighborhood groups, such as Business Improvement Areas and other organizations and institutions, to design, construct, activate, and maintain Community and Mobility Hubs. (PP2e)		✓		✓	✓	
Co-create and enhance public spaces for playing and gathering to improve community health (PP3)							
PS66*	Work with communities throughout Seattle, prioritizing underinvested and equity focus areas, to create public life action plans; collaboratively identify, design, and implement People Streets and Public Spaces, including opportunities to connect with each other and nature, support local businesses, and more. (Supports TEF 17.4) (PP3a)		✓			✓	
PS67*	Create Destination Streets to support walkable local business districts and economic development. (PP3b)				✓	✓	
PS68*	Develop a network of park-like Strolling Streets that serve as "lungs" to protect air quality in denser communities and support climate resiliency in vulnerable neighborhoods through strategies such as installing green stormwater infrastructure, removing paving, adding trees, installing climate resilient landscaping, and more. (PP3c)			✓		✓	
PS69*	Implement shared, car-light streets, such as Café Streets and Neighborhood Greenways, and car-free streets to support the transition to a low-carbon transportation system and reduce chronic health disparities. (PP3d)	✓	✓	✓	✓	✓	
Activate and maintain public spaces to create a welcoming and age-friendly public realm (PP4)							
PS70*	Better maintain public spaces through dedicated resources and continued partnerships with local communities and businesses to reduce the burden of maintenance on historically underinvested communities. (PP4a)		✓			✓	✓
PS71*	Activate public spaces with art in collaboration with community organizations. (PP4b)		✓			✓	

* Indicates this Element plays a key role in advancing this action.

Key Moves and PSPS Actions		STP Goals Supported					
		Safety	Equity	Sustainability	Mobility	Livability	Maintenance & Modernization
PS72*	Implement seasonal street closures (e.g., summer streets), recurring closures (e.g., every Saturday), night-time closures, or limited-time closures to vehicles. (PP4c)					✓	
PS73*	Reduce barriers to enable communities to program, activate, and manage their public spaces with uses that are authentic and meaningful to them. (PP4d)		✓			✓	
PS74*	Partner with other City departments and agencies to better achieve public realm goals. (PP4e)		✓			✓	
MAINTENANCE & MODERNIZATION KEY MOVES							
Transform city streets for safety and sustainable travel choices through optimal timing of asset maintenance and replacement (MM1)							
PS75*	Use asset maintenance and replacement opportunities to not only improve the condition of transportation infrastructure and equipment, but to also enhance safety, reduce dependence on driving, promote sustainable travel options, and support economic vitality. (MM1a)	✓	✓	✓	✓		✓
PS76*	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. (MM1b)						✓
PS77	Collect feedback on asset conditions as part of community engagement on transportation system planning, design, and co-creation. (MM1c)		✓				✓
Reduce neighborhood disparities in the quality of streets, sidewalks, public spaces, and bridges (MM2)							
PS78	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 TEF 19.3) (MM2a)		✓				✓
PS79*	Focus resources for maintenance and improvements in neighborhoods that have been historically or are currently underserved. (Supports TEF 19.4) (MM2b)		✓		✓		✓
PS80*	Identify, and permit where necessary, public spaces that can be activated, programmed, and maintained in collaboration with local communities. (Supports TEF 24.1) (MM2c)		✓			✓	✓
Ready city streets for new travel options and emerging trends and technologies (MM3)							
PS81*	Collect, monitor, and use data to inform changes to the transportation system. (MM3a)	✓	✓	✓	✓	✓	✓
PS82	Proactively work with public, private, and academic sector partners to collaboratively develop transit and mobility solutions for the future. (MM3c)						✓

* Indicates this Element plays a key role in advancing this action.

Key Moves and PSPS Actions		STP Goals Supported					
		Safety	Equity	Sustainability	Mobility	Livability	Maintenance & Modernization
PS83*	Adapt streets for new and evolving forms of mobility devices such as commercial or private cargo bikes, e-scooters, personal delivery devices, low-speed electric vehicles, and others to create more travel options. (Supports TEF 19.2). (MM3d)			✓	✓		✓
PS84*	Develop and maintain up-to-date asset data, including digital inventories of physical assets like curb space, load zones, bike, and scooter parking locations. (MM3e)						✓

* Indicates this Element plays a key role in advancing this action.

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 People Streets and Public Spaces. They were used to shape the actions we'll take to achieve our shared transportation vision. We will continue to engage and co-create with community members as transportation system needs, preferences, and circumstances continue to evolve in the years to come.

OPPORTUNITIES AND EMERGING TRENDS

- **Moving beyond the pandemic.** Seattle, like many cities across the nation and the world, responded to the COVID-19 pandemic by opening city streets to people. As travel patterns changed with the increase in people working from home, we developed several new programs in response to the increase in neighborhood-level activity. Outdoor dining permits brought restaurant patrons out into the public realm, and Healthy Streets prioritized people walking and biking in residential neighborhoods. These pandemic responses reaffirmed the importance of public spaces in enabling social interactions, reducing isolation, improving mental health, and growing the social capital of communities. We will build on that momentum to make these programs permanent and continue to work with communities to create places in the public realm for people of all ages and abilities to enjoy.
- **Repurposing the Right-of-Way report.** The Seattle Planning Commission issued a briefing in November 2022 (Repurposing the Right-of-Way). It stated that "purely as a function of space, the city cannot accommodate expected growth in population and remain livable if the movement and storage of vehicles remain the overwhelming focus on our streets rights-of-way." The report recommends we re-envision the public right-of-way "as limited and increasingly valuable public space and reprioritizing its use – [in response to roadway violence, climate change impacts, and black, indigenous, and people of color's lack of access to open space] – will open myriad possibilities for improving city life."
- **We have a strong foundation.** While the PSPS Element is new, the city has been a leader in creating places and spaces for people. We will build on our experience and expand our existing programs that activate public rights-of-way, reclaim streets and space for people, and partner with the community to identify the types of improvements they would like to see.

- **Climate change is accelerating.** Seattle continues to experience extreme weather events, which are expected to have a greater impact on the most vulnerable social groups, low-income households, communities of color, immigrant populations, and those experiencing homelessness. The PSPS network provides an opportunity to build capacity for climate resiliency and combat future extreme weather events through projects that include street trees, landscape features, rain capture, and green stormwater management infrastructure. This work advances our desire to expand the urban tree canopy and builds on current partnerships with Seattle Public Utilities to deliver green stormwater infrastructure (GSI) projects.
- **Vehicle miles traveled (VMT) reduction.** Approximately 60% of Seattle's greenhouse gas emissions are from road transportation,[4] and nearly 50% of trips are under 3 miles.[5] The PSPS network increases access to new travel choices and the opportunity for people to meet their everyday needs through short walks, bike rides, or transit rides. This change in travel choice has the potential to reduce overall VMT and GHG emissions.
- **Public transit options are expanding.** Investments in public transit systems, like Link light rail extensions, RapidRide bus expansions, and ferry terminal improvements, will change how people move around Seattle. The PSPS network supports public realm investments to improve first and last mile non-motorized access around transit, particularly at Link light rail stations, major transit access points, and Community and Mobility Hubs. Investments in the public realm include removal of sidewalk clutter and impedances, enhanced wayfinding, universal access improvements, and reconstruction of the public realm around light rail stations. *See the Transit Element for further information around Community and Mobility Hubs.*
- **Travel pattern changes and increased neighborhood-level activity.** The increased number of people that work from home (a result of the COVID-19 pandemic) has led to more neighborhood-based trips and activity and a need for neighborhood-scale public spaces that foster social interaction.
- **Interest in public realm improvements funded by off-site public benefits.** Development projects are required to provide public realm enhancements and benefits as part of "public benefits" from right-of-way vacations, term permits (e.g., skybridges), and Land Use Code tools. Frequently, these public benefits are localized to the development site. As a result, public realm enhancements through public benefits tend to be concentrated in areas of the city with high growth and high opportunity. In highly developed areas such as Downtown, it also often can be difficult to identify public benefits of an appropriate scale because redesign opportunities in the right-of-way can be quite limited. There is growing interest in creating better alignment between city goals centered on geographic and equitable spread of investments, climate resilience, and the types and location of public realm enhancements funded through public benefits.
- **Creating low-emission neighborhoods.** Mayor Harrell signed Executive Order 2022-07 which directs SDOT to explore carbon-free, low-emission/low-pollution neighborhoods,

[4] https://www.seattle.gov/documents/Departments/OSE/ClimateDocs/GHG%20Inventory/2020_GHG_Inventory_Oct_2022.pdf

[5] https://seattle.curbed.com/2019/9/18/20872184/seattle-micromobility-congestion

among other actions to reduce transportation sector emissions. Concepts like low-emissions zones, eco-districts, resilience districts, and super blocks, serve to limit climate emissions, foster pedestrian-oriented streetscapes, and improve health outcomes. Specifically, the Executive Order directs SDOT to plan and implement at least three low-pollution neighborhoods by 2028.

    - Other elements from Executive Order 2022-07 will also support PSPS goals. For example, we will work with other departments to explore expansion of "complete communities," where most daily needs are met through walk, bike, and transit trips under 3 miles. The Executive Order also includes the commitment to build 20 miles of permanent Healthy Streets and the expansion of the School Streets program, which complement the development of low-emission neighborhoods.

- **Augment existing partnerships and coordination between multiple departments.** There is a benefit to strengthening and systematizing ongoing coordination and programmatic ties amongst SDOT, the Office of Economic Development (OED), the Office of Planning and Community Development (OPCD), Seattle City Light (SCL), Seattle Public Utilities (SPU), and Seattle Parks and Recreation (SPR) to identify projects of mutual benefit, mitigate displacement, provide holistic public realm investments (e.g., sidewalk decluttering combined with a façade upgrade program), and coordinate funding.
- **Streets as open space.** SDOT and SPR have successfully partnered to transform streets into places that fill critical open space needs, like Bell Street and Gemenskap Park. SPR's 2017 Parks and Open Space plan identified several other Seattle communities with gaps in access to public open space. Neighborhoods with gaps in access include higher density urban villages and equity priority communities outside urban villages. In many of these neighborhoods, high property costs and lack of developable parcels pose a significant barrier in SPR's ability to deliver adequate public open space. A collaboration between SPR and SDOT to systematically plan and invest in the use of the streets as public open spaces can address open space access gaps.
- **Reconnect communities**. Community-led efforts (such as Reconnect South Park and Lid I-5) to reconnect neighborhoods divided by past freeway projects have gained momentum over the last several years. SDOT can support these efforts to mitigate past harms while creating new people-focused spaces and connections that meet community needs.
- **Transform Downtown**. The COVID-19 pandemic impacted the vitality of Downtown. Local businesses closed, fewer workers commuted Downtown, and streets and sidewalks felt emptier than. Despite this, major investments continue to be made. Downtown has the potential to become a more powerful destination for activities other than work, such as theater, concerts, events at the Convention Center, and programming on the waterfront. Tourism, regional and international will be an ever-increasing focus for economic recovery. It will be more accessible to visitors as Link light rail continues to expand and the Seattle streetcar network is completed. Major opportunities and challenges for a greater Downtown (as envisioned in the Imagine Greater Downtown[6] initiative) include:

    - Leverage private development for public benefit

[6] https://www.seattle.gov/documents/Departments/SDOT/TransportationPlanning/IGD_FullPlan_FINAL_ADA.pdf

- Use public space to create new parks and open spaces
- Increase connections to water (the lake and sound) and vegetation systems (natural habitats and urban green canopy)
- Connect across, over, and under I-5, and include lid opportunities in the Chinatown International District and Denny Triangle

Creating People Streets and Public Spaces

By establishing the People Streets and Public Spaces program, Seattle joins other world class cities focused on creating people streets and public spaces. The following section highlights examples from New York City, Los Angeles, and London.

New York City: Plaza Equity and Pilot to Permanent

The New York City Department of Transportation (NYC DOT) Plaza Program works with local organizations to create neighborhood plazas throughout the city, transforming underused streets into vibrant, social public spaces. It is a key part of the city's effort to ensure that all New Yorkers live within a 10-minute walk of quality open space. NYC DOT prioritizes locations in neighborhoods that lack open space, and partners with community groups that operate and maintain these spaces. The city also has a Plaza Equity program, which provides funding, active support, and capacity building to plaza partners in higher need areas.

Corona Plaza *in Queens*

Doyers St *in Manhattan's Chinatown*

Photo Source: NYC DOT

LOS ANGELES: COMMUNITY DRIVEN PUBLIC SPACES WITH A KIT OF PARTS

The LA People Street (St) Program facilitates community-driven partnerships to build, program, and steward small-scale public spaces. Community partners apply to install a Plaza or Parklet. Partners identify an appropriate site, conduct outreach, raise funds, and provide long-term management, maintenance, and operations of the project. LADOT supports with design development, plaza installation, and striping, planters, signage, and other expenses. To simplify the process, LADOT developed a Kit of Parts that includes standard, pre-approved materials, and furnishings, ranging from signage and roadbed graphics to ping-pong tables. This reduces the burden on partners and helps avoid lengthy project review. By converting underused or redundant street space into a people place, the People St Program creates venues for community gathering, supports local business, and facilitates future investment in more permanent, capital-intensive public space designs.

Leimert Park Village is the center of Leimert Park community, a historically Black neighborhood, and provides space for gathering and celebrating the area's rich cultural history.

Noho Plaza in NoHo Arts District

Leimert Park Village

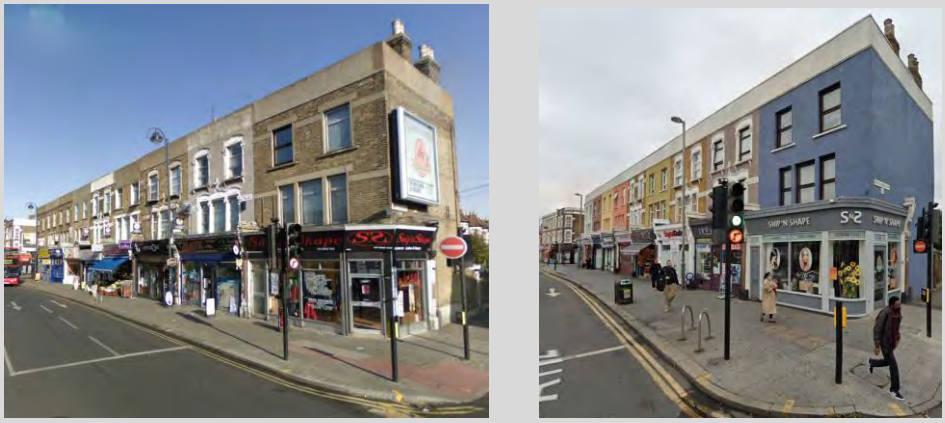
Photo Sources: Project for Public Spaces; LADOT/Jim Simmons

LONDON: A RANGE OF STREET TYPES TO MEET LOCAL NEEDS

London's Better Street program, created in 2009, supports the street network and public spaces across the city. The program was created to balance place-specific needs with an efficient road network, delivering more than 80 public realm projects since the program began. The Better Streets approach emphasizes the importance of streets meeting several needs simultaneously, as hubs for travel, business, homes, and leisure. Projects build from the existing character and context, layering on simple, lasting measures to enhance public experience. Better Streets advocates a "staged approach" to different street functions, from completely redesigning a space to simple, light-touch measures to make a street more functional and attractive.

Decluttering and Tidying Up

Leyton High Road. Working with stakeholders, a package of improvements was implemented that de-cluttered the street and renewed shop fronts and facades. Street lighting was also upgraded and building facades were illuminated to draw attention to heritage architecture along the parade. These improvements have encouraged increased consumer activity, civic pride and business confidence in local stakeholders.



Leyton High Road, Before and After. *Photo Source: Google Maps*

Designing Streets to Support Mobility and Economic Health

Leicester Square, the "physical heart of London's West End," used a design competition and extensive community liaison activity to inform the redesign of the area into a coherent public realm of the gardens, public squares, and connector streets.

Piccadilly Two Way (P2W)

Leicester Square

Photo Source: The Architects' Journal; SAIC Construction
https://www.architectsjournal.co.uk/archive/revealed-radical-piccadilly-circus-overhaul-by-atkins

Intermittent Pedestrianization

The Venn Street shared surface scheme expanded the public realm and created vehicle restrictions from Friday to Sunday, prioritizing pedestrian activity and enhancing the quality of usable space for local business and markets. The project included a shared maintenance agreement with businesses on the street who contribute largely through the renting of outdoor space.

Venn Street. *Photo Source: Urban Movement, http://www.urbanmovement.co.uk/*

CHALLENGES

- **The delivery of projects is concentrated in areas of opportunity.** Current place-based investments rely almost exclusively on ad hoc funds and private development, which is required to provide public benefit or a community-initiated project. The absence of a public space plan and investment strategy results in the concentration of public space and sidewalk investments in high-development opportunity neighborhoods. This results in unequal access to People Streets and Public Spaces for historically underserved populations, low-income households, and BIPOC communities.
- **Program requirements can create equity barriers.** Public Space programs depend on private residents, businesses, and community groups to apply for permits, build the interventions, and maintain them. Even with reduced permit fees and other programmatic improvements, inequities will always exist in a system that relies on those with time and resources to lead the process. The creation of a city-wide PSPS program and network can help reduce or eliminate these inequities.
- **Program expansion is opportunistic and lacks long-term maintenance support.** Stewardship and long-term maintenance of existing PSPS features often falls to local communities, many of which do not have capacity or resources. The PSPS network would benefit from a coordinated investment strategy to achieve social, economic, and environmental goals.
- **The design and measurement of success.** Better models and methods are needed, both for collaborative design processes that reflect community values, aesthetics, and needs, and to monitor success through public life activities, economic development, and public health outcomes. A coordinated approach is needed to identify year-over-year impacts including expanded data collection and evaluation of progress against agreed upon metrics.
- **Accessibility barriers**. Many sidewalks are cluttered with objects that can present barriers to people with disabilities or pushing strollers. A lack of age-friendly seating, shade, and other attributes that contribute to a comfortable environment can also present barriers. Other significant accessibility barriers include tens of thousands of sidewalk uplifts, obstructions, cross slope issues, and curb ramps that require remediation or construction. *See Pedestrian Element for more details.*
- **Pedestrian safety**. The recent increase in pedestrian crashes and fatalities challenges Seattle to do more to improve pedestrian safety. Concerns about personal safety also make people feel unsafe walking. *See Pedestrian Element for more details.*
- **Loss of tree canopy.** The most recent measure of Seattle's tree canopy shows that the city lost 255 acres of tree canopy from 2016 to 2021 (from 28.6% to 28.1% of the city area, respectively). The biggest concern is the unequal distribution of the loss in tree canopy, with the highest decline in South Seattle,[7]. The result is a disproportionate impact on historically underserved populations.

[7] https://www.seattletimes.com/seattle-news/politics/seattle-has-lost-255-acres-of-tree-canopy-heres-why/

- **Public Restrooms**. Lack of publicly accessible restroom facilities in the city, especially near frequent transit. Public restrooms are crucial not only to public health but also livability. However, they are challenging to build, maintain, and keep safe.
- **Lack of design standards for people-oriented streets, public spaces, and street furniture.** Streets Illustrated[8], the Seattle Right-of-Way Improvements Manual, identifies several different street types and associated design standards and guidance. However, existing street types and standards are centered around vehicle-oriented streets. There is a benefit to developing additional street typologies and design standards for shared and pedestrianized streets and public spaces, and a standard kit of street furniture, to improve consistency in the design of these investments and normalize them within SDOT's standard lines of business.

[8] https://streetsillustrated.seattle.gov/

COMMUNITY ENGAGEMENT

Extensive public outreach and engagement was integral to the STP development process. We used a variety of tools, like online interactive maps and open-ended surveys, and in-person events, festivals, listening sessions, and open houses. Please see Chapter 2 in Part I of the STP for more details on the public engagement process and feedback received. (Supports TEF 29.1)

We heard a strong desire from the community for more people streets and public spaces in Seattle.

In the first phase of public engagement (May to August 2022), we received over 3,700 PSPS-related comments that helped shape the element. In the second phase of engagement (December 2022 to February 2023), we requested feedback on draft PSPS network maps and received 327 map comments that were later used to refine the network maps. We also asked people to review a "menu of actions" and indicate which actions they would support, and three out of the five actions with the greatest number of "likes" were related to PSPS, shown in **Figure 2**. The public comments we received directly informed the policies, programs, and strategies found in this element. (Supports TEF 29.1)

Figure 3 shows the frequency of PSPS-related comments from Phase 1 engagement, which closely mirrors **Figure 4**, which shows a heat map of where people specifically said they would like to see people streets or public spaces when presented with the draft PSPS network during Phase 2 engagement.

Figure 2: Most Supported PSPS-Related Actions

Figure 3: Frequency of PSPS-related Supportive Comments (Phase 1 Engagement)

Figure 4: Heat Map of Where People Would Like to See a People Street or Public Space (Phase 2 Engagement)

General Themes

Several general themes emerged related to the PSPS network and policies, including:

Theme	Quotes from Survey Respondents
Create more spaces for community gathering. We need high-quality public spaces in every neighborhood, especially as Seattle grows.	"I think all neighborhoods can benefit from sidewalk seating and gathering spaces, weekend closures of more roads and streets for walkers and bikers."
Create places with fewer cars. Seattle needs a major shift toward pedestrianized, bike-friendly, transit-connected, car-free streets. Convert streets into car-free zones, and include iconic locations, such as Pike Place Market, Pike/Pine in Capitol Hill, and The Ave in the University District.	"I feel like we need more streets that are truly closed to car traffic. Urban cores like downtown, Old Ballard or the West Seattle Junction could benefit from Car free zones for pedestrian zones that also can accommodate bikes and rollers."
Provide more pedestrian-scale elements. Wayfinding, pedestrian-scale lighting, trash bins, and other elements were mentioned as strategies to make PSPS streetscapes more comfortable.	"I would love safe (good lighting) streets with access to trash bins (reduce street trash and dog poop) and greenery to walk around the neighborhood."
Improve the maintenance of public spaces. Well-maintained public spaces and facilities would encourage mode shift and improve quality of life.	"Better maintained facilities, especially for people riding bicycles and walking can improve their access to the city."
Add more trees. Increase the presence of street trees and maintain them. Trees make streetscapes more comfortable and reduce the urban heat island effect.	"Please don't forget SDOT's responsibilities for the tree canopy, given how much of the City's land is in SDOT ROW."
Repurpose the right-of-way. Repurpose space for vehicles to provide more space for people, such as public squares, parks, and sidewalk cafes.	"Remove parking; as much as possible. Use the space for sidewalk cafes, bike lanes, literally ANYTHING other than parking."

Themes from BIPOC Communities and Equity-Priority Areas

Black, Indigenous, and People of Color (BIPOC) communities and equity-priority areas called out the following as particularly important themes for the Seattle Transportation Plan.

Theme	Quotes from Survey Respondents
Keep it green. Protect green space and trees and add more of them to increase shade and canopy, especially in underserved neighborhoods.	"Planting more trees, especially big ones where there are no power line issues along streets and sidewalks will reduce urban heat island impacts. This is especially needed in low canopy areas. SDOT needs to give priority to protecting existing trees and watering new trees to ensure their survival. Trees along busy streets will help slow traffic and help increase safety for pedestrians, cyclists, and drivers alike."
Prioritize outreach. Center development based on hubs and assets that have been identified by the community.	"Prioritize outreach to gather feedback from historically marginalized groups - meet with community advocates and leverage existing community hubs AND THEN take action based on that feedback."

PEOPLE STREETS AND PUBLIC SPACES IN SEATTLE

While the PSPS Element is new, the city has a long history of implementing projects and programs that meet the goals and objectives it outlines. The city, our residents, and private development all play a role in creating people streets and public spaces. The city has a broad reach and implements improvements citywide, in close collaboration with community stakeholders. While development projects are required to provide public realm enhancements, they are typically localized to the development site.

Achievement of the PSPS network vision will require many types of investment with varying design and function. The types of People Streets and Public Spaces fall on a spectrum from streets that prioritize pedestrians and allow vehicle travel to spaces that are fully dedicated to people, as shown in **Figure 5.** This section describes the categories of People Streets and Public Spaces and how they collectively achieve the PSPS vision.

Figure 5: Range of People Street and Public Space Categories

PSPS CATEGORIES OVERVIEW

People Streets include Destination Streets, Strolling Streets, and Shared Streets, while Public Spaces include Plazas and Shoreline Street Ends. **Table 2** provides a high-level definition of each PSPS category and more detailed profiles are included at the end of this section. The detailed profiles include a description, opportunities that category supports, selection criteria, design tools, and Seattle examples.

Table 2: People Streets and Public Spaces Category Definitions

PEOPLE STREETS	
Destination Streets	Streets in the heart of a neighborhood with a high density of destinations—shops, restaurants, cultural centers, and more—that will receive strategic investments to make them safer and more enjoyable for walking, rolling, and lingering as well as optimize their curb side uses. They are typically arterial streets.[9]
Strolling Streets	Local streets[10] used for recreation, exercise, connecting with nature or community, or traveling to specific destinations. These are typically along streets with lower vehicle volumes and speeds.
Shared Streets	Streets that are "people first" spaces either permanently or during certain times of the day or week. They are typically identified in partnership with the surrounding community. Shared Streets include Healthy Streets, Café Streets, School Streets, Event Streets, Special Alleys, and Pedestrianized Streets.
Healthy Streets	Streets for people walking, rolling, biking, and playing. They are closed 24/7 to pass-through traffic. People driving who need to get to homes and destinations along Healthy Streets retain access and can still drive on these streets.
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.
School Streets	Streets for people walking, rolling, and biking to school and playing. They are closed to pass-through traffic, including parents and guardians. People driving to homes and destinations along School Streets, including school district transportation, retain access and can still drive on these streets.
Event Streets	Streets that host intermittent community events, such as farmers markets. These are street blocks where events may close movement of all vehicles, except emergency access, on a frequent or intermittent basis. No parking, loading activities, or business access is allowed during closures.
Special Alleys	Historic and special alleys with community destinations or retail density that generate human-scale spaces and accommodate essential service functions.
Pedestri-anized Streets	Streets where vehicle access is limited (by time of day or type of vehicle) for exclusive or priority pedestrian access. They are typically located on non-arterial streets with land uses that generate significant pedestrian activity, such as shops, restaurants, museums, and tourist attractions. They are also located near bus, streetcar, and light rail transit stations and bicycle routes.
PUBLIC SPACES	
Plazas	Permanently pedestrianized spaces in the right-of-way that are designed to not allow vehicular access but could allow for emergency access, vending, or food trucks. They are typically found in active retail areas or at bus, streetcar, and light rail transit stations.
Shoreline Street Ends	Designated areas for public access to the shoreline that occur where streets meet a shore.

[9] Arterial streets are the "backbone" of the roadway system and accommodates the most trips for all modes.
[10] Local streets have less travel, are designed for slower speeds, and primarily provide local access.

SCALE OF INTERVENTION

Achieving the PSPS vision will require different scales of intervention given the diversity in neighborhoods. PSPS interventions will range in complexity and cost as some will be temporary improvements or pilots, and others will be permanent, capital-intensive commitments. In some cases, projects may initially be tactical, pilot projects to enable iteration and design refinements to inform more transformational projects.

In certain contexts, light-touch measures are all that is needed to make a street or place more functional and attractive. A context-sensitive approach that seeks to understand how the space is used and what the community desires and needs, will ultimately inform the selection of the right type and scale of intervention.

Table 3 describes the range of possible actions we can take. It includes three different scales of intervention, description, application considerations, and a sense of how much each type of intervention would cost.

Table 3: PSPS Scales of Intervention in Streets and Spaces

Scale of Intervention	Description	Application Considerations
Spot Improvements	Tidy Up & Declutter: Spot improvements such as removing unnecessary road markings or damaged street furniture, adding flexible porous surface treatment to tree pits, and making other similar upgrades that respond to the community's immediate needs. This would also include removal of clutter and/or consolidating street furniture and signs using strategic justification for every individual piece of infrastructure in the street.	Implemented in the near-term, serving as early wins. These types of improvements are often noted through community feedback for areas with high volumes of foot traffic and Community and Mobility Hubs.
	Add Street Furniture: Spot improvements such as combining signage and lighting, eliminating unproductive furniture, relocating street furniture to better fulfill its intended use, and adding essential infrastructure that supports walkability such as benches, pedestrian wayfinding, bollards, and pedestrian lighting.	Consider adding discrete elements that do not require modification to the curb or street operations.
Pilots & Tactical Redesign	Includes temporary improvements and interim public space enhancements such as tactical plazas and street pilot projects. Projects would typically consider changes to user priority; changes to travel lane widths or traffic signal removal; reallocation of right-of-way; and inclusion of bollards, planters, paint, and similar elements to create People Streets and Public Spaces. Pilots and tactical projects would typically be evaluated through public life studies and community engagement to refine the design and evaluate for advancement to permanent or transformational placemaking.	Pilots and Tactical Redesign are a tool for quickly testing and deploying concepts and adjusting to user experience and feedback to inform more permanent and transformational investments. Projects could be at intersections, block faces, or span multiple blocks (e.g., Ballard Ave). Consider the construction of interim curb bulbs and widened sidewalks, the timing of signals, operational changes, elimination of slip lanes, use of traffic diverters, and closure of specific blocks using tactical bollards and planters.
Transformational Placemaking	Permanent redesign of the street. This may include creation of shared streets, new plazas, use higher quality materials to create signature areas, extensive green stormwater investments, integration of holistic corridor redesign projects from property line to property line, and intersection redesign.	Typical applications will include intersections, entire blocks, or series of blocks. In many instances, tactical and pilot projects may inform more permanent transformational investments. Projects may be on the sidewalks, between curb and curb, or span the whole street between property face and property face. These projects are opportunities to collaborate with OED, SPU, and SPR to implement green infrastructure, support business districts through multifaceted investments, and close gaps in access to open space.

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HOW PEOPLE STREETS AND PUBLIC SPACES ARE IDENTIFIED

The PSPS Inventory and Future PSPS Network maps presented in **Figure 6** to **Figure 17** below establish a foundation and vision for where PSPS opportunities exist. Specific People Streets and Public Spaces projects will be identified and implemented using different approaches, but no matter what approach is taken, communities will be at the center of decision-making. Below are four ways People Streets and Public Spaces projects may come to fruition:

- **PSPS Action Plans**—projects proactively developed in collaboration with communities.
- **Community Requests**—projects developed in response to community requests.
- **Through Permitting**—projects identified during the permitting of private development, as Public Benefits, or where there is concentrated public space activity programming.
- **Partnering Opportunities**—projects identified opportunistically through the SDOT project development process; through private development project reviews; through large capital projects led by others like future light rail investments; through program coordination such as with Community and Mobility Hubs; or through partnerships with other agencies or City departments.

ACTIVATION AND PERMITTING

PSPS strategies incorporate public space programming, which brings free activities like arts, culture, fitness, and educational experiences to public spaces. At SDOT, we work with residents, organizations, and businesses to enhance neighborhoods, strengthen communities, enliven public spaces, and promote economic vitality. *Streets Illustrated* (Seattle's Right-of-Way Improvements Manual, Section 4.1. City of Seattle Permit Process) outlines programs for parklets, outdoor dining, vending, street closures by permit, and festival streets.

PSPS CATEGORY PROFILES

The following profiles provide detailed descriptions of each PSPS category. They include an overall description, opportunities, selection criteria, design tools, how projects are identified, possible scales of intervention, and examples found in Seattle.

Destination Streets

Retail Area on Lake City Way NE

Destination Streets focus on strategic sidewalk and intersection improvements in business areas that contain pedestrian-oriented retail and services—typically along arterial streets. PSPS interventions along Destination Streets generate equitable public realm enhancements in business districts citywide and prioritize placemaking improvements in areas where there are people walking.

Opportunities

- Create street space focused on people and public space
- Prioritize pedestrians at street crossings and intersections
- Support economic development in business districts
- Manage critical access to the curb and loading needs of local businesses
- Make it safe and easy for people traveling to or from the destination street by transit, biking, or walking

Selection Criteria

- Typically located along street segments of arterial streets where there is a Pedestrian Zone or Neighborhood Commercial Zone7F7F11 designation and observed pedestrian retail areas at least 1 block in length.

Design Tools

Safety improvements, such as increasing the density of marked and signalized crosswalks, including all-way crossings (i.e., pedestrian scrambles) and mid-block crosswalks; re-channelization of vehicular lanes; installing medians, raised intersections, and raised crosswalks. Public space improvements, such as widening sidewalks, incorporating pedestrian-scale lighting, landscaping and trees, wayfinding, seating, and public art.

How Projects Are Identified

PSPS Action Plans	✓
Community Request	✓
Through Permitting	
Partnering Opportunity	✓

Possible Scales of Intervention

Tidy Up	✓
Declutter	✓
Add Street Furniture	✓
Pilots & Tactical Redesign	✓
Transformational Placemaking	✓

Examples

King St (Chinatown International District), Rainier Ave (Columbia City), and Martin Luther King Jr. Way (Othello)

[11] Pedestrian zones are a land use designation from the Seattle Municipal Code and Streets Illustrated that requires additional sidewalk widths.

Strolling Streets

Strolling Streets are where walking can be enjoyed to access destinations, get exercise, and connect to nature and open space. They include streets that have low traffic volumes and slower speeds and offer a low stress environment for pedestrians and bicyclists. Strolling streets are well landscaped, park-like streets (e.g., Green Streets). Strolling streets maintain and provide critical access to the curb and the loading needs of businesses, where needed.

14th Ave NW in Ballard (top) and Pontius Ave N in South Lake Union (bottom)

Opportunities

- Encourage walking trips by making it a pleasant journey
- Provide a climate resilient landscape along streets
- Support placemaking and neighborhood livability
- Foster a people-centered street culture

Selection Criteria

- Typically supported by pedestrian-oriented retail and a mix of medium-to-high density multifamily residential and retail uses.
- Located along arterials and non-arterials with lower traffic volumes and speeds.
- Typically not located on frequent bus routes, but a streetcar may be present.
- In some instances, successful Strolling Streets or segments of Strolling Streets may become candidates for future Shared Streets.

Design Tools

Safety improvements, such as increasing the density of marked and signalized crosswalks, including all-way crossings (i.e., pedestrian scrambles) and mid-block crosswalks; re-channelization of vehicular lanes; installing medians, raised intersections, and raised crosswalks. Public space improvements, such as widening sidewalks (reclaiming space from parking or vehicular lanes) or building curb-less streets, and incorporating pedestrian scale lighting, landscaping, wayfinding, seating, and public art.

How Projects Are Identified

PSPS Action Plans	✓
Community Request	✓
Through Permitting	✓
Partnering Opportunity	✓

Possible Scales of Intervention

Tidy Up	✓
Declutter	✓
Add Street Furniture	✓
Pilots & Tactical Redesign	✓
Transformational Placemaking	✓

Examples

S Edmunds St (Columbia City), Melrose Promenade; NE 43rd St (U District), 8th Ave, Yale Ave, and Terry Ave (South Lake Union)

Shared Streets

Occidental Avenue S Pedestrianized Street

Shared Streets are people-first spaces either permanently or during certain times of the day or week. They incorporate design measures that allow pedestrians, bicyclists, and vehicles to co-mingle in the right-of-way, while still maintaining the critical access needs of businesses and emergency vehicles. We will partner with the community through future neighborhood studies to identify the specific type(s) of Shared Street treatments and conversions that are appropriate in that particular context. Shared Streets include a range of potential design treatments, which will be determined through a participatory discussion with the community. Shared Streets may be implemented as pilots with tactical improvements. Once successful as proof of concept, they can be prioritized for large capital investments.

Shared Streets can take the form of **Healthy Streets**, **Café Streets**, **School Streets**, **Event Streets**, **Special Alleys**, and **Pedestrianized Streets**. These are described in more detail on the following pages.

Opportunities

- Foster a culture of safe and low-stress spaces inside neighborhoods
- Provide more space for people to walk, bike and gather for community activities
- Promote safety through the reduced speed of vehicles that travel through PSPS locations

Selection Criteria

- Typically found on non-arterial streets with low vehicle traffic volumes/speeds and no bus service.
- Can also occur on arterial streets with high pedestrian volumes, where the land use immediately adjacent supports pedestrian activity (e.g., shops, restaurants, museums, tourist destinations). Shared Streets on arterials will succeed when pedestrians far outnumber vehicles (e.g., 4 or more pedestrians for every passenger vehicle).
- The access and loading needs of the properties along these streets is critical to understand their suitability as a shared street and should include consideration of whether these needs can be met on side streets, off street, or in alleys.

Design Tools

The design of Shared Streets should always prioritize pedestrians. Vehicular access may range from local access only, to business loading and unloading, to emergency access only. Fully rebuilt Shared Streets often lack conventional street features like curbs, road surface markings, stop signs, traffic signals, and crosswalks, which necessitates that people acknowledge each other and dynamically negotiate shared use of the right-of-way. Retrofitted Shared Streets may include elements, such as bollards, planters, curb bulbs, speed humps, murals, and special street signs.

How Projects Are Identified

PSPS Action Plans	✓
Community Request	✓
Through Permitting	✓
Partnering Opportunity	✓

Possible Scales of Intervention

Tidy Up	✓
Declutter	✓
Add Street Furniture	✓
Pilots & Tactical Redesign	✓
Transformational Placemaking	✓

Shared Streets: Healthy Streets

Healthy Streets are always open to people walking, rolling, biking, and playing, but closed to pass-through traffic. The goal of Healthy Streets is to provide people walking, biking, and rolling access to the full width of public right-of-way. People driving who need to access homes and destinations along Healthy Streets are guests that share the space with people outside of vehicles and move at the speed of play. People who drive on the street to make deliveries, provide essential services (emergency access, public utilities), and visit homes and business expect people to be in the street and drive at slow speeds.

Example of a Healthy Street

Opportunities

- Provide safe spaces for people to walk, bike, roll, and gather in their neighborhoods
- Improve physical and mental health of individuals and communities through recreation, physical activity, and community connections
- Reduce barriers to hosting small community gatherings in the street; because Healthy Streets are closed, no permit is required for Play Streets, Trick-or-Streets, or similar events

Selection Criteria

Any non-arterial neighborhood street. Existing or planned neighborhood greenways are common candidates for Healthy Streets.

Design Tools

Healthy Streets can include traffic safety features like improved crossings at busy streets, speed humps to slow down drivers, and sign and pavement markings to help people find their way. They can also include intersections with traffic circles and street murals to discourage people from driving on Healthy Streets as well as elements that allow street play activities, such as hopscotch and basketball, that would normally require a street closure permit.

Examples

Bell St (Belltown), 32nd Ave NE (Little Brook/Olympic Hills), 18th Ave S (Beacon Hill)

Shared Streets: School Streets

School Street
(Image Source: Seattle Public Schools)

School Streets prioritize people walking, rolling, and biking to school. They help encourage families to walk or bike to school, provide a safer school environment by eliminating through traffic, and improve air quality next to the school. They may include one or two street blocks directly adjacent to a school. People driving to homes and destinations along School Streets, school district-provided and Americans with Disabilities Act (ADA) transportation, and emergency and service vehicles retain access and are still able to drive on these streets.

Opportunities

- Provide a safer environment around schools
- Encourage families to walk or bike to school
- Provide additional space for recreation for the school community and neighborhood

Selection Criteria

Any non-arterial neighborhood street adjacent to a school. School Streets must be requested by school administration and cannot have a public bus route or layover.

Design Tools

"Street Closed" and branded signage.

Examples

14th Ave NW (Whittier Elementary), SW Dakota St (Genesee Hill Elementary)

Shared Streets: Café Streets

Cafe Streets have lots of foot traffic and a high density 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, but the street is designed to keep speeds low and operates to give priority to pedestrians. Café Streets may or may not allow parking, and may have intermittent full closures, ideally without requiring a permit.

Ballard Ave Café Street

Opportunities

- Bring Café Streets to more communities, reducing inequities
- Build relationships with small businesses and support their operation
- Encourage walking and use of public space by creating more vibrant and welcoming streets

Selection Criteria

Most suitable on less busy arterial or non-arterial streets; adjacent land uses are predominantly mixed use, with commercial or other pedestrian activity-generating uses at street level; there is interest from adjacent businesses or the community.

Design Tools

Café Streets can include design tools, such as seating and tables, weather protection, public art, murals, plazas, street planting, bollards, higher quality pavement materials, or traffic calming, as well as programming and activation through buskers, performing artists, or vendors.

Examples

Ballard Ave, Pike Place

Shared Streets: Pedestrianized Streets

Pedestrianized Streets are streets that are either permanently or intermittently closed to motorized vehicles to create great places for people to socialize, play, shop, linger, or just pass through. Pedestrianized Streets create attractive public spaces which encourage walking and a sense of community. Deliveries may still be permitted at certain times of day, and emergency access is maintained.

Occidental Avenue S in Pioneer Square

Opportunities

- Provide more space in high pedestrian traffic areas
- Provide space for businesses to "spill out into the street" creating interest and economic exchange opportunities
- Grow the network of pedestrian-only areas and define a toolkit of approaches to enable critical business access needs and pedestrian priority

Selection Criteria

Typically non-arterial streets with adjacent land uses that generate pedestrian activity, such as shops, restaurants, museums, tourist attractions, transit hubs, and residences.

Design Tools

Ranges from lower-cost treatments such as movable barriers to divert traffic to curb-less street. Other features may include bollards, pedestrian-scale lighting, landscaping, high-quality pavements, public art, street furniture, café seating.

Examples

Occidental Ave (Pioneer Square)

Shared Streets: Special Alleys

Special Alleys can break up the street grid or large blocks by creating a porous and interesting walk environment. They generate human-scale spaces that expand retail density and community assets, and they accommodate essential service and access functions for businesses or institutions. Special Alleys support community objectives for local placemaking. The PSPS program will identify future Special Alleys in collaboration with the community.

Canton Alley (Image Source: UW Urban Commons Lab / Nakano Associates)

Opportunities

- Articulate a more standardized approach to balancing people space with critical access and service functions of alleys
- Define criteria for future interventions as there is not a means to improve or channel investments to these spaces currently

Selection Criteria

Existing commercial alleys, historical alleys, alleys with approved concept plans, or dense urban districts with substantial mixed-use development and pedestrian oriented retail

Design Tools

High quality pavements, pedestrian-scale lighting, green walls, festival lighting, partner with adjacent property owners and businesses to create active storefronts, café seating, and other active uses.

Examples

Nord Alley (Pioneer Square), Canton Alley (Chinatown), and Nihonmachi Alley (Japantown)

Shared Streets: Event Streets

Summer Streets 2013 PhinneyWood

Event Streets are specific street blocks that are suitable for community events. These are blocks where events may prohibit vehicle access on a frequent or intermittent basis (emergency access is always maintained). Parking, loading, and business access is prohibited during closures. Event Street designations provide the opportunity to enable more frequent community activation of the right-of-way. Event Streets can include seasonal closures, such as Open Streets, Summer Streets, and similar programs that reimagine the use of the right-of-way.

Opportunities

- Support communities and local placemaking
- Enable more frequent activation of the right-of-way by communities

Selection Criteria

Typically implemented on non-arterials at the heart of neighborhoods. In some cases arterials.

Design Tools

Event streets may be established on existing streets using movable barriers to exclude traffic or designed into new streets. May take the form of curb-less streets and include features such as power outlets and posts for banners and temporary festival lighting.

Examples

Farmers Market streets, such as Ballard Avenue, designated Festival Streets, such as South Roberto Maestas (Beacon Hill) and other curb-less blocks around Link light rail stations, and streets with community events, such as night markets, food truck nights, and craft shows

Plazas

Plazas are fully pedestrianized spaces in the right-of-way that are not designed for vehicular access but could allow for emergency access or food trucks into the plaza (but not through the plaza). They are typically found in active retail areas, along active frontages, or at bus, streetcar, and light rail stations. Plazas provide access to transit and support community objectives for local placemaking. Future plazas will be identified in collaboration with the community.

First Hill Pocket Plaza at University St & Boylston Ave

Opportunities

- Offer spaces of respite from traffic and noise
- Generate public life
- Reclaim underutilized right-of-way for pedestrians (e.g., McGraw Square)
- Improve the transit experience when adjacent to transit stations and hubs

Selection Criteria

Plazas are typically identified where there is excess right-of-way that is not in use for a mobility or access function that could be transformed into a small park-like open space in the right-of-way. Plaza investments are especially prioritized where there are gaps in open space, as well at Community and Mobility Hubs. Plazas may be also identified through the design of other People Street projects. In certain instances, transfer of jurisdiction or maintenance partnerships with Seattle Parks may be possible (e.g., Little Brook Plaza, Delridge Triangle).

Design Tools

May be established using lower-cost more temporary treatments such as planters or designed as capital projects. May include seating, public art, water features, landscaping and trees, shelter/canopies, small stages for events, among other features. Include elements that support various travel modes like bike racks, shared mobility parking, and transit furniture.

How Projects Are Identified

PSPS Action Plans	✔
Community Request	✔
Through Permitting	✔
Partnering Opportunity	✔

Possible Scales of Intervention

Tidy Up	✔
Declutter	✔
Add Street Furniture	✔
Pilots & Tactical Redesign	✔
Transformational Placemaking	✔

Examples

McGraw Square (Downtown), Fortson Square (Pioneer Square)

Shoreline Street Ends

Shoreline Street Ends are designated areas for public access that occur where streets meet a shore. The goals of the program are to equitably improve and maintain shoreline access and enjoyment across a broad spectrum of Seattle's neighborhoods and enhance the shoreline habitat through the inclusion of ecological benefits like native plants and green stormwater treatment.

E Allison St in Eastlake

Opportunities

- Raise neighborhood awareness of Shoreline Street Ends
- Explore new opportunities to leverage funding resources
- Encourage stewardship through an extensive network of community partners

Selection Criteria

The Shoreline Street Ends Work Plan of 2017 identified 149 locations for improvement. As of 2023, there are improvements at 96 Shoreline Street Ends. The program identifies and collaborates with community partners to maintain and improve Shoreline Street Ends for public use.

Design Tools

Shoreline Street End projects rely on a variety of partnerships for delivery, including partnering with Seattle Parks, Seattle Public Utilities, non-profit and neighborhood groups, and adjacent property owners. Permit fees are also used to fund projects, with a specific focus on increasing equitable access to Seattle's Shorelines. Design tools include:

- Native plantings
- Tables and benches
- Water access stairs or paths

How Projects Are Identified

PSPS Action Plans	✓
Community Request	✓
Through Permitting	✓
Partnering Opportunity	✓

Possible Scales of Intervention

Tidy Up	✓
Declutter	✓
Add Street Furniture	✓
Pilots & Tactical Redesign	✓
Transformational Placemaking	✓

Examples

W McGraw St (Magnolia), Allison St (Eastlake), South Park Pump Station

PSPS NETWORK MAPS

Current PSPS Inventory

Figure 6 through **Figure 11** show the existing PSPS network of public spaces (Plazas and Shoreline Street Ends), and Shared Streets (Healthy Streets, Café Streets, School Streets, Special Alleys, and Event Streets). These exist through public space management permitting and design interventions in the streetscape.

Future PSPS Investments

Figure 12 through **Figure 17** show the vision for how the PSPS network will develop. Future investment opportunities identified on the following maps draw from existing neighborhood plans, streetscape concept plans, and known community initiatives.

Our focus will be on equitable distribution of People Streets and Public Spaces so that all communities benefit from the economic, social, and public health benefits of these investments. Therefore, various neighborhoods have been identified for future community-scale People Streets and Public Spaces Action Plans to identify local, community-prioritized People Streets and Public Space needs that are not captured in existing plans and projects.

In addition, all the People Street categories listed in **Table 2** are included.

The PSPS future network will be informed by these fundamental network considerations:

- Creating People Streets and Public Spaces in every neighborhood.
- Creating inclusive and welcoming Community and Mobility Hubs.
- Prioritizing communities disproportionately impacted by pollution.
- Reconnecting neighborhoods in communities that have been divided by major transportation infrastructure, freeways, state highways, bridges, and rail lines.
- Increasing access to parks and shorelines in communities with deficits in public open space.
- Continuing to transform Downtown into a people-oriented city center.

For more detail on future actions, see "Programmatic Activities" below.

Figure 6: Existing People Streets and Public Spaces Inventory – Northwest

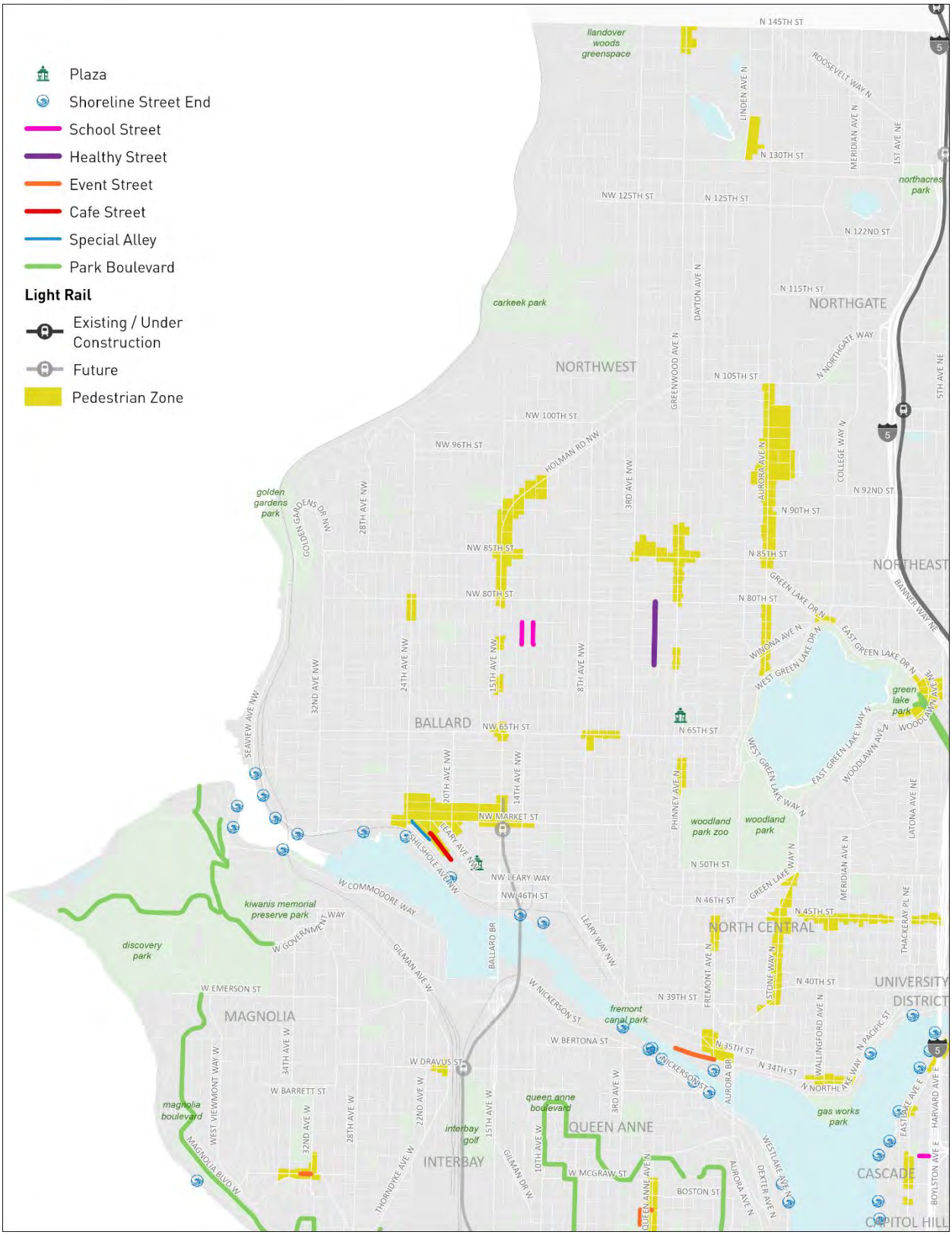


Figure 7: Existing People Streets and Public Spaces Inventory - Northeast

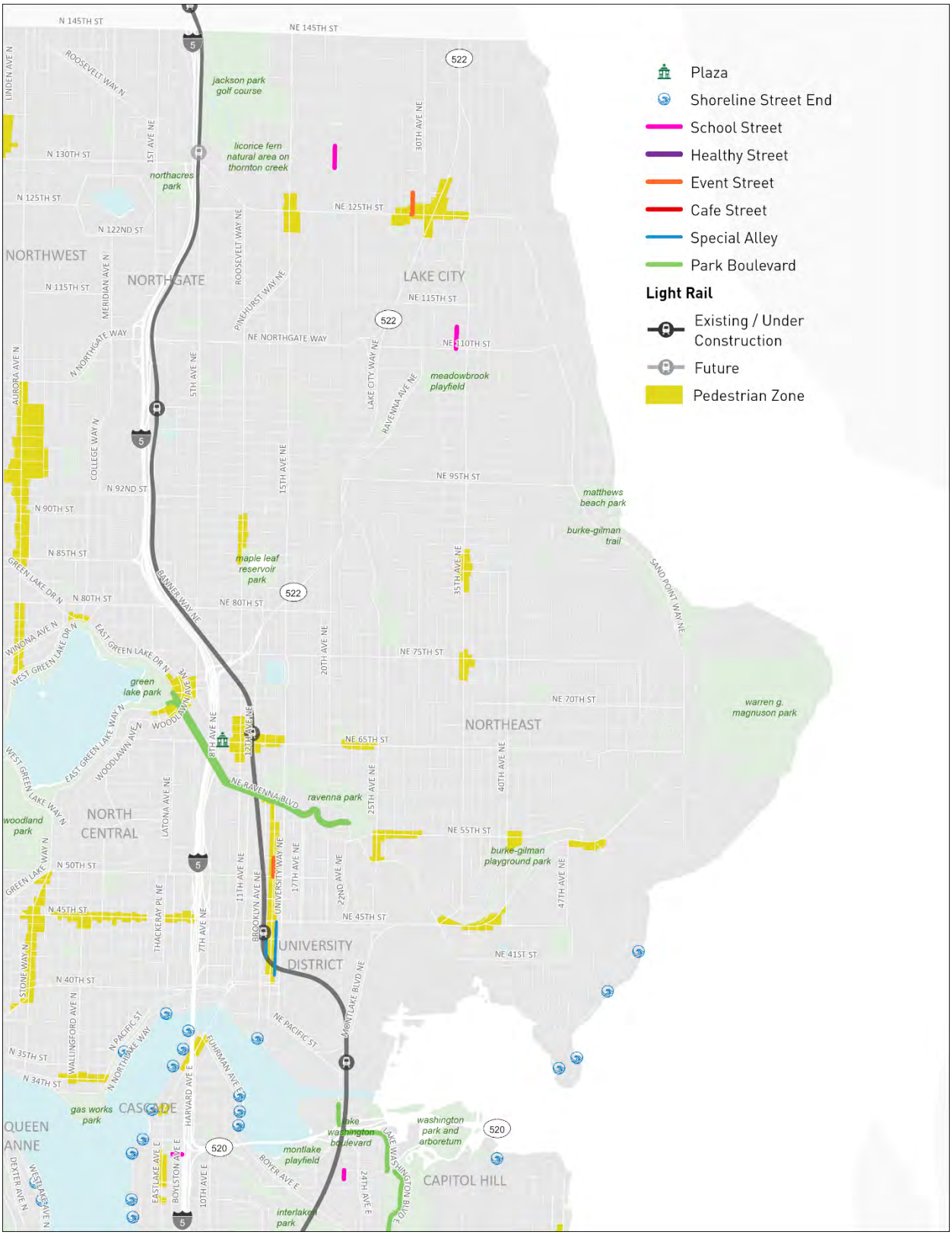


Figure 8: Existing People Streets and Public Spaces Inventory – West

Figure 9: Existing People Streets and Public Spaces Inventory – East

Figure 10: Existing People Streets and Public Spaces Inventory – Southwest

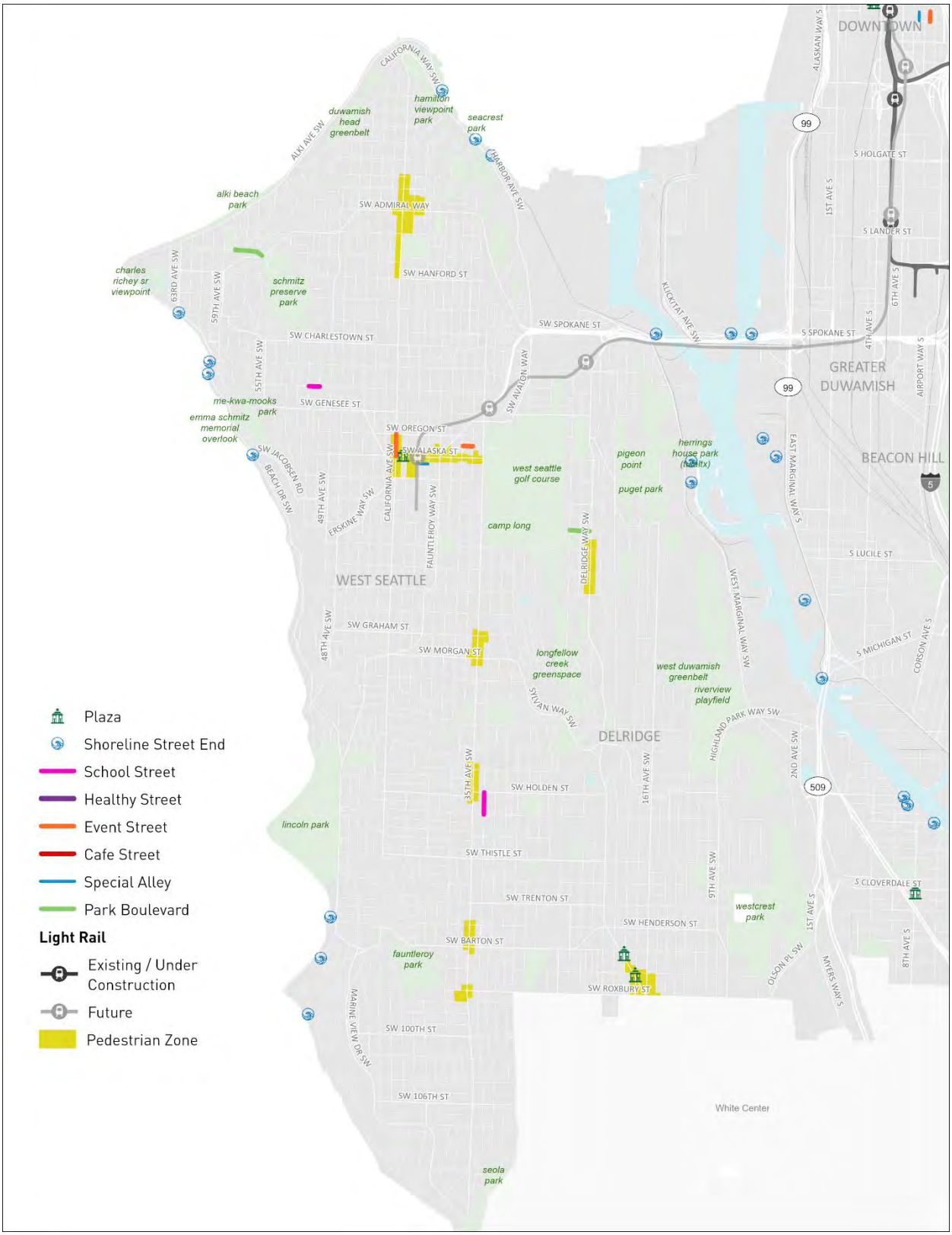


Figure 11: Existing People Streets and Public Spaces Inventory – Southeast

Figure 12: Future People Streets and Public Spaces – Northwest

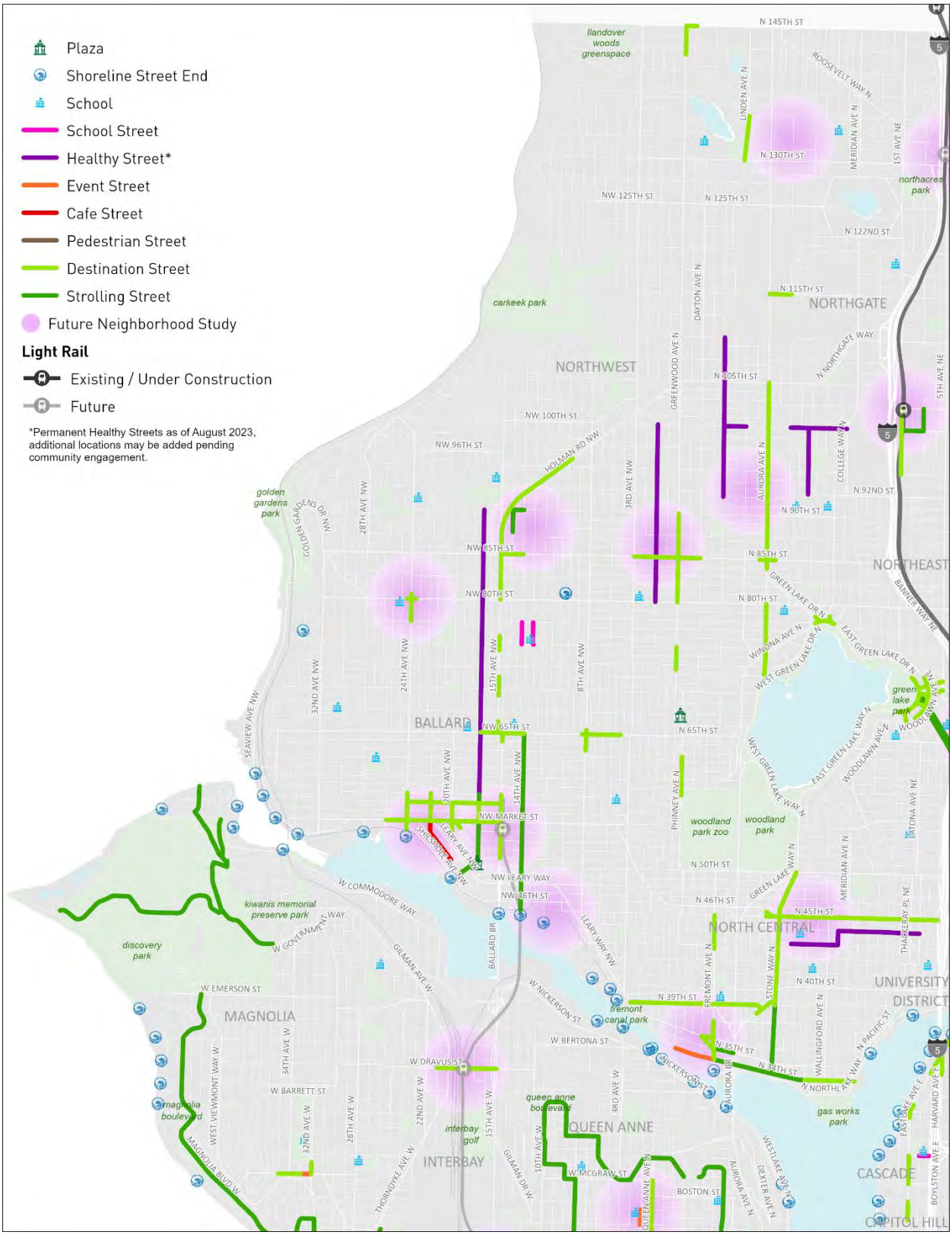


Figure 13: Future People Streets and Public Spaces – Northeast

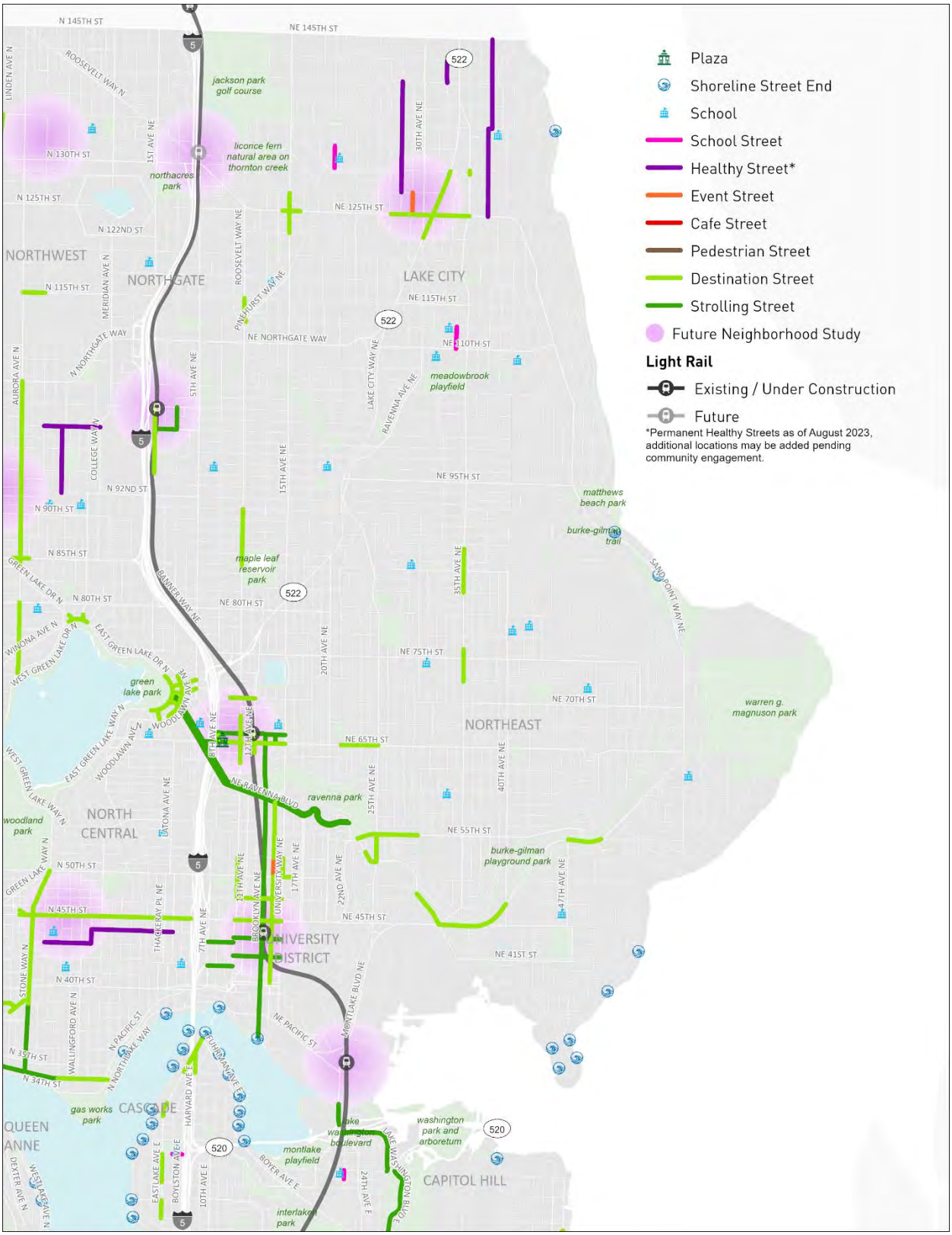


Figure 14: Future People Streets and Public Spaces – West

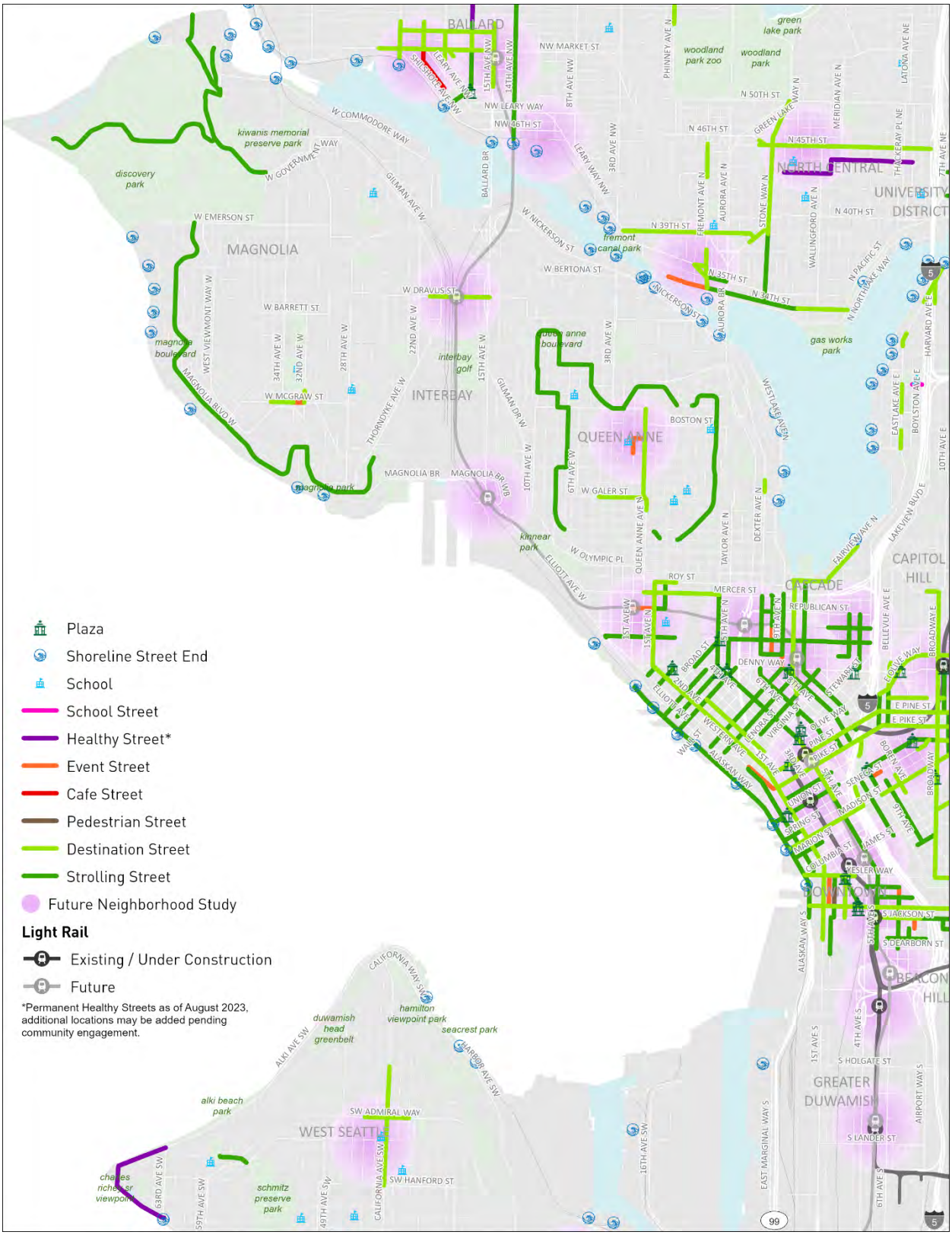


Figure 15: Future People Streets and Public Spaces – East

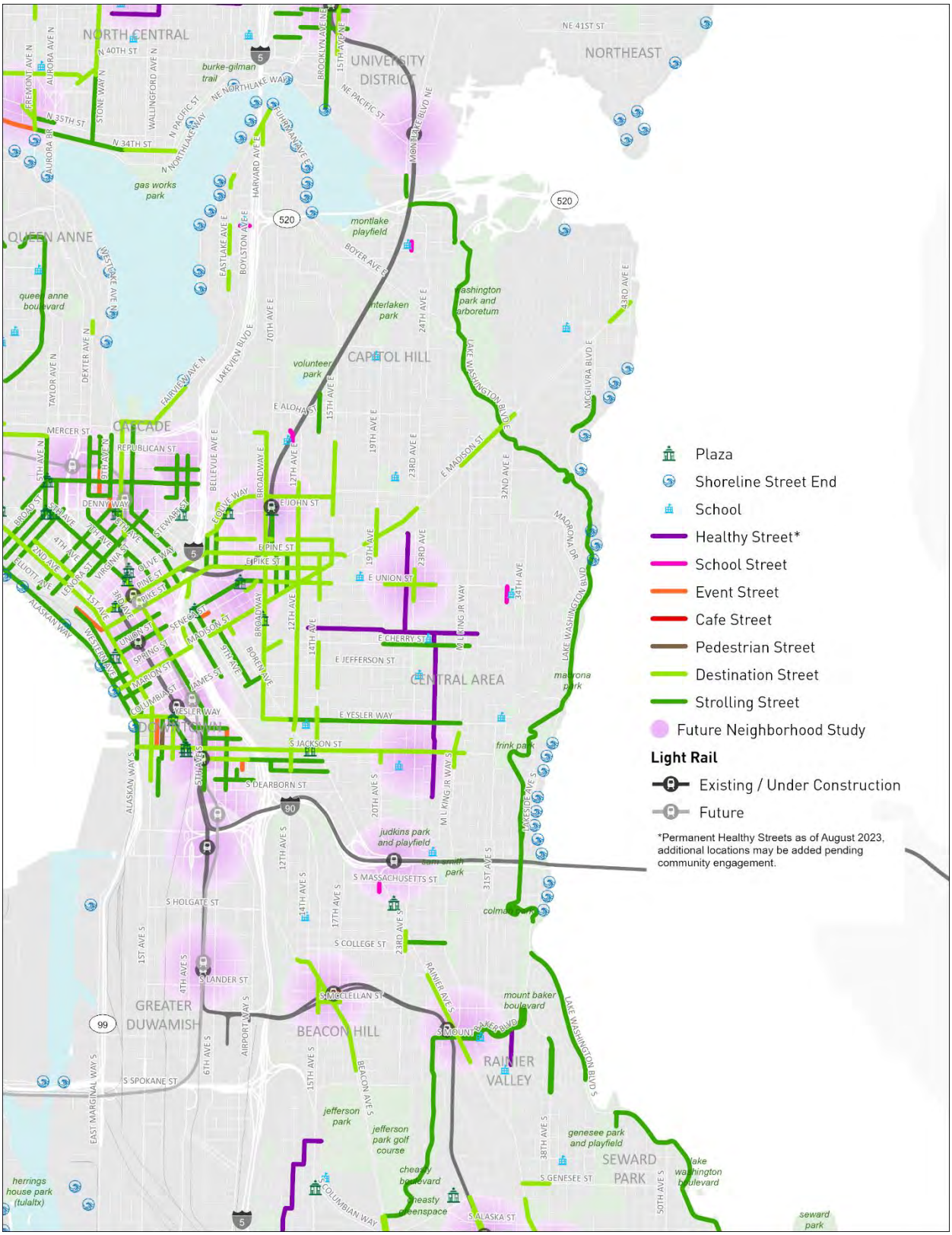


Figure 16: Future People Streets and Public Spaces – Southwest

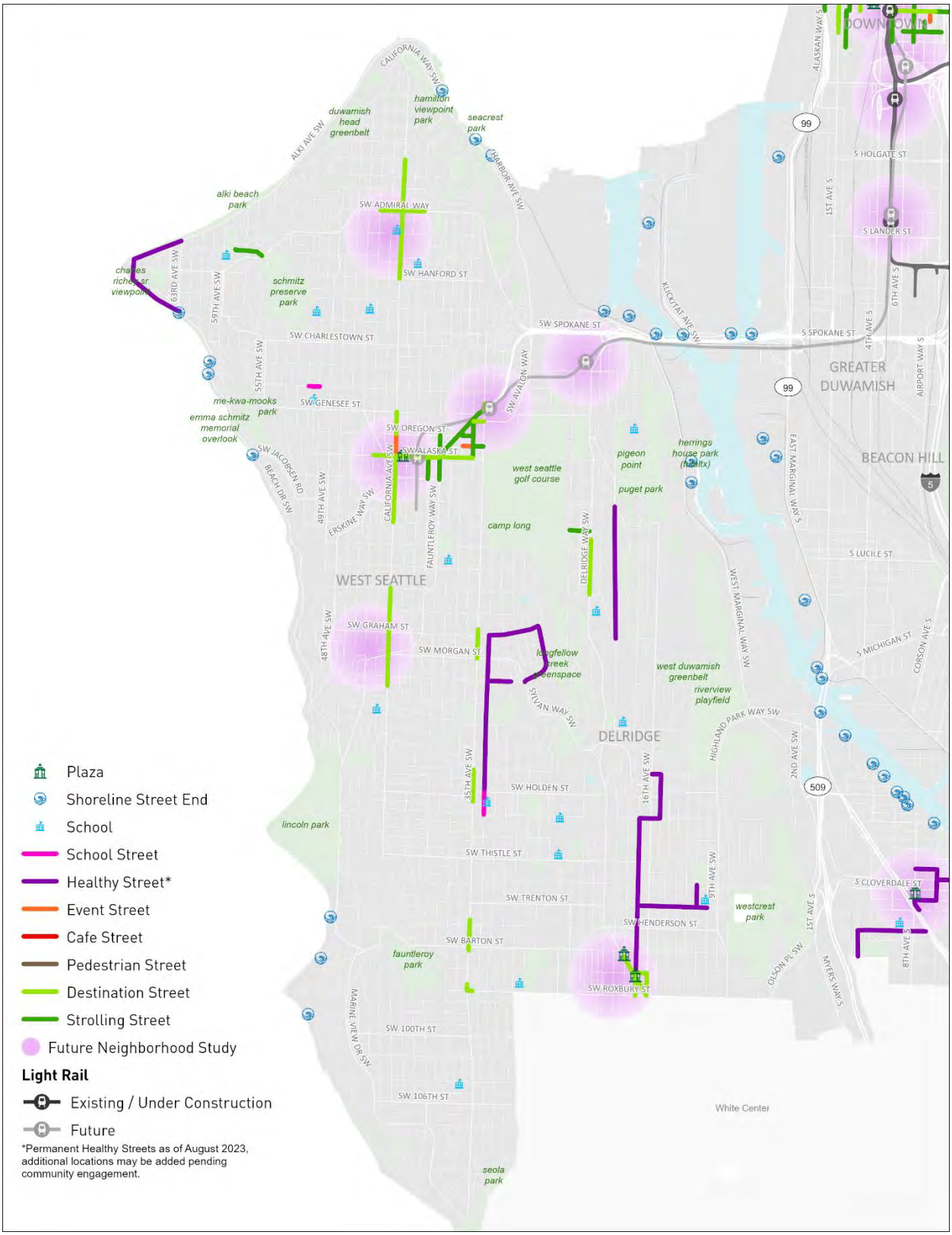
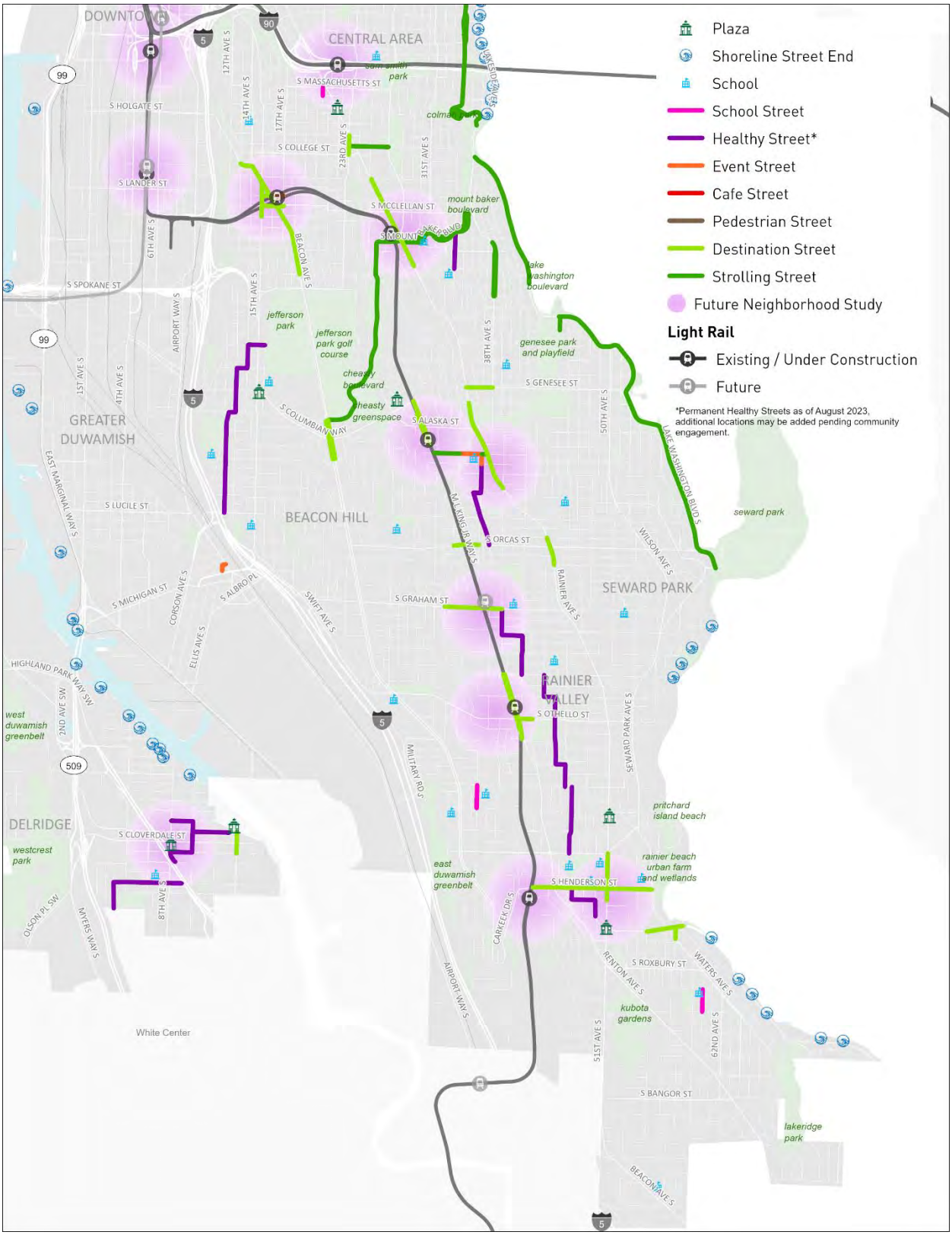


Figure 17: Future People Streets and Public Spaces – Southeast



PROGRAMMATIC ACTIVITIES

SDOT engages in a variety of programmatic activities (that is, activities that relate to programs or are ongoing, rather than specific to a project) 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 programs listed here provide helpful general information to describe the types of tools and methods we will employ to manage the transportation system.

People Streets and Public Spaces Program

The PSPS Element offers the opportunity to rethink many existing SDOT programs and activities and package them into a full life-cycle program that spans planning, design, construction, management, and evaluation. This approach fosters greater collaboration between existing programs, like SDOT Urban Design and SDOT Public Space Management, and new activities and programs will strategically address the gaps and needs identified through public engagement and ongoing projects so we can better deliver on PSPS goals.

The PSPS Program will formalize existing inter-program relationships, make it easier for residents and businesses to understand and access our programs, and enable us to better partner with residents, businesses, and community-based organizations to achieve equitable People Streets and Public Spaces across Seattle. Program goals would be achieved through regulated uses in the right-of-way, policy and planning efforts, capital project design and delivery, and grant-funded community projects. The PSPS Program would capture and expand existing activities and identify new activities.

PSPS Network Implementation

Over time, we will seek to construct the PSPS network outlined in this Plan through a variety of SDOT programs, such as Healthy Streets, Safe Routes to School, Public Space Management, and People Streets and Public Spaces.

Implementation includes spot improvements, pilot and tactical redesign projects, and transformational placemaking projects. Smaller-scale projects are typically designed in-house and delivered through SDOT crews, while larger-scale projects may require design consultants outside contractors for project design and delivery. We will seek to:

- Systematically design and invest in Destination Streets, Strolling Streets, Café Streets, Pedestrianized Streets, Event Streets, Special Alleys, Plazas identified through PSPS Action Plans, community requests, and partnership opportunities.
- Reallocate street space currently used for vehicle storage and general-purpose travel to support a variety of people-oriented uses, such as gathering, playing, walking, and biking in strategic locations. Reallocating street space will support economic vibrancy, community vitality, and walkability in the heart of every neighborhood.
- Provide equitable access to People Streets and Public Spaces. Invest in historically underserved neighborhoods, to correct the imbalance of access to open space and great streets that improve the physical and mental health of communities.

- Prioritize PSPS investments that benefit people and local businesses who currently and historically experience high transportation burdens and those at high risk of displacement.
- Partner with other departments and agencies to deploy anti-displacement programs, investments, tools, and mitigation efforts.
- Design streets and public spaces so that goods and emergency responders can still reliably get where they need to go, while adjacent businesses prosper from an activated public realm.
    - Coordinate with Seattle Fire during the design process to develop mutually agreeable street designs.
    - Use curbside innovations to support pedestrianized streets and intermittent street closures. Systematize time-limited loading/unloading to meet critical business access needs and allow the implementation of pedestrianized streets and intermittent street closures that support the use of the public right-of-way as limited and increasingly valuable public space.
    - Continue engaging with schools and our communities to evaluate impacts of School Streets on safety as well as impacts to neighbors, businesses, and fire response routes.
- Create permanent Shared Streets, such as Healthy Streets, Café Streets, and School Streets, and expand them to all neighborhoods to provide important walking, rolling, and biking connections between neighborhoods, schools, and recreation opportunities and are age-friendly and kid-friendly. Include low maintenance design elements that invite young children to play, including boulders, logs, earthen mounds, trees, and winding pathways. (See Executive Order 2022-07) (Supports TEF 43.4)

Example**: King's Crescent Play Street, London**

King's Crescent Estate, a multifamily housing estate in east London, was redeveloped starting in 2015 by the Hackney Council. The main thoroughfare was pedestrianized and turned into a permanent Play Street that includes many non-formal invitations to play appropriate for very young children. The space includes natural materials such as boulders, wood logs, and planted areas with trees as well as benches and an accessible hammock swing. Since the space caters to both young and old, it works for everyone.

*Photo Source: the developer (https://www.thedeveloper.live/places/places/kings-crescent-estate-theres-a-feeling-*of-life-coming-back)

- Deliver pilots and tactical projects, such as interim public spaces generated by using bollards and planters, and street pilots implemented using murals, planters, and bollards.
- Convert successful tactical and interim public space improvements into permanent improvements.
- Make spot improvements, including tasks such as decluttering and tidying up efforts and discrete improvements such as adding street furniture.
- Implement PSPS through development review. Identify strategies to incentivize and remove barriers to PSPS implementation through private development-required street improvements. Update codes and standards to minimize conflict between current code and STP/PSPS street design and use recommendations.
    - Identify *Streets Illustrated* requirements to leverage private development opportunities to implement the PSPS vision for an area.
- Create transformational placemaking projects (typically projects with greater complexity and larger budgets) to tackle holistic and permanent redesign of the streets, ranging from single blocks to corridors. These may include creating new shared streets and plazas, using higher quality materials to create signature areas, installing extensive green stormwater investments, integrating holistic corridor redesign projects from property line to property line, and implementing intersection redesign projects. Projects can include spray parks, where appropriate, to provide families with places to cool off and mitigate the effects of increased temperatures due to climate change. The PSPS Program would typically lead the conceptual design for these projects and then hand off this category of projects to project development and capital project delivery functions at SDOT for engineering design and delivery.
- Work with communities to expand activated curb uses, including food truck vending, street cafes and parklets, event space, and more.
    - Activate curbside zones with recreational, retail, or event and activity space and support local businesses, public health, and livability. Consider the needs of different ages, including babies and toddlers with their caregivers as well as older adults, in the design of recreational public spaces in the curbside zone.
    - Collaborate internally and externally to identify areas within communities that would benefit from investment.
    - Design interventions to allow continued access for people and goods.
    - Leverage the expertise of existing SDOT teams to identify priority locations, implement active curb spaces, and support the expansion of active, non-mobility curb uses.

  See the Curbside Management Element for more details.
- Design for accessibility. Universal design best practices and other guidance beyond Americans with Disabilities Act (ADA) compliance enhance the public right-of-way for all users and are particularly important when designing Shared Streets and Pedestrianized Streets.

Urban Design

The Urban Design program focuses on optimizing how people experience the public realm through project design and implementation, design standards, and plans and policies. We will seek to:

- Continue to manage design and policy functions, such as Streets Illustrated design guidance and standards updates, Street Concept Plans development, and Complete Streets review processes.
- Continue to oversee implementation of the SDOT Public Art Plan and SDOT's street furniture efforts, such as Seamless Seattle Pedestrian Wayfinding, pedestrian lighting, and the Age-Friendly Bench Pilot.
- Continue to plan, design, guide, and build a wide variety of public realm projects ranging from small public spaces (e.g., Portal Porch and McGraw Square), to pilots (e.g., Ballard Ave Café Street), and major capital projects (e.g., Thomas St Redefined).
- Expand SDOT's pedestrian wayfinding program (Seamless Seattle), including at transit stations and stops, in collaboration with community and regional partners. (Supports TEF 48.1)
    - Connect all Urban Centers and Urban Villages through a single and legible City map-based pedestrian wayfinding system.
    - Expand Seamless Seattle Wayfinding offerings to include digital wayfinding maps for integration into third party applications, including expanding multilingual and accessibility applications and tools.
    - Develop a digital wayfinding asset management platform to enable the program to update and maintain wayfinding signs and allow for more efficient program expansion and integration into third party implementation opportunities.
- Identify opportunities for closer collaboration and cost sharing with Seattle City Light for pedestrian lighting, per the 2023-24 Pedestrian Lighting Master Plan update.
- Create new street crossing opportunities and enhance existing pedestrian crossings to improve safety and access for people walking and rolling, especially to transit.
- Revisit the pedestrian crossing policy with the aim of streamlining the implementation process for all-way crosswalks within station areas, along Destination Streets, and within urban villages and urban centers.
- Integrate public art within the right-of-way to a greater degree to promote community identity and cultural expression and create a more enjoyable travel experience through both art enhancements and 1% for Art projects (part of a city program to include art elements in capital projects). Engage with children and teenagers in the development of public art.
- Develop criteria and a toolbox for "pedestrianizing" streets in high pedestrian activity areas, including a spectrum of measures from tactical to full reconstruction (e.g., curb-less streets). Coordinate with partners to update the Land Use Code to include spot

improvements as code required improvements, prioritize driveway access off streets outside the PSPS network, and update the required street and sidewalk improvements.

- Expand the use of incentive zoning to additional parts of the city to incentivize implementation of PSPS when floor area ratio (FAR) bonuses are provided. Allow fees in lieu to contribute to a PSPS fund, which would enable implementation of larger and more holistic PSPS corridor improvements through the capital project route.
- Restructure the public benefit process to collect and apply public benefits from new developments that better align with city and community goals around equity and climate resilience. More specifically, we will:
    - Incentivize and encourage off-site public benefits in equity priority areas.
    - Allow for contributions into an SDOT public benefit fund geared toward developing People Streets and Public Spaces in equity priority areas, funding community-prioritized People Street and Public Space projects, funding maintenance of public benefits provided off-site, and other such tools.
- Explore with Seattle Parks and Recreation the potential for changes in policy and operation of select Olmsted Boulevards to allow more flexibility to create better walking, strolling, and biking experiences. These changes could enable more opportunities for healthy recreation opportunities year-round instead of summer weekends, and in some cases, provide high-comfort bike network connections. (Supports TEF 43.4) As part of the STP engagement process, we heard broad support for increased recreational opportunities along Olmsted Boulevards, along with more people-oriented streets throughout the city. The city would engage with communities and Friends of Seattle's Olmsted Parks in any such decision-making processes. (These are shown in Error! R eference source not found. and **Figure 11** as Park Boulevards.)

Healthy Streets

Originally implemented in response to the COVID-19 pandemic, Healthy Streets are being made permanent. We will seek to expand permanent Healthy Streets to all neighborhoods as a way of providing low stress connections to common destinations for people walking, biking, and rolling, regardless of age or and ability. We will continue to partner with communities to identify and co-create new Healthy Streets to meet and exceed the Executive Order 2022-07 goal of 20 miles.

School Streets

We will continue to our efforts to provide safer school environments for children walking, rolling, and biking to school. We will seek to provide every public school with pedestrian and bicycle facilities that serve people of all ages and abilities. (Supports TEF 43.4 and Executive Order 2022-07) We'll continue engaging with schools and our communities to evaluate impacts of School Streets on safety as well as impacts to businesses, fire response routes, and transit operations.

Public Space Management

The Public Space Management (PSM) program builds permitting programs that allow residents, organizations, and businesses to enhance their neighborhoods, strengthen communities, enliven public spaces, and promote economic vitality. These permitting programs enable community activation opportunities like temporary street closures for play streets, block parties, or small-scale events; business activation opportunities like sidewalk and curbside cafés; food trucks and carts; and retail merchandise display. Public Space Management also permits street furniture, public art, and neighborhood pole banners.

Through public space management activities, we aim to reduce barriers to enable communities to program, activate, and manage their public spaces with uses that are authentic and meaningful to them. We will seek to:

- Streamline permitting for community-driven events, vendors, and performers.
- Provide programming support for recurring events in public plazas and streets.
- Work with adjacent businesses to allow retail and service activity to "spill over" into People Streets and Public Spaces (e.g., Café Streets).
- Promote public art and performance in collaboration with community organizations.
- Expand seasonal street closures (e.g., summer streets), recurring closures (e.g., every Saturday), night-time closures, or limited-time closures to vehicles.
- Enhance community engagement and work to directly connect with community and business organizations across Seattle to learn from community, particularly communities of color, about how to improve permits and programs.
- Increase equitable participation in PSM programs by reducing or fully eliminating the permitting process where it makes sense.

PSPS Action Plans

PSPS engagement at the community scale is essential to build sustaining community relationships and to develop a solid understanding of local needs and priorities. PSPS action plans will refine the methodology developed through the First Hill Public Life Action Plan and the Yesler Crescent Public Life Action Plan. PSPS action plans would typically be followed by immediate implementation of select quick win spot improvements and pilot and tactical projects (e.g., 3rd Ave and Yesler Way Safety Improvements). Tactical improvements would be evaluated, and those suited for permanent improvements would be prioritized for transformational placemaking investments. We will seek to:

- Develop neighborhood-scale PSPS Action Plans in partnership with communities to identify People Street and Public Space priorities and needs, prioritizing historically underinvested neighborhoods and Community and Mobility Hubs.
- Evaluate tactical improvements and prioritize those suited to be permanent improvements for transformational placemaking investments.

Public Life Studies

Streets and public spaces full of social and commercial activity have the power to improve the city's health, prosperity, and happiness. Collecting data about these activities allows us to measure how the city is fulfilling its goal of having vibrant, active, and well-used public spaces. A specific type of research—called a public life study—does exactly this by measuring the number of people using public spaces and the types of activities they are engaged in. The results of a public life study provide us with people-centered data to make investment decisions, evaluate designs and interventions, and understand what makes a successful public space. We will seek to:

- Partner with city departments and community-based organizations to conduct public life studies of community-scale PSPS projects. The public life program will be a model for collaboratively evaluating public life in the PSPS network.
- See "Transportation Data, Technology, and Innovation" below for more data-related actions we will take for public life studies.

Green Our Streets

Seattle cares about climate change impacts and equitable community health and livability outcomes. In recent years, the city has experienced dramatic climate impacts such as flooding in waterfront neighborhoods, hazardous air quality, and extreme heat. Many people cannot afford to buy an air conditioner or fan, go to a movie, or even stay indoors during heat wave events. Urbanized areas in Seattle hold onto heat longer, putting residents in danger for greater periods of time, while higher income neighborhoods with more greenery experience better air quality and less risk from extreme heat. This example underscores the disproportionate ways climate change exacerbates existing inequalities.

Greening our streets is one way that we will address climate change impacts. We will seek to:

- Pursue opportunities to install green infrastructure in new public spaces and People Streets as streets are redesigned.
    - Look for opportunities to enlarge Seattle's tree canopy through People Streets and Public Spaces and work closely with Seattle' Urban Forestry Program and community partners to do so. See the 2020 Urban Forest Management Plan. (Supports TEF 56.4)
    - Strengthen partnerships with Seattle Public Utilities and private development to expand the use of green stormwater infrastructure (GSI) within People Streets and Public Spaces. (Supports TEF 56.4)
- Encourage the maintenance and installation of green infrastructure—such as street trees, rain gardens, landscaping, natural drainage systems, bioswales, and pervious materials—as other improvements occur in the right-of-way. (Supports TEF 56.4)
    - Invest in climate resilient landscapes. Climate resilient landscapes can reduce the urban heat island effect.

    - Preserve, restore, and increase the tree canopy on public rights-of-way, with an emphasis on environmental justice through investments in the most vulnerable communities. *See the Pedestrian Element for general SDOT policy on tree canopy.*
    - Advance sustainable models for the management of urban stormwater and provide natural drainage systems.
- Prioritize tree planting and maintenance in historically under-invested communities, as we continue to increase tree canopy coverage citywide. (Supports TEF 56.6)

Community Plazas

We will work with community-based organizations to create neighborhood plazas throughout the city to transform underused streets into vibrant, social public spaces. Our aim is for all Seattleites to live within a 10-minute walk of quality public space. We will seek to:

- Work with eligible organizations that propose new plaza sites for their neighborhoods through a competitive application process. Prioritize sites that are in historically underinvested neighborhoods and neighborhoods that lack open space, and partner with community groups to design, operate, maintain, and manage these spaces so they are vibrant pedestrian plazas.
- Work in partnership with Seattle Parks and Recreation to explore transfer of jurisdiction opportunities and management partnerships (e.g., Bell Street, Gemenskap Park, and Delridge Triangle), where appropriate.
- Evaluate community-initiated projects not selected for funding for an enhanced permit option that creates a low-barrier permitting pathway with the intent to facilitate implementation of projects funded through private funding or non-SDOT grant opportunities.

Community and Mobility Hubs

Create a vibrant and welcoming public realm at existing and new transportation Community and Mobility Hubs. We will seek to:

- Support community-oriented programming, such as markets, vending, performances, and recurring events.
- Improve walkability at every community and mobility hub by providing pedestrian infrastructure such as lighting, wayfinding, seating, and landscaping.
- Create Shared Streets around Link light rail stations. Shared, and car-free or car-light streets around current and future Link light rail stations create walkable and people-prioritized hubs for community and mobility.
- Provide a safe and comfortable experience moving in and around Community and Mobility Hubs. This includes better crossings and intersections, slower speeds and rightsized travel lanes, decluttered sidewalks, universal access, and more.

- Create public spaces at Community and Mobility Hubs that work for children and their caregivers, with educational activities for children to engage in and that support their development.
- Partner with other departments and agencies, such as Sound Transit and King County Metro, and local neighborhood groups such as BIAs and other community organizations, to design, construct, and maintain Community and Mobility Hubs.
- Explore with other city departments and partners opportunities to provide safe and well-maintained public restrooms in support of People Streets and Public Spaces, particularly at Community and Mobility Hubs.

See the Transit Element for more information on Community and Mobility Hubs.

Safe Routes to Parks and Shorelines

The PSPS network enhances public access to parks and our shorelines. We will seek to:

- Create positive connections to parks and our shorelines through the addition of climate resilient landscapes, increased vegetation, street trees, and stormwater management features. These PSPS interventions will benefit air and water quality, improve public health, and mitigate environmental hazards like flooding and the urban heat island effect.

Low-Emission Neighborhoods

Low-emission neighborhoods are car-free, car-lite, low emissions, or emissions-free streets within a certain geographical boundary. They create welcoming places for communities that encourage more people to walk, bike, and roll for short trips, play, and ride transit. They reduce vehicle miles traveled (VMT) and reduce air pollution, impacts of urban heat islands, and greenhouse gas emissions, thereby advancing to our climate goals. Executive Order 2022-07 directed city departments to plan for plan for three low-pollution neighborhoods by 2028.

Low-emission neighborhoods are opportunities for strategic investments in People Streets and Public Spaces. People-oriented, shared, and people-only streets contribute to creating low-emission neighborhoods. SDOT efforts to provide increased tree canopy, e-mobility and associated infrastructure, low-emission urban freight and goods delivery, and operation innovations to limit circulating vehicles are also integral to success. Code requirements and incentives may be necessary to encourage private development, businesses, and other entities to transition to lower emission options.

We will seek to:

- Develop low-emission neighborhoods in collaboration with communities and local businesses.
- Work with local businesses in future low-emission neighborhoods to address delivery and access needs.

- Build on existing tools, programs, and initiatives across several departments (e.g., SDOT, SCL, OPCD, OSE, and SPU) that identify projects aimed at reducing air and water pollution, reliance on fossil fuels, and improving climate change preparedness.
- Establish a toolkit of citywide strategies and collaboratively plan and deliver the Mayor's Executive Order commitment to implement three low-pollution neighborhoods by 2028.
- Evaluate the need for code requirements and incentives to encourage private development, businesses, and other entities to transition to lower-emission options.

See Executive Order 2022-07 for more information.

PARTNERSHIPS

Advocate for Changes to State Legislation

There is a need to advocate for state law updates to allow pedestrians on roadways for shared streets. Currently, we must use a "Street Closed" model to enable pedestrians to walk in the street on Shared Streets. We will seek to:

- In the near term, enable the "Street Closed" model used by Healthy Streets for any street that meets key Shared Streets criteria in the PSPS network, and expand application of this model to allow for time-limited pedestrianization.
- For the longer term, advocate for state law updates to allow pedestrians on roadways for shared streets. Work with state and local partners to update RCW 46.61.250 to allow pedestrians to walk on streets when sidewalks are available to enable Shared Streets without requirements to "close" the street.[12]

TRANSPORTATION DATA, TECHNOLOGY, AND INNOVATION

Maintain Our Datasets

It is useful to track asset locations and their condition, as well as to provide information to others. We will seek to:

- Create an inventory of furniture assets, including location, date installed, manufacturer, and maintenance schedule.
- Add key PSPS assets to SDOT's asset management system, including location, date installed, manufacturer, and maintenance schedule.

[12] The Revised Code of Washington (RCW) 46.61.250 states: "Where sidewalks are provided and are accessible, it is unlawful for any pedestrian to walk or otherwise move along and upon an adjacent roadway. Where sidewalks are provided but wheelchair access is not available, persons with disabilities who require such access may walk or otherwise move along and upon an adjacent roadway until they reach an access point in the sidewalk."

Use Data to Inform Changes to PSPS and the Transportation System

To make informed decisions typically requires good data. We will seek to:

- Regularly update (e.g., biennially) the 2018 Citywide Public Life Data inventory to measure citywide progress on STP livability goals.
- Expand the data inventory to evaluate the current PSPS inventory (see Error! Reference s ource not found. through **Figure 11**—Existing PSPS Inventory Maps) to establish a baseline for the PSPS performance measures identified in **Table 4**. Routinely evaluate progress (e.g., bi-annually) through quantitative data and qualitative data collection via public life studies and community surveys.
- Regularly conduct (e.g., bi-annually) a survey of community partners asking for feedback on maintenance, programming, success stories, and overall evaluation of PSPS projects and interventions.

MAINTENANCE & MODERNIZATION

Maintain People Streets and Public Spaces

Good stewardship and long-term maintenance of People Streets and Public Spaces is critically important. It is essential to proactively care for public spaces to make Seattle livable and maintain quality of life. Sometimes successful People Streets and Public Spaces will emerge from the community through a permit; however, the regulatory pathway can present significant barriers, especially in equity priority areas. A PSPS objective is to enable SDOT to be more of an active co-creator and partner in stewardship. We want to reduce the burden of public space maintenance on historically underinvested communities and continue to partner with community and business organizations on maintenance. We will seek to:

- Work with individual communities to identify maintenance needs and establish a maintenance plan, which can be implemented in different ways:
    - Better maintain public spaces through dedicated resources to reduce the burden of public space maintenance on historically underinvested communities and continue to partner with community and business organizations on maintenance.
    - Identify, develop, and foster community partnerships to help steward maintenance.
    - Focus SDOT resources to the maintenance of PSPS improvements in equity priority areas.

PSPS Asset Management

It is imperative that street furniture, pilot, tactical, and transformational People Street and Public Space projects are supported with PSPS asset management. This will enable the proactive maintenance and management that is critical to maintain livability and usability of public spaces. We will seek to:

- Establish maintenance schedules for People Streets and Public Spaces and integrate with SDOT street maintenance activities wherever possible.
- Establish programmatic asset management relationships with SPU (Strolling Streets), Parks (Shared Streets and Public Spaces), and OED (Destination Streets) to enable sustainable and efficient management, maintenance, and activation of PSPS investments that benefit climate resiliency, local businesses, and areas with open space deficiencies.
- Identify local partners to conduct routine maintenance (e.g., litter pick-up, graffiti removal, etc.) Fund maintenance partnerships in equity priority areas.
- Create a programmatic relationship with the Office of Economic Development's Only in Seattle Initiative to help fund public realm maintenance in business districts.
- Establish a plaza management fund to enable proactive plaza routine care (e.g., trash pickup, graffiti removal, surface washing, landscape care).
- Establish a programmatic relationship with Seattle Conservation Corp to provide proactive, routine, and ongoing care to public spaces created through the PSPS program.

Update Streets Illustrated

Streets Illustrated is Seattle's Right-of-Way Improvements Manual. Updates are needed to better implement actions and strategies outlined in this Plan. We will seek to:

- Incorporate new and revised design standards for the public realm, including Destination Streets, Strolling Streets, and Shared Streets (Healthy Streets, School Streets, Event Streets, Café Streets, Special Alleys, Pedestrianized Streets, Plazas).
- Update Street Type maps to integrate STP elements and meet minimum right-of-way requirements, including for PSPS street categories.
- Establish design standards and locational priorities for a family of street furniture meeting accessibility, maintenance, and quality needs, including standards for:
    - Specialty pedestrian lighting fixtures to include in city standard plans and specifications
    - SDOT specialty sidewalk materials
    - SDOT bench and lean rails
    - Bollards
    - Rolling street closure elements
    - Planters
    - Shelters and canopies
    - Elements for children of different ages, including babies and toddlers as well as teenagers, and for older adults
    - Bike racks and shared mobility corrals
- Expand the downtown requirements for pedestrian-scale lighting to all Urban Villages, per the 2023-24 Pedestrian Lighting Master plan update.

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 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.

MEASURABLE OUTCOMES

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

- **Tier 1**: Overarching outcome-based measures are identified in the STP implementation strategy (see Chapter 4 of the Part I document). Generally, they are tracked at a citywide scale, and SDOT may not have primary control over their achievement. Examples include a reduction in vehicle miles traveled and the percent of household income dedicated to transportation.
- **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 us track progress towards our Tier 1 goals. Examples include a target to increase the city's tree canopy percentage and increase the percentage of households living near a shared street or public space.
- **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 track productivity and to help allocate resources. Examples may include the number of People Streets blocks or segments, number of new Public Space projects, number of people visiting a given public space, increase the diversity of people using PSPS and how they use them, value of investments (total, per capita, and per mile/foot), number of people and neighborhoods involved in the creation and the programming of Public Spaces in their communities, and more.

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 we 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.[13]

13 https://data.seattle.gov/dataset/Racial-and-Social-Equity-Composite-Index-Current/w3kz-xtmq

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. SDOT will continue to evaluate resource availability before performance measures are set in the final recommended STP. **Table 4** identifies the Tier 2 performance measure that will be tracked for the PSPS Element.

Table 4: PSPS Desired Outcomes and Performance Measure

Desired Outcome	Related STP Goals	Performance Measure (Source)	Target or Desired Trend	Track measure by RSEI and/or race	Baseline
Increase access to a shared street or public space	Safety Equity Mobility Livability	Percentage of households that live within a 10-minute walk of a shared street or public space (Census Bureau, SDOT)	X% of households that live within a 10-minute walk to shared streets and public spaces by 2044 outside Regional Centers and Urban Centers X% of households that live within a 10-minute walk to shared streets and public spaces by 2044 in Regional Centers and Urban Centers	Yes	In development

NOTE: Many of the STP performance measures targets and baselines are still under development.

RELEVANT TRANSPORTATION EQUITY FRAMEWORK (TEF) TACTICS

TEF 15.1—Evaluate data from Public Space Management (PSM) Market Streets pilot to identify needed resources to transition this pilot to a program.

TEF 15.2—Interview/survey BIPOC businesses about their transportation, public space, and permitting needs; publish the results SDOT-wide so other staff can consider ways to address identified needs through other projects and programs.

TEF 17.4—Conduct community workshops to better understand the activities communities want and need in the right-of-way (ROW); use this to inform the PSPS effort, which will establish a vision and strategies for equitable public space investment.

TEF 19.4—Focus maintenance resources in communities and neighborhoods currently underserved by government that have significant maintenance needs; use findings from the racial equity assessment.

TEF 19.6—Prioritize person-throughput as metric rather than vehicle throughput.

TEF 19.7—Do pilots to test out repurposing of streets ideas and apply learnings 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 20.5—Consider travel time and air quality impacts of changes to roadway configurations. Use this information to make equitable investment decisions that consider travel time and air quality impacts and benefits and to communicate those benefits and impacts to the community.

TEF 24.1—Identify available public spaces managed by the City that are close to transit that can be activated and programmed by the community and that SDOT can support.

TEF 24.2—Convene City stakeholders across departments to better facilitate discussions on use of public spaces and shared green spaces to address competing department needs and overlapping ownership and explore developing internal cross-departmental policies to streamline processes with the community.

TEF 29.1—Create publicly accessible, community-oriented visuals and neighborhood-specific snapshots to capture where SDOT has built infrastructure, dedicated investments, and collected community feedback. This should be utilized by SDOT, other City departments, and transportation partners to inform future investment needs as well as planning and programmatic efforts.

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 40.1—Emphasize and incorporate pedestrian safety into the street character and design process; ensure staff are trained and educated on how to do this.

TEF 40.2—Identify locations for new or upgraded pedestrian crossing opportunities to support access to transit.

TEF 43.4—SDOT policies, practices, standards, and funding allocation strategies to elevate/give priority to access and use of right-of-way (ROW) for people of all ages and abilities, people recreating, shopping, walking, rolling, riding bikes, and using transit.

TEF 45.1—Revisit the Pedestrian Lighting Master plan from 2012 and 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.

TEF 45.3—Identify spaces for equitable investment that can activate community, foster local economic development, and facilitate connections to transit.

TEF 45.6—Utilize findings from the Pedestrian Racial Equity Analysis and identify plan to improve connections between transit stops and key community assets (e.g., parks, libraries, schools, employers) are safe for pedestrians.

TEF 50.1—Include policies in the transportation and/or land use elements as a part of the Comprehensive Plan update to mitigate the displacement of BIPOC and vulnerable communities; ensure that within the first 2-3 years of adoption that the policies are implemented through OPCD and SDOT work plans.

TEF 54.1—Identify key lessons learned from El Centro de la Raza and/or other mitigating strategies from development displacement across Seattle and prioritize BIPOC community businesses and services as part of equitable transit-oriented development (ETOD).

TEF 56.1—Map access to green and public spaces based on actual travel sheds using various modes to improve connectivity to healthy environments.

TEF 56.4—Improve, identify, and maximize current opportunities for street trees and greenscapes in SDOT activities, ranging from routine maintenance to capital project delivery. Ensure design guidance and functions of maintenance include this consideration for long-term sustainability.

TEF 56.5—Increase open space for improved air and water quality, implement de-paving projects, and commit right-of-way (ROW) allocation in areas that are impacted by nearby industrial land uses.

TEF 56.6—Prioritize tree planting in BIPOC and underinvested communities while dedicating outreach and maintenance dollars to partner with communities to achieve this; include an opportunity for the community to take part in choosing culturally relevant trees and plants during this process.

GLOSSARY

Accessible pedestrian signal (APS): Signals installed at crossings to help pedestrians who are blind or 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

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.

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.

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 leaders.

Curb bulbs: Extensions of the sidewalk into the street that give pedestrians a shorter distance to cross.

Destination Streets: Streets in the heart of a neighborhood with a high density of destinations—shops, restaurants, cultural centers, and more—that will receive strategic investments to make them safer and more enjoyable for walking, rolling, and lingering as well as optimize their curb side uses. They are typically arterial streets. They are a type of People Street.

E-cargo bikes: Human-driven bikes with battery-powered pedal assist that can transport packages or other small goods in a front-mounted wagon or rear-hitched trailer.

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

EV: Electric vehicle

Event Streets: Streets that host intermittent community events, such as farmers markets. These are street blocks where events may close movement of all vehicles, except emergency access, on a frequent or intermittent basis. No parking, loading activity, or business access is allowed during closures. They are a type of Shared Street.

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 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.

General purpose (GP) lane: Space in the right-of-way where all vehicular traffic is allowed.

GHG: Greenhouse gas emissions

Healthy Streets: Streets for people walking, rolling, biking, and playing. They are closed 24/7 to pass-through traffic. People driving who need to get to homes and destinations along Healthy Streets retain access and can still drive on these streets. They are a type of Shared Street.

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.

Imagine Greater Downtown: A vision plan for the greater downtown area of Seattle. It is a shared vision and direction among partner agencies for how the downtown and surrounding area should evolve.

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.

Lid I-5: A grassroots community effort in collaboration with the city that advocates for constructing a freeway lid over I-5 to reconnect First Hill and Capitol Hill with Downtown. A 2020 feasibility study found a lid to be a viable option that would have beneficial impacts on housing, the environment, community and open spaces, and business.

Local Streets: Streets that are less traveled, are designed for slower speeds, and primarily provide local access.

Low-emission neighborhood: Low-emission neighborhoods, sometimes called low-pollution neighborhoods, prohibit or restrict the types of vehicles allowed within an area and encourage zero- and low-emission travel options like walking, biking, electric vehicles, and deliveries by e-cargo bike. Implementation of these concepts will vary by neighborhood and are co-created with local communities.

OED: Office of Economic Development

Only in Seattle Initiative: An Office of Economic Development Initiative that works with local and small businesses, building owners, and residents to support local commerce. The Initiative provides grant funding and staff support to foster inclusive neighborhood business districts.

OPCD: Office of Planning and Community Development

Parklet: A small public open space that replaces on-street parking spaces. They are owned and funded by private organizations or businesses but open for use to the public. They often include seating, tables, and greenery.

Pedestrian Lighting Master Plan: The Pedestrian Lighting Master Plan is a supplement to the Pedestrian Master Plan that guides how the city plans for, designs, and implements pedestrian lighting which fosters safety, security, economic development, active transportation, and access in the right-of-way.

Pedestrian Zone: A land use designation from the Seattle Municipal Code and Streets Illustrated that requires additional sidewalk widths.

Pedestrianized Streets: Streets where vehicle access is limited (by time of day or type of vehicle) for exclusive or priority pedestrian access. They are typically located on non-arterial streets with land uses that generate significant pedestrian activity, such as shops, restaurants,

museums, and tourist attractions. They are also located near bus, streetcar, and light rail transit stations and bicycle routes. They are a type of Shared Street.

People Streets: Streets that put people first, including Destination Streets, Strolling Streets, and Shared Streets. They offer a safe and comfortable environment for people to walk and roll to transit, public spaces, and other destinations. They offer inviting spaces for people to linger, enjoy their surroundings, and connect with others. They support local business districts. People Streets also have generous tree cover and green infrastructure.

Personal delivery devices (PDDs): Small automated or remotely piloted robots designed for short deliveries carrying food, packages, or other goods.

Plazas: Permanently pedestrianized spaces in the right-of-way that are designed to not allow vehicular access but could allow for emergency access, vending, or food trucks. They are typically found in active retail areas or at bus, streetcar, and light rail transit stations.

PSPS: People Streets and Public Spaces

Public Life: People create "public life" when they connect with each other in public places – streets, plazas, parks, and spaces between buildings. Public life is about everyday activities that people take part in when they spend time with each other outside of their homes, workplaces, and cars.

Public Life Action Plan: Neighborhood-scale plans developed in partnership with communities to identify People Street and Public Spaces improvements. Historically underinvested neighborhoods and Community and Mobility Hubs will be prioritized. They will typically be followed by immediate implementation of select quick win spot improvements and pilot and tactical projects. Tactical improvements would be evaluated, and those suited for permanent improvements would be prioritized for transformational placemaking investments.

Public Spaces: Plazas and Shoreline Street Ends that come in many shapes and forms. They are pedestrianized spaces that invite people to gather, play, and connect with one another. These spaces may be focal points in neighborhoods that support local businesses, venues for community gatherings, or more subtle spaces that are loved by locals and stumbled upon by visitors who delight in their discovery. They may incorporate public art, seating, games, trees and green infrastructure, and flexible space for vendors and gatherings. Public Spaces are born of inclusive, community-driven processes that inform design, programming, and long-term stewardship.

Public Space Management (PSM): A City program that works with residents, organizations, and businesses to enhance neighborhoods, strengthen communities, enliven public spaces, and promote economic vitality.

RCW: Revised Code of Washington

RCW 46.61.250: This is the state code regarding pedestrians on roadways. It describes the nuances of allowed pedestrian behavior when sidewalks are available and accessible and when

they are not. You can find exact language of the code here: https://app.leg.wa.gov/rcw/default.aspx?cite=46.61.250

Reconnect South Park: A community-led coalition that aims to remove the segment of State Route 99 that cuts through the neighborhood. The coalition received $1.6 million from the US Department of Transportation through the Reconnecting Communities Pilot (RCP) Grant to study the feasibility if removing the highway.

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

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 non-motorized 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 Routes to School: A national movement to make it easier and safer for students to walk and bike to school. The program is designed to improve safety in areas around schools and to encourage more kids to walk and bike.

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

The goals of the approach are to create safer vehicles, speeds, roads, and people and provide post-crash care.

School Streets: Streets for people walking, rolling, and biking to school and playing. They are closed to pass-through traffic, including parents and guardians. People driving to homes and destinations along School Streets, including school district transportation, retain access and can still drive on these streets. They are a type of Shared Street.

SCL: Seattle City Light

SDOT: Seattle Department of Transportation

Seamless Seattle: Seamless Seattle is the City's program for pedestrian wayfinding to help travelers navigate the city easily and safely. Standards are set for design features to be consistent, legible, and distinctive and create a unique identity. Wayfinding technologies include audio, visual, and tactile elements. Examples are directional signs, digital kiosks, and printed maps.

Seattle Conservation Corps: A program run by Seattle Parks and Recreation that employs people experiencing homelessness on projects that benefit the community and the environment.

Shared Streets: Streets that are "people first" spaces either permanently or during certain times of the day or week. They are typically identified in partnership with the surrounding community. Shared Streets include Healthy Streets, Café Streets, School Streets, Event Streets, Special Alleys, and Pedestrianized Streets.

Shoreline Street Ends: Designated areas for public access to the shoreline that occur where streets meet a shore.

Special Alleys: Historic and special alleys with community destinations or retail density that generate human-scale spaces and accommodate essential service functions. They are a type of Shared Street.

SPR: Seattle Parks and Recreation

SPU: Seattle Public Utilities

STP: Seattle Transportation Plan

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

Strolling Streets: Local streets used for recreation, exercise, connecting with nature or community, or traveling to specific destinations. These are typically along streets with lower vehicle volumes and speeds.

Summer Streets: Streets that are closed to vehicular traffic during certain times of the year to provide open space for events and public life.

TNC: Transportation network company (e.g., Uber and Lyft)

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.

Urban Forest Management Plan (UFMP): The Urban Forest Management Plan provides a long-term vision for increasing tree canopy cover in the city. It also addresses the many environmental, social, and economic benefits associated with trees in urban areas.

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

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

VMT: Vehicle miles traveled

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:

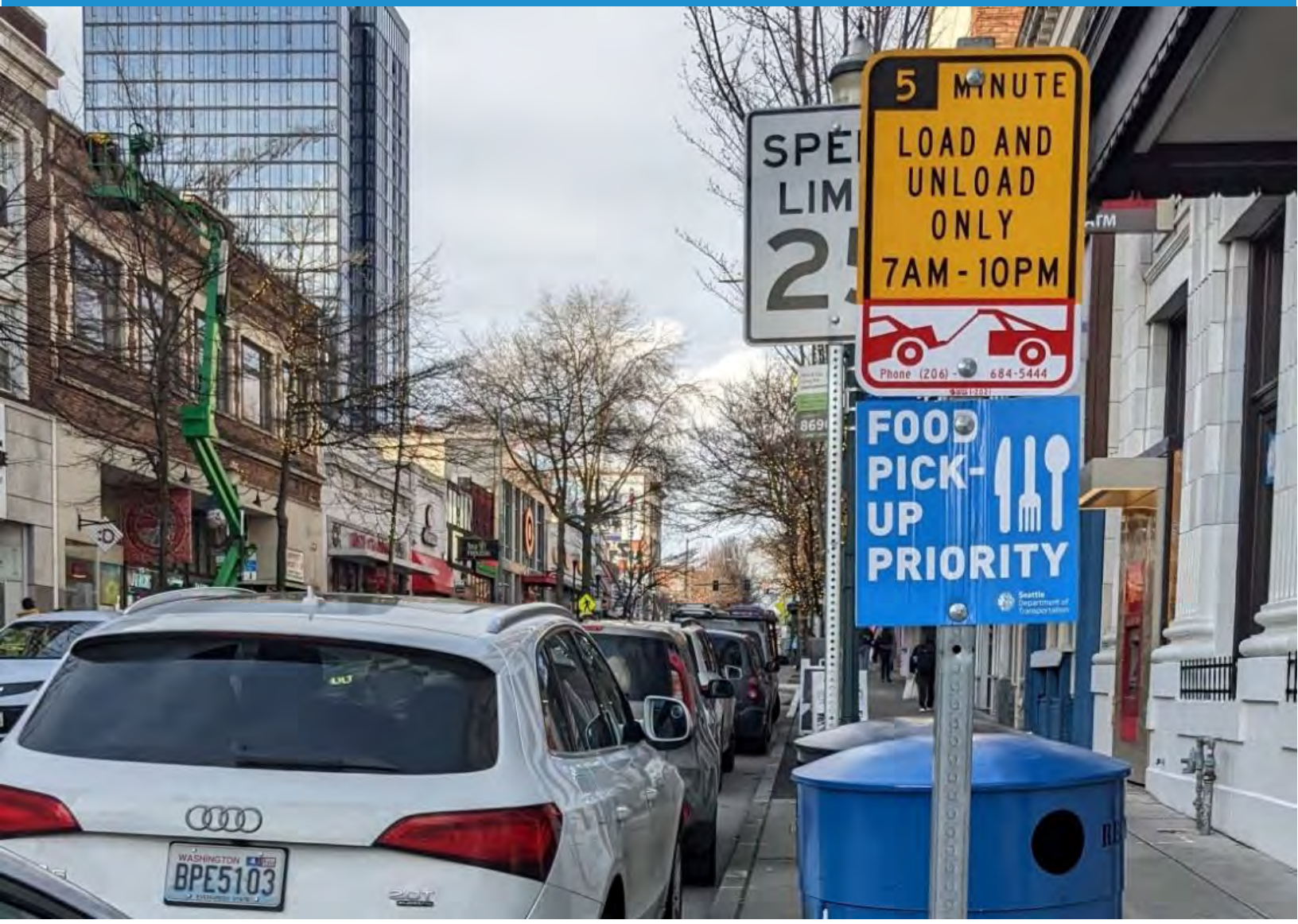
- BIPOC communities
- Low-income communities
- Immigrant and refugee populations
- Native communities
- People living with disabilities
- LGBTQIA+ people
- People experiencing homelessness or housing insecurity
- Women and female-identifying populations
- Youth
- Aging adults
- Individuals who were formerly 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.

Seattle Department of Transportation

DRAFT SEATTLE TRANSPORTATION PLAN

Curbside Management Element



August 2023

Seattle Department of Transportation

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INTRODUCTION

Travelers regularly interact with the curbside in a variety of ways as part of their journey. These can include traveling by car or bike in a curb lane, using it to transition from one form of travel to another such as at a transit stop or a passenger pick-up site, making a delivery, or enjoying a respite in a parklet. The curbside is the area alongside the street adjacent to the sidewalk, often providing space for parking and load zones, as well as for travel by vehicle, transit, and bike. Historically, the curb was designated for a smaller number of uses such as parking and loading. Today, the curb has grown into versatile public space, accommodating many different uses while still serving traditional uses (see **Figure 1**).

Figure 1: Uses of the Curb

Source: Institute of Transportation Engineers

The curb is a finite, valuable public resource that must be carefully managed—especially in the city's areas of high demand. Curbside management is a wide-ranging effort to develop, implement, manage, and enforce policies, assets, and technology governing the many uses of the curb.[1]

With growing demand for curbspace in Seattle, context-sensitive strategies can help minimize conflicts between uses, preserve the most critical access needs, and promote sustainable transportation options. As Seattle continues to grow, smart curbside management will help Seattle improve access to important destinations and promote quality of life for the communities of Seattle.

[1] International Parking and Mobility Institute

HOW THE CURBSIDE MANAGEMENT ELEMENT ADVANCES THE STP

The Seattle Transportation Plan (STP) presents a 20-year vision for transportation in Seattle. Leading up to the STP development, Seattle has been a pioneer in innovative curbside management, evidenced by SDOT's award-winning[2] Curbside Management program and often referenced as a best practice in municipal parking management. Unlike other several other elements of the STP (freight, transit, bike, and pedestrian), the Curbside Management Element is SDOT's first comprehensive planning document that brings together multiple successful curbside programs and policies for managing this important public asset. To build upon our successes, the Curbside Management Element identifies opportunities to further integrate curbside management policies into the overall transportation system.

The Curbside Management Element provides a roadmap to tackle the challenges and opportunities facing Seattle over the next 20 years. It also defines important actions we'll take to support a safe and equitable transportation system, help meet our climate goals, and make it easier for everyone to use our streets. This includes programs and strategies that we're already leveraging, alongside potential new initiatives that will help achieve our goals.

A parking pay station at the curb with adjacent landscaping and an e-bike parked nearby

[2] SDOT received the International Parking and Mobility Institute (IPMI) Parking Professional of the Year award.

RELATIONSHIP TO STP GOALS

Curbside management plays an important role in meeting the Seattle Transportation Plan's goals for **safety, equity, sustainability, mobility, livability, and maintenance and modernization**.

Prioritize safety for travelers in Seattle, with no serious injury or fatal crashes. Strategic management of the curb incorporates design treatments and strategies that support SDOT's Vision Zero and Safe System approach. When urban goods deliveries happen at sufficiently sized and appropriately located load zones, double parking and blocking of bike lanes can be avoided. Curb and intersection designs play an important role in providing accessibility for people with disabilities and safe crossing opportunities for people walking, biking, and rolling.

Co-create with community and implement restorative practices to address transportation-related inequities. Implementing curb management strategies creates and preserves access for all users, including people with disabilities or mobility limitations. SDOT publishes a *"Can I Park Here"* brochure in multiple languages to provide instructions on city curb parking rules. The ability for businesses to thrive, including in historically underserved neighborhoods, often depend on reliable customer and goods access at the curb.

Respond to climate change through innovation and a lens of climate justice. Effective curb management includes prioritizing curbspace for sustainable modes, reducing overall demand for street parking through pricing, and loading zones to support reliable urban goods delivery and business access. Curbside electric vehicle charging may play a role in reducing emissions, alongside strategies to advance zero emissions vehicle use (including e-cargo bikes) for goods deliveries.

Provide reliable and affordable travel options that help people and goods get where they need to go. Due to Seattle's constrained ROW widths, many projects to enhance transit, walking, and rolling impact the curb. Implementing mobility projects requires balancing improvements with critical access needs for buildings. Active curbspace management considers transit layover spaces that are necessary for a well-functioning transit system.

Reimagine our streets as inviting places to linger and play. Encouraging and managing curbside uses that activate streets while meeting critical access needs contributes to community health. Critical access needs include passenger and goods loading/unloading, waste staging/collection, goods and services delivery, and building maintenance. This supports economic vitality and viability of businesses.

Improve city transportation infrastructure and ready it for the future. Using data improves active curbspace management, such as informing parking pricing to address demand and provide reliable curb access. Maintaining the on-street paid parking system is essential to be technically capable and equipped to address needs at the curb. Updating permitting programs as well as updating parking enforcement methods that transition to license plate-based technologies can address both access and equity needs.

IMPLEMENTING THE KEY MOVES

Part I of the Seattle Transportation Plan (STP) includes a collection of Key Moves, or strategies, to advance the STP goals. Each Functional Element serves an important role in making these Key Moves and their supporting actions.

Table 1 below summarizes the Key moves and specific actions the Curbside Management Element helps to accomplish. They are nested under the primary STP goal they seek to advance. Many actions are cross-cutting, and they appear in all Functional Elements as important commitments and initiatives. Other actions are specific to one or more Functional Elements and are marked with an asterisk (*) to indicate that this Element plays a critical role in operationalizing or supporting that action.

Additional details on SDOT's roles and the ways we'll tackle this work are included in the "Curbside Management in Seattle" section below. Actions that implement tactics from SDOT's Transportation Equity Framework (TEF) are noted in parentheses; these tactics are listed at the end of this element.

Table 1: Key Moves and Curbside Management Actions

Key Moves	Actions	STP Goals Supported: Safety	Equity	Sustainability	Mobility	Livability	Maintenance & Modernization
SAFETY KEY MOVES							
Concentrate safety investments at the most collision-prone locations (S2)							
CM1*	Incorporate Vision Zero and Safe System approaches into every project and program. (S2a) Install load zones to reduce double parking.	✓	✓	✓	✓	✓	
Make all journeys safer, from departure to destination (S3)							
CM2	Accelerate implementation of research-backed improvements that are proven to make streets safer for everyone, such as daylighting intersections. (S3d)	✓					
CM3*	Make people walking, biking, and rolling more visible by improving sight lines at intersections through treatments such as No Parking signs. (S3e)	✓	✓				

* Indicates this Element plays a key role in advancing this action.

Key Moves and Curbside Management Actions		STP Goals Supported						
		Safety	Equity	Sustainability	Mobility	Livability	Maintenance & Modernization
Provide safer routes to schools, parks, transit, community gathering spaces, and other destinations (S4)							
CM4*	Develop station access curb management plans for future light rail stations that support connecting people walking, bicycling, and rolling along and across major transit corridors. (Supports TEF 40.2) (S4c)	✓	✓	✓	✓	✓	✓
EQUITY KEY MOVES							
Center the voices of communities of color and underrepresented groups in planning and decision-making process (TJ1)							
CM5	Implement the Transportation Equity Framework (TEF) to grow transparency, accountability, and shared power when making curbside management decisions with community members. (TJ1a)		✓				
CM6	Feature community voices in planning documents. (TJ1b)		✓				
CM7	Continue to build and maintain relationships with vulnerable communities and underrepresented groups. (Supports TEF 29.1 and 41.6) (TJ1c)		✓				
CM8	Meet early and often to provide opportunities to influence curbside policies, programs and projects before they are fully developed. (Supports TEF 3.4) (TJ1d)		✓				
CM9	Normalize the practice of making decisions about policies and right-of-way (ROW) allocations with input from vulnerable communities. (Supports TEF 19.1 and 25.4) (TJ1f)		✓				
CM10*	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 TEF 17.1, 21.2 and 16.1) (TJ1h)		✓		✓		✓
CM11	Compensate community partners for their valuable work to connect and communicate with their networks and uplift community-driven initiatives. (Supports TEF 1.1, 13.4, 31.4, and 37.1) (TJ1i)		✓				
Address inequities in the transportation system by prioritizing investments for impacted communities (TJ2)							
CM12	Prioritize transportation investments that benefit people and local businesses who currently and historically experience high transportation burdens and those at high risk of displacement. (TJ2a)		✓				✓

* Indicates this Element plays a key role in advancing this action.

Key Moves and Curbside Management Actions		STP Goals Supported						
		Safety	Equity	Sustainability	Mobility	Livability	Maintenance & Modernization
CM13	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 TEF 14.3 and 15.2) (TJ2c)		✓		✓	✓	
CM14*	Identify actions to address inequities experienced by vulnerable community members who walk, bike, and roll, and provide capacity-building support to BIPOC-led organizations that focus on increasing active transportation. (Supports TEF 31.4) (TJ2d)		✓			✓	✓
CM15	Develop policies and mitigate to prevent transportation projects, both past and present, from contributing to future displacement. (TJ2e)		✓				
CM16	Implement improvements to make traveling in Seattle more accessible for everyone, such as disabled parking spaces. (TJ2f)		✓		✓		✓
CM17	Conduct and implement racial equity assessments at the program level. (TJ2h)		✓				
SUSTAINABILITY KEY MOVES							
Foster neighborhood vitality and improved community health (CA3)							
CM18*	Implement a shared parking program to increase parking supply in business districts and allow flexible use of the curb for critical access needs, multimodal facilities, and non-vehicular uses.			✓	✓		
CM19*	Work with local businesses in future low-emission neighborhoods to address delivery and access needs. (CA3b)			✓	✓		
CM20*	Incentivize mobility options that don't use fossil fuel for transit, personal and urban goods delivery vehicles, and shared mobility (such as e-bikes and scooters). (CA3e)			✓			
CM21*	Launch neighborhood delivery hubs in partnership with local businesses to create central drop-off/pick-up locations for goods and services used by multiple delivery companies, retailers, and consumers. (CA3f)			✓			
Support the transition from fossil fuel to electric vehicles for personal, commercial, and delivery trips (CA4)							
CM22	Support the transition to electric vehicles for all segments of transportation, including personal mobility, goods movement and services, and fleets and transportation network companies, through equitable incentives, grant opportunities, partnerships, and pilot programming. (Supports TEF 36.2) (CA4a)		✓	✓			

* Indicates this Element plays a key role in advancing this action.

Key Moves and Curbside Management Actions		STP Goals Supported					
		Safety	Equity	Sustainability	Mobility	Livability	Maintenance & Modernization
CM23*	Establish a comprehensive policy for EV charging in the right-of-way, outlining preferred locations, standards, and requirements. (CA4b)			✓			
CM24*	Locate EV supportive infrastructure and charging facilities so they are safe, well-sited, and do not interfere with mobility or access for people traveling outside of personal vehicles. (CA4e)	✓		✓			
CM25*	Support electrification of shared mobility and freight vehicles through programs that install charging infrastructure, offer focused incentives, and reduce reliance on large vehicles. (CA4f)			✓			
Advance mobility management strategies to encourage walking, biking, and transit trips (CA5)							
CM26*	Expand the geography of and increase rates for paid on-street parking to encourage the use of less expensive and lower pollution travel options. (CA5a)		✓	✓			✓
CM27*	Continue to apply performance-based parking pricing rates and time limits to regulate on-Street parking demand. (CA5b)			✓			
CM28*	Explore equitable demand management tools that could influence travel choices and create revenues to invest in sustainable transportation options, freight movement, and innovation. (CA5c)			✓			✓
MOBILITY KEY MOVES							
Create seamless travel connections (PG1)							
CM29	Prioritize efficient and sustainable movement of people within limited street space and reallocate street and curbspace to maximize comfort, convenience, and directness for walking, biking, rolling , and transit. (Supports TEF 19.6 and TEF 43.4). (PG1a)		✓	✓	✓	✓	
CM30*	Support expansion of the pedestrian wayfinding program, including at transit stations and stops. (Supports TEF 48.1) (PG1f)				✓	✓	
Enhance economic vitality by supporting freight movement and growth in deliveries (PG4)							
CM31*	Provide for critical access needs (mail and goods deliveries, solid waste pick-up, etc.) on-street when they cannot be accommodated off-street. (PG4b) Further integrate curbside management policies in City plans and project review to safeguard critical access needs.				✓		

* Indicates this Element plays a key role in advancing this action.

Key Moves and Curbside Management Actions		STP Goals Supported					
		Safety	Equity	Sustainability	Mobility	Livability	Maintenance & Modernization
CM32*	Collaborate with private sector partners on pilots and programs that accelerate the shift of freight trips to more sustainable low- and zero emissions vehicles, such as electric cargo bikes to replace a portion of last-mile deliveries made by larger vans and trucks in densely developed areas. (PG4f)			✓	✓	✓	✓
CM33*	Pilot and expand use of technologies that can improve predictability and accessibility for vehicle loading/unloading. (PG4g)				✓		✓
CM34*	Provide low-tech and language-accessible information to businesses and communities about curbspace uses and how to make requests for load zones, parking, or other uses to improve health of local neighborhood economies. (Supports TEF 17.3). (PG4j)		✓		✓		
Manage curbspace to reflect city goals and priorities (PG5)							
CM35*	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 develop decision frameworks to prioritize these functions based on local area and system needs. (PG5a)				✓		✓
CM36*	Prioritize uses of the curb to address demands stemming from changes to more sustainable and efficient personal travel options and the evolving landscape of goods and service delivery over use as private car storage. (PG5b)				✓		✓
CM37*	Develop strategies and new tools to accommodate more types of curb uses, including parking for bikes and other small devices, parking for shared micromobility, dedicated car share space, transit layover space, employer shuttle stops, and other curb uses that support low-emission travel options. (PG5c)			✓	✓		✓
CM38*	Work with communities to expand activated curb uses, including food truck vending, street cafes and parklets, event space, and more. (PG5d)				✓	✓	
CM39*	Support local businesses and cultural activities through designated curb access zones such as passenger load zones to support cultural centers, venues, and events and loading zones for unique needs such as musician loading. (PG5e)				✓	✓	

* Indicates this Element plays a key role in advancing this action.

Key Moves and Curbside Management Actions		STP Goals Supported					
		Safety	Equity	Sustainability	Mobility	Livability	Maintenance & Modernization
CM40*	Continue to use pricing mechanisms to manage on-street parking demands and improve access to adjacent uses (by turning over spaces) while exploring programs to support parking needs of people with low incomes. (Supports TEF 32.1) (PG5f)			✓	✓		
CM41*	Increase the number of commercial vehicle loading zones to decrease the time freight and delivery drivers spend searching for parking. (PG5g)				✓		
LIVABILITY KEY MOVES							
Boldly reallocate street space to prioritize people while preserving access for goods delivery and emergency response (PP1)							
CM42	Reallocate street space currently used for vehicle storage and general-purpose travel to support a variety of people-oriented uses, such as gathering, playing, walking, and biking in strategic locations. (See PG3 and PG4 for transit and freight uses.) (PP1a)	✓	✓	✓	✓	✓	✓
CM43*	Update Seattle's Right-of-Way Improvements Manual (Streets Illustrated) to directly reference the critical access needs policy, where appropriate. (PP1d)	✓	✓	✓	✓	✓	✓
Transform community and mobility hubs into welcoming places (PP2)							
CM44*	Provide a safe and comfortable experience moving in and around community and mobility hubs. This includes better crossings and intersections, slower speeds and rightsized travel lanes, decluttered sidewalks, universal access, and more. (PP2c)	✓			✓	✓	
MAINTENANCE & MODERNIZATION KEY MOVES							
Transform city streets for safety and sustainable travel choices through optimal timing of asset maintenance and replacement (MM1)							
CM45	Use asset maintenance and replacement opportunities to not only improve the condition of transportation infrastructure and equipment, but to also enhance safety, reduce dependence on driving, promote sustainable travel options, and support economic vitality. (MM1a)	✓	✓	✓	✓	✓	✓
CM46*	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. (MM1b)						✓
CM47	Collect feedback on asset conditions as part of community engagement on transportation system planning, design, and co-creation. (MM1c)		✓				✓

* Indicates this Element plays a key role in advancing this action.

Key Moves and Curbside Management Actions		STP Goals Supported						
		Safety	Equity	Sustainability	Mobility	Livability	Maintenance & Modernization
CM48*	Conduct asset maintenance in accordance with the priority investment and emergency response route networks, especially when investment supports walking, biking, transit, and freight. (MM1d)	✓	✓	✓	✓		✓
Reduce neighborhood disparities in the quality of streets, sidewalks, public spaces, and bridges (MM2)							
CM49	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 TEF 19.3) (MM2a)	✓	✓				✓
CM50	Equitably distribute resources for maintenance and improvements in neighborhoods that have been historically or are currently underserved. (Supports TEF 19.4) (MM2b)		✓		✓		✓
Ready city streets for new travel options and emerging trends and technologies (MM3)							
CM51*	Partner with the Seattle Police Department to develop a compliance-oriented parking enforcement program.		✓				
CM52	Collect, monitor, and use data to inform changes to the transportation system. (MM3a)	✓	✓	✓	✓	✓	✓
CM53	Anticipate and leverage innovative transportation technologies so they are shaped to meet community values and goals, including safety, equity, and climate response. (MM3b)						✓
CM54	Proactively work with public, private, and academic sector partners to collaboratively develop transit and mobility solutions for the future. (MM3c)				✓		✓
CM55*	Adapt streets and the curbside for new and evolving forms of mobility devices such as commercial or private cargo bikes, e-scooters, personal delivery devices, low-speed electric vehicles, and others to create more travel options. (Supports TEF 19.2). (MM3d)		✓				✓
CM56*	Develop and maintain up-to-date asset data, including digital inventories of physical assets like curbspace, load zones, bike, and scooter parking locations. (MM3e) Inventory and manage curbside regulations using consistent and standardized data collection, storage, and analysis methods.	✓	✓		✓	✓	✓

* Indicates this Element plays a key role in advancing this action.

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 Curbside Management. 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 continue to evolve in the years to come.

OPPORTUNITIES, EMERGING TRENDS AND CHALLENGES

Demand for our curbspace has been changing and in many areas increasing, including for more on-demand delivery and outdoor curbside dining. These new patterns help us rethink curbspace, and this section discusses emerging trends, opportunities, and challenges that Seattle needs to embrace and respond to as part of our curbside management strategy.

Emerging Trends

Several emerging trends, technologies, and uses affect how SDOT manages the curb:

- **Dramatic growth in e-commerce package, meal/grocery deliveries, and app-based ride-hail**, has caused higher demand by more people and vehicles for short curb stays
- **Reallocation of curbspace** for transit lanes, bike lanes, and street cafes
- **New and rapidly changing technology** to manage, measure, and charge for curb use
- **Commitment to convert to zero-emission vehicles over time** by large auto companies and freight providers
- **Development of electric cargo bikes** and other zero-emission modes suitable for Seattle's topography and business/residential densities
- **Electrification of various parts of the transportation system,** with interests and funding to install charging equipment in the public right-of-way
- **New technology and data** analytics for more proactive, efficient parking enforcement
- **Desire by vehicle manufacturers, freight providers, others for more detailed curb asset and regulation data** to facilitate transition to connected and autonomous vehicles

Opportunities

There are several developments that present opportunities to improve curbside management in Seattle:

- **Acknowledge growing demand to prioritize on-demand service and goods delivery uses** to support people and businesses, and the ability and permission during COVID to move quickly with solutions
- **More accurately understand evolving curb demand and use**, and deploy updated technology to better assess and address modern needs
- **Re-envision curbspace uses to** prioritize critical building access needs and support goals to increase the use of walking, biking, and transit
- **Partner with private parking providers to re-purpose underutilized capacity** for potential uses such as mobility hubs and electric fleet vehicle charging
- **Use curbspace to support mobility goals** by provide mobility options such as transit and biking (Supports TEF 19.2)
- Advance Mayor Harrell's Climate Executive Order, specifically the "Ability to incentivize shift to mobility electrification in the public right of way" (Supports TEF 36.2)
- **Determine the most effective use cases and processes to provide new curb amenities** (such as on-demand services and non-vehicular uses) and allocate limited curbspace to more people
- **Leverage existing, growing relationships with peer organizations and cities** (e.g., Open Mobility Foundation cities cohort) to collaboratively address most pressing urban curb management challenges and build sustainable shared solutions (e.g., Curb Data Specification)

Challenges

Several issues present challenges to our ability to effectively manage the curb:

- **Provision of consistent, reliable curb access** requires nimble regulatory and pricing mechanisms such as for protecting sufficient space for delivery activities to occur in areas of competing high-priority right-of-way uses
- **Lack of adjacent or nearby space** in the right-of-way to meet critical access needs for buildings, such as loading for people, goods, and services
- Seattle's Surveillance Ordinance and the process to update its application can hinder adoption new technology that may support multiple city goals and priorities
- **New technology is cost prohibitive** and challenging to budget and procure in a timely manner
- **Extensive procurement processes** can make nimble investments hard for cities
- **Staff capacity and increasingly complex technology for enforcing curbside rules remains a challenge**, especially as permitting and curb regulations evolve to be digital and license plate-based, instead of a sticker or decal on vehicle windshields

COMMUNITY ENGAGEMENT

We conducted extensive public outreach as part of the STP development process through tools such as online maps, surveys, and in-person events, festivals, listening sessions, and open houses. Detailed Phase 1 and Phase 2 engagement summary reports can be found via the STP Online Engagement Hub, and engagement efforts are also described in more detail in Chapter 1 of the STP. (Supports TEF 29.1) Over the public comment period, we received more than 1,300 comments about curbside management. When we reviewed the comments, we observed numerous general themes related to curbside management:

Curbside Activation

- Provide space at the curb for seating, outdoor dining, walking path lighting, and emergency call features
- Reduce on-street parking to make room for people to gather in our curbspace
- Identify car-free streets in places that can be closed to traffic regularly (e.g., on weekends, in summer months) (Supports TEF 17.4)
- Create space to plant more street trees (Supports TEF 56.4)

Safety

- Implement raised crosswalks and separated bike lanes citywide
- Make sure that additional street installations (such as outdoor dining, seating, and trees) do not reduce visibility at intersections

Curbside Management and Pricing

- Implement market-rate parking and manage parking supply
- Encourage free transit access and fund through increased parking fees and possible vehicle taxes/fees (Supports TEF 34.1)
- Reduce on-street parking and/or enact dynamic pricing to create space for non-parking curb uses and place a cost on parking to encourage short-term use
- Prioritize delivery vehicle loading/unloading and pick-up and drop-off activities in high impact areas

Many comments by Black, Indigenous, and People of Color (BIPOC) focused on these themes:

- Preserve parking where it matters—work to make sufficient parking in places where people rely on cars
- Keep the curb area clean and safe—make curb areas well-maintained, especially at bus stops
- Use the curb creatively—allow businesses to use curbspace for dining spaces

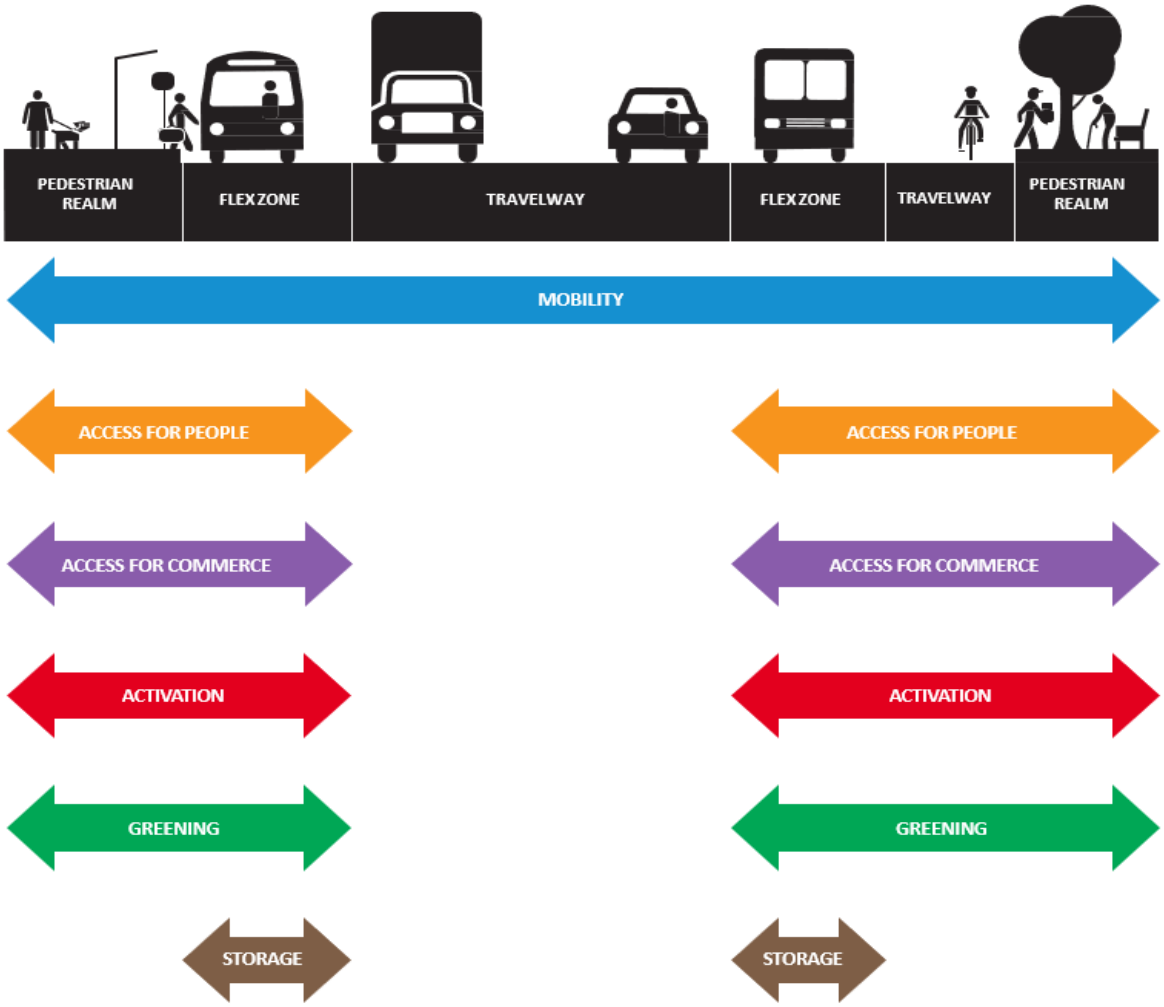
CURBSIDE MANAGEMENT IN SEATTLE

The curb is where vehicles—cars, trucks, buses, bikes with goods, people, services—interact with the urban built environment, along with many other activities. The *Seattle 2035 Comprehensive Plan* (2018), defined 6 essential functions of the public right of way (**Figure 2**):

- Mobility
- Access for people
- Access for commerce
- Activation
- Greening
- Storage

Uniquely, all essential functions can occur in curbspace, while the travel way is limited to mobility uses, and storage (vehicles and construction materials) typically does not occur in the pedestrian zone. As in many cities, this leads to challenges because our finite amount of curbspace is not sufficient to meet all the demands placed on it.

Figure 2: 6 Essential Functions of City Right-of-Way



SDOT plans, manages, operates, and maintains the city's curbspace. Enforcement of curbside regulations occurs through the Parking Enforcement unit within the Seattle Police Department. Adjudication of parking citations is conducted by the Seattle Municipal Court.

As a critical part of Seattle's transportation system, performance data coupled with policy guidance can create a more efficient, equitable, and sustainable use of curbspace. One of the best examples of data-driven decisions is our Performance-Based Parking Pricing Program, which collects parking data that is used to adjust on-street parking rates on a routine basis. Curbside management is key to addressing congestion, meeting sustainability goals, and increasing quality of life and access for people in Seattle.

CRITICAL ACCESS NEEDS

Many streets in Seattle have unrestricted and unmanaged curbspace. This often means vehicles park or load/unload there without regard to time limits. As well, these areas have fewer regulations for specialized needs or prioritized uses. In other areas, such as within or between neighborhood business districts, the curb is sometimes used for bicycle facilities, transit, or as a travel lane for any moving vehicle. In denser high-demand areas like neighborhood business districts, the curbside is a highly sought after and valuable public resource that facilitates commerce, mobility, access, public services, and more.

In high-demand locations, SDOT must evaluate whether critical access needs (CAN) for adjacent buildings are being met at the curb, or if they can be met on private property, on a nearby or adjacent street, or in an alley.

A building's **critical access needs** can be defined as access to services needed to perform its core operating functions safely and successfully, including:

- Designated parking and/or loading spaces for vulnerable users
- Mail and package delivery
- Commercial and urban goods delivery
- Building maintenance
- Solid waste servicing
- Passenger pick-up and drop-off
- On-demand delivery

SDOT evaluates critical access needs during the development of transportation capital projects, review of public and private capital projects, and during the ongoing management of projects and programs that consider use of the public right of way—and especially the curb. Evaluating curbspace critical access needs is fundamental to project development.

During the CAN review process, we assesses whether we need to develop measures to preserve access to adjacent buildings. These measures should become part of the project plan when implementing changes to right-of-way that impact the curb. Programmatic activities highlighted in this section provide details on existing and proposed strategies that support SDOT's efforts to meet critical access need challenges when considering conflicting demands and priorities in the right-of-way.

ENFORCEMENT AND COMPLIANCE

Alongside critical access needs identification, we consider how enforcement impacts the use of curbspace. Enforcement is important not only for curbspace allocated to critical access needs (including paid parking, loading, and other high priority uses), but also for curbspace used by transit, bicycles, and other travelers. Failure to effectively enforce curbside regulations and maintain a high level of compliance among users can lead to unsafe conditions (e.g., a delivery vehicle blocking a bike lane), system inefficiencies, and increased congestion.

We also work with our partners in Seattle Police Parking Enforcement to collaborate on overall compliance with curb and right-of-way regulations while exploring alternatives to punitive enforcement approaches, especially for populations significantly impacted by enforcement, such as Black, Indigenous, and People of Color (BIPOC) communities and people with lower incomes. This work can include analysis of citations by type and location to inform potential alternatives to curb regulation and signage, as well as other strategies to achieve sufficient compliance with reduced focus on citations. Enforcement operations in right-of-way management decisions can play an important role in meeting our mobility and climate action goals. Several programmatic activities to pursue with our partners are recommended in the sections that follow.

TECHNOLOGY AND DATA MANAGEMENT

Innovation in curbside management is occurring at a rapid pace. New technologies are being developed and deployed in urban areas to better manage congestion, increase safety and access, and better understand travel characteristics and trends. Data is generated 24/7 with these new technologies, presenting an opportunity to create a more efficient transportation system using data-driven decision-making.

Managing large amounts of complex data requires resources and process standardization to harness the greatest value from these tools. As we continue to embrace and leverage new technology, legislation, policies, and processes should be reviewed and modified as needed to create the greatest public value in these new technology and data tools.

Pilot programs with a technology component should be evaluated based on resource availability and a clear definition of how the public will benefit from such a program. This evaluation would also outline steps to scale a technology-related pilot if deemed successful. These operational considerations can allow us to be responsive to emerging technologies to benefit the public while maintaining a high level of service to support core curbside management programs. Several technology and data management programs are recommended in this section to support broader curbside management policies.

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 programs listed here provide helpful general information to describe the types of tools and methods we will employ to manage the transportation system.

Critical Access Needs for Businesses and Residential Properties

SDOT will continue to build on a broad-based, innovative curbside management program to enhance curb access in business and residential areas around the city. The Curbside Element lays out strategies with a new focus on urban goods delivery, access needs for businesses and how we can transition vehicle trips that help address climate, safety, and equity throughout the city.

Buildings that lack off-street loading access, whether on-property or via an alley, will have critical access needs provided for at the curb. This means various services, goods, and people picked up or dropped off at buildings have safer access, especially when there's no access on property or in a nearby alley. This includes Seattle Public Utilities Solid Waste Division, so that trash, compost, and recycling can be collected.

One Seattle Plan (2024)

The City's *Comprehensive Plan* (*One Seattle* 2024 and future documents) Transportation Element contains right-of-way allocation and curb priority policies that describe curb priorities by land use type. Future Comprehensive Plans should add to and maintain the CAN policy. SDOT is working closely with the Comprehensive Plan team on the 2024 update.

Streets Illustrated

Streets Illustrated is the common name for Seattle's *Right-of-Way Improvements Manual*. As such, the manual defines street typologies and design guidance for each that apply to streets throughout the city. Street types were initially developed in 2017. In the meantime, dramatic growth has happened in e-commerce, parcel and food delivery in residential areas, and goods and services deliveries/pick-ups on commercially oriented streets.

An example of a street type that could be reviewed with consideration for critical access needs is the Urban Village Neighborhood Access Street. This type nears Urban Village Main Streets and only allows curb access on one side of the street. If the street in question has parking allowed on both sides, there is not an effective way for the department to equitably decide how to apply the street design, especially when there is a single parcel on one side of the street proposed for development.

Transportation Capital Project Review

Transportation capital projects take many forms of varying scales. As we look to build new transit lanes, bike lanes, and pedestrian improvements, the curb will be affected either programmatically or physically through new infrastructure. In cases where the curbspace is being altered, we will review capital projects to see how critical access needs will continue to be met. We will provide recommendations to minimize negative impacts, maintain access, and support the overall capital project where possible.

For example, SDOT staff can apply expertise and offer guidance for transportation projects on the placement of transit layover zones; assess the impact of transit priority lanes on existing critical curb access needs; and identify a safe and effective way to accommodate or shift those needs. Similarly, during a bike facility expansion, a staff liaison to a capital project team can provide input on use of curbspace for supporting infrastructure, such as bike parking corrals.

SDOT also supports the permitting of outdoor dining and other public space management permits. The role of these efforts is to:

- Establish curbside management support
- Document existing regulations
- Identify critical access needs
- Determine project impacts
- Develop an implementation plan

Capital project budgets should address the review process and project implementation needs. Similarly, as Seattle continues to experience urban infill development, it is important to ensure critical access needs for buildings are met during the construction of projects and upon their completion. Private development review activities should:

- Provide a checklist to the development applicant to review prior to site approval
- Engage SDOT subject matter experts and allow interdepartmental referrals to comment on service impacts for proposed changes to the curbspace (i.e., solid waste service)
- Review and recommend changes to private development's waiver of on-site parking and loading for vulnerable users as it relates to the adoption of the Federal Highway Administration's Public Right-of-Way Accessibility Guidelines (PROWAG)
- As part of final site approvals, require development applicants to address or incorporate recommended measures during construction or upon project completion

To support this work, we will seek to:

- Update CAN policies in the *One Seattle Comprehensive Plan* and *Streets Illustrated*
- Establish a curbside review process, including checklists and site approval requirements for transportation capital projects and private developments
- Identify optimal locations to install and re-allocate curb access for commerce, for solid waste collections, and for people purposes (e.g., outdoor dining) as part of transportation capital projects and private construction site reviews

Data-Driven Decision-Making

Businesses and residential buildings are expected to be built all around the city, as planned by the updated *Comprehensive Plan*. As the city grows, travel behaviors will also continue to shift over time as we embrace a more sustainable, multimodal future. Keeping in mind existing curb demand and access needs, how we allocate the curb must reflect our goals for transit use, walking and rolling, the movement of urban freight, and the effort to manage passenger vehicle driving.

To support the work, we must complete a curb inventory, develop more robust data, and pursue curb allocations to meet STP needs, as well as to respond to business and residential property requests. New technology can aid us in prioritizing allocation of limited and valuable curbspace. Recommended programmatic activities summarized below can facilitate a shift in curb allocation over time to help prioritize the people who need it most.

Curb Data Inventory

A curbside inventory is needed to fully digitize Seattle's curbside regulations and assets data. We already track curb regulations and utilization in paid parking areas, as well as signage. Developing a comprehensive citywide database using a standardized curb data format, such as the Curb Data Specification, enables changes in curb allocation to be easily monitored over time, with updates as new projects shift curb uses. Other transportation facilities in the curb lane can be added, such as designated transit lanes or protected bike facilities.

With APIs (computer data sharing), we can make curb data available as a research/educational tool, for cross-departmental planning, transportation mapping services for drivers, and for third party logistics providers and other vendors. Making this data public will improve transparency as we make decisions about the curb and improve responses as needed for the State's Public Records Disclosure act.

Creating a comprehensive and continuously maintained curb inventory database is no simple task. It will require updating existing assets and signage data into the new Open Mobility Foundation's Curb Data Specification format and conducting data inventory in many parts of the city. SDOT's current asset management system focusses on the paid parking areas and tracking of signage equipment and does not necessarily meet digital data sharing needs. License plate recognition technology or different GIS systems could be helpful to this program, especially when collecting curb inventory and utilization data for the database in residential areas.

Another opportunity for curb data is to merge with the department's Intelligent Transportation Systems (ITS) and transit facility data to help support a more integrated planning process. For transit, these data layers could be layover (as discussed) and transit lane and other facilities within the curb lane. To support this work, we will seek to:

- Develop a comprehensive and consistently maintained citywide database and related maps of curb regulations and assets, including transportation facility allocations in the curb lane, such as transit lanes or protected bike lanes.

- Create a common data platform using the Curb Data Specification to ingest parking event data from multiple vendor databases.
- Consider connecting curb data with the department's Intelligent Transportation Systems (ITS), Public Space Management, and transit facility data to support more integrated planning.

Curb Data Utilization

SDOT collects and models parking utilization data to support the performance-based paid parking program. Parking payment transactions are reviewed daily, and field staff are regularly deployed for first-hand observational data.

Building upon our existing performance-based paid parking program, we plan to develop similar programs to monitor curbside usage to inform recommendations for curb allocation and installation efforts. This would measure performance of load zones, curbside electric vehicle charging equipment, carshare and related spaces, and Restricted Parking Zones. A data dashboard would assist policy makers in determining how successful curbside management programs are at meeting broader mobility, safety, equity, and climate goals.

To support this work, we will seek to:

- Develop a load zone utilization data collection program to measure commercial vehicle parking and loading (as event data).
- Continue to collect and model utilization data to support the performance-based paid parking program and expand paid parking area geographies and use cases.
- Collect and model utilization data to support performance-based monitoring programs for other use cases, such as load zones, curbside electric vehicle charging equipment, carshare, or Restricted Parking Zones.

Institutional Partnerships

Connecting SDOT with urban goods delivery system expertise has been the University of Washington's Urban Freight Lab (UFL). The UFL brings together private industry with city transportation officials to study, design, and test solutions around urban freight management.

Over the years, SDOT has funded multiple research projects that greatly improved our understanding of the urban goods and last-mile systems. One example was an early UFL report about the detailed ways commercial trucks make deliveries on Seattle streets, and the resultant design standards recommended for load zones to support more efficient deliveries and reduce vehicles circling for a load zone.

We also are a current a member of the Open Mobility Foundation (OMF), which is a group funded by many cities and private entities. One part of their work is to create a data standard for how cities can track curb inventory, transactions/events, and other related data. If cities can create and use the curb specification, then national curb data may be more likely to be usable and valued by freight and transportation logistics companies to direct vehicles and general traffic (e.g., in mapping software).

To support this work, we will seek to:

- Continue to partner with the Urban Freight Lab (UFL) to conduct research and pursue funding opportunities related to urban freight management and last-mile systems.
- Continue participation in the Open Mobility Foundation to promote standardized municipal data specifications for tracking curb inventory, transactions/events, and other mobility related metrics.

Performance Based Parking Pricing

SDOT uses a sophisticated set of data-driven decisions and applications to achieve performance-based outcomes in paid parking areas. For trips made by car, we want to set the parking rates to enable drivers to reliably find an open parking space and to advance the department's safety, equity, and climate goals. It should be noted that this does not mean necessarily mean low costs for parking in a high demand area, as SDOT sets parking rates based on demand data. This reduces how much time people spend circling for parking and provides other important benefits:

- Improve neighborhood commercial vitality and access—people can more reliably access commercial, retail areas
- Decrease greenhouse gas emissions—less circling means fewer emissions
- Save people time—time spent looking for parking is wasteful
- Improve safety for people walking and biking—people circling for parking are often distracted
- Reduce congestion—people circling for parking contribute to congestion; less congestion can result in faster, more reliable transit

Performance-based paid parking means using a data-driven approach to set pricing based on observed demand. Blocks of paid parking are typically considered efficiently used when almost all spaces are full, with one or two spaces available per block. Using these spaces efficiently can help free Seattle's limited curbspace for non-parking uses.

Our data-driven approach allows pricing to be set block-by-block based on local demands. It also helps us evaluate new areas for expansion of paid parking. Prior to the COVID-19 pandemic, paid parking rates were set between $0.50 and $5.00 per hour based on demand on any given block, per the Seattle Municipal Code. These rates were adjusted each fall in $0.50 increments based on parking occupancy data collected in the spring.

During the early months of the pandemic in 2020, paid parking areas were made free. As of July 2020, all areas were priced at $0.50 per hour. In response, we instituted our rate adjustment changes 3 times a year to recover parking rates more rapidly in the wake of the pandemic changes. The fundamental goal remains the same: price parking to manage demand and make efficient use of available spaces.

For each paid parking area, we currently use the following rules to adjust rates:

- If occupancy is over 85%, increase rate by $0.50/hour
- If occupancy is between 70% and 85%, rates do not change
- If occupancy is below 70%, decrease rate by $0.50/hour

Further details regarding our most recent parking occupancy and rate changes can be found in SDOT's annual paid parking reports, published each year featuring data on parking occupancy and pricing.

Pricing the curb equitably is key to ensuring that Seattle's limited curb resources serve everyone and help achieve key STP goals. SDOT's primary tool for curb pricing is the existing Performance-Based Parking Program. SDOT will seek to build upon this successful program, expand it to new areas, and apply a data-driven performance-based process to other curbside management programs, including the Restricted Parking Zone program. When paid parking areas and other priced curb zones managed, SDOT can help provide equitable access by increasing the likelihood that parking spaces will available and allowing multiple payment options. Creating a transparent and data-driven process to price the curbside, starting with the paid parking program as a base, will increase access for people and businesses and meet our mobility and climate goals (Supports TEF 44.3).

Pay to Park sign posted on a pole

Expansion of paid parking to new areas should be coordinated with future transit capital and service investments, such as light rail expansions, bus service, and future transit corridor projects that will improve and extend high frequency transit to more neighborhoods. Coupling transit improvements with expanded paid parking in commercial and mixed-use neighborhoods will advance sustainable alternatives to driving.

We should also consider further technology investments that will support the paid parking systems. These technologies can make the rate-setting and data collection processes more efficient and improve enforcement. This could mean investment in license-plate-reader technology, both vehicle-mounted and handheld, that could enforce parking while also collecting utilization data (see Curb Utilization for more details). This investment would be coordinated with the Seattle Police Department, which manages the parking and curb enforcement program.

Paid Parking Equity and Expanding Payment Options

Alongside the performance-based paid parking program, SDOT can examine the role of equity in the paid parking system. For over a decade, people in Seattle have had the option to pay for parking via a mobile device. In fact, nearly 75% of parking transactions were made by mobile payment as of the end of 2022. Credit and debit cards are also accepted at pay stations. Coin rates as of mid-2023 were about 2-3% of all transactions (or about 1,000/month).

As more consumers use mobile payment as their primary method of paying to park, we can explore technology (e.g., PayPal) that allows people without a bank account or credit card to also enjoy the same easy payment experience. We should examine ways to offer this type of equitable payment platform not only for parking payments but also for transit and other mobility options. Offering equitable payment options on these digital platforms will break down barriers and provide people with an easier way to use additional mobility options. (Supports TEF 32.1)

To support this work, we will seek to:

- Continue to set on-street parking rates based on Seattle Municipal Code direction.
- Build upon the existing Performance-Based Parking Program and establish a process to create new paid parking districts and modify existing districts.
- Coordinate expansions of paid parking areas with improved transit service investments and capital improvements.
- Review rates, hours, and days of week paid parking is levied.
- Consider changes to city law to adjust maximum and minimum paid parking rates to support a goal of 1 to 2 spaces being available on each block as parking demands increase over time.
- Explore tools and technologies to efficiently collect and analyze curb inventory and utilization data and supplement vendor data feeds, including GIS systems, license plate recognition, sensors, and other monitoring systems in consultation with the city's Privacy Program.
- Consider developing equitable payment options that allow people without a bank account or credit card to conveniently pay for both on- and off-street parking facilities, as well as transit and other mobility options.

Manage Business District Curb Access Actively and Holistically

Our local business districts are experiencing renewed vitality post-pandemic, and demands are increasing for limited parking and curbspace. For Seattle's neighborhood districts to remain vital and to support small businesses, particularly those owned by people who are Black, People of Color, and immigrants, parking and curb access needs to actively managed holistically. We should expand and establish programs to meet increased demands for the curb. New programs should look at both on- and off-street parking assets.

Community Access and Parking Program

SDOT uses the Community Access and Parking Program (CAPP) to improve on-street curb management in Seattle's neighborhood business districts and nearby residential areas. The program offers education on discounted transit passes, bike share, and car share information. Work to expand the CAPP Program to additional locations will be based on a data-driven prioritization process, supporting neighborhood business districts that need curb management plans in future years.

As part of the CAPP prioritization process, we conducts every five years, we consider how to strategically pair curbside management with other capital improvement projects, especially transit and multimodal projects, to best support changes to these transportation options through enhanced curb management. Outcomes of CAPP plans can include expanded paid parking, adjustments to or a new restricted parking zone, and enhancements to loading and micromobility access.

With additional resources and through the CAPP, we will be proactive in educating businesses and residential building managers and installing additional curb signage to improve access for commerce and people. Examples include installing various load/unload zones and truck zones, in combination with other SDOT programs such as Public Space Management.

In addition, we will continue to provide easy to read and language-accessible information about how to park and use SDOT's curb management system. When people know how to read parking signs and follow payment rules on their phone or pay station, they can more easily avoid receiving an unnecessary (and costly) parking tickets. For many years, SDOT has published the "Can I Park Here?" brochure in over a dozen languages that explains the rules of the curb, as well as how to request a load zone or other curb changes.

To support this work, SDOT will seek to:

- Expand the Community Access and Parking Program (CAPP) to develop curb management plans in neighborhood business districts and nearby residential areas based on a data-driven prioritization process, with a focus on proactively working with businesses in historically underserved neighborhoods.
- Consider ways to address needs for shared micromobility parking and public curbspaces such as street cafes within the CAPP outreach and planning.
- Proactively educate businesses and residential building managers on curb allocation and signage installation efforts.
- Build a broad-based, proactive curbside signage installation effort to enhance curb access in business and residential areas, with focus on historically underserved areas of Seattle.

Regulate Commuter Parking in Residential Areas with Restricted Parking Zones

SDOT has managed the Restricted Parking Zone (RPZ) program since the early 1990s as a strategy for reducing commuter parking in residential areas near commuter traffic generators, such as universities/colleges, hospitals, or the light rail stations. The RPZ program restricts long-term on-street parking, typically during weekdays, to permit holders within established zones.

Restricted Parking Zones are currently created, expanded, or reduced through a request process initiated by residents. Restricted Parking Zone permits are issued, and typically renewed every two years, at a current base rate of $95 per permit (2023). In 2023, physical permits were phased out and replaced with virtual or plate-based permits, which improves enforcement, reduces fraud, and lowers program costs. Discounted $10 permits are available to residents who can provide documentation of participation in a variety of low-income benefit programs, including Supplemental Nutrition Assistance Program (SNAP), energy assistance from Seattle City Light of Puget Sound Energy, and more.

Households are currently a limited to four (4) permits, but with no limit per zone regardless of actual street parking supply. The RPZ program was introduced before Seattle removed off-street parking requirements for new developments in Urban Centers and Urban Villages. Because private off-street parking fees are typically more expensive than on-street permits, even residents who may have the option to purchase parking in their building are likely to opt for on-street permits. Issuing a greater number of permits than the amount of available on-street parking spaces leads to congestion and illegal parking, as an ever-increasing number of residents search for available street parking spaces.

To address these challenges, SDOT should explore ways to modernize the Restricted Parking Zone program in ways that help achieve our sustainability and mode shift goals. By effectively pricing and limiting resident on-street parking, we can encourage more people to consider travel options other than a personal vehicle. The following modernization strategies should be explored.

A street cafe activating curbspace, Image Source: SDOT

Restricted Parking Zone District Modification or Removal

Because most Restricted Parking Zones were established many years ago and may not have aged well with changes around them in the area, we will set up a process to modify or remove zones as needed. Factors considered could include parking occupancy levels, how many permits are issued, new transit or mobility services, and land use. Before we make any changes, we will engage with the community to understand and address their thoughts and concerns.

Permit Pricing

SDOT should price parking permits to better align with mobility goals. For example:

- Consider the current number of permits issued relative to spaces and increase fees in areas that are oversubscribed and potentially reduce fees in areas where permit issuance is low (or consider removing the Restricted Parking Zone).
- Raise RPZ permit fee (currently $95) to an amount more competitive with transit and or the costs of neighborhood off-street parking. The $95 fee over two years amounts to $0.13/day. Meanwhile, a fully loaded ORCA card amounts to a cost of $3.55 per day.
- Offer a pay-per-use option for permit holders who do not utilize on-street parking on a regular basis to reflect the value of this permit product more accurately—this could be done using mobile payment.

Permit Limits

In areas where on-street parking demand is high and utilization regularly exceeds 90%, we could consider reducing the number of permits available per household from 4 to 1 or 2. Exceptions could be made for access for older people, people with limited mobility, and low-income people who rely on vehicles to reach their jobs, etc. SDOT would conduct extensive engagement in the zones prior to a change—which would require changes to the Seattle Municipal Code and legislation by City Council.

Explore Eliminating Major Institution Fee Subsidies

Major institutions (some universities, colleges, and hospitals) currently subsidize RPZ permit fees in various amounts for area permit holders, as determined by the institutions' environmental permit process. About one-third of permits are currently subsidized, but residents with subsidized permits are often not those with the highest need. Subsidies also limit the effectiveness of using permit price to manage demand. To improve program equity and effectiveness of the recommended permit fee changes, we could work with other city departments to review options to eliminate future subsidies and convert existing subsidies to provide other area transportation improvements.

Parking and Curb Access in Residential Areas

While Restricted Parking Zones manage parking on residential streets around major traffic generators, there is also a far-reaching need to address critical access needs and street parking for the rest of Seattle residential streets. A broad-scale residential parking and access project would allow us to tie on-street parking activity to other multimodal transportation benefits and see how we can encourage people to drive less, address the number of vehicles owned, and overall examine how they regularly use street parking near their residence.

A common misconception is that RPZs manage parking for residents. RPZs work to manage commuter and other parking impacts from traffic generators and allow all residents with vehicles to park on signed streets (subject to permit limits). This effort would look at addressing residential parking issues itself.

Education

One strategy combined with the Can I Park Here education brochure and transportation demand management program from the New Mobility Element would be to work through an education program about the costs and impacts of single occupancy, internal combustion engine vehicles. This might also be work connected with the Vision Zero team.

Resident Parking Fees

Several municipalities set a program fee for residents who own and register a vehicle in a city that park on the street and use public right-of-way. One of the largest programs is in Chicago where they require a City of Chicago Vehicle Sticker to be displayed on any resident vehicle within city limits, regardless of whether the vehicle is parked in a specific permit zone. Seattle could consider implementing a general resident vehicle fee requiring all residents, regardless of whether they reside in a permit zone, to pay a fee to park on city streets.

A resident fee concept would need a tremendous amount of research on policy, legal, operations/ enforcement, and extensive community engagement and discussion. Any such effort would require city legislation. To support this work, we will seek to:

- Continue to manage a Restricted Parking Zone program to reduce commuter parking in residential areas near commuter traffic generators and preserve discounted permit programs for low-income households.
- Establish a process to review, modify and potentially remove Restricted Parking Zones based on parking occupancy levels, permit issuance rates, introduction of new transit or mobility services, land use, and community input.
- Explore alternative pricing measures for Restricted Parking Zones in districts where demand is greatest, such as base permit rate increases or pay-per-use monthly or daily permits.
- Consider eliminating major institution fee subsidies and converting existing subsidies to support other multi-modal transportation improvements in partnership with Seattle Department of Construction and Inspections.
- Consider developing a proposal for a fee or other disincentives to using street parking in residential areas with the intent to discourage auto ownership and support zero-emission transportation options that work to encourage transit and shared use mobility options.
- Continue phasing out physical permits for virtual or plate-based permits to improve enforcement, reduce fraud, and lower program costs.

Curbside Support for Low- and No-Emission Vehicles

The curbside plays an important role in meeting our ambitious climate goals, including support for the shift toward electric vehicles. Freight and commercial goods are an important part of our economy. However, almost all the commercial deliveries to bring packages to residents and businesses are made by gas or diesel-powered vans and trucks, which contribute to poor air quality, congestion, and safety issues. We want to work collaboratively with the private sector and our local business community to be a liaison for the zero-emission transition.

Curbside Level 2 Electric Vehicle Charging Pilot Program

In 2022, Seattle City Light launched a pilot to install Level 2 curbside electric vehicle (EV) chargers at 30 locations throughout Seattle. These Level 2 EV chargers provide 9.6 kilowatts of power per hour and will provide a typical EV with over 30 miles of range per hour of charge time. These chargers are ideal for vehicles parked at least 3 hours or longer. Pilot locations were selected from over 1,800 requests to provide on-street EV charging to people who do not have access to off-street parking at home.

The pilot addresses a critical need for EV adoption, as most people who drive EVs rely on at-home charging when they transition to an EV. Final locations were selected based on various factors, including but not limited to a lack of off-street parking access, the presence of affordable housing, and the need for minimal infrastructure upgrades in the right-of-way.

We'll continue to coordinate with Seattle City Light and the Office of Sustainability and Environment to determine use cases suitable for right-of-way charging, depending on the customers looking to install charging and the audiences they will serve. As we scale the program beyond the initial Seattle City Light pilot, we should include U.S. Access Board guidance related to Americans with Disabilities Act requirements for both electric vehicle charging equipment and parking spaces in program development.

To support this work, we will seek to:

- Continue assisting Seattle City Light by evaluating and supporting implementation of Level 2 EV charging in street parking locations.
- Monitor Level 2 Electric Vehicle Charging pilot program (curbside system) data to determine utilization and compliance and to inform expansion recommendations.
- Determine suitable use cases for electric vehicle charging equipment in the right-of-way in partnership with Seattle City Light and the Office of Sustainability and Environment.
- Establish full policy and compliance standards for current and future electric vehicle charging equipment in the right-of-way.
- Consider installing curbside electric vehicle charging equipment as part of mobility hubs in residential neighborhoods to support micromobility, electric freight activities, and shared mobility services. (Supports TEF 36.2)
- Allocate curbspace for micromobility and shared mobility uses, with priority given to programs that provide an all-electric or transitioning-to-electric vehicle fleet.

Commercial E-Cargo Bike Program

In response to Mayor Harrell's Climate Executive Order and following recommendations from work with C40 Cities on a Zero-Emission Freight Grant Project, SDOT should consider launch of an e-cargo bike program, integrating new permitting, loading zones, and supportive policies to facilitate business investment in Seattle.

Based on C40 project work, we should design and implement a program that will encourage freight partners and local businesses to consider transitioning to smaller, electric last-mile delivery options. This should include a new permit and curbspace use allowances for commercial cargo bikes, and it should establish community partnerships to build program support.

To provide additional support with off-street loading space, we should identify pathways to facilitate zero-emission community delivery hubs. By partnering with off-street parking lot operators, we will open and manage the delivery hubs to supply additional support to freight partners in need of off-street delivery space for e-cargo bike coordination and further improve last-mile delivery.

E-cargo Delivery Bike

We know that many electric freight solutions are still cost-prohibitive to our small-medium business community and that many barriers exist when determining what zero emission solutions are attainable operationally.

To support our local business community and the greater Seattle community, we should explore launch of E-cargo Bike Lending Libraries at community hubs to provide bikes on a lease-to-own basis. This would allow businesses to test e-cargo bikes and learn from community advisors prior to making a permanent fleet purchase. This program offering would be ideally supported with incentives to further assist with cost considerations for those interested in buying an e-cargo bike.

Low-Emissions Load Zone Program

To meet our climate goals, a low- and zero-emission loading program would support an active transition to electric vehicle or low emission options. These efforts would build upon our work with the C40 Zero Emission Freight Project, accelerating the adoption of zero-emission vehicles and supportive infrastructure. The C40 organization is a partner to SDOT in several ways as it is a group of nearly 100 mayors across the globe, including Seattle, that are united in action to confront the climate crisis.

For success, we'll need to evaluate supportive policies and identify potential local and state legislative changes to implement climate-friendly loading zones. We expect to partner with private-sector operators and businesses to identify optimal locations for zero-emission loading zones. This way, we can better support freight partners with transitions to EV freight delivery.

As part of this work, we will evaluate a potential tiered pricing structure for commercial vehicles to use zero-emission loading spaces, with varying prices by emission type. For instance, zero-emission vehicles could pay the least, and gas and diesel-powered vehicles could pay the most. Currently, this type of policy is not allowed by local and state law. To change this, SDOT would need to establish a business case for low- and zero-emission loading programs supported by freight and community partners, and work with city leaders to identify possible legal strategies. To support this work, we will seek to:

- Encourage freight partners and local businesses to transition to smaller, electric last-mile delivery options.
- Launch an e-cargo bike program, integrating new permitting, loading zones, and policies.
- Develop an e-cargo bike program implementation plan, identifying needed staff and resources.
- Create an external advisory group with freight leaders and community partners.
- Develop design standards to inform program development which should consider legislation, policies, and procedures.
- Implement a community outreach and engagement plan to engage freight stakeholders on program designs and ensure offerings meet their needs.
- Establish use cases to demonstrate how the program would be implemented in different areas.
- Create a policy, legal, and business case supported by freight and community partners for pathways to incentivize and enable zero emission vehicle loading zone use.
- Develop a low- and zero-emission loading program that prioritizes climate-friendly vehicles and incentivizes freight companies to transition to right-sized, electric vehicle alternatives.
- Explore partnerships with off-street parking lot operators to establish and manage zero-emission community delivery hubs.

Curb Signage

SDOT Curbside Management installs a wide variety of curb signage across the city every day. Historically, spot improvements have been based on requests or due to other agency needs (such as for bus stops/layover). With additional resources, we could expand this effort to be proactive in educating businesses and residential building managers, and to lead to installing additional curb signage to improve access for commerce and people. Examples include installing various load/unload zones and truck zones, in combination with other SDOT programs such as Public Space Management.

Short-Term Pick-Up, Load Zone or other Special Signs

In recent years, and especially since the COVID-19 pandemic, more people are buying goods and services online. This increase in e-commerce deliveries has led to increased pressure on curbspace in our neighborhoods and business districts, especially where there are limited off-street parking and loading spaces. Formalizing a low- or zero-emission urban goods delivery program would help to educate businesses on how to potentially receive more efficient deliveries.

The program would also help us meet our broader climate goals. To support this work, SDOT will continue to use and update curb signage to accommodate food app delivery, restaurant take out needs, car share, employer shuttles, bike parking corrals, and other new mobility endeavors.

A RapidRide bus layover on 5th Ave

Bus Layover Coordination

SDOT installs designated spaces for transit to layover at the curb, time necessary for drivers to rest and for management of transit route schedules. As of 2023, there are almost 400 layover

designated spaces to serve the transit system. This work to plan, install, and maintain transit layover spaces is a combined work effort of our Curbside and Transit Strategy and Services teams. See the STP Transit Element for more information.

To support this work, we will seek to:

- Coordinate transit layover planning and management.
- Maintain an interagency group to confirm transit layover policy goals and a layover review process.
- Develop a transit layover database to assist right-of-way management and track layover spaces.
- Coordinate across SDOT to meet other curb access needs or right-of-way functions when layover spaces are retired due to changes in transit services.

Disabled Parking Accessible Spaces

Designated Disabled Parking signed spaces are installed on street by SDOT (and also approved for installation through private development projects that impact the right-of-way) throughout the city for several purposes. Installation is done consistent with federal standards. Their use requires a state issued disabled parking permit, as well as display of a disabled license plate or placard. Installation locations include:

- Residential disabled access where residents do not have sufficient access for vehicle parking on their property
- Customer parking access in business areas to provide designated spaces for customer short-term visits for people with limited mobility

Another important aspect of managing disabled parking is preventing abuse of state-issued disabled parking permits in Seattle. Washington state law allows eligible residents to obtain a state-issued permit—either a license plate or two rearview mirror hanging placards. Washington allows general street parking to be free for vehicles displaying a disabled permit.

In contrast, some states like Oregon have adopted a wheelchair-user placard separate from general disabled parking. With this approach, a wheelchair user permit grants free parking while a general disabled parking permit requires on-street parking payment. This two-tiered system is considered by the International Parking and Mobility Institute to be a best practice, as it prioritizes access for the most severely mobility impaired, while continuing to require payment by those who qualify for a general disabled permit. This system helps prevent disable placard abuse while preserving reliable disabled access for those who need it most.

Over the years, as part of our parking program's data collection efforts, we have documented significant abuse of disabled permits in paid parking areas because the state's non-payment requirement motivates many to abuse the system to acquire and use a disabled permit. This is especially the case in areas like Downtown and First Hill where off-street garage costs are high, and significant numbers of people use a disabled placard to park on-street regularly as commuters.

This abuse limits the effectiveness of SDOT's rate adjustments and deprives legitimate placard holders from having reliable curb access. To support this work, SDOT will seek to:

- Review curb management programs for Americans with Disabilities Act (ADA) signage and explore additional strategies to integrate accommodations for vulnerable users.
- Install ADA parking spaces in business districts and mixed-use areas per Public Right-of-Way Accessibility Guidelines (PROWAG) Section 214.
- Manage requests for residential on-street ADA spaces when criteria are met. Initiate an audit effort to reaffirm residential ADA on-streets spaces are still needed as home ownership changes.
- Develop an ADA loading zone program when reviewing critical access needs for buildings.
- Explore programs to mitigate ADA placard abuse to provide predictable availability of ADA spaces, including installation of four-hour time limits as allowed by state law.
- Seek changes with the State Legislature to adjust the statewide rules for creating a two-tiered permit system or other reforms to reduce abuse in Seattle and other Washington cities.
- Include U.S. Access Board guidance related to ADA requirements for both electric vehicle charging equipment and parking spaces in program development.

Compliance-Oriented Parking Enforcement

Leveraging new technology and data-driven operational decision-making processes, we should partner with Seattle Police Department to develop a compliance-oriented parking enforcement program. Historically, parking enforcement has been reactive, punitive, and often inequitable. By leveraging license plate recognition technology, we can collaborate with the Seattle Police Department on ways to promote compliance at the curb, making it easier and safer to access.

This work will have positive impacts on other activities, including permit and loading programs, and can help the Seattle Police Department be as efficient as possible with limited enforcement staff resources. This should include industry-led customer service training to align enforcement staff with a kinder, gentler approach to parking enforcement for the betterment of the community.

To support this work, SDOT will seek to:

- Support implementation of license plate recognition technology across most of the Seattle Police Department's parking enforcement vehicle fleet.
- Work with the Seattle Police Department to integrate virtual permitting data and parking restriction digital mapping into license plate recognition systems for more efficient enforcement operations.

- Analyze license plate recognition data to identify areas where signage may need to change or additional education is needed about posted regulations and/or e programs.
- Create a data dashboard by neighborhood tracking curbside compliance rates.
- Work with the Seattle Police Department to optimize enforcement beat routes and align enforcement operations with policy goals.

Shared Parking in Business Districts

Shared parking means that parking spaces are shared by more than one user group, which allows parking facilities to be used more efficiently. Shared parking takes advantage of the fact that most parking spaces are only used part of the time by a particular group and that many spaces go unused on a regular basis. While SDOT does not regulate parking garages or lots, it is important to consider off-street parking supply as part of broader curbside management strategies for business district parking and curbside access.

New buildings typically have less parking provided onsite. This trend, coupled with increased demand for curbside access, creates an opportunity to maximize existing off-street parking for resident, employee, and business visitor parking. Implementing a robust shared parking program would increase parking supply in business districts and allow more flexible use of the curb for critical access needs, multimodal facilities, and non-vehicular uses.

To support this work, we will seek to:

- Leverage existing off-street studies to explore formalizing shared parking.
- Coordinate and collaborate with internal and external partners to develop shared parking facilities.
- Revise codes and regulations, as necessary, to incentivize use of shared parking.
- Include shared parking strategies as part of the Restricted Parking Zone district modernization.

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.

MEASURABLE OUTCOMES

This section outlines desired outcomes and recommended performance measures to monitor the implementation of the STP Curbside Management 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 a reduction in vehicle-miles traveled 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 vehicle occupancy by blockface and percentage of vehicles meeting sign and payment regulations.
- **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 track productivity and to help allocate resources. Examples may include percentage of blocks where critical building access (load zones, solid waste, building services at businesses and residential properties) needs met; number of paid parking spaces and/or blockfaces; number of load zones and/or blockfaces with load zones; and more.

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 we 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. SDOT will continue to evaluate resource availability before performance measures are set in the final recommended STP.

Table 2 identifies the Tier 2 performance measures that will be tracked for the Curbside Management Element.

Table 2: Curbside Management Performance Measures

Desired Outcome	Related STP Goal(s)	Performance Measure (source)	Target or Desired Trend	Track measure by RSEI and/or race	Baseline
Increase compliance with posted curbside regulatory signs	Safety Livability	Percentage of vehicles meeting sign and payment regulations (SDOT)	50% compliance rate	No	In development
Parking priced and managed to provide reliable curbside access for users	Mobility Livability Maintenance & Modernization	Vehicle occupancy per blockface (SDOT)	70 - 85% occupancy in paid parking areas	Yes	In development
NOTE: Many of the STP performance measures targets and baselines are still under development.					

Table 3 lays out the citywide allocation of high-level curb regulations. Data sets are from SDOT's asset management system that tracks curb signage by type of regulation. It includes the many miles of residential streets in Seattle where parking is not restricted in any way except at intersections, fire hydrants, or driveways (whether by formal sign or simply by law). Noting that Seattle comprises 84 square miles of land area, the large number residential or non-arterial streets is why there is such a high percentage of unrestricted parking.

Citywide, a relatively small amount of curb is regulated as paid parking (with meters/mobile payment), or with time-limited signs that allow 1 or 2 hours of parking. Most business districts have either paid parking and/or time limit regulations, as well as load zones and a variety of other curb signage. These targets will be updated as curbsides are changed to meet our STP goals.

Table 3: Curbside Management by the Numbers

Curbside Space Allocation by Category	Percent of Blocks by Category
No Parking or Curbside Moving Lane	17%
Paid Parking	2%
Restricted Parking Zone	5%
Time Limited Parking	3%
Unrestricted	73%

RELEVANT TEF TACTICS

TEF 16.1—Engage with local Black, Indigenous, and People of Color (BIPOC)-owned businesses to determine how SDOT can support their employees' transit and transportation needs for commuting.

TEF 17.4—Conduct community workshops to better understand the activities communities want and need in the right-of-way; use this to inform the People Streets and Public Spaces effort, which will establish a vision and strategies for equitable public space investment.

TEF 17.3—Provide low-tech and language-accessible information to businesses about parking/loading and how communities can make requests for load zones or other curbside uses.

TEF 19.2—Identify opportunities to repurpose some travel lanes for transit, biking, and also smaller, lighter-weight vehicles and devices to create more travel options with the STP.

TEF 20.5—Consider travel time and air quality impacts of changes to roadway configurations. Use this information to make equitable investment decisions that consider travel time and air quality impacts and benefits, and to communicate those benefits and impacts to community.

TEF 21.2—Conduct community sessions with BIPOC owned businesses on right-of-way needs and ways which SDOT can support; start and continue to build a holistic relationship with small businesses.

TEF 22.1—Analyze how movement of goods were impacted during COVID-19 and whether there are specific ways we can maintain any benefits that were seen.

TEF 29.1—Create publicly accessible, community-oriented visuals and neighborhood-specific snapshots to capture where SDOT has built infrastructure, dedicated investments, and collected community feedback; this should be utilized by SDOT, other City departments, and transportation partners to inform future investment needs as well as planning and programmatic efforts.

TEF 31.2—Review previous SDOT studies on non-9-to-5 commuters, identify where additional information needs to be gathered, develop targeted transportation options, and leverage existing programs to better support this community.

TEF 32.1—Explore the feasibility of creating a "low income" account for use at paid curbside parking, such as through PayByPhone.

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 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 43.4—Review SDOT policies, practices, standards, and funding allocation strategies to elevate/give priority to access and use of right-of-way for people of all ages and abilities, people recreating, shopping, walking, rolling, riding bikes and transit.

TEF 46.3—Catalog the eligibility of City resources for low-income households across all City programs and identify where SDOT-funded reduced fare programming eligibility could be streamlined.

TEF 56.7—Institute a practice of closer coordination with all City Departments who do utility work in the right-of-way to minimize environmental impacts when projects are occurring in neighborhood; this includes seeing if we could consolidate built environment projects at the same time.

GLOSSARY

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

ADA: Americans with Disabilities Act

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.

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.

City of Seattle Privacy Program: A citywide program to ensure safe and ethical use of the public's personal information by City employees. It provides a framework for policies, standards, and practices that involve personal information.

Community Access and Parking Program (CAPP): A program through which SDOT works with community members to identify on-street parking challenges and opportunities, develop parking recommendations, and implement parking management changes.

Community and Mobility Hubs: Community and Mobility Hubs are 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.

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.

Critical access needs (CAN): The services necessary for a building to perform its core operating functions safely and successfully. These include goods delivery, designated parking and loading spaces, and building spaces.

Curbside Level 2 Electric Vehicle Charging pilot program: Seattle City Light, in partnership with SDOT, is installing and operating public Level 2 electric vehicle chargers at curbside locations throughout the city of Seattle. This program is focused on providing near-home EV charging for residents who cannot access off-street parking to charge their vehicles at home. The pilot will install EV chargers at 31 locations, informed by public input.

E-cargo bikes: Human-driven bikes with battery-powered pedal assist that can transport packages or other small goods in a front-mounted wagon or rear-hitched trailer.

E-commerce: The buying and selling of goods online that are then delivered directly to a home or business. Examples include Amazon and eBay.

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 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.

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 2 EV chargers: Electric vehicle chargers that are compatible with most EVs and provide a faster charge than Level 1 chargers. They can be installed in private homes or public places.

Low-emission neighborhood: Low-emission neighborhoods, sometimes called low-pollution neighborhoods, prohibit or restrict the types of vehicles allowed within an area and encourage zero- and low-emission travel options like walking, biking, electric vehicles, and deliveries by e-cargo bike. Implementation of these concepts will vary by neighborhood and are co-created with local communities.

Micro-hubs: Small-scale urban logistics facility located in between a major warehouse and the final delivery destination implemented to reduce vehicle emission trips by shifting to low or zero-emission modes (walking, biking). Goods are transferred from larger freight vehicles to smaller, lower emission modes for final delivery. Micro-hubs can be used by 1 or more carriers/operators based on the location to support consolidation efforts.

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.

Personal delivery devices (PDDs): Small automated or remotely piloted robots designed for short deliveries carrying food, packages, or other goods.

PROWAG: The Federal Highway Administration's Public Right-of-Way Accessibility Guidelines

Public Spaces: Plazas and Shoreline Street Ends that come in many shapes and forms. They are pedestrianized spaces that invite people to gather, play, and connect with one another. These spaces may be focal points in neighborhoods that support local businesses, venues for community gatherings, or more subtle spaces that are loved by locals and stumbled upon by visitors who delight in their discovery. They may incorporate public art, seating, games, trees and green infrastructure, and flexible space for vendors and gatherings. Public spaces are born of inclusive, community-driven processes that inform design, programming, and long-term stewardship.

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 non-motorized 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

The goals of the approach are to create safer vehicles, speeds, roads, and people and provide post-crash care.

SDOT: Seattle Department of Transportation

Shared micromobility: Shared bikes and scooters that offer low-cost option 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* that is an online resource for property owners, developers, and architects involved with the design, permitting, and construction of Seattle's street right-of-way.

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.

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.

Vulnerable traveler: As defined in City Code, "a pedestrian, a person riding an animal, or a person operating or riding any of the following on a public way: a farm tractor or implement of husbandry, without an enclosed shell, a bicycle, an electric-assisted bicycle, an electric personal assistive mobility device, a moped, a motor-driven cycle, a motorized foot scooter, or a motorcycle." The STP intentionally uses the term "vulnerable traveler" instead of "vulnerable user" to better reflect that people are traveling in the public way.

Seattle Department of Transportation

DRAFT SEATTLE TRANSPORTATION PLAN

New and Emerging Mobility Element

August 2023

Seattle Department of Transportation

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INTRODUCTION

With each passing year, we see new forms of transportation emerge and gain momentum. People are adopting innovative technology to travel more quickly, efficiently, and sustainably, and using app-based systems to make smarter decisions about travel. As one of the first cities to regulate ridehailing operations like Uber and Lyft and to permit dockless bikeshare systems, Seattle has been on the forefront of new and emerging mobility adoption. In 2017, the Seattle Department of Transportation (SDOT) created the New Mobility Playbook,[1] a framework to ensure new transportation technology and emerging modes of mobility were deployed in support of community goals.

New and emerging mobility (NEM) is a blanket term that describes forms of transportation that use technology to improve efficiency, access, and experience. NEM services increasingly offer seamless accessibility through digital platforms, enabling convenient payment and data-driven service adjustments. NEM trends include electrification or automation of services and devices, growth in the use of personal delivery devices (PDDs) for transporting urban goods, and urban air mobility for parcels and passengers. Well-known examples of new mobility options include ride-hailing services like Uber and Lyft, car-sharing platforms such as ZipCar and Gig, and bike and scooter sharing programs like Lime and Super Pedestrian.

HOW NEW AND EMERGING MOBILITY ADVANCES THE STP

New and emerging mobility can contribute to achieving SDOT's emissions reduction goals, such as 90% of all personal trips are zero emissions by 2030 and 100% by 2050. It does so by helping replace gas-powered trips with human or electric-powered trips on shared micromobility devices like bikes and scooters and by increasing accessibility to public transportation. By expanding travel options for people outside traditional transit networks and helping people to make first- and last-mile connections to transit and urban deliveries, shared mobility can contribute to significant reductions in vehicle-miles traveled (VMT)—particularly when operated in support of existing fixed-route transit services. When used responsibly, NEM can also create safer streets by integrating smart technology and safety innovations in vehicles and mobility devices. While SDOT is committed to this work, SDOT relies on strong private sector partnerships to align NEM with safety, sustainability, and equity goals.

Effective deployment of new and emerging mobility must address the needs of Black, Indigenous, and People of Color (BIPOC) and vulnerable communities through inclusive planning and education. As NEM options continue to grow in number and popularity, there will be a need to anticipate job losses from automation and provide new training in emerging areas. Coupled with concerns over data privacy, SDOT must consider how to maximize the social benefits that NEM can provide while actively working with partners to limit negative or unintended outcomes. The New and Emerging Mobility Element considers how SDOT can

[1]https://www.seattle.gov/documents/departments/sdot/newmobilityprogram/newmobility_playbook_9.2017.pdf

incorporate technology, innovation, and partnerships into our transportation ecosystem to advance our goals, including the actions we'll need to take to support NEM deployments that are successful, sustainable, and beneficial to communities across Seattle.

COMMON TERMS IN NEW AND EMERGING MOBILITY

- **Mobility** - the ability to move around freely, enabled by a variety of vehicles or modes (bus, train, car, bike, etc.)
- **Innovation** - new ways of solving problems, often with new technology or programs that are creative and different than traditional practice
- **On-demand** - services that respond to real-time requests, usually via mobile phone apps. Examples include Uber, Lyft, King County Metro's Metro Flex on-demand transit service, and others
- **Fixed-route transit service** - traditional transit service like buses, light rail, and streetcar, which follow fixed paths with designated stops
- **Digital infrastructure** - technology and data that makes the foundation of transportation systems. For example, the software system for Metro Flex, or the programming for streetlights
- **Integration** - in the context of new and emerging mobility, integration means the ability to plan, book, and pay for a trip across multiple platforms or modes without having to access different maps, schedules, or payment sites
- **Multimodal** - using multiple modes or methods of travel. A trip that includes a bike ride to a ferry to a bus, for example, is a multi-modal trip
- **Deployment** - the launch of a new service, system, or technology
- **Permitting** - a common process required for private companies to do business in public spaces, usually through established regulations, rules, requirements, reporting, and fees
- **Right-of-way (ROW)** – the land that is used for transportation, including roads, curbs, and sidewalks
- **E-commerce** – the buying and selling of items via mobile apps and desktop computers. E-commerce businesses generally do not have a traditional storefront or walk-in business model, and goods are delivered to homes or businesses. Examples include Amazon or eBay
- **First- and last-mile connection** - usually the first or last leg of a journey, which may have a traditional fixed-route transit trip in between

WHAT IS NEW AND EMERGING MOBILITY?

The current landscape of new and emerging mobility in the city includes a variety of travel options, with varying roles for SDOT. These are discussed below.

Shared Micromobility, with the right policies, offers flexible, low-cost mobility options that allow people to rent an electric bicycle or scooter for a quick errand, a trip to light rail, or a commute trip. Riders locate (via app or sight) and rent the nearest available device with their phone, ride where they want to go, and are required to leave it responsibly parked for the next person to ride.

Person riding a shared scooter

In Seattle, SDOT issues permits to private operators to deploy a fixed number of scooters and bikes in the public right-of-way. Permits are contingent on compliance with regulations, including equity, parking, and data sharing requirements. To be inclusive of people of all ages and abilities, participating vendors offer different kinds of devices, such as seated and standing scooter options and e-bikes.

Car Share is a subscription-based service that provides members access to a fleet of either fixed location or free-floating cars, meaning they don't have designated parking spots. Car share gives users the temporary benefit of a vehicle for moving items or traveling longer distances without the storage and maintenance costs of private vehicle ownership. Car share services may operate point-to-point (one-way) or round trip. Car share providers are allowed to operate within the city under a conditional permit, which includes data sharing and service area distribution requirements.

Microtransit, sometimes also referred to as **ridesharing**, is a flexible, on-demand transit service that uses smaller vehicles, such as shuttle buses or vans, within specific zones rather than fixed routes and stops. Microtransit is generally requested through an app or by phone with a limited wait time (usually 30 minutes or less) and can be door-to-door or curb-to-curb. Through real-time software, microtransit can dynamically change routes and ensure the most time efficient service for riders in the zone, while also optimizing the number of passengers.[2]

Transportation Network Companies (TNCs), also known as **ridehailing services**, allow people to request a driver for hire through a website or smartphone app. Common examples include Uber and Lyft. Unlike taxicabs and for-hire vehicles, passengers are connected to drivers through an online dispatch application using a smartphone or tablet. TNCs can supplement fixed-route transit service by offering flexible pick-up and drop-off locations and 24-hour

[2] Details on Metro Flex: https://kingcounty.gov/depts/transportation/metro/travel-options/metro-flex.aspx

service. In Washington, TNCs are predominantly regulated at the state level. At the local level, the City of Seattle and King County collaborate in regulation of TNCs—the county regulates drivers, and the city regulates vehicles.

Autonomous Vehicles (AVs) are vehicles equipped with hardware and software systems providing the capacity to perform specific driving functions without any intervention or supervision by a human operator. If deployed responsibly, AVs have the potential to revolutionize mobility and safety by expanding travel options for seniors and people with disabilities, as well as greatly reducing incidents associated with human factors.

Urban Air Mobility (UAM) has become an emerging option to transport more people and goods within the city based on recent advances in noise reduction and automation. Use of electrified UAMs for transportation goods and people within low-altitude spaces is a possible sustainable (zero-emissions) solution to reduce surface-level congestion.

Urban freight delivery using cargo bikes

Urban Freight – Delivery of small items and packages has increased significantly over the past decade. We frequently collaborate with the University of Washington Urban Freight Lab to research and pilot new technology to improve urban freight management. In 2021, the Urban Freight Lab ran a Neighborhood Delivery Hub Pilot to test the practicality and application of a common micro delivery hub in Seattle. The pilot demonstrated that e-cargo bikes are extremely efficient for last-mile urban delivery, travelling 50% fewer miles per package and reducing per-packaged CO2 emissions by 30%.[3]

Electrification and Zero-Emission Mobility – SDOT works closely with partners in the Seattle Office of Sustainability & Environment (OSE) and Seattle City Light (SCL) on programs to expand transportation electrification infrastructure and accelerate the transition of electric and zero-emission passenger and freight vehicles across modes and throughout the city. These programs are guided by goals outlined in the Transportation Electrification Blueprint (2021).[4]

For example, we are currently working with OSE and SCL on a pilot program to install Level 2 (240 volts) electric vehicle chargers at curbside locations throughout Seattle for public use. The purpose of the program is to accelerate the adoption of electric vehicles, micromobility, and transit, and provide additional charging options for electric vehicle (EV) owners who do not have off-street parking or private charging availability.

[3] http://depts.washington.edu/sctlctr/news-events/announcements/ufl-pilot-delivers-results
[4] https://www.seattle.gov/documents/Departments/OSE/ClimateDocs/TE/TE%20Blueprint%20-%20March%202021.pdf

RELATIONSHIP TO STP GOALS

New and emerging mobility serves a cross-cutting role in supporting the Seattle Transportation Plan's goals for **safety, equity, sustainability, mobility, livability, and maintenance and modernization**. With thoughtful regulation and partnerships with service providers, NEM can help reduce emissions, driving, and pollution while offering solutions to make travel safer, more convenient, affordable, and accessible.

Prioritize safety for travelers in Seattle, with no serious injury or fatal crashes. Safety is paramount, no matter how you get around Seattle. Our streets should be comfortable and intuitive for our most vulnerable travelers (people walking and biking). Shared, automated, and other new mobility models should advance our Vision Zero goals and maintain consumer protections.

Co-create with community and implement restorative practices to address transportation-related inequities. New mobility, whether shared, public, private, or automated, is a fundamental human need. New mobility models should promote clean transportation and roll back systemic racial and social injustices borne by the transportation system. SDOT can influence NEM in Seattle to support equitable outcomes through partnerships and thoughtful regulatory practices.

Respond to climate change through innovation and a lens of climate justice. New mobility options hold potential to support our transition towards an electrified and more multimodal transportation system by supporting the growth of existing and emerging clean mobility options that decrease greenhouse gas emissions.

Provide reliable and affordable travel options that help people and goods get where they need to go. New mobility can provide reliable and affordable travel options for personal and commercial travel, particularly for shorter trips. NEM supports first- and last-mile connections to Seattle's transit system, provides independence for younger and older people, and grows travel options for all.

Reimagine our streets as inviting places to linger and play. NEM devices can increase access to housing, employment, parks, and community assets by filling transit gaps and providing more accessible point-to-point options. The city can integrate and selectively subsidize NEM services with existing public transit systems, making it easier for users to combine multiple modes in a single trip.

Improve city transportation infrastructure and ready it for the future. SDOT promotes a diversity of transportation choices that leverage new and emerging mobility. Data infrastructure is foundational to understanding, operating, and planning in a constantly changing transportation system. Partnerships and a fair and flexible regulatory environment will nurture and expand new mobility ideas, companies, jobs, and workforce training.

IMPLEMENTING THE KEY MOVES

Part I of the Seattle Transportation Plan (STP) includes a collection of Key Moves, or strategies, to advance the STP goals. Each Functional Element serves an important role in making these Key Moves and their supporting actions.

Table 1 below summarizes the Key moves and specific actions the New and Emerging Mobility Element helps to accomplish. They are nested under the primary STP goal they seek to advance. Many actions are cross-cutting, and they appear in all Functional Elements as important commitments and initiatives. Other actions are specific to one or more Functional Elements and are marked with an asterisk (*) to indicate that this Element plays a critical role in operationalizing or supporting that action.

Additional details on SDOT's roles and the ways we'll tackle this work are included in the "New and Emerging Mobility in Seattle" section below. Actions that implement tactics from SDOT's Transportation Equity Framework (TEF) are noted in parentheses; these tactics are listed at the end of this element.

Table 1: Key Moves and New and Emerging Mobility Actions

Key Moves	Key Moves and New and Emerging Mobility Actions	STP Goals Supported					
Actions		Safety	Equity	Sustainability	Mobility	Livability	Maintenance & Modernization
SAFETY KEY MOVES							
Concentrate safety investments at the most collision-prone locations (S2)							
NEM1*	Incorporate Vision Zero and Safe System approaches into every project and program. (S2a) Work to align shared, automated, and other new and emerging mobility models with SDOT's Vision Zero safety goals and maintain consumer protections.	✓	✓				✓
NEM2*	Pilot and evaluate new and emerging safety treatments in locations where proven interventions are infeasible or do not address the identified safety issues. (S2c)	✓					✓
Make all journeys safer, from departure to destination (S3)							
NEM3*	Accelerate implementation of research-backed improvements that are proven to make streets safer for everyone, such as parking corrals at daylighted intersections and protected lanes for bikes, scooters, and other small mobility devices. (S3d)	✓			✓		

* Indicates this Element plays a key role in advancing this action.

Key Moves and New and Emerging Mobility Actions		STP Goals Supported					
		Safety	Equity	Sustainability	Mobility	Livability	Maintenance & Modernization
NEM4*	Make people walking, biking, and scooting more visible by improving site lines at intersections through treatments such as curb bulbs, No Parking signs, and refuge islands, with a focus on High Injury Corridors. (S3e)	✓	✓		✓		
NEM5*	Expand safety education for all travelers, with an emphasis on encouraging safe driving near people walking, biking, and scooting, as well as yielding to people walking if on a bike and or scooter. (S3h)	✓					
EQUITY KEY MOVES							
Center the voices of communities of color and underrepresented groups in planning and decision-making processes (TJ1)							
NEM6	Implement the Transportation Equity Framework (TEF) to grow transparency, accountability, and shared power when making transportation decisions with community members. (TJ1a)		✓				
NEM7	Feature community voices in planning documents. (TJ1b) Conduct inclusive planning and Racial Equity Toolkits (RETs) for new policy or pilot programs.		✓				
NEM8	Continue to build and maintain relationships with vulnerable communities and underrepresented groups. (Supports TEF 29.1 and 41.6) (TJ1c)		✓				
NEM9*	Provide early and frequent co-creation and consultation opportunities to incorporate community into development of policies, projects, and programs before they are fully developed, considering community travel preferences and potential impacts on how people move around the city and potential labor-related implications. (Supports TEF 3.4) (TJ1d)		✓		✓	✓	
NEM10	Build trust and capacity within organizations prioritizing our vulnerable communities focused on increasing walking, biking, and rolling and learn from the leaders active in these spaces. (Supports TEF 31.4) (TJ1e)		✓				
NEM11	Normalize the practice of making decisions about policies and right-of-way (ROW) allocations with input from vulnerable communities. (Supports TEF 19.1) (TJ1f)		✓				
NEM12	Support the transportation-related needs of local businesses owned by vulnerable communities and their commuting employees. Provide		✓		✓	✓	

* Indicates this Element plays a key role in advancing this action.

Key Moves and New and Emerging Mobility Actions		STP Goals Supported					
		Safety	Equity	Sustainability	Mobility	Livability	Maintenance & Modernization
	accessible and culturally relevant information about SDOT services. (Supports TEF 17.1, 21.2, 16.1) (TJ1h)						
NEM13	Compensate community partners for their valuable work to connect and communicate with their networks and uplift community-driven initiatives. (Supports TEF 1.1, 13.4, 31.4, and 37.1) (TJ1i)		✓				
Address inequities in the transportation system by prioritizing investments for impacted communities (TJ2)							
NEM14*	Prioritize transportation investments that benefit people and local businesses who currently and historically experience high transportation burdens and those at high risk of displacement. (TJ2a)		✓			✓	
NEM15	Engage regularly with local businesses owned by our vulnerable communities to hear their concerns around NEM impacts and co-create transportation, public space, and permitting solutions. (Supports TEF 14.3 and 15.2) (TJ2c)		✓			✓	
NEM16*	Identify actions to address inequities experienced by vulnerable community members who walk, bike, and roll, and provide capacity-building support to BIPOC-led organizations that focus on increasing active transportation. (Supports TEF 31.4) (TJ2d) Enhance access to NEM options and establish safe, supportive infrastructure in neighborhoods historically underserved by the City, specifically areas with a high population of BIPOC.		✓		✓	✓	
NEM17*	Implement improvements to make traveling in Seattle more accessible for everyone, such as curb ramps, accessible pedestrian signals, accessible parking, and accessible transit stops. (TJ2f) Develop guidelines and requirements to support NEM technologies that prioritize accessibility for all users.	✓	✓		✓	✓	
NEM18	Conduct and implement racial equity assessments at the program level. (TJ2h)		✓				
Remove cost as a barrier so everyone can take the trips they need to make (TJ3)							
NEM19*	When a capital project is underway in a community, incorporate supplemental programs to help community members transition to sustainable travel options like walking, biking, and taking transit. For example, explore partnering with micromobility operators to offer discounts to encourage ridership. (TJ3b)		✓	✓			
NEM20*	Enhance programs that provide free or reduced shared mobility fees for low-income households. (Supports TEF 32.1, 46.2, 46.3, and 52.4) (TJ3c)		✓		✓		

* Indicates this Element plays a key role in advancing this action.

Key Moves and New and Emerging Mobility Actions		STP Goals Supported					
		Safety	Equity	Sustainability	Mobility	Livability	Maintenance & Modernization
SUSTAINABILITY KEY MOVES							
Improve neighborhood air quality and health outcomes by promoting clean, sustainable travel options (CA1)							
NEM21*	Expand beyond employer-based travel demand management programs to include residential and neighborhood-based strategies that encourage non-driving travel choices for all trips. (CA1a)			✓			
NEM22*	Expand public education campaigns to encourage bicycling, using e-mobility, walking, rolling, and taking transit. (CA1b)	✓		✓			
NEM23*	Develop and expand programs that incentivize sustainable alternatives to driving for large events and as a primary congestion mitigation tool during major construction projects. (CA1c)			✓			
NEM24	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). (CA1g)	✓	✓	✓	✓	✓	
Foster neighborhood vitality and improved community health (CA3)							
NEM25	Design for people-first streets to make sustainable travel choices the default and easy choice for neighborhood trips and to increase neighborhood business district activity. (CA3d)	✓	✓	✓	✓	✓	
NEM26*	Incentivize mobility options that don't use fossil fuels for transit, personal and urban goods delivery vehicles, and shared mobility (such as e-bikes or scooters. (CA3e)			✓		✓	
Support the transition from fossil fuel to electric vehicles for personal, commercial, and delivery trips (CA4)							
NEM27*	Support the transition to electric vehicles (EVs) for all segments of transportation, including personal mobility, goods movement and services, and fleets and transportation network companies, through equitable incentives, grant opportunities, partnerships, and pilot programming. (Supports TEF 36.2) (CA4a)		✓	✓			✓
NEM28	Establish a comprehensive policy for EV charging in the right-of-way, outlining preferred locations, standards, and requirements. (CA4b)			✓			✓
NEM29*	Locate EV supportive infrastructure and charging facilities so they are safe, well-sited, and do not interfere with mobility or access for people traveling outside of personal vehicles. (CA4e)	✓		✓	✓		

* Indicates this Element plays a key role in advancing this action.

Key Moves and New and Emerging Mobility Actions	STP Goals Supported					
	Safety	Equity	Sustainability	Mobility	Livability	Maintenance & Modernization
NEM30* Support electrification of shared mobility, ridehailing operations, and freight vehicles through programs that offer focused incentives, right-size vehicles, and install supportive infrastructure like chargers, parking, mobility lanes. (CA4f)			✓			✓
MOBILITY KEY MOVES						
Create seamless travel connections (PG1)						
NEM31* 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 TEF 19.6 and TEF 43.4) (PG1a)	✓	✓	✓	✓	✓	✓
NEM32* Improve the experience of making travel connections, especially between transit and travel options—such as personal and shared bikes and scooters—used for first-/last-mile trips. (PG1b)	✓	✓	✓	✓	✓	
NEM33* Coordinate with regional partners to simplify trip planning, booking, and mobility payment options across public and private mobility services. (PG1d)				✓		✓
NEM34* 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) (PG1e)		✓		✓		
NEM35* Work with transit agencies and private partners so real-time data can help travelers make informed decisions. (PG1h)				✓		✓
Make walking, biking, and rolling easy and enjoyable travel choices (PG2)						
NEM36* Launch a citywide parking program for bicycles, scooters, and e-mobility devices, with a focus on community and mobility hubs and curbspace, and other locations. (PG2e)				✓	✓	
NEM37* Update private development bike parking guidelines and code requirements (for charging and storage) to support and grow the use of e-bikes, larger cargo bikes, and scooters. (PG2f)			✓	✓		✓
Create world-class access to transit and make service more frequent and reliable (PG3)						
NEM38* Improve transit access to underserved neighborhoods and populations through expansion of existing transit services, programs that reduce transit fares. (Supports TEF 35.1) (PG3g) Leverage		✓		✓		

* Indicates this Element plays a key role in advancing this action.

Key Moves and New and Emerging Mobility Actions		STP Goals Supported					
		Safety	Equity	Sustainability	Mobility	Livability	Maintenance & Modernization
	emerging mobility technology options to provide first-/last-mile service to existing and future buses, light rail, and ferries.						
NEM39*	Enhance existing and create new community and mobility hubs with connections to high-capacity transit services. (PG3h)		✓	✓	✓	✓	
NEM40*	Prioritize low-carbon travel options through seamless, direct walking and rolling connections to community and mobility hubs. (PG3i) Continue to promote a diversity of transportation choices and enhance the experience of using transit and new and emerging mobility services.	✓	✓	✓	✓	✓	
Enhance economic vitality by supporting freight movement and growth in deliveries (PG4)							
NEM41*	Collaborate with private sector partners on pilots and programs that accelerate the shift of freight trips to more sustainable low- and zero emissions vehicles, such as electric cargo bikes to replace a portion of last-mile deliveries made by larger vans and trucks in densely developed areas. (PG4f)			✓	✓	✓	✓
NEM42*	Pilot and expand use of technologies that can improve predictability and accessibility for vehicle loading/unloading. (PG4f)				✓		✓
NEM43*	Explore programs and incentives that encourage rightsizing of freight vehicles for an urban environment. (PG4g) Work with impacted stakeholders to explore and pilot explore urban delivery like PDDs, small autonomous devices, and services that equitably connect priority populations and neighborhoods to transit.				✓		✓
Manage curbspace to reflect city goals and priorities (PG5)							
NEM44	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 develop decision frameworks to prioritize these functions based on local area and system needs. (PG5a)				✓	✓	
NEM45*	Prioritize uses of the curb to address demands stemming from changes to more sustainable and efficient personal travel options and the evolving landscape of goods and service delivery over use as private car storage. `(PG5b)			✓	✓		
NEM46*	Develop strategies and new tools to accommodate more types of curb uses, including parking for bikes and other small devices, parking for shared micromobility, dedicated car share space, transit layover			✓	✓		

* Indicates this Element plays a key role in advancing this action.

Key Moves and New and Emerging Mobility Actions		STP Goals Supported					
		Safety	Equity	Sustainability	Mobility	Livability	Maintenance & Modernization
	space, employer shuttle stops, and other curb uses that support low-emission travel options. (PG5c)						
LIVABILITY KEY MOVES							
Boldly reallocate street space to prioritize people while preserving access for goods delivery and emergency response (PP1)							
NEM47*	Reallocate street space currently used for vehicle storage and general-purpose travel to prioritize access for people on our streets and support a variety of people-oriented uses, such as gathering, playing, walking, and biking in strategic locations. (PP1a)					✓	
NEM48	Update Seattle's Right-of-Way Improvements Manual (Streets Illustrated) to implement actions and strategies outlined in this Plan. (PP1d)	✓	✓	✓	✓	✓	✓
Transform community and mobility hubs into welcoming places (PP2)							
NEM49*	Provide a safe and comfortable experience moving in and around community and mobility hubs. This includes better crossings and intersections, slower speeds and rightsized travel lanes, decluttered sidewalks, universal access, and more. (PP2c)	✓				✓	
MAINTENANCE & MODERNIZATION KEY MOVES							
Transform city streets for safety and sustainable travel choices through optimal timing of asset maintenance and replacement (MM1)							
NEM50	Use asset maintenance and replacement opportunities to not only improve the condition of transportation infrastructure and equipment, but to also enhance safety, reduce dependence on driving, promote sustainable travel options, and support economic vitality. (MM1a)	✓	✓	✓	✓	✓	✓
NEM51	Collect feedback on asset conditions as part of community engagement on transportation system planning, design, and co-creation. (MM1c)		✓				✓
Reduce neighborhood disparities in the quality of streets, sidewalks, public spaces, and bridges (MM2)							
NEM52	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 TEF 19.3) (MM2a)		✓				✓

* Indicates this Element plays a key role in advancing this action.

Key Moves and New and Emerging Mobility Actions		STP Goals Supported					
		Safety	Equity	Sustainability	Mobility	Livability	Maintenance & Modernization
NEM53	Focus resources for maintenance and improvements in neighborhoods that have been historically or are currently underserved. (Supports TEF 19.4) (MM2b)		✓				✓
Ready city streets for new travel options and emerging trends and technologies (MM3)							
NEM54*	Collect, monitor, and use data to inform changes to the transportation system. (MM3a)						✓
NEM55*	Anticipate and leverage innovative transportation technologies so they are shaped to meet community values and goals, including safety, equity, affordability, and climate response. (MM3b) Establish an Emerging Technologies program to guide engagement, develop policy, evaluate pilots, and collaborate with peer cities to respond to NEM technologies as they arise.	✓	✓	✓	✓	✓	✓
NEM56*	Proactively work with public, private, and academic sector partners to collaboratively develop transit and mobility solutions for the future. (MM3c) Maintain partnerships alongside a fair and flexible regulatory environment to foster NEM ideas, companies, jobs, and workforce training.						✓
NEM57*	Adapt streets for new and evolving forms of mobility devices such as commercial or private cargo bikes, e-scooters, personal delivery devices, low-speed electric vehicles, and others to create more travel options. (Supports TEF 19.2) (MM3d)			✓	✓		✓
NEM58*	Develop and maintain up-to-date asset data, including digital inventories of physical assets like curb space, load zones, bike and scooter parking locations. (MM3e) Establish technology regulatory frameworks that include strong and clear data-sharing and storage requirements for private operators to deploy.	✓	✓				✓
NEM59*	Research and develop policies to manage the evolution toward connected and autonomous vehicles (CAVs), recognizing that government and industry must partner to deliver their anticipated benefits safely. (MM3g) Work with legislators and regulators to foster a level playing field, positioning AV providers to offer transportation services that meet safety, equity, and sustainability needs of people moving in Seattle.	✓	✓	✓			✓

* Indicates this Element plays a key role in advancing this action.

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 New and Emerging Mobility. 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 continue to evolve in the years to come.

Both technology and our transportation needs have evolved since we published the New Mobility Playbook. The COVID-19 pandemic significantly impacted how and when people travel, with fewer workers making the daily commute during traditional rush hours and a dramatic increase in package and food delivery trips. Local, state, and national policy to combat climate change is becoming more proactive as the impacts of global warming become more common and more significant.

For more than a decade, Seattle has welcomed new technology into its transportation ecosystem in a systemic, regulated, and integrated manner, and encouraged innovation in transportation that supports its broader mobility goals. To learn more about the history of new and emerging mobility in Seattle, please see the New Mobility Playbook. SDOT collaborates with service providers, such as Uber or Lime, on their programming and develops policies that empower and protect residents and visitors.

However, there are limitations and continued ambiguity in regulatory authority with new and emerging mobility options; we will continue to operate within a shifting legislative and regulatory environment. SDOT's goal is to understand, collaborate, and regulate new and emerging mobility to best serve the needs of communities while mitigating potential harm and prioritizing customer safety.

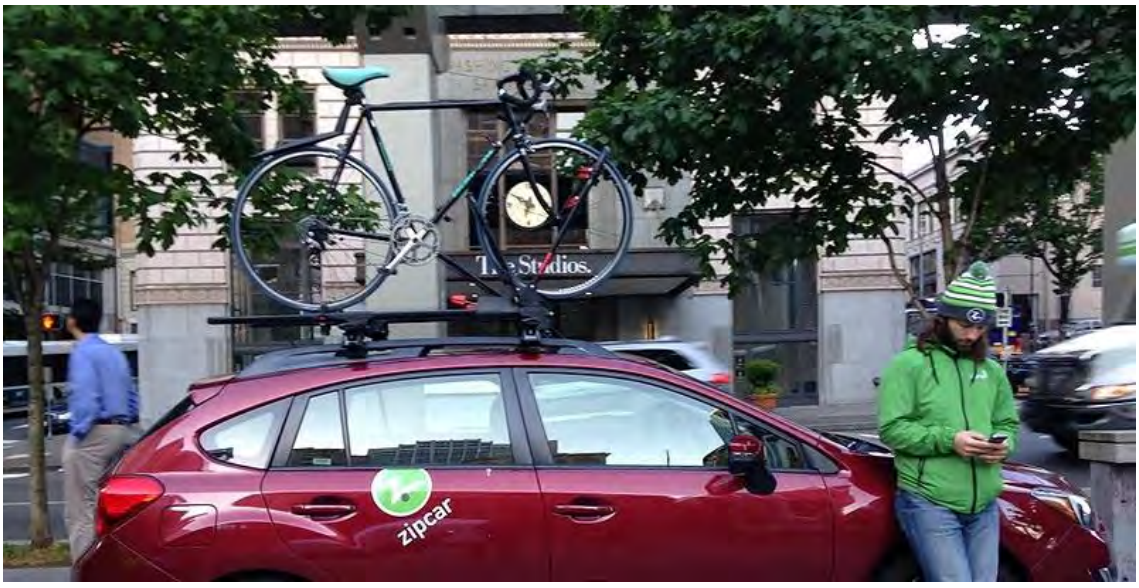
OPPORTUNITIES, EMERGING TRENDS, AND CHALLENGES

This section discusses opportunities, challenges, and emerging trends that we need to understand and respond to as part of the STP new and emerging mobility strategy. While new and emerging mobility has the potential to significantly improve mobility and access throughout the city, it also has the potential to exacerbate existing inequities. We must be informed and intentional about adopting and incorporating new technologies to ensure that we maximize benefits and mitigate negative externalities.

Seattle is an incubator of innovation, but we remain grounded in our collective values. Our commitment to equity, racial, and social justice remains steadfast. We recognize the misguided decisions and plans of the past, especially in transportation policy and infrastructure, that amplified challenges for our most vulnerable neighbors. As we integrate new transportation technologies, we endeavor to mold them to serve all our citizens more effectively. In the evolution of our transportation system, our guiding principle is to ensure that new and emerging mobilities prioritize people first.

New technology is transforming transportation systems in cities across the country. There are new vehicles on the streets, new services, and new ways to travel. These innovations could lead to safer, more vibrant cities, but they could also disrupt existing services, reduce options, increase prices, and upend current business models. They could supplement public transit or compete with our investments in buses, streetcars, and light rail.

We need to accommodate new technologies while also ensuring that innovations benefit the people living and working in our city. Cities will need new infrastructure and new policies and rules to manage the rapidly changing transportation system. Some jobs may change dramatically or go away altogether, but there are also new opportunities, new skills to learn, and new industries about to emerge.



A person booking a carshare service with a bike on top of the car, Image Source: SDOT

Opportunities and Emerging Trends

- **Autonomous Vehicles (AVs)** hold the potential to improve traffic flow and reduce congestion, especially for freight and goods movement.
    - Paired with electrification, AVs could help reduce transportation emissions, offer independence and supplemental mobility for people with disabilities, seniors, youth, and other non-drivers by eliminating the need for a driver.
    - Vehicle automation can help improve safety by reducing the number and severity of collisions and could potentially support sustainability goals by complementing connections to fixed route transit services through microtransit or neighborhood circulator connections.
    - If affordable enough to be accessed by people with a range of incomes, AVs could also support equity goals by reducing personal vehicle ownership and associated operating costs and storage needs.
- **E-Cargo Bikes and other Personal Delivery Devices (PDDs)** offer an opportunity to introduce more sustainable and right-sized methods of **urban freight** transport and deliveries.
    - Increasing cargo bike capacity within the city could significantly reduce VMT and greenhouse gas emissions (GHG), as well as traffic congestion caused by circling, double parking, and competition for load zone use.
    - PDDs reduce demand for limited curbspace and reduce emissions by enabling a transition to electric alternatives.
- **Electrification** plays a vital role in making progress toward a zero-emissions transportation network, especially if balanced with goals to shift a greater share of trips to other sustainable options like walking, biking, and transit.
- **Connected Vehicle** (CV) technologies present transformative opportunities for transport modes, enhancing safety and efficiency, but increase the cost and complexity of the transportation system, including security and safety concerns, alongside expensive supportive infrastructure in things like sensors and detection.
- **Urban Air Mobility (UAM)** could potentially reduce roadway congestion and vehicle-miles traveled and improve access to goods for people living in hard-to-serve or isolated areas.
- **Data Governance** offers opportunities to standardize data formats across NEM operators to support more integrated and user-friendly trip planning and real-time data sharing for the public, as well as performance monitoring for various NEM pilots and operations for SDOT.
- **Mobility-as-a-Service (MaaS) platforms** seek to integrate various forms of transportation and related services into a single application and single payment system. They can support sustainable, multimodal linked trips between different options (like walking, biking, shared mobility, and transit) and create opportunities for encouraging mode shift through gamification.

    - Various technologies could streamline trip planning, booking and payment platforms that can help reduced barriers to accessing transit, especially with MaaS and real-time travel information made more readily available to riders.
- SDOT can influence NEM deployments to align with climate, equity, safety, and affordability goals through intentional policies and regulatory frameworks.

Challenges

- Across the NEM industry, public and private entities often have divergent goals and priorities that must be reconciled through collaboration and thoughtful policy and regulation.
- Regulatory guidelines for **autonomous vehicles** are still developing and remain ambiguous in some cases.
    - Privacy, cybersecurity, liability concerns, and other related policies and regulatory frameworks continue to evolve.
    - Seattle's transportation system poses limitations for safely testing new AV technologies.
    - Unintended equity impacts need to be further explored, such as access for people without mobile devices or payment methods, safety and access for pedestrians and people with disabilities, and job losses due to automation.
    - Traffic congestion and emissions could result from zero-occupancy vehicle trips, especially if not low- or no-emissions vehicles.
    - Competition with transit could divert support, funding, and trust from public transportation.
    - City and private industry priorities are not always aligned.
- **Connected Vehicle (CV) and Cellular Vehicle-to-Everything (C-V2X)** technologies increase the complexity of our transportation system and present security and safety concerns. The integration of CV and C-V2X technologies into existing traffic systems demands substantial infrastructure investment. Security and privacy become more critical in the face of increased connectivity, and the interoperability among different technologies is necessary for global standardization.
- To support wide-spread adoption of **PDDs** and **E-Cargo Bikes** for personal use as well as urban goods delivery, SDOT will need to redesign existing bike facilities, loading zones and other aspects of the transportation system to accommodate PDDs and bicycles with large trailers for cargo.
- The cost of new **EVs and e-bicycles** can be cost prohibitive to many people, including the cost of charging infrastructure. Additionally, simply trading gas-powered vehicles for electric ones will not be enough to achieve sustainability or safety goals.
- Building out a reliable network of **EV charging** will require substantial investments in electrical infrastructure to stay ahead of adoption.

- SDOT does not have sole authority to regulate **urban air mobility (UAM),** and many concerns related to security, nuisance, safety, and privacy remain unresolve by regulating agencies. UAMs also have a high cost to operate and introduce concerns about equitable access to UAM services.
- **MaaS platforms and standardized data requirements** necessitate coordination across multiple public and private mobility operators, especially as emerging technologies are often owned and operated in public spaces by private companies. Technology could become a barrier to access for people who do not have or use a smartphone or may not have a bank account.
- Data governance is broadly needed to address cyber-attack threats, data usage agreements, and aggregation methods that protect user data.
- Due to private ownership and operation, SDOT is limited in influence for crucial aspects of NEM deployments, such as locations, payment options, and cost. If decisions are driven solely by market forces, without effective policies and management, new and emerging mobility has the potential to exacerbate existing **equity** problems.

COMMUNITY ENGAGEMENT

From May 2022 through February 2023, we conducted citywide public engagement as part of the Seattle Transportation Plan development process, using a variety of tools. During this process over 2,780 responses provided feedback specifically on topics related to new and emerging mobility. General themes related to new and emerging mobility include:

- **Encourage options**—some respondents feel there is an overemphasis on electric vehicles (EVs); they question the ability of EVs to address safety, affordability, street and curb management, and other priorities; and they want to see the availability of and an emphasis on other options
- **Facilitate electrification**—support for the installation of more charging stations throughout the city to support individuals transitioning to electric vehicles, keeping in mind the concerns mentioned above
- **Responsible environmental stewardship**—concern for EV viability given waste (e.g., spent batteries and vehicle manufacturing)
- **Support small-scale mobility needs**—support for more neighborhood circulators and on-demand transit, especially in low-income neighborhoods (see following page for an example of a neighborhood circulator)
- **Support mobility for vulnerable populations**—desire for micro-shuttle services for seniors and those with limited mobility, especially in low-income neighborhoods and to light rail stations

Key themes among respondents from BIPOC communities included:

- **Focus on the essentials**—sidewalks, frequent and convenient bus service, and safe crossings—was identified as more important than investing in electric vehicle infrastructure
- **Prioritize safety** – keeping people safe was often cited as a top priority

The STP engagement process has collected about 2,000 locationally specific comments from the community engagement. In addition to being considered in the development of this new and emerging mobility element, these comments will provide an ongoing resource for SDOT as we work in partnership with the community to advance plan priorities.

NEW AND EMERGING MOBILITY IN SEATTLE

New and emerging mobility contributes to local mobility in many ways and across many geographies. It can provide first-/last-mile connections to transit, replace driving trips, make loading and unloading goods at a curbside shared with large freight vehicles easier, and integrate new travel options in spaces shared with people walking, biking, and rolling.

Data generated by new and emerging mobility companies and services can also be a powerful tool for planning and dynamic management of the transportation system, enabling SDOT and other agencies to analyze where additional transit service may be needed, or where Community and Mobility Hubs should be located. This data can also help the city decide where to site EV charging stations in the public right-of-way and plan where bicycle and e-mobility lanes are needed. Layering new and emerging mobility data with demographic, community assets, and equity priority area data can highlight gaps and potential opportunities for enhancing equitable mobility (such as new micromobility transit routes) and access.

Because most new and emerging mobility services are operated through private companies (not owned and operated by SDOT), clear policy guidelines and boundaries for their deployment (i.e., what physical space they can use and operate in within our right-of-way) are needed along with education and engagement to ensure they are meeting community needs.

SPATIAL REQUIREMENTS AND OPERATIONAL CONSIDERATIONS

While we continuously refine and modify our street design to meet current and future needs, the rate of change of new and emerging mobility technologies and devices is changing at a faster pace. This means we need to be looking ahead to anticipate requirements of shared, electrified, autonomous, and other innovative mobility options. We will seek to develop and install infrastructure and maintain policies that are flexible and dynamic. Infrastructure considerations should include:

- Community and Mobility Hubs designed to accommodate and integrate new technologies (see the **STP Transit Element** for additional information on Community and Mobility Hubs)
- Bike lanes designed with large enough widths to accommodate commercial or private cargo bikes, e-scooters, and other active mobility devices (see the **STP Bicycle and E-Mobility Element** for additional information)
- Slow lanes that allow human-powered or small motorized devices like bikes, scooters, e-bikes, PDDs, and more to travel in safe, dedicated right-of-way that is separated from larger and potentially more dangerous personal vehicles, transit, and freight (Supports TEF 19.2)
- Curb spaces designed and managed for loading and unloading of passengers and cargo by new and emerging urban goods delivery methods

- Parking areas for small devices such as personal and cargo delivery bikes, scooters, and PDDs
- Autonomous vehicle (AV) and TNC pickup and drop zones within digitized (with automated, real-time information) priority zones (i.e., near-transit hub) and parallel path drop zones
- Electric charging infrastructure for vehicles of all sizes, as well as other potential charging uses that create equity benefits such as allowing cell phone charging or internet access, where possible and needed (Supports TEF 36.2)

Automation

Autonomous vehicle (AV) deployment has been on the horizon for years, and AVs are in trial operation today. Fully autonomous vehicles, capable of operation without any human involvement, will roll out as the technology is tested and improved, while highly automated vehicles currently operate around the region. Automated technology will have far-reaching impacts for moving people and goods delivery. If industry claims are accurate, and if we can implement AVs with equity, climate, and mode share goals in mind, AVs could improve traffic flow and reduce congestion.

If paired with EV technology, AVs can reduce emissions and offer greater independence as a supplemental mobility option for people living with disabilities, seniors, those under driving age, and other non-drivers.

Autonomous vehicles have the potential to improve urban transportation for people and goods movement. These technologies include, but are not limited to:

- **Specialized Transit** – Automated vans or shuttles designed to serve local transit needs
- **Mass Transit** – Automated transit vehicles
- **Shared Fleet Vehicles** – Shared highly automated vehicles, made available through carshare-like or ride-hail programs
- **Personal Delivery Devices (PDDs)** – small automated or remote piloted robots designed for short deliveries carrying food, packages, or other goods
- **Commercial Freight Vehicles** – large freight trucks primarily used for long-haul goods transport
- **Connected Autonomous Vehicles (CAVs)** – Connected vehicle technology that allows individual vehicles to communicate with each other digitally, as well as with infrastructure such as intersection signals and roadways. Connected and autonomous vehicles may fall into any of the categories above (specialized transit, mass transit, shared fleet vehicles)

Achieving successful AV integration necessitates thoughtful consideration of various challenges and the active engagement of stakeholders at all levels. Used responsibly, autonomous

technology can have far-reaching benefits by alleviating congestion, providing a wider range of mobility options, and responding quickly to emerging needs.

Well-designed systems could reduce the number and severity of collisions and improve road safety for everyone. Autonomous vehicles can support and complement fixed-route transit service by providing cost effective microtransit and neighborhood circulator options, increasing first-and-last-mile connections, and improving efficiency on high volume transit routes.

AVs have the potential to help reduce personal vehicle ownership and lower vehicular infrastructure and storage needs, as well as reduce the number of drive-alone trips and eliminate the need for a driver. Automation may also help improve urban freight by reducing delivery operating costs and delivery times. Across the transportation network, autonomous technologies may lower transportation-related emissions and contribute to improved overall system efficiency and safety.

Several cross-cutting barriers exist to maximize the potential of autonomous vehicles. Seattle's complex transportation system poses limitations for safely testing new technology without a test driver, as current autonomous systems struggle with the intricate conditions required for urban street operation. Regulatory frameworks also present challenges, with dissenting approaches and conflicting interests between private industry operators and the long-term needs and goals of the city.

There are concerns about unintended consequences for people without mobile devices (phones) or payment methods, and through job losses due to automation. Rushed deployment and inadequate management of AV technology could put pedestrians at risk and introduce obstacles for people with disabilities. Moreover, AVs may lead to zero-occupancy vehicle trips and competition with existing transit options, diverting support, funding, and trust away from established public transportation.

Furthermore, a one-to-one transition of private gas vehicles to electric vehicles and AVs alone will not adequately address our sustainability, stewardship, and equity goals. A larger mode shift from drive-alone vehicle trips to other modes, such as transit, walking, and biking, is essential.

A Starship Personal Delivery Devices (PDD and a FedEx Delivery Robot making autonomous deliveries. Image Source: http://www.dot.state.mn.us/automated/docs/personal-delivery-device-white-paper.pdf

Addressing these challenges requires involving the community in discussions and negotiations with private industry stakeholders. Safety risks, cybersecurity concerns, and a divide between the goals of the city and private industry priorities further complicate implementation.

Unintended consequences include increased vehicle-miles traveled, potential short-term emission increases during the transition period, job displacement, liability issues, and the need for workforce retraining. Associated changes in areas with zoned restrictions, such as on-street paid parking regulations, can also impact public agency revenues.

Urban Freight

As e-commerce continues to grow its share of the retail sector, cities across the country are looking for more efficient and climate friendly solutions for distributing urban freight such as grocery delivery, restaurant take-out, and parcel delivery. This increase in e-commerce deliveries has led to increased pressure on curb space in our neighborhoods and business districts, especially where there are limited off-street parking and loading spaces. One solution that is common overseas and gaining momentum in the U.S. is the use of e-cargo bikes. These devices are human powered with battery-powered pedal assist and have the capacity to transport packages or other small goods in a front-mounted wagon or rear-hitched trailer. There is an opportunity to advance bike facilities that can accommodate e-cargo bikes and to integrate e-cargo bike parking and loading connections to Community and Mobility Hubs.

Led by the University of Washington's Urban Freight Lab[5], SDOT ran a limited neighborhood delivery hub pilot in 2021 that included urban freight delivery via cargo bike. The pilot found cargo bikes traveled up to 50% fewer miles per package than conventional delivery trucks. Increasing cargo bike capacity within the city could significantly reduce VMT and greenhouse

5 The University of Washington's Urban Freight Lab (UFL), housed within the UW's Supply Chain Transportation and Logistics Center, brings together private industry with City transportation officials to study, design, and test solutions around urban freight management.

gas emissions (GHG), as well as traffic congestion caused by circling, double parking, and competition for load zone use.

Personal delivery devices (PDDs) can also play a role in addressing competing curbside needs and making progress on our emission goals. PDDs do not require the same curbside space as traditional urban goods delivery vehicles and help reduce emission levels by replacing gas-powered methods for electric delivery methods.

There is also an opportunity to build upon our work with the C40 Zero Emission Freight Project[6] and the Green and Healthy Streets Accelerator signatory cities and partners, accelerating the increase of zero-emission vehicles and supportive infrastructure.

Cargo bikes for urban delivery.

The most significant challenge to cargo bike and personal delivery device (PDD) deployment is incorporating them into the existing fabric of the transportation network. Bike lanes are currently not designed to accommodate bicycles with large trailers or cargo, and loading zones are reserved for use by traditional commercial vehicles. PDDs are restricted in where they can operate and can introduce accessibility issues when they operate on a sidewalk.

It will be important to collaborate with cargo bike and PDD services and manufacturers to understand the devices' unique needs and find an appropriate way to deploy them efficiently and equitably on our streets. To support this work SDOT will need to develop enabling legislation and program guidelines for safe and efficient e-cargo bike use in Seattle.

Electrification

Electric propulsion is increasingly common for vehicles of all shapes, sizes, and uses. In January 2023, 17.2% of all newly registered vehicles in the Seattle area were battery electric or plug in hybrid.[7] Additionally, King County Metro is committed to transitioning its fleet to zero-emissions by 2035 and purchased 40 new battery-electric buses in 2022 alone. Shared and private electric micromobility is also on the rise with an average of over 10,000 daily trips as more people adopt electric bikes and scooters as a quick and convenient travel mode. Electrification of trips previously taken in fossil fuel powered modes is critical to reducing emissions. In 2021, the city developed a Transportation Electrification Blueprint (see below) as an opportunity to build on past successes and lessons learned to advance electrification in all sectors of transportation and make Seattle a healthy and more resilient city.

[6] See the Curbside Management Element for additional information on the C40 Zero Emission Freight Project.
[7] https://www.axios.com/local/seattle/2023/04/20/electric-vehicles-seattle-registrations

Obstacles to scaling electric mobility include the cost of new electric vehicles and bicycles, as well as the need to install and maintain adequate charging infrastructure. To ensure that electric mobility maintains far reaching benefits to everyone, infrastructure and programs must address personal vehicles, goods delivery, city fleets, shared mobility, and the transition to zero-emissions transit.

As demand for electricity grows, it is important that the city work strategically to make sure the grid is reliable and built out to enable rapid adoption of emerging electric transportation technologies and vehicles. We're also committed to working with our partners on programs that make ownership of electric mobility options more affordable and accessible, especially to lower-income and historically underserved communities.

We'll need to balance the transition to electric mobility with other zero-emissions transportation strategies such as walking and biking, as simply trading gas-powered vehicles for electric ones will not be enough to achieve sustainability and transportation goals. Nor does such a transition advance critical safety goals.

In fact, the projects, programs, and initiatives that deliver multimodal improvements, including right-of-way allocation, advancement of non-driving mobility options, and supportive pricing signals, can result in nearly a 10x return on investment, according to our analysis in our Climate Change Response Framework (CCRF)[8]. Therefore, the CCRF does not rely exclusively on EV adoption to reduce transportation emissions, but recognizes they are an important piece of the puzzle alongside strategies that make it easier to walk, bike and take transit.

We are committed to supporting the installation of necessary EV infrastructure, working with public and private partners on programs to electrify commercial freight vehicles, supporting electrification of shared mobility and transit, and leading by example through an electrified and right-sized City fleet. To support this work, SDOT will need to maintain cross-department collaboration with the Office of Planning and Community Development, the Office of Sustainability and the Environment, and Seattle City Light to ensure coordinated land use and transportation policy that supports the shift to electric vehicles.

[8] SDOT's Climate Change Response Framework describes strategies needed to reduce emissions in a way that improves safety, leads to better health outcomes, promotes a thriving local economy, and delivers climate justice.

SEATTLE'S CLEAN TRANSPORTATION ELECTRIFICATION BLUEPRINT(2021)—2030 GOALS

100 Percent of Shared Mobility Is Zero Emissions
As shared mobility services like bikes, scooters, taxis, Uber, Lyft, carshare services and others continue to expand in Seattle, the city will ensure those options will be electric and emissions free.

90 Percent of All Personal Trips Are Zero Emission
By 2030, 9 out of 10 trips must be walking, biking, electric transit or in an electric vehicle (or avoided all together). This will require transformational infrastructure investments for expanded equitable transit service, comprehensive bike lanes, ADA-compliant sidewalks, and EV charging. It will also require city actions to facilitate large-scale behavior change and policies that lead to increased density for better connected neighborhoods. Supportive State and Federal level policies, funding, and road-pricing initiatives are required to encourage mode shift, grow EV adoption, and eventually phase out internal combustion engines completely.

30 Percent of Goods Delivery Is Zero Emissions
Goods movement is a growing cause of congestion and emissions on our roads, as more and more of the goods we buy and the food we eat are purchased online. This goal is aimed to spur the transition of private fleets to EVs and support market transformation in freight and goods delivery over the next 10 years.

100 Percent of City Fleet is Fossil-Fuel Free (Executive Order 2018-02)
Continuing to lead by example, Seattle will operate a large municipal fleet with zero fossil fuels by 2030. This includes rapid fleet electrification and use of biofuels like sustainable biodiesel and renewable diesel/gasoline for any vehicles that may not have commercialized electric options by that time, such as specialized medium and heavy-duty vehicles or emergency response equipment.

One or More 'Green & Healthy Streets' in Seattle
(C40 Fossil Fuel Free Streets declaration, 2017)
Seattle is a member of C40 Cities, a global network confronting climate change, and has signed a declaration that a major area of our city will have zero emissions from transportation including streets or blocks that restrict cars and promote walking, biking, electrified transit, and electric goods delivery and services.

Electrical Infrastructure Required to Stay Ahead of TE Adoption Is Installed and Operational
Infrastructure investments will enable a rapid transition to an electrified transportation system. Seattle City Light will work strategically to make sure the grid is reliable and built out in order to enable rapid adoption of emerging electric transportation technologies and vehicles.

Urban Air Mobility

Urban Air Mobility (UAM) encompasses efforts to deploy small, automated aircraft for the short-range transportation of goods or passengers within cities. Major retailers like Amazon have invested significant funding in developing air parcel delivery devices and have begun to deploy them on a limited scale in 2022 in California. Urban air mobility presents the opportunity to reduce roadway congestion and VMT. It can also improve access to goods for people living in difficult to serve or isolated communities.

Future innovations in urban air mobility are likely to include passenger transport, as numerous companies have proposed quieter electric, helicopter-like vehicles for short haul passenger movement. Private mobility providers like Uber and Blade already offer urban passenger air travel, such as a helicopter option for travel between JFK Airport and Manhattan.

While aerial mobility may not have the same potential impacts on right-of-way (ROW) use and allocation as other forms of new and emerging mobility, it remains crucially important to monitor its impact on people and urban goods movement.

Aerial passenger vehicles will be predominantly regulated by the Federal Aviation Administration and the Seattle Department of Construction and Inspections as it is unlikely that transport design will seek to use SDOT-managed right of way. This framework may resemble existing regulations around heliports.

There are also concerns around security, nuisance, safety, and privacy related to right-of-way, airspace regulations, and drones—small, automated vehicles that hold small parcels or cameras. UAM for urban goods delivery will likely be focused in remote and rural areas for initial deployment.

UAM is expensive to operate and to use, which introduces concerns about equitable distribution of and access to these services. SDOT's current policy focus is on ground-based zero-emission last mile delivery strategies.

Connected Vehicles

Connected vehicle (CV) technologies present transformative opportunities for transport modes, enhancing safety and efficiency. CV and cellular vehicle-to-everything (C-V2X) technologies allow individual vehicles to communicate with each other digitally, as well as with infrastructure such as intersection signals and roadways. CV technologies use C-V2X communications to interact with the surrounding environment, such as other vehicles, cyclists, pedestrians, signals, and road and curb infrastructure. This has the potential to lead to fewer collisions between vehicles and other modes.

CV and C-V2X technologies increase the complexity of our transportation system and present security and safety concerns. CVs have specific requirements, including advanced safety protocols, infrastructure adaptability, and support for autonomous vehicles. The integration of CV and C-V2X technologies into existing traffic systems demands substantial infrastructure investment.

Security and privacy become more critical in the face of increased connectivity. As well, interoperability among different technologies is necessary for global standardization.

Data Governance, Cybersecurity, and Data Privacy

Managing transportation effectively is becoming more data-dependent to create and sustain optimal, user-friendly solutions. As early users of the Open Mobility Foundation's (OMF) mobility data specification (MDS), SDOT is well-prepared to handle data from new mobility technologies. Uniform software interfaces aid in sharing public data on real-time device availability and mobility program metrics. As previously mentioned, these tools can help unite systems, boost fair access opportunities and programs like mobility wallets, and lead to better decision-making.

New and emerging mobility is unique in that most often the technology is owned and operated in public spaces by private companies. Finding the overlap in public and private interests, partnering with non-traditional mobility providers (such as tech companies), and navigating roles, responsibilities, and requirements can prove challenging.

There are also potential cybersecurity and data privacy risks. These require data governance to address cyber-attack threats, data usage agreements, and aggregation methods that protect user data.

By setting well-developed guidelines for data from the outset, we can provide appropriate oversight of private mobility operations, protect people living in and traveling through Seattle, and develop data-informed policies and programs.

Technology Integration

Beyond exciting technological innovation, new and emerging mobility technologies offer convenience and a streamlined user experience. They can make using mobility platforms (such as those used to purchase a transit pass) and devices easier, which may attract new travelers and replace existing car trips. Historically, for example, trip planning and payment across different providers (i.e., King County Metro for buses and Sound Transit for Link Light Rail) could be challenging or confusing for people who had to find, understand, and use various systems for a trip. Integrated systems are now much more common and can help lower the barrier to entry for transportation modes.

Mobility as a service, or MaaS, is a concept to unify transportation trip planning, simplify payment methods, and provide multi-modal transportation options citywide. Using a seamless, integrated mobility system, people can plan and pay for a trip across various operators (such as bike to bus to scooter), allowing more shared, zero emission trips.

Open data standards and integration can also help enable implementation of more equitable policies and programs such as universal basic mobility programs and mobility wallets. These programs provide access to disadvantaged populations with enhanced mobility choices through direct incentives into a virtual "wallet" or card. Users can then access various mobility options, such as transit and shared micromobility, by using that wallet as their pass.

Technology integration can also allow gamification of travel choices and create incentives for taking transit or shared mobility. An example of this concept in practice already exists on a limited scale through the Transit GO Rewards App.[9] Developed through a partnership between Seattle and King County Metro Transit, the app allows people to pay for and earn points for transit and shared micromobility trips.

Spotlight: Metro Transit GO Rewards App

King County Metro offers riders the Transit GO Ticket mobile app, which enables people to purchase digital tickets for King County Metro Buses and Water Taxi, Sound Transit Light Rail and Sounder, Seattle Streetcar, and Kitsap Transit. The app offers a seamless and cashless method of transferring between transit services and includes a rewards program.

Image Source: King County Metro

[9] https://kingcounty.gov/depts/transportation/metro/fares-orca/transit-go-ticket/transit-go-rewards.aspx

Metro bus kiosk with bus route information and a bus pass card reader to "tap on"

Creating requirements around data integration and access at the onset, as we have sought to do with the Open Mobility Foundation, can help address challenges as new modes and technologies appear. Equity considerations must also be incorporated into technology integration to ensure those with limited access to technology, data, and banking are not left out or further harmed by the changing technology landscape.

As we integrate technology into our transportation system, there is a growing challenge of how to make services and devices accessible for people who have limited or no access to personal phones and/or bank accounts. Enabling access to these services for under or unbanked people[10] and those without a mobile data package or a smartphone is essential to improve access to transit and increased mobility.

This challenge can be addressed by providing low income and equity area micromobility programs while concurrently expanding and introducing programs to subsidize service and eliminate barriers such as security deposit holds, the need for electronic payment, or a smartphone. These considerations should address the need to create access solutions, such as through kiosks, call-centers, cash options, and mobility wallets.

Transportation Equity

New and emerging mobility services have great potential to improve transportation equity, especially by providing mobility services in historically underinvested and underserved communities. New and emerging mobility technology like micromobility, shared fleet vehicles, and autonomous shuttles can connect new areas of the city into the larger public transit network and expand mobility options for people who do not own a personal vehicle or would like to save on transportation costs.

Embracing emerging mobility will require intentional planning and open lines of communication with all stakeholders. Our Transportation Equity Framework (TEF) serves as a roadmap for SDOT decision-makers, employees, stakeholders, partners, and the greater community to collaboratively create an equitable transportation system.

[10] An "unbanked" person is someone that does not have a checking or savings account with an insured (FDIC) institution. The term "underbanked" means that the household had a checking or savings account with FDIC insured institution, but regularly used alternative financial services (AFS). Source: Library of Congress; https://guides.loc.gov/fintech/21st-century/unbanked-underbanked#:~:text=An%20%E2%80%9Cunbanked%E2%80%9D%20person%20is%20someone,alternative%20financial%20services%20(AFS).

A person sitting on a shared bike wearing a helmet with a basket of fresh vegetables, Image Source: SDOT

The TEF highlights opportunities for advancing equity, many of which relate to new and emerging mobility. As a foundational principle, Seattle can rely on strategies outlined in the Transportation Equity Framework (TEF) to ensure that new and emerging mobility is serving people and aligns with city goals.

New and emerging mobility technologies can be especially challenging with transportation equity because they are usually owned and operated by private companies, and we are limited in how we can influence crucial aspects like deployment locations, payment options, and cost.

If decisions are driven solely by market forces, without effective policies and management, new and emerging mobility has the potential to exacerbate existing problems.

We have the responsibility to make sure that these new systems benefit people in Seattle, while not benefiting one group more than another, and to mitigate any potential harm. This includes using city right-of-way, our permitting capabilities, and other services we control to ensure equitable roll-out of technology and services. This will require intentionally drafted policy and close collaboration with stakeholders and community.

PROGRAMMATIC ACTIVITIES

SDOT engages in a variety of programmatic activities (that is, activities that relate to programs or are ongoing, rather than specific to a project) 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 program activities listed here provide helpful general information to describe the types of tools and methods SDOT will employ to manage the transportation system.

Permitting and Partnership

- Work with permitted vendors to improve equitable access, safety, and integration into the transit system.

Affordable Shared Micromobility and Transit Integration

- Nurture the long-term sustainability of affordable integration of shared micromobility into multimodal transit trips at a cost proportional to the service's share of the total journey by actively allocating resources for programming through subsidies and funding of program management.
- Collaborate with private sector mobility providers to establish economically viable subsidy programs. (Supports TEF 35.2)

Shared mobility devices parked near a bus stop, Image Source: SDOT

Community Outreach, Engagement and Education

- Build community feedback into permitting, regulations, guidance, partnerships, and solicitations for consultant services to reduce barriers to mobility access for those who need it most.
- Increase engagement and education programs to familiarize people throughout the city with new and emerging mobility modes.
- Set guidance and requirements for community engagement and education through partnerships with private companies and community groups. Employ best practices so that equity is integrated and considered in process and outcomes. (Supports TEF 52.1)

Electrification

- Maintain cross-department collaboration with the Office of Planning and Community Development, the Office of Sustainability and the Environment, and Seattle City Light to ensure coordinated land use and transportation policy that supports the shift to electric vehicles.
- Support the goal to transition TNC and carshare in Seattle to zero-emission by 2030.

Subsidy Programs

- Develop subsidy programs or forge partnerships with private sector mobility providers to seamlessly integrate shared electric micromobility services into multimodal, transit trips at a cost proportionate to the share of the total trip, fostering accessibility and affordability. (Supports TEF 35.2)

Data Management

- Develop and maintain up-to-date digital inventories of physical assets like curb space, load zones, bike and scooter parking locations, and traffic regulations that are compliant with uniform API standards like the General Bikeshare Feed Specification (GBFS) and the Mobility Data Specification (MDS).
- Continue City participation in the Open Mobility Foundation (OMF) to ensure that data policies remain proactive and nimble in the face of constant chance.

Technology Integration for Trip Planning and Payment

- Continue to work with other regional mobility providers to ensure accessible and streamlined trip planning and fare payment systems.
- Work with partners towards a Universal Basic Mobility solution.
- Provide access to new and emerging mobility options through low and no cost programs, analog access for those with limited or no data or smart phone use, and cultural and multi-lingual options, etc.

Pilot Management

- Oversee the procurement, launch, performance, and analysis of pilot programs for new and emerging mobility technology.
- Manage pilot data and ensure pilot performance aligns with city goals to reduce drive-alone mode share and improving mobility options, especially in underserved communities.

Automation

- Collaborate with federal, state, and local partners to study, test, and pilot automated technology in various modes.
- Research and develop policies that address the trend of continued evolution toward connected and autonomous vehicles (CAV), recognizing that CAVs have the potential to reduce crashes and provide some throughput benefits, which could lead to further lane reallocations.

Urban Air Mobility (UAM)

- Evaluate existing programs in other cities to understand program parameters, regulations, and equity considerations.
- Proactively develop policy for aerial mobility management that considers permitted use areas, allowable takeoff and landing sites, and traffic management at landing sites.

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.

MEASURABLE OUTCOMES

This section outlines desired outcomes and recommended performance measures to monitor the implementation of the STP *New and Emerging Mobility 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 citywide scale, and SDOT may not have primary control over their achievement. Examples include a reduction in vehicle-miles traveled 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 the percentage of fleet vehicles that are zero emissions and eliminating fatal and serious injury crashes involving NEM devices.

- **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 track productivity and to help allocate resources. Examples may include the number of publicly available EV charging stations, number of miles of slow lanes installed, and more.

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. SDOT will continue to evaluate resource availability before performance measures are set in the final recommended STP.

Table 2 includes the Tier 2 performance measures that will be tracked for the NEM Element.

Table 2: New and Emerging Mobility Performance Measures

Desired Outcome	Related STP Goal	Performance Measure (source)	Target or Desired Trend	Track measure by RSEI and/or race	Baseline
End traffic deaths and serious injuries on city streets	Safety Equity Mobility Livability Maintenance & Modernization	Number of fatal and serious injury crashes involving NEM devices (SPD collision report data)	Zero	Yes	In development
Decrease the carbon footprint of in-City package delivery	Sustainability Mobility Livability	Percentage of fleet vehicles that are zero emissions (TBD)	30% of goods delivery is zero emissions by 2030	No	In development
Increase trips made by people using micromobility devices	Safety Sustainability Mobility	Increase in the share of active trips (walk, bike, rolling trips, micromobility devices) (PSRC)	XX% of total trips will be by active transportation by 2030; XX% by 2044	Yes	In development
Achieve the transition to electric vehicles	Sustainability	Percentage of City fleet that is zero emissions (City of Seattle)	100% of City fleet is fossil fuel free by 2030	No	In development
Support the transition to electric vehicles	Sustainability	Percentage of shared mobility that is zero emissions (SDOT)	100% of shared mobility is fossil fuel free by 2030	No	In development
NOTE: Many of the STP performance measures targets and baselines are still under development.					

RELEVANT TEF TACTICS

TEF 19.2 - Identify opportunities to repurpose some travel lanes for transit, biking, and smaller, lighter-weight vehicles and devices to create more travel options with the Seattle Transportation Plan approach, focusing on starting with the community's perspectives and needs

TEF 22.1 - Analyze how movement of goods was impacted during COVID and whether there are specific ways we can maintain any benefits that were seen

TEF 31.1 - Data storytelling on the comparative costs of cars, electric cars, other mobility options and transportation burdens and privileges; connecting this back with our climate, equity and safety goals and investment

TEF 33.2 - Consider partnership opportunities with transportation network companies (TNCs) in providing transportation options for communities such as night-shift workers, university/college students and people living with disabilities

TEF 35.1 - Invest in connections to transit that serve specific neighborhoods and/or target populations, both new and existing through grant opportunities

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 through targeted, equitable incentives and policy design. Implement related actions in the Transportation Electrification Blueprint

TEF 37.4 - Identify and allocate funds to new or existing programs to address pedestrian safety concerns that are reflected from community data collection

TEF 43.4 - Review SDOT policies, practices, standards, and funding allocation strategies to elevate/give priority to 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 45.3 - Identify spaces for equitable investment that can activate community, foster local economic development and facilitate connections to transit

TEF 52.1 - Create and implement a community-centered engagement approach for the development of the citywide integrated modal plan; rather than a top-down approach, focusing on starting with the community's perspectives and need

GLOSSARY

ADA: Americans with Disabilities Act

Adaptive bikes: Bicycles that are designed for people with disabilities or who cannot ride a traditional two-wheeled bicycle. Examples include trikes and hand cycles.

AV: Autonomous vehicles

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.

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.

Bioswale: Vegetated ditches that capture and filter stormwater runoff.

C40: A global network of 96 cities working toward mitigating climate change and limiting global temperature rise by 1.5 degrees Celsius. As a member city, Seattle has committed to creating a low-emission neighborhood and making its bus fleet entirely emission-free by 2030.

C40 Green and Healthy Streets Accelerator: An initiative by C40 in partnership with mayors of signatory cities to transform cities into greener, healthier, and more prosperous places to live. To achieve this, signatory cities commit to work with partners to procure zero-emission buses from 2025 onward; and to ensure a major area of the city is zero-emission by 2030. The City of Seattle committed to the actions of the initiative in 2017.

C40 Zero Emission Freight Project: A collaboration between C40 cities to accelerate the adoption of zero-emission vehicles and goods delivery.

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.

Cellular vehicle-to-everything (C-V2X): Technology that enables vehicles to wirelessly connect and interact with their surroundings, such as other vehicles and 5G service. C-V2X has the potential to make travel safer by reducing crashes and conflicts between road users.

Climate Change Response Framework (CCRF): Released in 2023, the CCRF is SDOT's approach toward addressing climate change through a lens of reducing emissions from vehicle

tailpipes. The CCRF primarily focuses on strategies that make it easier to walk, roll, bike and take transit, while also acknowledging the need to electrify personal and commercial vehicle trips at scale.

Community and Mobility Hubs: Community and Mobility Hubs are 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.

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

Curb bulbs: Extensions of the sidewalk into the street that give pedestrians a shorter distance to cross.

E-cargo bikes: Human-driven bikes with battery-powered pedal assist that can transport packages or other small goods in a front-mounted wagon or rear-hitched trailer.

E-commerce: The buying and selling of goods online that are then delivered directly to a home or business. Examples include Amazon and eBay.

EV: Electric vehicles

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

GHG: Greenhouse gas emissions

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.

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.

New Mobility Playbook: A plan adopted by SDOT in 2017 that provides policies and strategies for the City to adopt new transportation technologies and forms of mobility while prioritizing safety, equity, affordability, and sustainability.

Open Mobility Foundation (OMF) mobility data specification (MDS): The Open Mobility Foundation (OMF) is an open-source foundation that creates a governance structure around open-source mobility tools, beginning with a focus on the Mobility Data Specification (MDS). The MDS standardizes communication and data-sharing between cities and private mobility providers, such as e-scooter and bike share companies. It is intended to help better manage transportation in the public right of way.

OSE: Office of Sustainability and Environment

Personal delivery devices (PDDs): Small automated or remotely piloted robots designed for short deliveries carrying food, packages, or other goods.

Racial Equity Toolkit (RET): The Racial Equity Toolkit lays out a process and a set of questions to guide the development, implementation and evaluation of policies, initiatives, programs, and budget issues to address the impacts on racial equity.

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

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 non-motorized 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

The goals of the approach are to create safer vehicles, speeds, roads, and people and provide post-crash care.

SCL: Seattle City Light

SDOT: Seattle Department of Transportation

Shared micromobility: Shared bikes and scooters that offer low-cost option 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 that is an online resource for property owners, developers, and architects involved with the design, permitting, and construction in the street right-of-way.

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.

TNC: Transportation network company (e.g., Uber and Lyft)

Urban air mobility (UAM): Small, electric-powered, automated aircraft that are used to transport people or goods over short distances in cities.

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

VMT: Vehicle-miles traveled

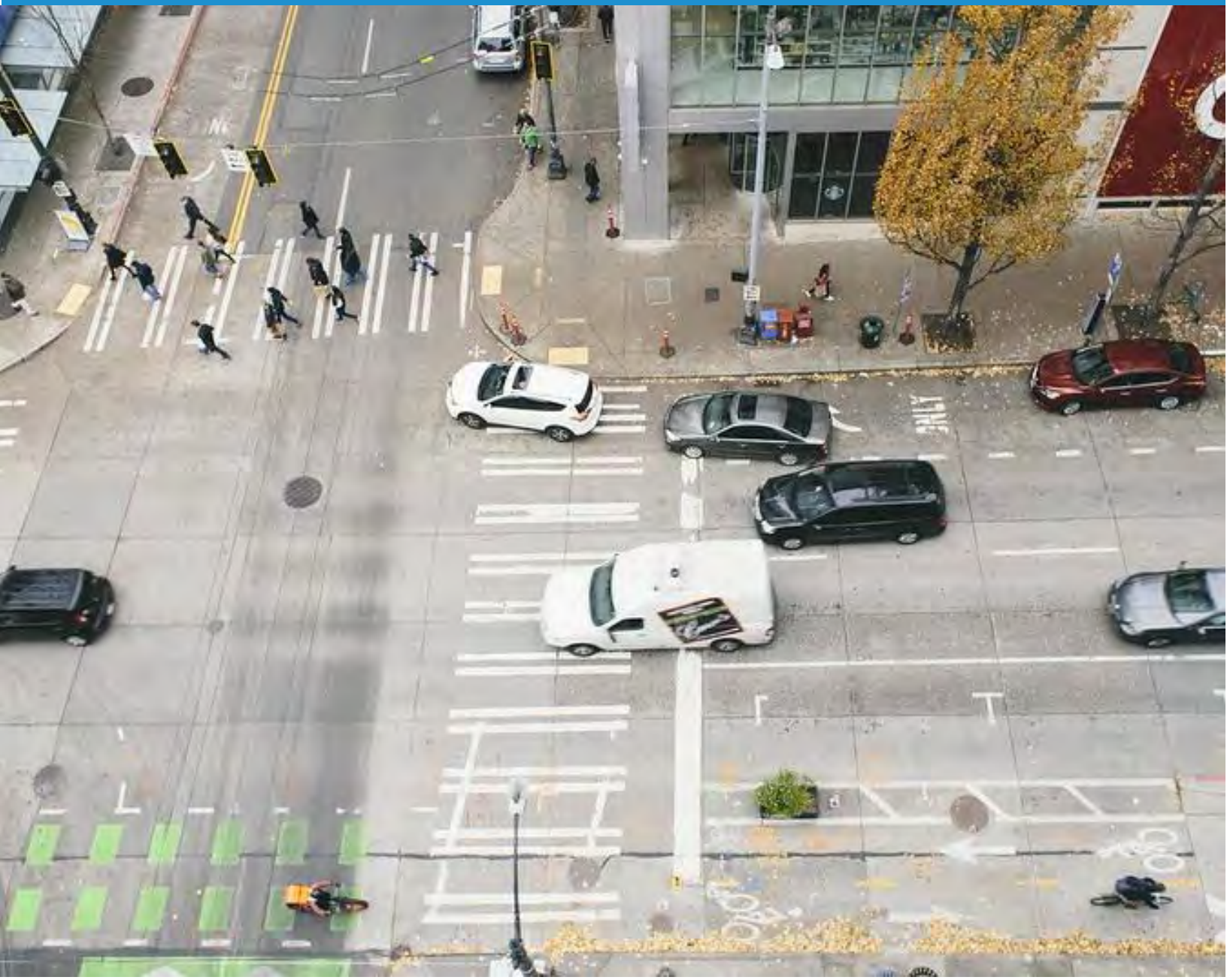
Vulnerable communities: Communities that have historically and currently been erased, intentionally excluded, and/or underinvested in by government institutions. SDOT's Transportation Equity Program and Transportation Equity Workgroup include:

- 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

Seattle Department of Transportation

DRAFT SEATTLE TRANSPORTATION PLAN

Vehicle Element



August 2023

Seattle Department of Transportation

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INTRODUCTION

As the Seattle Department of Transportation (SDOT) continues to build out a multimodal system that offers diverse travel options, we are committed to maintaining a network of reliable streets for driving. We seek to create and maintain safe and steady travel for people who need to drive including emergency responders, freight and urban goods delivery drivers, service providers, and people for whom alternative modes of travel are not viable for specific trips.

The use of private vehicles, however, remains the least efficient use of street space, and it contributes heavily to climate impacts and safety outcomes. Balancing the share of street space will require us to prioritize travel options that meet our identified goals, including reliable movement for emergency response vehicles, utility functions, freight and goods delivery, transit, and personal mobility.

HOW THE VEHICLE ELEMENT ADVANCES THE STP

The Seattle Transportation Plan (STP) presents a 20-year vision for transportation in Seattle. The Vehicle Element provides a framework for continued improvement to the design and operation of the city's street system. Planning for vehicular travel is critical to effectively rebalance Seattle's streets for improved safety and mobility and to initiate the system changes recommended in each of the STP's functional elements. Strong and clear policies around vehicular travel will help meet STP objectives to reduce the share of drive-alone trips, vehicle miles traveled (VMT), travel speeds, and greenhouse gas (GHG) emissions. (Supports TEF tactic 20.5)[1]

A coordinated vehicular strategy will:

- Support effective regional travel.
- Prioritize safety of all people using the road, but particularly our most vulnerable travelers who are traveling outside of vehicles.
- Rebalance street space to achieve our safety and climate goals.
- Address mobility and other essential street functions.[2]
- Reduce climate impacts through fewer vehicle miles traveled and support the electrification of cars and trucks.
- Reduce impacts to emergency response mobility and building access as other modal priorities are implemented.
- Maintain critical connections to concentrations of regional employment, medical, and regional centers.

[1] TEF refers to SDOT's Transportation Equity Framework. You can learn more about the TEF at https://www.seattle.gov/transportation/projects-and-programs/programs/transportation-equity-program/equity-workgroup. A complete list of the TEF tactics referenced is located at the end of the element.

[2] Seattle's Comprehensive Plan identifies 6 essential functions of the right-of-way: mobility, access for people, access for commerce, activation, greening, and storage. https://www.seattle.gov/documents/Departments/OPCD/OngoingInitiatives/SeattlesComprehensivePlan/SeattleComprehensivePlanCouncilAdopted2018.pdf (page 77)

- Promote effective movement of goods and transit that share general purpose space on streets.
- Reduce vehicular travel speed through street design and operations to improve safety and the overall experience for vulnerable travelers.

RELATIONSHIP TO STP GOALS

How we manage vehicular travel is essential to meeting the Seattle Transportation Plan's goals for **safety, equity, sustainability, mobility, livability, and maintenance and modernization**. The Vehicle Element recommends policies, programs, and strategies that will advance these goals.

Prioritize safety for travelers in Seattle, with no serious or fatal crashes. Streets should be designed and operated to prioritize the safety of people, especially people outside the protection of a vehicle. Reducing vehicle travel speeds can reduce the frequency and severity of crashes. Separating facilities (physically) by travel option creates more predictable roadways for all travelers. Separating modes can also occur through signal timing or phasing to reduce conflicts at intersections.

Co-create with community and implement restorative practices to address transportation-related inequities. Many arterial streets run through Seattle's underserved communities. By managing vehicular flow, we can seek to improve noise and air quality impacts (TEF 20.5). It is also important to preserve access to cultural centers and regional assets.

Respond to climate change through innovation and a lens of climate justice. Reductions in private auto travel will have the greatest impact on meeting transportation related emissions reduction goals. Providing more high-quality travel options for people to choose a mode for each trip will support Seattle's goals of reducing transportation emissions by 83% and ensuring 9 out of 10 personal trips are zero emissions.

Provide reliable and affordable travel options that help people and goods get where they need to go. Preservation of a functioning and connected street network is essential to meet a variety of vehicular travel needs. These include vehicle access for essential uses such as emergency services.

Reimagine city streets as inviting places to linger and play. Slowing and reducing vehicular traffic can allow streets to become safer and more people friendly. Designing streets to promote quality places can add lasting community value. Streets are also places to promote green infrastructure design for improved environmental health.

Improve city transportation infrastructure and ready it for the future. Maintaining critical vehicular infrastructure, including critical corridors and bridges, is a core city responsibility. When addressing maintenance needs, use these opportunities to modernize infrastructure and to invest in traditionally underinvested portions of the community.

IMPLEMENTING THE KEY MOVES

The Seattle Transportation Plan (STP) Part I includes a collection of Key Moves, or strategies, to advance the STP goals. Each Functional Element serves an important role in making these Key Moves and their supporting actions.

Table 1 below summarizes the Key moves and specific actions the Vehicle Element helps to accomplish. They are nested under the primary STP goal they seek to advance. Many actions are cross-cutting, and they appear in all Functional Elements as important commitments and initiatives. Other actions are specific to one or more Functional Elements and are marked with an asterisk (*) to indicate that this Element plays a critical role in operationalizing or supporting that action.

Additional details on SDOT's roles and the ways we'll tackle this work are included in the "Vehicles in Seattle" section below. Actions that implement tactics from SDOT's Transportation Equity Framework (TEF) are noted in parentheses; these tactics are listed at the end of this element.

Table 1: Key Moves and Vehicle Element Actions

Key Moves	Key Moves and Vehicle Element Actions	STP Goals Supported					
Actions		Safety	Equity	Sustainability	Mobility	Livability	Maintenance & Modernization
SAFETY KEY MOVES							
Reduce vehicle speeds to increase safety (S1)							
V1*	Design all streets using context-appropriate traffic-calming treatments that are proven to reduce speeds and encourage people driving to travel at the posted speed limit. This should include strategies to narrow the street, such as coordinating traffic signals, reducing the number of streets with multiple lanes in each direction, and planting street trees. (S1a)	✓	✓	✓	✓	✓	✓
V2*	Implement traffic calming strategies, such as traffic circles, speed humps, cushions, and tables, and leverage them with programs that deliver educational campaigns to reduce speeding. (S1b.)	✓					✓
V3*	Continue to reduce posted speed limits where possible and appropriate, consistent with national guidance and best practices. (S1c)	✓					

* Indicates this Element plays a key role in advancing this action.

Key Moves and Vehicle Element Actions		STP Goals Supported					
		Safety	Equity	Sustainability	Mobility	Livability	Maintenance & Modernization
V4*	Continue collecting travel speed data and use it to measure progress in reducing speeds. (S1d)	✓					✓
V5*	Coordinate with the Washington State Department of Transportation to address safety challenges where their roadways impact the city street network. (S1e)	✓					
V6	Develop a policy for automated speed enforcement and potential expansions, to be informed through community engagement to address equity concerns. (S1f) Plan for permanent street design changes to replace automated enforcement in the future.	✓	✓				✓
V7*	Promote street designs that support mobility for emergency response and enable responders to serve people in crisis throughout the city. (S1g)	✓			✓	✓	
Concentrate safety investments at the most collision-prone locations (S2)							
V8*	Incorporate Vision Zero and Safe System approaches into every project and program. (S2a) Reduce racial inequities in transportation related serious injuries and fatalities.	✓	✓	✓	✓	✓	
V9*	Prioritize safety improvements at locations that are on the high-injury network, have high levels of travel stress, or are identified through the Seattle Bicycle and Pedestrian Safety Analysis. (S2b)	✓		✓			✓
Make all journeys safer, from departure to destination (S3)							
V10*	Accelerate implementation of research-backed improvements that are proven to make streets safer for everyone, such as hardened centerlines, leading pedestrian intervals (LPIs) at signals, No Turn on Red signs at signalized intersections, and road diets.(S3d)	✓					
V11*	Make people walking, biking, and rolling more visible by improving sight lines at intersections by installing treatments such as curb bulbs, No Parking signs, and refuge islands. (S3e)	✓					
V12*	Expand opportunities to more safely cross busy arterials by installing enhanced crosswalks. (Supports TEF 40.6) (S3f) Improve safety for multimodal crossings and travel along large arterial streets.	✓					
V13*	Expand safety education for all travelers. (S3h)	✓					
Provide safer routes to schools, parks, transit, community gathering spaces, and other common destinations (S4)							
V14*	Provide pedestrian-scale lighting to make people walking more visible to people driving vehicles and to increase personal safety. (S4f)	✓	✓		✓	✓	

* Indicates this Element plays a key role in advancing this action.

Key Moves and Vehicle Element Actions		STP Goals Supported					
		Safety	Equity	Sustainability	Mobility	Livability	Maintenance & Modernization
EQUITY KEY MOVES							
Center the voices of communities of color and underrepresented groups in planning and decision-making process (TJ1)							
V15	Implement the Transportation Equity Framework (TEF) to grow transparency, accountability, and shared power when making transportation decisions with community members. (TJ1a)		✓				
V16	Feature community voices in planning documents. (TJ1b)		✓				
V17	Continue to build and maintain relationships with vulnerable communities and underrepresented groups. (Supports TEF 29.1 and 41.6) (TJ1c)		✓				
V18	Meet early and often to provide opportunities to influence projects before they are fully developed. (Supports TEF 3.4) (TJ1d)		✓				
V19*	Normalize the practice of making decisions about policies and right-of-way (ROW) allocations with input from vulnerable communities. (Supports TEF 19.1 and 25.4) (TJ1f)		✓				
V20	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 TEF 17.1, 21.2 and 16.1) (TJ1h)		✓		✓		✓
V21	Compensate community partners for their valuable work to connect and communicate with their networks and uplift community-driven initiatives. (Supports TEF 1.1, 13.4, 31.4, and 37.1) (TJ1i)		✓				
Address inequities in the transportation system by prioritizing investments for impacted communities (TJ2)							
V22	Prioritize transportation investments that benefit people and local businesses who currently and historically experience high transportation burdens and those at high risk of displacement. (TJ2a)		✓				✓
V23	Collaborate with municipal, county, regional, and state transportation partners to consider the transportation needs of people displaced from Seattle. (TJ2b)		✓				
V24	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 TEF 14.3 and 15.2) (TJ2c)		✓		✓ ✓		

* Indicates this Element plays a key role in advancing this action.

Key Moves and Vehicle Element Actions		STP Goals Supported					
		Safety	Equity	Sustainability	Mobility	Livability	Maintenance & Modernization
V25*	Develop policies to prevent and mitigate transportation projects, both past and present, from contributing to future displacement. (TJ2e)		✓				
V26	Implement improvements to make traveling in Seattle more accessible for everyone, such as curb ramps, accessible pedestrian signals, accessible parking, and accessible transit stops. (TJ2f)		✓		✓		✓
V27	Partner with other departments and agencies to deploy anti-displacement programs, investments, tools, and mitigation efforts. (TJ2g)		✓				
V28	Conduct and implement racial equity assessments at the program level. (TJ2h)		✓				
SUSTAINABILITY KEY MOVES							
Improve neighborhood air quality and health outcomes by promoting clean, sustainable travel options (CA1)							
V29	Investigate and implement environmentally sustainable intersection controls like roundabouts.	✓	✓	✓	✓	✓	✓
V30	Expand beyond employer-based travel demand management programs to include residential and neighborhood-based strategies that encourage non-driving travel choices for all trips. (CA1a)			✓			
V31	Pursue programs and code changes to reduce and manage the supply of off-street parking in more areas of the city and for more land uses beyond residential development. (CA1f)		✓	✓	✓		
Green city streets with landscaping and street trees to better handle changing climate (CA2)							
V32*	Install green stormwater infrastructure on streets that already and will continue to flood frequently. (CA2e) Consider locations for de-paving projects that will expand green spaces and improve climate resiliency.			✓		✓	✓
V33*	Explore use of different pavement types, including lighter colors, to reduce urban heat island effects. (CA2f)			✓		✓	
Foster neighborhood vitality and improved community health (CA3)							
V34*	Co-create low-emission neighborhoods with communities so the benefits of cleaner air and safer streets are shared equitably. (CA3a)		✓	✓		✓	

* Indicates this Element plays a key role in advancing this action.

Key Moves and Vehicle Element Actions		STP Goals Supported						
		Safety	Equity	Sustainability	Mobility	Livability	Maintenance & Modernization
Support the transition from fossil fuel to electric vehicles for personal, commercial, and delivery trips (CA4)							
V35*	Support the transition to electric vehicles (EVs) for all segments of transportation through equitable incentives, grant opportunities, partnerships, and pilot programming. (Supports TEF 36.2) (CA4a)		✓	✓			
V36*	Establish a comprehensive policy for EV charging in the right-of-way, outlining preferred locations, standards, and requirements. (CA4b)			✓			✓
V37*	Lead by example and transition to a 100% zero-emissions City fleet by 2030. (CA4c)			✓			
Advance mobility management strategies to encourage walking, biking, and transit trips (CA5)							
V38*	Explore equitable demand management tools that could influence travel choices and create revenues to invest in sustainable transportation options, freight movement, and innovation. (CA5c)			✓			✓
V39*	Work with regional partners as they explore pricing options that are equitable and do not put the city at a competitive economic disadvantage. (CA5d)		✓	✓			
MOBILITY KEY MOVES							
Manage curbspace to reflect city goals and priorities (PG5)							
V40	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 develop decision frameworks to prioritize these functions based on local area and system needs. (PG5a)	✓	✓	✓	✓	✓	✓
V41*	Continue to use pricing mechanisms to manage on-street parking demands and improve access to adjacent uses (by turning over spaces) while exploring programs to support parking needs of people with low incomes. (Supports TEF 32.1) (PG5f)		✓		✓		✓
LIVABILITY KEY MOVES							
Boldly reallocate street space to prioritize people while preserving access for goods delivery and emergency response (PP1)							
V42*	Prioritize person-throughput as metric rather than vehicle throughput. (TEF 19.6)	✓	✓	✓		✓	

* Indicates this Element plays a key role in advancing this action.

Key Moves and Vehicle Element Actions		STP Goals Supported						
		Safety	Equity	Sustainability	Mobility	Livability	Maintenance & Modernization
V43*	Update the complete streets project evaluation process around goals to reduce drive-alone rates, reduce vehicle-miles traveled, and grow trips made by healthy and sustainable travel options.	✓	✓	✓		✓	
V44*	Design streets and public spaces so that goods and emergency responders can still reliably get where they need to go, while adjacent businesses prosper from an activated public realm. (PP1c)	✓	✓		✓	✓	
V45*	Update Seattle's Right-of-Way Improvements Manual (Streets Illustrated) to reflect evolving best practices in safe street designs and emergency response mobility. (PP1d)	✓	✓	✓	✓	✓	✓
Transform community and mobility hubs into welcoming places (PP2)							
V46*	Provide a safe and comfortable experience moving in and around community and mobility hubs. This includes better crossings and intersections, slower speeds and rightsized travel lanes, decluttered sidewalks, universal access, and more. (PP2c)	✓			✓	✓	
Co-create and enhance public spaces for playing and gathering to improve community health (PP3)							
V47*	Implement shared, car-light streets, such as Café Streets and Neighborhood Greenways, and car-free streets to support the transition to a low-carbon transportation system and reduce chronic health disparities. (PP3d)	✓	✓	✓	✓	✓	✓
MAINTENANCE & MODERNIZATION KEY MOVES							
Transform city streets for safety and sustainable travel choices through optimal timing of asset maintenance and replacement (MM1)							
V48*	Use asset maintenance and replacement opportunities to not only improve the condition of transportation infrastructure and equipment, but to also enhance safety, reduce dependence on driving, promote sustainable travel options, and support economic vitality. (MM1a)	✓	✓	✓	✓	✓	✓
V49	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. (MM1b)						✓
V50	Collect feedback on asset conditions as part of community engagement on transportation system planning, design, and co-creation. (MM1c)		✓				✓
V51*	Conduct asset maintenance in accordance with the priority investment and emergency response route networks, especially	✓	✓	✓	✓		✓

* Indicates this Element plays a key role in advancing this action.

Key Moves and Vehicle Element Actions		STP Goals Supported						
		Safety	Equity	Sustainability	Mobility	Livability	Maintenance & Modernization
	when investment supports walking, biking, transit, and freight. (MM1d)						
Reduce neighborhood disparities in the quality of streets, sidewalks, public spaces, and bridges (MM2)							
V52	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 TEF 19.3) (MM2a)	✓	✓				✓
V53*	Focus resources for maintenance and improvements in neighborhoods that have been historically or are currently underserved. (Supports TEF 19.4) (MM2b)		✓		✓		✓
Ready city streets for new travel options and emerging trends and technologies (MM3)							
V54	Collect, monitor, and use data to inform changes to the transportation system. (MM3a)	✓	✓	✓	✓	✓	✓
V55*	Anticipate and leverage innovative transportation technologies so they are shaped to meet community values and goals, including safety, equity, and climate response. (MM3b)				✓		✓
V56*	Use information infrastructure (e.g., data from sensors and traffic control systems) to manage travel flows, inform the traveling public, monitor the conditions of streets and bridges, and promote use of more efficient and sustainable travel options. (MM3f)						✓
V57*	Research and develop policies to manage the evolution toward connected and autonomous vehicles, recognizing that government and industry must partner to deliver their anticipated benefits safely. (MM3g)	✓	✓	✓	✓	✓	✓

* Indicates this Element plays a key role in advancing this action.

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 xxx. 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 continue to evolve in the years to come.

OPPORTUNITIES, CHALLENGES, AND EMERGING TRENDS

Seattle's street system has a lot of competing demands on its available space by multiple travel choices. From 2009 to 2019, the city had approximately 1 million average daily vehicle trips, according to SDOT's 2019 Traffic Report (pre-pandemic). This means the city accommodated extensive growth in jobs and population without adding vehicle trips to the system. Many of Seattle's main arterials experienced congestion over this period. The COVID-19 pandemic resulted in significant changes in commuting patterns, which led to a steep drop of over 35% in traffic volumes and congestion on Seattle streets. Traffic volumes rebounded in 2022 but are still below their pre-pandemic levels. This section discusses the opportunities, challenges, and emerging trends facing vehicular travel in Seattle.

Rise in serious injury and fatal crashes on Seattle streets. Serious injury and fatal crashes remained high in 2021 and 2022, despite the lower traffic volumes that resulted from the pandemic. Opportunities exist to pair street redesigns and vehicle miles traveled (VMT) reductions to implement Seattle's Vision Zero action plan recommendations. Example strategies that have reduced the severity and frequency of vehicle collisions with pedestrians and bicycles include reducing vehicle speeds, implementing road diets[3], and other traffic calming measures.

[3] A "road diet" is a reconfiguration of a roadway to reduce the number of travel lanes to free up space for other uses such as transit lanes, bike lanes, wider sidewalks, and landscaping. They have been shown to slow travel speeds, reduce collisions by 19%-47%, and provide space for people biking walking, taking transit or other uses of the right-of-way.

Population growth. The 2024 One Seattle Plan anticipates population growth of over 240,000 new residents. Seattle does not have the roadway capacity for everyone to drive a personal vehicle.

Driving continues to impact climate change. Mayor Harrell's Executive Order on Climate (EO 2022-07) recognizes the challenges of reducing transportation emissions by 82% from 2008 levels by 2030 and in achieving a carbon-free transportation system by 2050. Road transportation emissions make up 62% of total emissions in Seattle. A significant reduction in driving trips in favor of walking, biking, and transit, along with the electrification of as many remaining driving trips as possible, is needed to generate significant reductions in emissions. Such shifts would also result in improved health, safety, and economic outcomes.

COVID-19 pandemic impacts. The COVID-19 pandemic led to an increase in remote work that reduced traffic in many areas of the city. The 2022 Commute Seattle Mode Split Survey[4] shows that 65% of workers teleworked at least one day a week. Although commuting by personal vehicle rebounded in 2021 and 2022, it is still below the 2019 peak. Fewer people driving and more flexible work schedules for some has reduced travel time for many people. Fewer people driving on less congested streets has also resulted in in people driving faster, causing more serious and fatal collisions. The pandemic also caused some people to shift from transit and active transportation options (such as walking and biking) to personal vehicle use.

A Metro bus and a fire truck travelling on 3rd Ave

Impacts to emergency response times. Changes to the street network that reduce vehicular capacity and slow travel speeds can make it more difficult for first responders to navigate through congestion and increase response times. This is one of a variety of reasons that the average travel response time for the first arriving fire department unit has increased 40 seconds in 2022 compared to 2012 in Seattle. To reduce impacts to response times with a larger population and slower speeds, we'll require designs that maintain emergency responders' ability to pass on the left as well as longer term strategies such as adding response units or stations, and vehicles (including vehicles right-sized for dense environments).

Vehicle design. Personal vehicle and freight truck design has trended toward larger and heavier vehicles. Heavier vehicles create increased maintenance needs on streets and have a

[4] https://www.commuteseattle.com/wp-content/uploads/2023/03/2022-Seattle-Commute-Survey-Report.pdf

large impact on serious injury and fatal collisions with people outside of vehicles. As well, large freight vehicles can be hard to maneuver in dense urban environments with smaller turn radii and narrower streets than provided by traditional highway design.

An Electric Vehicle using an EV Charging facility

Private EV adoption rates are increasing. Transition to electric vehicles (EVs) is a tool to reduce GHG emissions. The first objective should be mode shift, as electric personal vehicles still have environmental, safety, and economic (congestion-causing) impacts. Furthermore, EVs are typically heavier than internal combustion engine (ICE) vehicles, which can result in more wear and tear on the roads and more serious/fatal collisions.

Charging infrastructure is currently limited due to existing real estate prioritized for gas powered vehicles (gas stations), the ability to have at-home charging infrastructure, and existing electrical transmission infrastructure.

Advances in intelligent transportation systems (ITS) and traffic management tools. Intelligent transportation systems are technologies to manage transportation systems, such as coordinating traffic signals and traveler information systems that provide data such as travel times and road closures. Advances in ITS and other traffic management tools allow more vehicle capacity to be extracted per lane, which can allow reallocation of street space to other travel choices. We also utilize ITS to manage streets during disruptions and major events, as well as a tool to support emergency response mobility with enhanced signal preemption. SDOT's ITS Strategic Plan identifies investments on key arterial corridors that will improve traveler information and multimodal operation of signals.

Transition to connected and automated vehicles (CAVs). Connected vehicles are cars or trucks that can communicate with other vehicles. Automated vehicles are cars or trucks that can drive without a human operator. CAVs combine these connected and automated aspects. There are many different levels of CAV technologies and capabilities that likely will roll out over time, which could help improve traffic safety if properly managed and regulated. CAVs could increase the capacity of the roadway system by using their sensors to allow vehicles to drive closer together, and it could mean additional vehicle-miles traveled and potentially more crashes as technology use expands. It is easier to operate CAVs on highways than on local streets in complex urban environments. See the New and Emerging Mobility Element for more information on opportunities and challenges for EVs and CAVs.

COMMUNITY ENGAGEMENT

A variety of STP workshops and community engagement activities provided valuable input to the Vehicle Element. Through February 2023, the STP engagement process collected about 2,000 locationally-specific vehicular related comments from the public. These comments will provide an ongoing resource for SDOT as we work in partnership with the community to advance STP priorities.

Key themes from the engagement are summarized below.

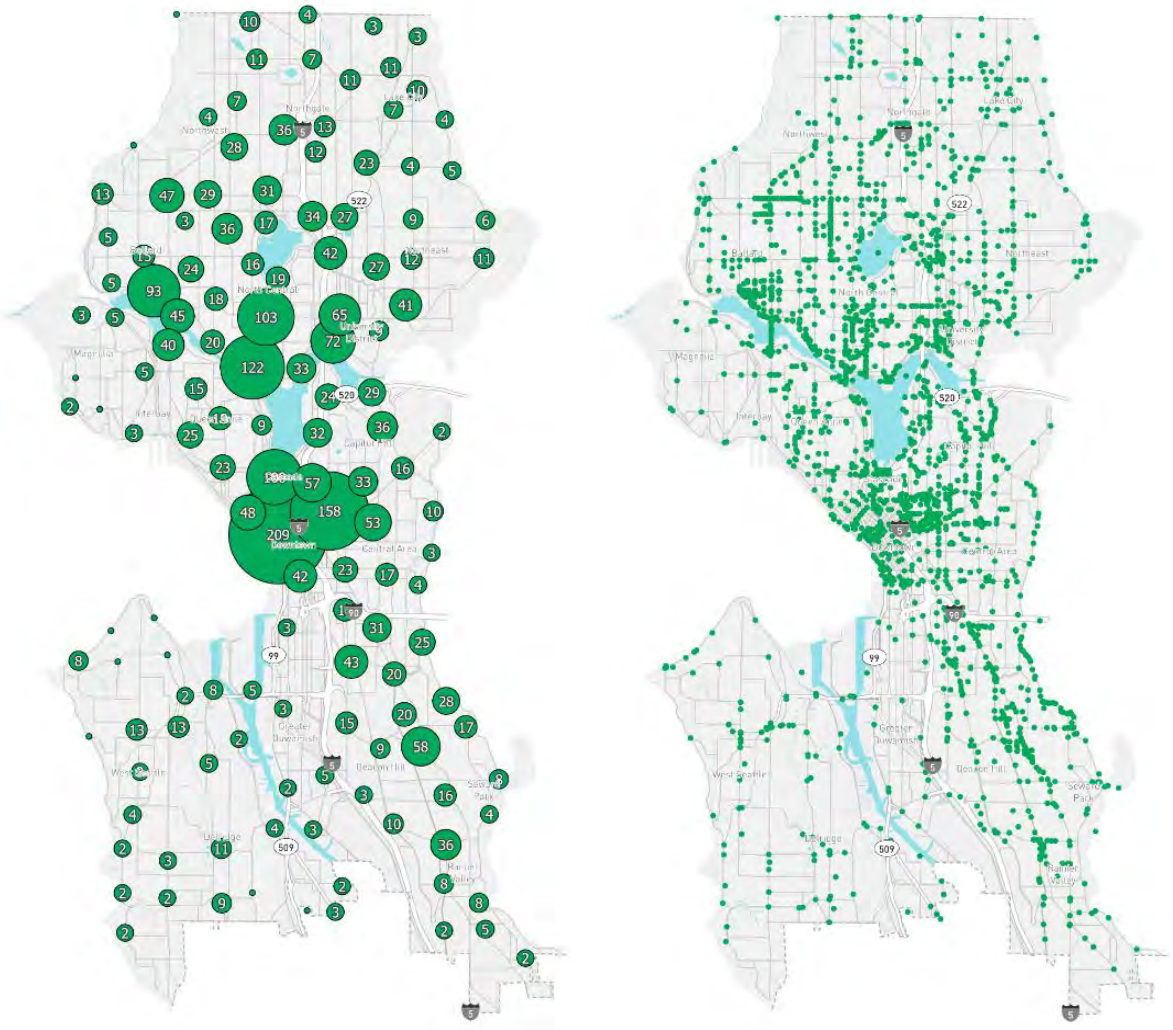
- Reduce driving speeds to increase safety, while understanding that reducing speed limits is not enough and must be paired with changes to signal timing, physical changes to the roadway, and other strategies.
- Recognition that not everyone in Seattle can ride a bike or walk to/from buses and light rail.
- Demonstrated understanding that competing goals require repurposing vehicle lanes for other travel options.
- Roads with separated bike lanes and bus lanes should thoughtfully account for people who are driving and aim to not create more congestion.
- Understanding that transit goals require reducing vehicle capacity to support transit investment.
- Slow vehicles and implement traffic calming barriers to keep cars from hitting people/buildings interchanges and access points to freeways.
- Consider limiting vehicle access in front of light rail stations.
- Businesses, especially small businesses, need convenient access for all modes of transportation and also need to be accessible for customers consistent with the Americans with Disabilities Act (ADA). This includes convenient and accessible parking.
- Support transition to electric vehicles (EVs).
- Electric cars need to be more sustainable due to current issues with manufacture, lifespan, and disposal of lithium batteries.
- Account for increased pavement wear rates from on heavier battery-electric vehicles and buses.
- Enable high-quality and affordable travel options for everyone.
- Continue to place emphasis on prioritizing travel choices that reduce drive-alone vehicle trips.
- Create affordable parking solutions for people who currently need to drive to work in Seattle.
- General support for reducing GHG (greenhouse gas) emissions and VMT (vehicle miles traveled).

Among the locations and areas in Seattle where the most public comments were received related to vehicle travel were Downtown and Capitol Hill; areas near Fremont, Wallingford, and Ballard; and along Rainier Avenue and Martin Luther King Jr. Way. Over 6,300 pins were received from May-August 2022.

Figure 1 presents aggregated vehicle-related comments from the STP webmap. The figure on the left shows density of vehicular related comments and the figure on the right demonstrates individual points.

> *"I drive because cars are the most versatile way to get around. I only have enough money to invest in one mode and I don't live near transit."*
>
> *– Quote from Survey Respondent*

Figure 1: Vehicle-related Public Comments on Webmap #1 (May 2022-August 2022)



DRIVING IN SEATTLE

Within Seattle, SDOT is responsible for the planning, design, operations, and maintenance of the public right-of-way, which includes the roadway network used by vehicles. We maintain 1,550 lane-miles of arterial streets, 2,400 lane-miles of non-arterial streets, 124 bridges, and 1,118 signalized intersections. These streets, bridges, and signals serve people using many travel options, including driving personal cars, driving trucks, riding buses, people bicycling, people walking, and emergency responders in vehicles. Space for cars (general-purpose travel lanes and storage) currently takes up 66% of the right-of-way on arterials.

We also manage curbside uses and the on-street paid parking system; issue parking and traffic permits; and maintain additional transportation elements, including pavement, signs, markings (such as crosswalks and lane markings), sidewalks, bicycle facilities, transit lanes, and many features (curb ramps and curb bulbs) included in other STP elements. The general street network also provides space for transit stops and stations operated by local transit agencies.

The Washington State Department of Transportation (WSDOT) operates and maintains the regional freeway system and shares jurisdiction on state highways, such as State Route (SR) 99. Additionally, WSDOT operates the Washington State Ferry System, which transports people using vehicles, bicycles, and traveling on foot.

There are more than 150 at-grade rail crossings in Seattle. We coordinate with our railroad partner's work at these locations, including permitting and maintenance in coordination with SDOT crews and inspectors to complete approaches, restore signage, and make sure clean-up and standards are met prior to roadway reopening.

ROADWAY NETWORK AND OPERATIONAL CONSIDERATIONS

The following sections highlight key aspects of the vehicular roadway network, including design guidance, functional classification, street types, street characteristics such as number of travel lanes, traffic volumes, crash information, and emergency response routes. Seattle's vehicular network should be a safe and steady option for people who need to drive, and conditions for people using other travel options should be just as comfortable and convenient as driving alone.

The following maps describe the network and influence the design, function, and investment of the city's streets.

Functional Classification and National Highway System

The City is required by the Federal Highway Administration (FHWA) to classify streets on the National Highway System (NHS) according to their primary mobility function, and these classifications are used to determine eligibility for federal funding. Functional classifications align with the vehicular mobility needs of people, the level of vehicular access and connectivity to other facilities, vehicular speed and volume, geometric design characteristics, and access to surrounding land uses.

Figure 2 presents the National Highway System routes in Seattle. These classifications include:

- **Interstate Freeways.** A freeway emphasizes vehicular traffic movement and is only accessible by vehicle; it is characterized by higher speeds and traffic volumes and restricts access to adjacent land.
- **State Routes and designated Non-State Routes.** These routes include intermodal facilities and intermodal connector routes where required for travel from the NHS routes to the intermodal facilities. They vary in their speed and volume characteristics, design features, and degree of local access.

Figure 2: National Highway System (NHS)

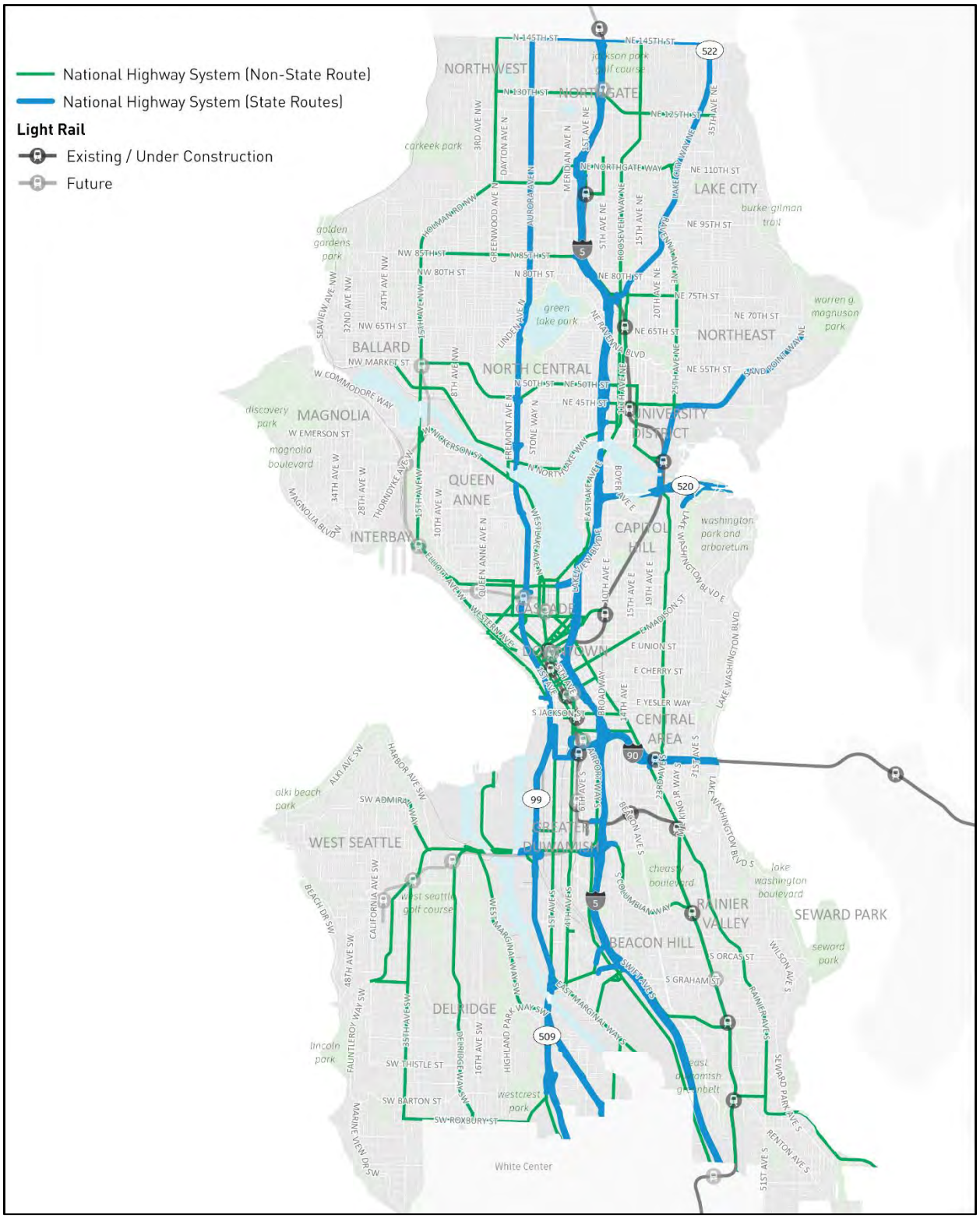
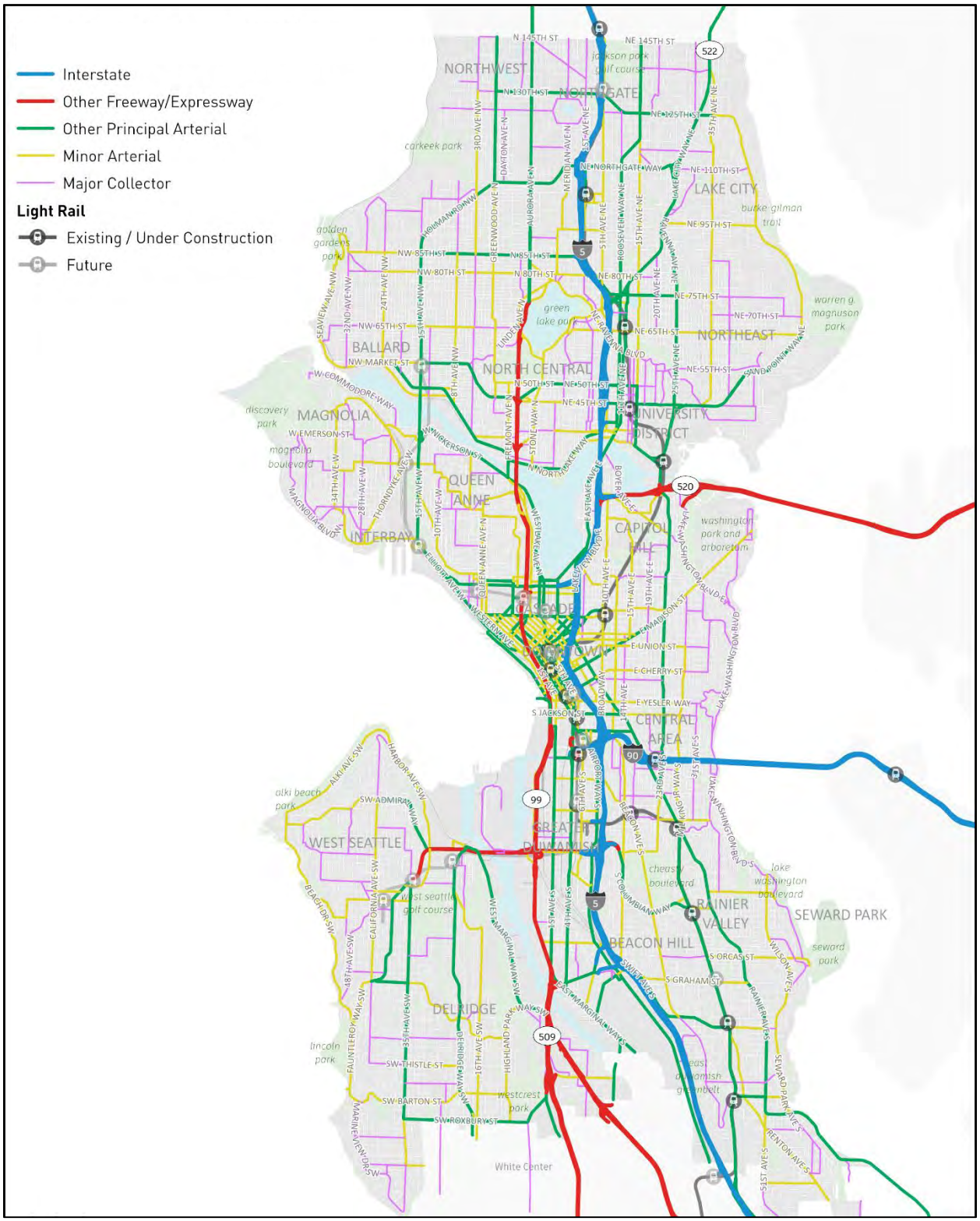


Figure 3 presents the Functional Classifications. These classifications include:

- **Regional, Principal, Minor, and Collector Arterial Streets.** Arterials provide the connections between freeways and access streets and vary in their speed and volume characteristics, design features, and degree of local access.
- **Commercial and Residential Access Streets.** Commercial and residential access streets provide a high level of access to adjacent land uses.
- **Alleys.** Alleys are narrow passageways typically located between or behind buildings and provide important access for deliveries, loading and unloading of people and goods and can provide pedestrian access.

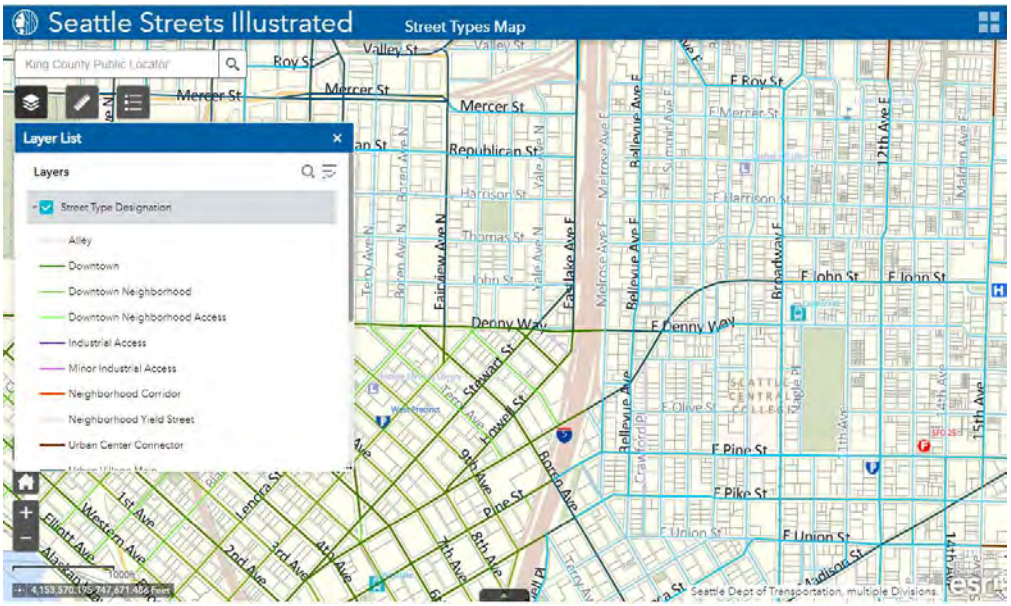
Figure 3: Functional Roadway Classification



Street Types

In addition to functional classification, we also designate street types in our *Right-of-Way Improvements Manual*. Known familiarly as *Streets Illustrated*[5], this document provides specific street design guidance based on adjacent land uses, street functions, and the degree to which they support movement (vehicular speeds) and a sense of place. In this way, we can design streets to best serve both its purpose and to reflect a scale and character appropriate to its context (e.g., downtown, industrial access, neighborhood).

Figure 4: Image of Streets Illustrated Webmap



Streets Illustrated provides design guidance on the number of travel lanes and design treatments. The manual also establishes design standards for various street elements, including lane widths and curb radius, along with a process to approve design deviations. Lane widths and curb radii are designed to accommodate large trucks and transit vehicles where they are most prevalent. Consultation is required with the Seattle Fire Department (SFD), to address the needs of large fire trucks to access people and buildings throughout the city, and to maintain emergency response mobility on Tier 1 response routes.

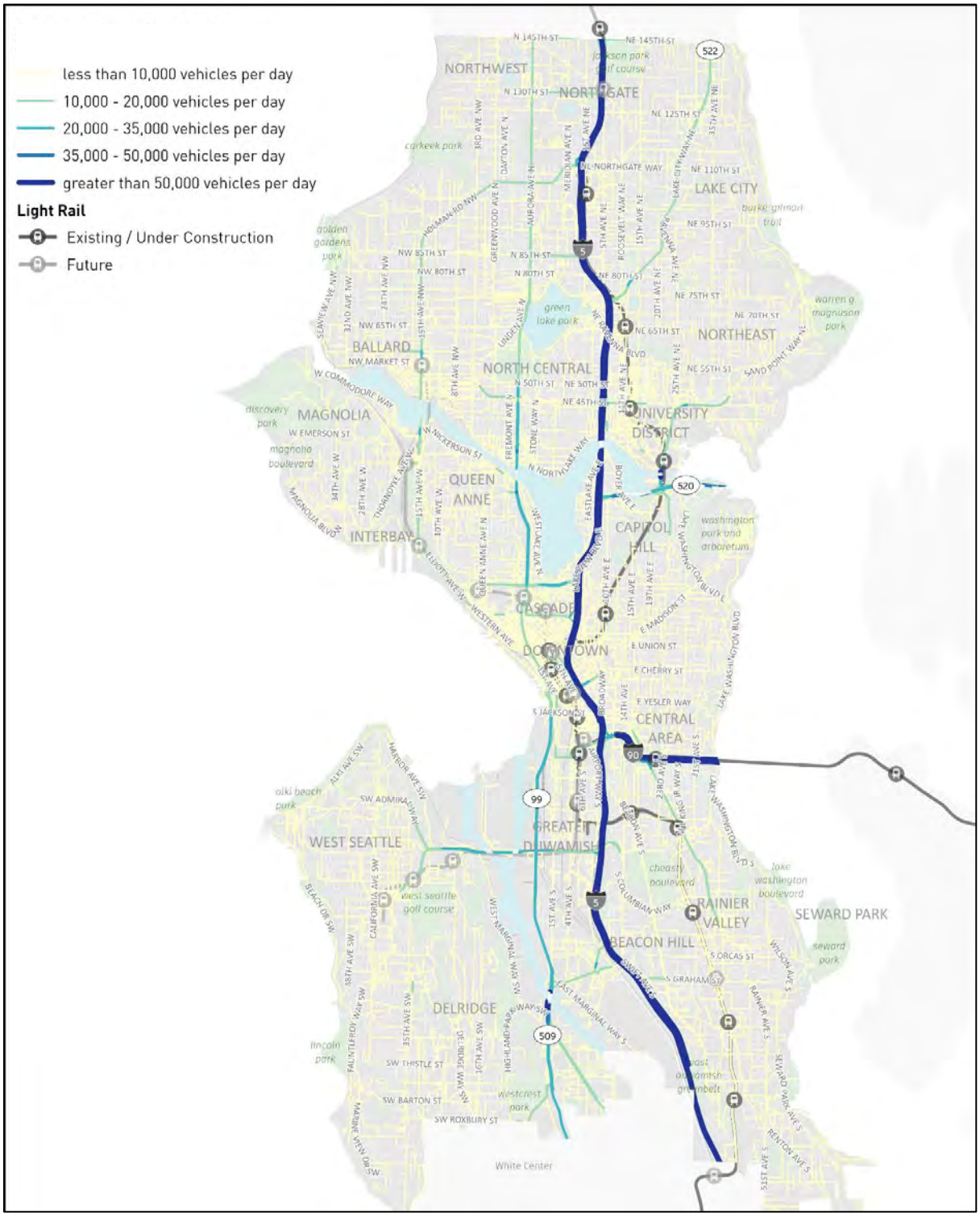
Travel Lanes and Vehicle Volumes**. Figure 5** presents the number of general-purpose travel lanes (two-way total) on city arterial streets. Many arterials with more than a single lane in each direction also support movement of large freight vehicles and buses. A majority of arterials with 4+ lanes serve north/south travel.

[5] Explore the Streets Illustrated street typologies at: https://streetsillustrated.seattle.gov/.

Figure 5: Number of Travel Lanes

SDOT routinely collects traffic volume data. Average daily traffic (ADT) volumes for arterial streets are shown in **Figure 6** for 2022. Of note are the high vehicle volumes at bridge locations given limited crossing options across the Ship Canal and Duwamish Waterway.

Figure 6: 2022 Traffic Volumes



High Injury Network and Vehicular Speed

Many SDOT safety analyses rely on crash and speed data to identify potential improvements. The High Injury Network (HIN) identifies where fatal and serious crashes have already occurred. Its use is considered a reactive approach that informs safety corridors of focus for the Vision Zero program and more. Through a collisions analysis, the HIN prioritizes corridors according to fatal and serious injury crash rates, as well as race and equity outcomes. Higher vehicular speeds result in a higher number of serious injury and fatal collisions.

Figure 7 depicts the High Injury Network. **Figure 8** shows arterials where 85% of the vehicular speeds exceed 5 miles per hour over the posted speed limit.

Figure 7: High Injury Network (HIN) Street Segments

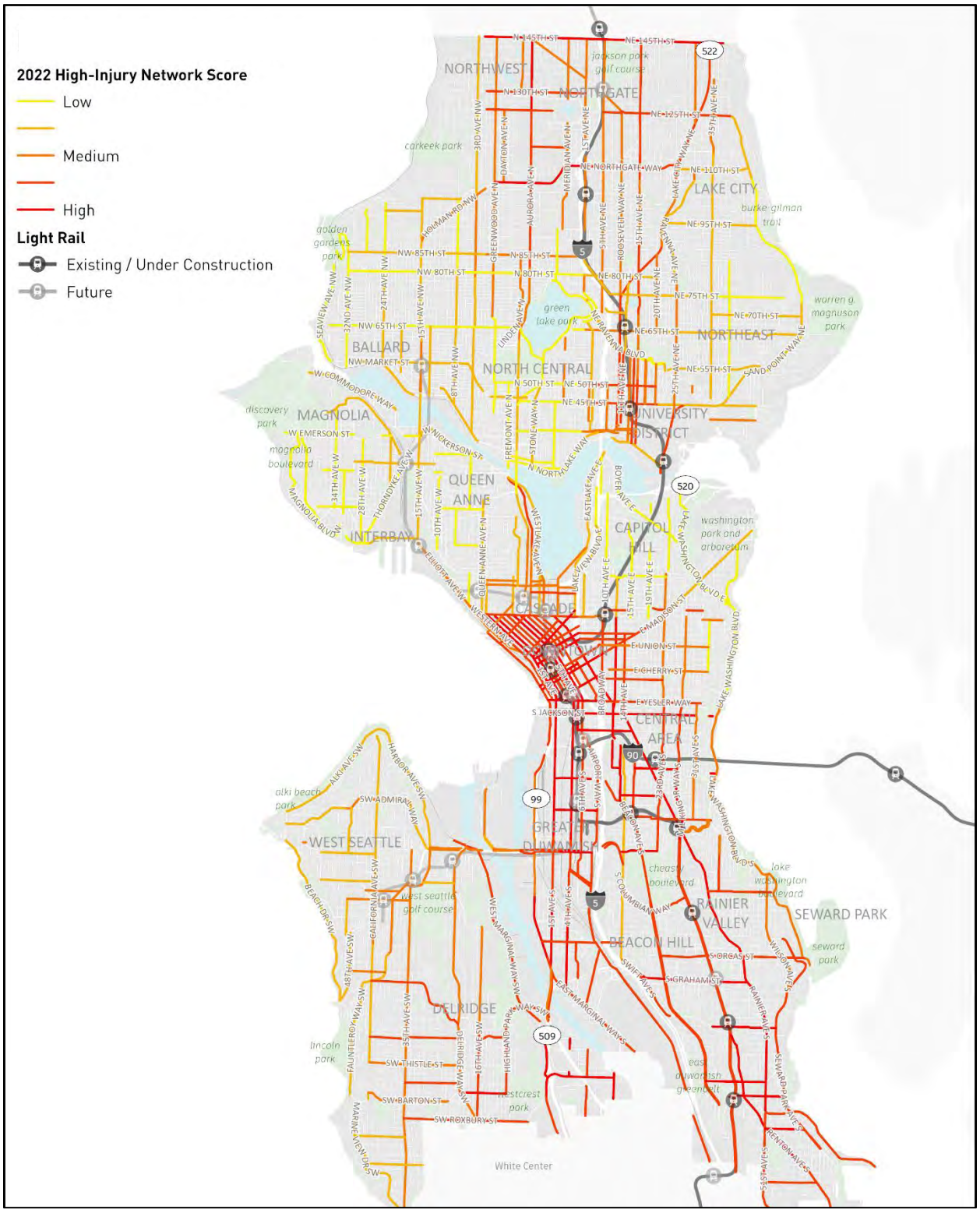
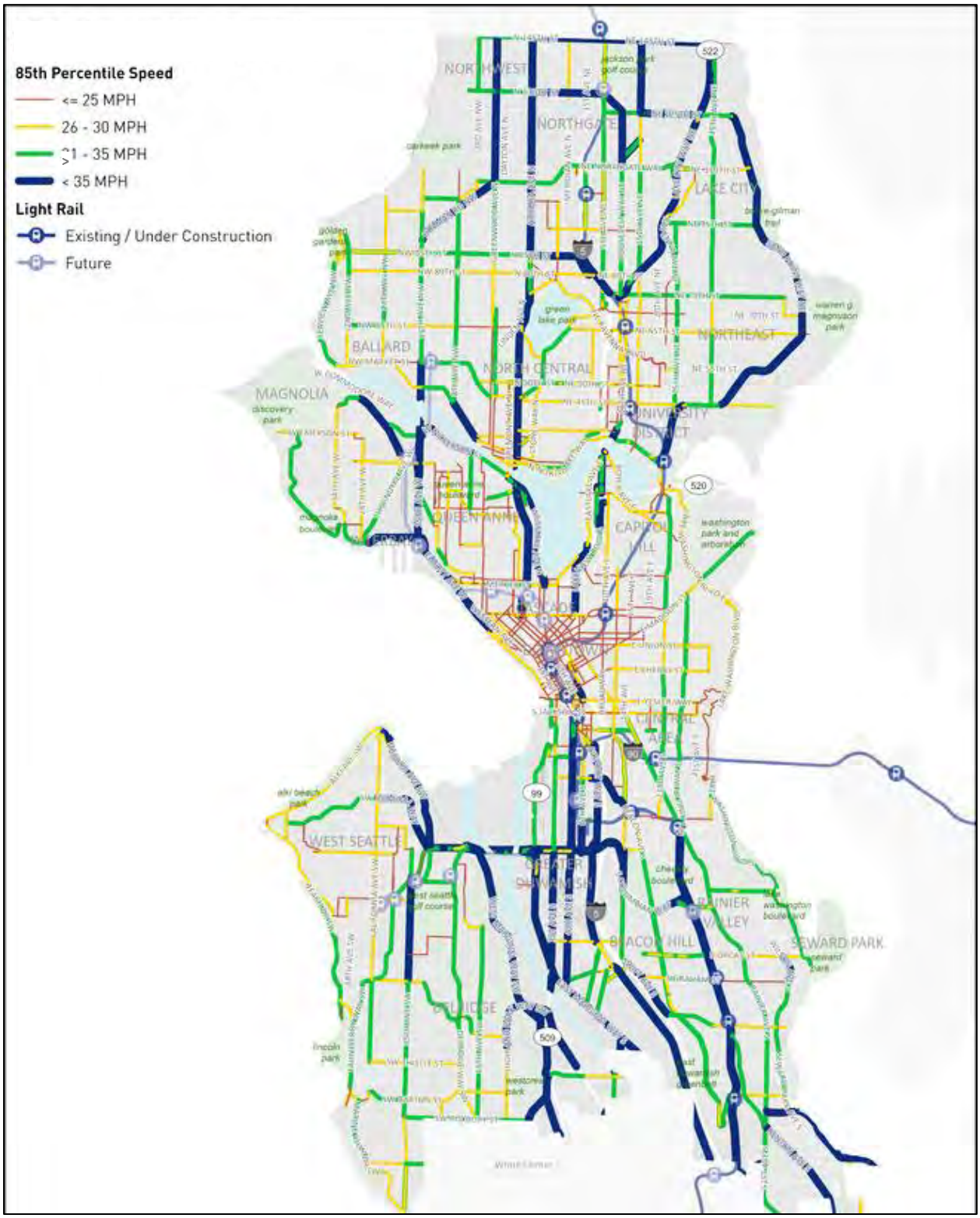


Figure 8: Arterials where 85% of Speeds Exceed 5 MPH over posted Speed Limit



Emergency Response Routes

Analysis from SDOT and the Seattle Fire Department has identified are Tier 1 streets—those used to reach more than 300 responses per year or that provide critical connectivity (**Figure 9**). Redesign of Tier 1 streets should consider impacts to emergency response times with designs that allow for emergency response vehicles to move around or through vehicular traffic

Snow and ice clearing are prioritized on key arterials during winter weather events (**Figure 10**). Routes prioritized for these activities are grouped into 2 categories based on whether the goal is to have all lanes with bare pavement or one lane in each direction.

Figure 9: Tier 1 Emergency Response Routes

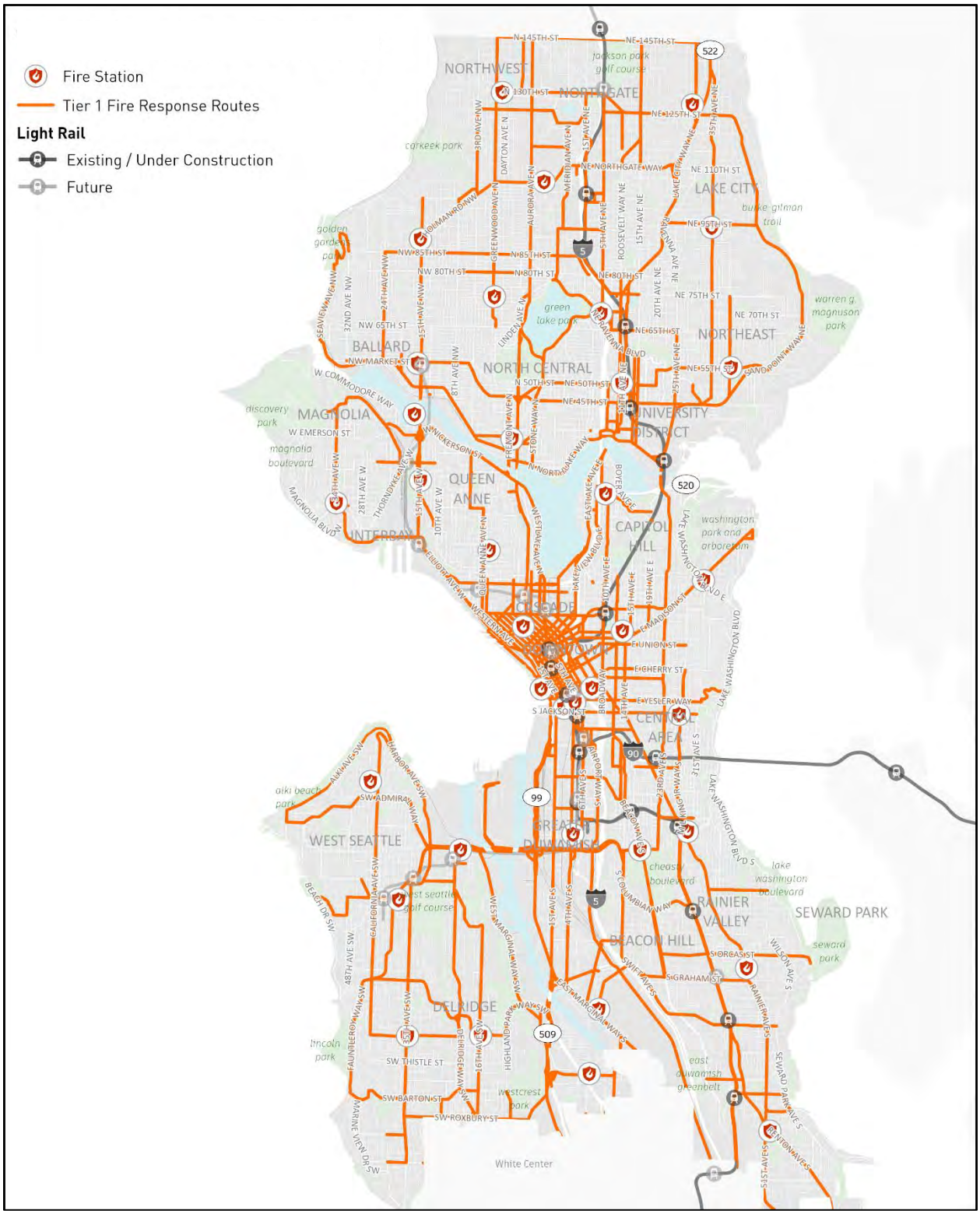
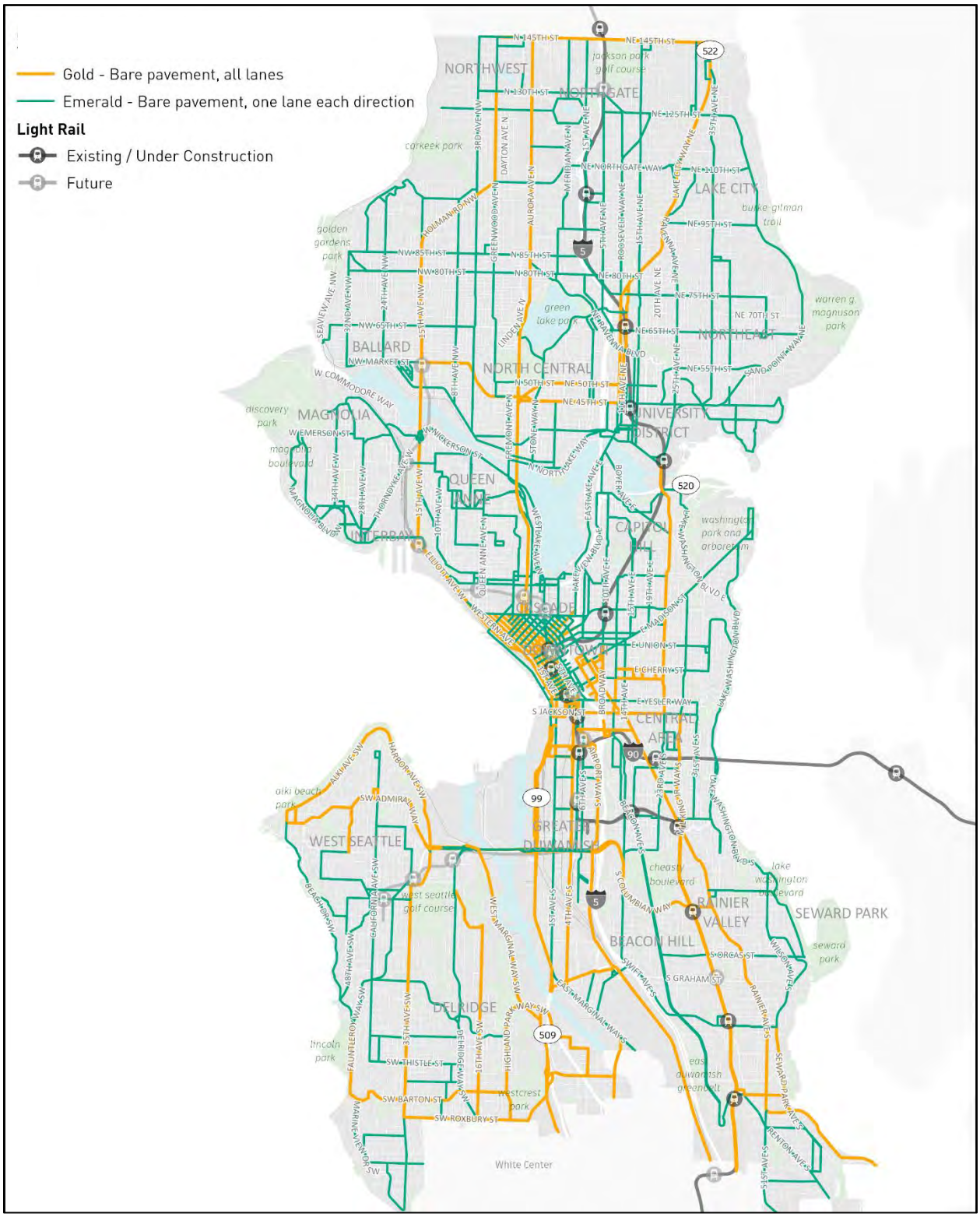


Figure 10: Seattle Snowplow Routes



KEY CONSIDERATIONS AND PROGRAMMATIC ACTIVITIES

SDOT engages in a variety of programmatic activities (that is, activities that relate to programs or are ongoing, rather than specific to a project) 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 programs listed here provide helpful general information to describe the types of tools and methods we will employ to manage the transportation system.

A reliable and well-connected roadway network is required to accommodate critical vehicular travel and essential personal trips.

Critical vehicular travel includes emergency vehicles, freight and goods movement, and utility functions. Essential vehicle trips are those that are not easily made by other travel options. They could include work shifts that are not served by transit hours or routes, trips with multigenerational families, and/or people with disabilities who experience barriers for accessing and using other travel options, and more.

Not everyone can afford to own and maintain a personal vehicle, can drive, or has a driver's license; they too rely on city streets shared with personal vehicles to move around by travel options other than a personal vehicle. Many people default to driving as their primary travel option. A broader culture shift must be made for people to re-define what is essential vehicular travel and what trips can be made by walking, bicycling, shared vehicles, and public transportation.

Our safety and climate goals must be reflected in how we get around.

Over the last several years, 93% percent of pedestrian deaths in Seattle occurred due to vehicle collisions on arterial streets[6]. Reducing driver speeds reduces the severity of collisions for people inside and outside of vehicles. Road transportation accounted for 60% of greenhouse gas emissions in 2020[7] in Seattle. The Vehicle Element provides a framework for how the roadway network and its use by a variety of vehicles (including personal, emergency, delivery, service, and transit vehicles) align with Seattle's climate and safety goals.

Low-emission or low-pollution neighborhoods improve air quality and livability by transitioning areas of the city away from fossil-fuel vehicles in favor of electric transportation modes. They also create opportunities for locally accessible public spaces and encourage walking for short trips to reduce vehicle-miles traveled, air pollution, and greenhouse gas emissions. Executive Order 2022-07 directs SDOT to advance the low-emissions/low-pollution neighborhoods concepts.

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[6] This number represents fatalities from personal vehicles. It does not include transit and rail fatalities for pedestrians.

[7] https://www.seattle.gov/documents/Departments/OSE/ClimateDocs/GHG%20Inventory/2018_GHG_Inventory_Dec2020.pdf

We are working closely with internal and external partners to accelerate the equitable adoption of electric transportation technology as part of Seattle's Transportation Electrification Blueprint. More on electric vehicle (EV) adoption strategies can be found in the New and Emerging Mobility Element.

Safety Considerations

Slower moving traffic has safety benefits that can:

- Support our Vision Zero safety goals to end traffic deaths and serious injuries.
- Improve the reliability and safety of driving.
- Create improved conditions for vulnerable travelers, such as people walking, biking, and rolling, who are more at-risk of suffering a severe injury or fatality in a collision with a vehicle.

To support our safety efforts, SDOT will seek to:

- Expand design toolkit for physical separation between vehicles and other travel modes.
- Streamline internal decision pathways for street design and operation decisions.
- Align traffic calming efforts with design direction in Streets Illustrated and the city's Standard Plans and Specifications, along with Vision Zero policies.
- Explore innovative ways to calm traffic including strategies from the People Streets and Public Spaces Element.
- Slow vehicles when approaching areas of conflict with other travel options.
- Develop a threshold for implementing traffic calming on roads where speeding is a consistent issue in line with design implications for other STP elements.
- Implement changes to automated enforcement to address inequities, explore a progressive fine structure, education classes in lieu of monetary fine, or other more equitable solutions suggested from community engagement. Plan for permanent street design changes to replace automated enforcement.
- Close network gaps for public and active transportation, and where gaps cannot be filled, maintain a safe and steady vehicular network for people who must depend on vehicles for transportation.
- Develop policies for decommissioning underperforming signalized intersections and installing all-way stops or roundabouts
- Address safety challenges at free-flow freeway ramps that intersect with city streets in partnership with WSDOT.
    - Partner on opportunities to add safety treatments on state routes in Seattle.
    - Where highways or state routes have bisected communities, partner on strategies to reduce harm and re-envision mobility priorities that serve community needs.

- Coordinate with railroads for grade crossing surface improvements for vehicles and pedestrians; on-going maintenance; upgrades to signalization, gates, and flashers; and pedestrian channelization through grade crossings.

Sustainability Considerations

Existing transportation strategies that address climate include:

- Reduce greenhouse gas (GHG) emissions and vehicle-miles traveled (VMT)[8].
- Transition people away from gasoline-power vehicles to zero-emissions travel options.
- Increase investments that make it more convenient to walk, roll, bike, and take transit.
- Create climate resiliency for disproportionately impacted communities.
- Implement a more balanced transportation experience with a goal of 9 out of 10 trips being fossil fuel free, which creates space for those trips that need to be made by car.

To support our sustainability efforts, SDOT will seek to:

- Explore equitable demand management tools that could influence travel choices and create revenues to invest in sustainable transportation options, freight movement, and innovation.
    - Continue to use parking pricing as a demand management tool that can encourage use of travel by modes other than people driving alone in vehicles.
    - Employ parking regulatory reform to influence parking supply, duration, and time of day use (See Curbside Management Element for more parking strategies).
- Build upon design standards and implementation of Green Streets
    - Install green stormwater infrastructure on streets that already and will continue to flood frequently.
    - Consider locations for de-paving projects that will expand green spaces and improve climate resiliency.
    - Leverage street re-allocations to include new and emerging design practices for green infrastructure.

The transportation system must support Seattle's continued growth.

The 2024 Comprehensive Plan update, One Seattle, establishes a 20-year vision for how and where Seattle continues to grow and accommodate a projected 250,000 additional residents.

To provide safe and steady travel options for existing and future residents, the Vehicle Element recommends transportation demand management (TDM) strategies to help support future growth and sustainability of travel in Seattle. TDM programs are critical for promoting shifts from private vehicles to other travel options and meeting STP goals. Seattle's existing Commute

[8] House Bill 1191 includes a requirement for local governments to reduce VMT https://lawfilesext.leg.wa.gov/biennium/2023-24/Pdf/Bills/House%20Passed%20Legislature/1181-S2.PL.pdf?q=20230509164411

Trip Reduction and Transportation Management Programs help reduce drive-alone trips and commute trips at large employers and development sites, while other limited campaigns have focused on all trips in particular neighborhoods.

Transportation Demand Management

TDM strategies typically aim to shift travel to off-peak periods, consolidate trips, encourage travel by options other than driving alone, or avoid trips all together, such as by working from home.

To support our TDM efforts, SDOT will seek to:

- Incorporate TDM strategies in various plans and planning activities during program and project development.
- Continue to develop partnerships to expand and strengthen TDM offerings with employers, community-based organizations, agencies, etc.
- Incentivize options to fill first-/last-mile gaps for people who live in areas with less transit connectivity, with a focus on those with low incomes or are living with disabilities.
- Coordinate with the Seattle Department of Construction and Inspections (SDCI) to further incorporate TDM opportunities in the development process.
- Coordinate and promote transit pass programs in partnership with agencies and micromobility offerings with vendors.
- Leverage capital transportation investments by introducing TDM strategies to community members (e.g., Free Orca cards when high-capacity transit opens or bike to work or school when a new bikeway is constructed).
- Align TDM programming to support and focus on short neighborhood trips to reduce reliance on car trips for nearby destinations.
- Coordinate with the Office of Economic Development (OED) to identify TDM opportunities in business districts and for Black, Indigenous, and People of Color (BIPOC) business owners. (Supports TEF tactic 16.1)

Emergency response needs must be anticipated and supported through street design and operations.

Supporting first responders with time-sensitive emergency response is a critical aspect of community safety. First responders include firefighters, police, emergency medical personnel, and more. The Seattle Fire Department responds to over 100,000 incidents a year, 2% of which are traffic crash-related responses on city streets. Many incidents are time critical for lifesaving measures and 14% overall require Medic 1 advance life support.

Efforts to improve travel safety by slowing speeds for general-purpose vehicles will also slow emergency response. Roadway design should incorporate ways to reduce impacts on emergency vehicle response times such as maintaining ability of emergency responders to bypass vehicles on the left.

During major or catastrophic events, such as a snowstorm or earthquake, designation of an emergency response roadway network can focus resources. Evacuation routes, bridges, retaining walls, and other infrastructure (such as signals) need to be identified and maintained in coordination with emergency service providers, King County, and Washington state.

Emergency Response Coordination and Planning

In balancing and providing for many competing uses of city streets, design and operational changes may be made that could reduce vehicular capacity and reduce travel speeds. To mitigate this, plans for the effects of potential street changes on emergency response times should include strategies such as those identified here.

To support this work, SDOT will seek to:

- Implement traffic-calming treatments that are compatible with Tier 1 Seattle Fire Department routes with design treatments that allow for SFD vehicles to pass traffic on the left and other designs that that reduce the impact of traffic calming to emergency response mobility e.g., using speed cushions rather than speed humps, providing space for vehicles to clear lanes in congested areas, and enhancing signalization.
- Develop designs and metrics to assess implementation of intersection and roundabout designs compatible with Tier 1 Seattle Fire Department routes.
- Operate and maintain a traffic signal system that serves travel for emergency response vehicles
- Maintain access to buildings and reduce the impact to emergency response travel times through street designs that allow emergency response vehicles to pass around traffic, with a focus on high-priority emergency routes (Tier 1).
    - Design responses could include maintaining ability for emergency vehicles to pass on left by limiting the scope of center roadway hardscape or providing center turn lanes.
    - Additional consideration could be given to providing space for general purpose vehicles to move to the right, providing lanes wider than 10 feet, transit lanes, and parking/loading pull outs, as well using speed cushions that accommodate large vehicle pass through for traffic calming where possible.
- Consider impacts to emergency response and access when evaluating changes in circulation patterns (e.g., space on one-way streets for vehicles to pull over for passing; street redesigns, and installation of traffic calming devices, especially on Tier 1 emergency response routes.
    - Establish standard design criteria with input from the Seattle Fire Department.
- Monitor impacts to emergency response times so the city can plan to increase the number of emergency response units or consider additional fire stations to maintain response times.
- Explore use of smaller emergency response vehicles that better fit into urban environments.

- Coordinate with King County Emergency Management and the State of Washington's Emergency Management Division to identify key corridors and destinations needed to support vehicular travel during a catastrophic emergency, in alignment with other modal elements.
- Regularly update and maintain SDOT's emergency response plans.
- Prioritize snow and ice clearing on key arterials during winter weather events

Seattle streets must accommodate other modes that operate in general purpose travel lanes including freight, urban goods, and public transit.

With continued growth in e-commerce, there is an increase in urban goods delivery vehicles on city streets. The STP's Curbside Management Element and Freight and Urban Goods Element identify actions to address this growth, including ways to reduce vehicle trips by consolidating trips or shifting to non-vehicular modes such as e-cargo bikes.

To achieve our safety and climate goals, we need to rely on transit as the backbone of our transportation system. With its ability to move many people in a single vehicle, transit is a very space-efficient mode that can maximize people throughput within our limited street capacity. By shifting people from driving to transit, we can make more room for people who must drive.

To make transit an attractive alternative to driving and free up street space for more people, we must make transit travel time and reliability competitive with driving. Many of the strategies to slow vehicles and reduce general purpose (GP) vehicular space may impact transit travel time if transit is operating in GP space. Impacts must be offset with investment in our transit system. The STP Transit Element identifies ways to support transit travel through street design, operations, and encouragement.

To support goods delivery and transit needs, SDOT will seek to:

- Update the complete streets project evaluation process around goals to reduce drive-alone rates, reduce vehicle miles traveled, and grow trips made by healthy and sustainable travel options.
    - Consider how right-of-way reallocations among travel modes and other essential functions may impact cut-through traffic in neighborhoods and provide infrastructure and programming to offset impacts.
    - Use future-focused goals and metrics for mode share, safety, and climate, to rebalance street right-of-way allocations.

People exiting a RapidRide bus near a parked bike

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 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.

MEASURABLE OUTCOMES

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

- **Tier 1:** Overarching outcome-based measures are identified in the STP implementation strategy (see Chapter 4 of the Part I document). Generally, they are tracked at a citywide scale, and SDOT may not have primary control over their achievement. Examples include a reduction in vehicle-miles traveled and the percent of household income dedicated to transportation.
- **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 reducing the drive-alone rate and reducing vehicular speeding.
- **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 track productivity and to help allocate resources. Examples may include Seattle Fire Department response times on Tier 1 routes, and more.

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 we 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.[9]

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

[9] https://data.seattle.gov/dataset/Racial-and-Social-Equity-Composite-Index-Current/w3kz-xtmq

acquire data. SDOT will continue to evaluate resource availability before performance measures are set in the final recommended STP.

Table 2 identifies the Tier 2 performance measures that will be tracked for the Vehicle Element.

Table 2: Vehicular Performance Measures

Desired Outcome	Related STP Goal	Performance Measure (source)	Target or Desired Trend	Track measure by RSEI and/or race	Baseline
End traffic deaths and serious injuries on city streets	Safety Equity Mobility Livability Maintenance & Modernization	Number of fatal and serious injury crashes involving people driving (Seattle Police Department (SPD) collision report data)	Zero	Yes	In development
End traffic deaths and serious injuries on city streets due to high speed collisions	Safety Mobility Livability Maintenance & Modernization	Vehicular speed (Iteris)	Reduction in vehicular speeds to at or below the speed limit XX% of 85th percentile speeds are within XX mph of the posted speed limit	Yes	In development
Achieve drive-alone targets for each urban center and district in the city	Sustainability Mobility	Percentage of drive alone trips in 2044 citywide and by district (PSRC)	City of Seattle: XX% Northwest Seattle: XX% Northeast Seattle: XX% Magnolia/Queen Anne: XX% Capitol Hill/Central District: XX% Downtown/Lake Union: XX% West Seattle: XX% Duwamish: XX% Southeast Seattle: XX%	No	In development
Reduce transportation emissions	Sustainability	Reduction of vehicle-miles traveled (VMT)	Reduce VMT by XX% by 2044	No	In development
Reduce dependency on personal vehicles to meet climate targets and reduce household transportation cost	Sustainability Livability	Number of vehicles per household (Census Bureau)	Reduce the number of vehicles per household	No	In development
Support a well-maintained arterial network	Maintenance & Modernization	Percentage of arterial streets with fair or better pavement condition (SDOT)	Increase the percentage of arterial street segments with a "Fair" or better pavement condition rating (out of Good/Fair/Poor)	Yes	In development

NOTE: Many of the STP performance measures targets and baselines are still under development.

RELEVANT TEF TACTICS

TEF 16.1—Engage with local BIPOC-owned businesses to determine how SDOT can support their employees' transit and transportation needs for commuting.

TEF 19.1—Normalize decisions about right-of-way (ROW) reallocations to be made in partnership with BIPOC communities. This should include investments in alternative modes and land use/housing. Connect this back with the neighborhood/comprehensive planning piece.

TEF 19.2—Identify opportunities to repurpose some travel lanes for transit, biking, and smaller, lighter-weight vehicles and devices to create more travel options with the STP.

TEF 19.6—Prioritize person-throughput as metric rather than vehicle throughput.

TEF 20.5—Consider travel time and air quality impacts of changes to roadway configurations. Use this information to make equitable investment decisions that consider travel time and air quality impacts and benefits, and to communicate those benefits and impacts to community.

TEF 20.6—Create a similar "storymap" for decision-making and ongoing monitoring of outcomes for SDOT-related improvements and investments; use power of data and storytelling to help get better sense of where we need to improve our transportation system.

TEF 31.1—Implement data storytelling on the comparative costs of cars, electric cars, other mobility options and transportation burdens and privileges. Connect this back to our climate, equity, and safety goals and investment.

TEF 31.2—Review previous SDOT studies on non 9 to 5 commuters; identify where additional information needs to be gathered, develop targeted transportation options, and leverage existing programs to better support this community.

TEF 31.3—Develop and continue to support targeted transportation options for older adults and people living with disabilities and identify stable funding source; include learnings and results from the Inclusive Mobility On-Demand grant.

TEF 33.1—Continue to promote remote work and flexible work options at large employment sites citywide and identify opportunities where we can better support working-class populations.

TEF 36.1—Explore an equitable approach to road pricing with BIPOC and vulnerable communities and, develop road pricing policy approaches generated from the conversations with BIPOC and vulnerable communities.

TEF 36.3—Partner and fund BIPOC-led community-based organizations to create community-tailored mode shift solutions.

TEF 42.2—Identify existing non-punitive alternatives to traffic violation fines and fees; coordinate with community-based organizations (CBOs) to recommend new or revised non-punitive alternatives, such as restorative justice measures, community service options, or online traffic safety classes; review opportunities to reward positive safety-related behaviors.

TEF 43.4—Review SDOT policies, practices, standards, and funding allocation strategies to elevate/give priority to 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 47.1—Conduct annual community discussions with community-based organizations to assess ridership experience in BIPOC communities and include results in annual transit-related workplans and decisions.

TEF 52.2—Engage with the community to identify the underlying cultural narrative and values of driving alone and weave this into the STP engagement process; use these findings and information to address and resolve the conflict between SDOT values and priorities in reducing personal vehicle use.

TEF 52.3—Engage in an internal transparent conversation within SDOT on our values, approach, and messaging on cars and addressing BIPOC community needs; identify clear department goals and actions for where cars can fit within our transportation system and how we address BIPOC communities' need and reliance on personal vehicle use.

GLOSSARY

ADA: Americans with Disabilities Act

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.

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.

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.

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: Community and Mobility Hubs are 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.

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).

Curb bulbs: Extensions of the sidewalk into the street that give pedestrians a shorter distance to cross.

E-cargo bikes: Human-driven bikes with battery-powered pedal assist that can transport packages or other small goods in a front-mounted wagon or rear-hitched trailer.

E-commerce: The buying and selling of goods online that are then delivered directly to a home or business. Examples include Amazon and eBay.

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 2028, making 20 miles of Healthy Streets permanent, hosting a Youth Transportation Summit, and making the City's fleet zero-emission by 2030.

FHWA: Federal Highway Administration

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

General purpose (GP) lane: Space in the right-of-way where all vehicular traffic is allowed.

GHG: Greenhouse gas emissions

Grade crossing: An intersection where general purpose traffic and rail tracks cross at the same level.

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.

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.

Low-emission neighborhood: Low-emission neighborhoods, sometimes called low-pollution neighborhoods, prohibit, or restrict the types of vehicles allowed within an area and encourage zero- and low-emission travel options like walking, biking, electric vehicles, and deliveries by e-cargo bike. Implementation of these concepts will vary by neighborhood and are co-created with local communities.

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.

NHS: National Highway System

OED: Office of Economic Development

Personal delivery devices (PDDs): Small automated or remotely piloted robots designed for short deliveries carrying food, packages, or other goods

PSPS: People Streets and Public Spaces

PSRC: Puget Sound Regional Council

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

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 non-motorized 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

The goals of the approach 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

SFD: Seattle Fire Department

Shared micromobility: Shared bikes and scooters that offer low-cost option 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.

Shared Streets: Streets that are "people first" spaces either permanently or during certain times of the day or week. They are typically identified in partnership with the surrounding community. Shared Streets include Healthy Streets, Café Streets, School Streets, Event Streets, Special Alleys, and Pedestrianized Streets.

SPD: Seattle Police Department

Speed cushion: Multiple low-rise speed humps placed together that slow vehicle speeds while still allowing emergency vehicles to pass through normally. They are used on low volume and non-arterial streets.

Standard Plans and Specifications: City standards that apply to any public or private construction in the right-of-way. The document standardizes terminology, abbreviations, and symbols to be used in any construction plans.

STP: Seattle Transportation Plan

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

Summer Streets: Streets that are closed to vehicular traffic during certain times of the year to provide open space for events and public life.

Traffic calming: Physical changes to street design that slow traffic and make the street safer for all travelers. Examples include traffic circles, speed humps, and narrow lanes.

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.

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

VMT: Vehicle-miles traveled

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

WSDOT: Washington State Department of Transportation

COMMUNITY ENGAGEMENT REPORTS

PHASE I ENGAGEMENT SUMMARY REPORT

PHASE II ENGAGEMENT SUMMARY REPORT

Seattle Transportation Plan

A Vision for the Future of Transportation in Seattle

Seattle Department of Transportation

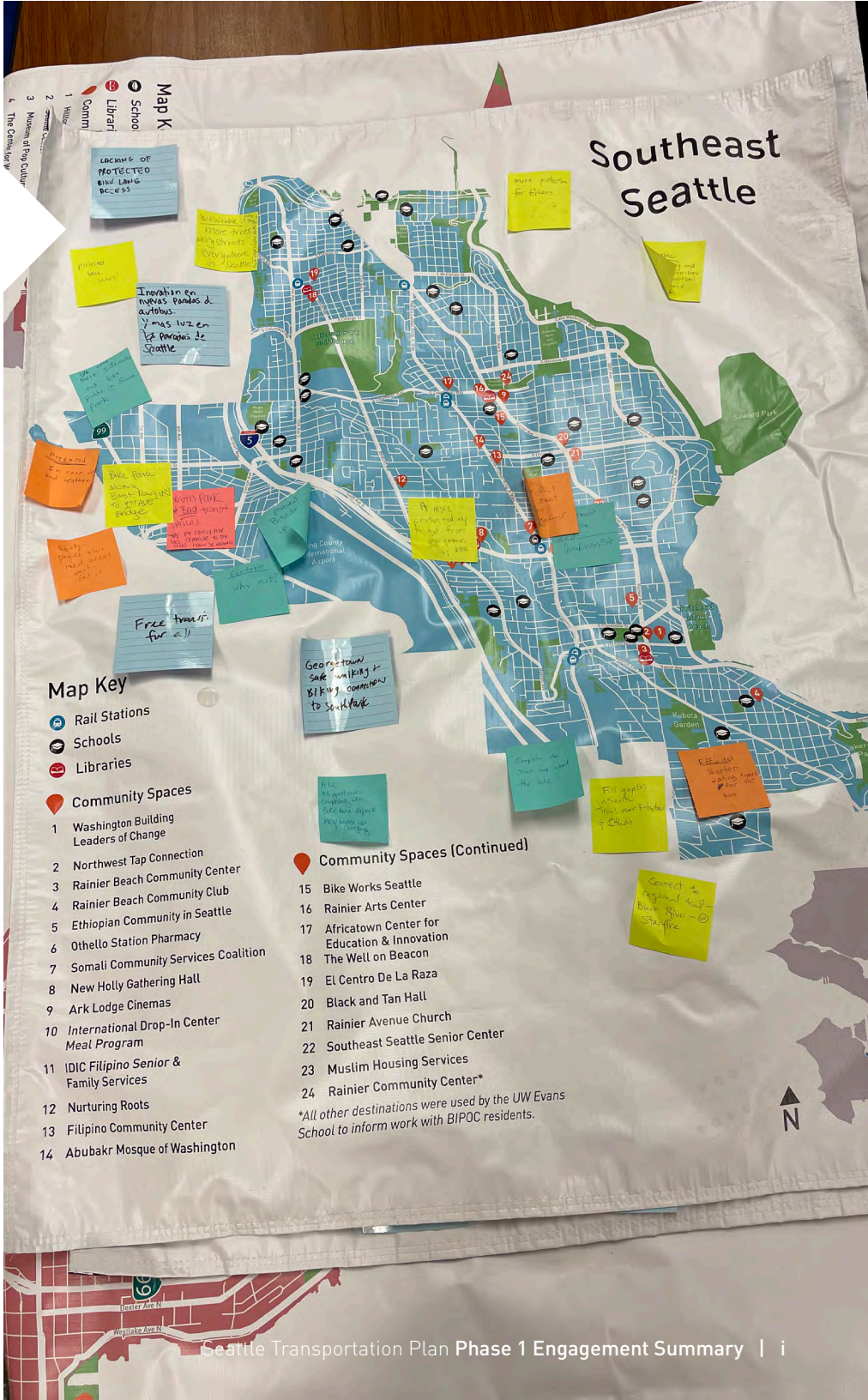
STP PHASE 1 ENGAGEMENT SUMMARY

September 2022

CONTENTS

What is the Seattle Transportation Plan (STP) and the Phase 1 Engagement Summary Report?

The STP is our commitment to building a transportation system that provides everyone in Seattle with access to safe, efficient, and affordable options to reach places and opportunities. We intend to create this plan with the community, making public engagement a critical part of the process. **This summary report details Phase 1 of STP engagement that ran from May to August 2022, and the key takeaways that will help us co-create the plan with the communities of Seattle.**



EXECUTIVE SUMMARY

STP PHASE 1 ENGAGEMENT

Launched | *May 31, 2022* — Ended | *August 31, 2022*

PURPOSE AND COMMITMENT

The Seattle Transportation Plan (STP) is a vision for the future of transportation in Seattle. Community engagement is a crucial part of the development of the plan. Engagement for the STP is broken into three phases. Phase 1 focused on your transportation needs and priorities, which helped us develop our collective vision for the future of Seattle's transportation system. This summary report details Phase 1 engagement and the key takeaways that will help us co-create the plan with the communities of Seattle.

Through the Seattle Transportation Plan, we seek to do no further harm, and to acknowledge, understand, and address the harms caused by our past policies, practices, and programs.

BUILDING AWARENESS

We built awareness about the STP through social media, blog posts, paid media (including advertisements), and media that has covered the STP.

CITYWIDE ENGAGEMENT

We used 4 main tools to gather citywide feedback during Phase 1: survey 1: transportation challenges, survey 2: STP vision, the online engagement hub, and the Social Pinpoint interactive map.

EVENTS AND MEETINGS

To meet our STP engagement goals, we wanted to meet people where they are. By holding events and meetings in many different locations, we were able to hear many voices that will help us create the STP.

36,000+
Individual data points collected with citywide engagement tools during Phase 1

4,000+
People engaged at outreach events for the STP

75+
Posts distributed via SDOT's Facebook, Twitter, and Instagram

11
Local news outlets independently covered the STP

2,000+
Clicks via ads published in a variety of media sources

42
Media articles and outside blog posts about the STP

12,000+
Unique visitors to the online engagement hub

20,000+
Total visits to the online engagement hub

2,347
Unique users for the interactive map

6,317
Comments placed on the interactive map

709
Responses to Survey 1: Transportation Challenges

2,295
Responses to Survey 2: STP Vision

42
Community events

26
Meetings and briefings

COMMUNITY-LED ENGAGEMENT

We want to make sure the STP meets the needs of communities of color and those of all incomes, ages, and abilities. **We are working with community-based organizations (CBOs) and the Department of Neighborhoods Community Liaisons (CLs) to broaden and deepen our engagement processes. They will help us create a plan that advances our goal of a racially equitable and socially just transportation system.**

Community-based organizations (CBOs) are trusted community builders and leaders who already serve the communities we most hope to engage in the process.

The **Community Liaison (CL)** program began in 2009 to help the city do a better job engaging with and serving historically underrepresented communities, such as Black, Indigenous, and people of color (BIPOC) communities, refugee communities, seniors, youth, and people with disabilities.

CBOs and CLs help us elevate the voices of people we have not reached in past planning processes.

LOOKING AHEAD

With Phase 1 complete, we have kicked off Phase 2 engagement. In Phase 2, we're showcasing parts of the STP that the community helped us create as a result of Phase 1 engagement—then we're asking whether or not we got it right. Phase 2 engagement focuses on:

- Vision, goals, and objectives—to guide how we build our system
- Menu of actions—to improve our transportation system
- Transportation future—to work towards a shared future

KEY TAKEAWAYS

Through our various engagement tools, people provided a wealth of feedback on the future of transportation in Seattle—and we listened. Here are some key themes we heard in Phase 1:

1. **There is a need to increase affordable transportation choices and options**
2. **Focus investment in communities which have historically seen less affordable transportation options, but would highly benefit from increased choice in transportation**
3. **Safety is a major concern and is a barrier to achieving equitable transportation**
4. **People want to reallocate street space to repurpose some of our existing traffic lanes into spaces for bikes, transit, sidewalk cafes, etc., while also keeping essential traffic moving**
5. **Maintenance of our existing transportation system is critically important to people**
6. **Improvements are needed to provide better access to transit, and safety is a big concern at transit hubs, stations, and bus stops**
7. **For our BIPOC communities, safety and access to affordable transportation were the most common themes**

SEATTLE TRANSPORTATION PLAN

The Seattle Transportation Plan (STP) is a vision for the future of transportation in Seattle. Community involvement is a crucial part of the development of the plan. The STP will establish goals, strategies, and recommendations for a transportation system that works for our city now and in the future. The plan will shape everything from future transportation funding to projects and programs that enhance the way we enjoy public space and move through the city.

Too often, when government plans are developed, they exclude people—particularly people who are Black, Indigenous, or members of a community of color (BIPOC); people who are LGBTQIA+; people living in poverty; immigrant communities and people who do not speak English at home; young people; older adults; and people with disabilities. This has led to harm to some communities, including negative impacts to health, economic opportunity, and safety. **We believe everyone's voice should be heard to ensure their needs can be met.** We are partnering with community-based organizations, who have existing relationships with the communities they serve, to listen and ensure that the plan reflects the values and needs of everyone. Additionally, we are continuously committed to changing how we engage with the community during the STP process, to ensure that all voices are heard.

The STP is our commitment to building a transportation system that:

1. **Meets everyone's needs**
2. **Connects us all safely, efficiently, and affordably to places and opportunities**
3. **Treats everyone—regardless of race, class, gender, sexuality, nationality, age, or ability—with dignity and equity**

Through the Seattle Transportation Plan, we seek to do no further harm, and to acknowledge, understand, and address the harms caused by our past policies, practices, and programs.

PROCESS

How are we creating the Seattle Transportation Plan with the people? The STP launched in May 2022. Our Public Engagement Plan allowed us to design our engagement approach so that people can participate at any point in the process, know how to provide feedback, and have confidence that their voices will be heard. Our phased engagement approach allows for technical work and the plan itself to be directly influenced by community feedback at every step.

Together we...

- **Establish our shared vision**
- **Define the future of our transportation system**
- **Prioritize our transportation network**

By defining...

- **Our values and goals**
- **How we measure progress**
- **A menu of actions for the next 20 years**
- **Where we should make changes**
- **What to invest in first**
- **How to pay for it all**

And this is when we do it

- **Phase 1** May - August 2022
- **Phase 2** September - December 2022
- **Phase 3** January - June 2023

We designed our engagement approach so that people can participate at any point in the process, know how to provide feedback, and have confidence their voices will be heard.

PHASE 1 ENGAGEMENT

GOALS

The following goals guided the first phase of STP community engagement:

- Introduce the STP and its purpose
- Listen to people's priorities, challenges, and needs as they move around Seattle
- Work with the community to start establishing a shared vision for the future of transportation in Seattle
- Build a foundational body of community input to guide all future decisions in the process

The input collected during Phase 1 is being incorporated into all parts of the STP as it's developed. We want to ensure that the process is aligned with the community's priorities, needs, vision, and goals.

KEY QUESTIONS

We asked the following questions during Phase 1:

- What challenges do people face in getting around Seattle?
- What are people's top priorities for our city's future transportation system?
- What do people need to feel safe and comfortable when walking, rolling, biking, taking transit, or driving?
- What would help people reduce their drive-alone car trips?
- What steps can the City take to provide more equitable transportation for everyone?
- Do people have enough space for gathering with their communities on our streets? How can the City of Seattle support them?

> *"Transportation is such a vital issue to our working class peoples, especially low income, women, immigrants and refugees. Their concerns and opinions count, and they can contribute to the development of continued improvements in our city's transportation system."*
>
> Cindy Domingo, The Legacy of Equality Leadership and Organizing


Seattle
Department of
Transportation


COFFEE SHOP
1602


Let us know what challenges you currently face and what opportunities you see for the future as you travel around the city

BUILDING AWARENESS

BUILDING AWARENESS OF THE STP

We used many tools to build awareness about the STP. We wanted to ensure that everyone had the opportunity to learn about the plan and share their feedback with us.

DIGITAL

Digital tools were used to spread the word about the STP and opportunities to participate in the process. These tools included:

- Ads in media outlets, such as: *South Seattle Emerald, Seattle Chinese Post, Seattle Chinese Times, El Siete Dias, Tu Decides/You Decide, Seattle Viet Times, NW Vietnamese News, Runta News, Maleda Media, Korea Times Seattle*
- Social media (Facebook, Twitter, and Instagram)
- Articles and blog posts from SDOT and other sources, such as The Stranger, MyNorthwest, and the Seattle Bike Blog and Transit Blog

75+
Posts distributed via SDOT's Facebook, Twitter, and Instagram

11
Local news outlets independently covered the STP

2,000+
Clicks via ads published in a variety of media sources

42
Media articles and outside blog posts about the STP

STP engagement materials (digital and print) were available in 16 languages* so we could reach our growing non-English-speaking community.

PRINT

Not everyone is able to access or use the internet, and some people notice a sign or poster more than a Tweet or post on Facebook. Printed tools used to build awareness about the STP included:

- Business cards with QR codes to access online engagement
- Fact sheets, flyers, and flipbooks
- Posters
- Yard signs
- Print ads

170+
Yard signs distributed
(8 languages)

2,000+
Flyers distributed

25+
Posters displayed

CONVERSATIONS

Building awareness for the STP also involved conversations held during in-person meetings and events. Read more about these on page 24.

*Languages include: Amharic, Arabic, English, Japanese, Khmer, Korean, Lao, Oromo, Russian, Somali, Spanish, Tagalog, Thai, Tigrinya, Traditional Chinese, and Vietnamese

SURVEY 1
TRANSPORTATION CHALLENGES

Launched | *March 6, 2022* — Ended | *May 23, 2022*

PURPOSE AND PARTICIPATION

The first survey asked people what the most pressing transportation issues are that the community is facing. Additionally, the survey also asked how people want to receive and share information about the STP.

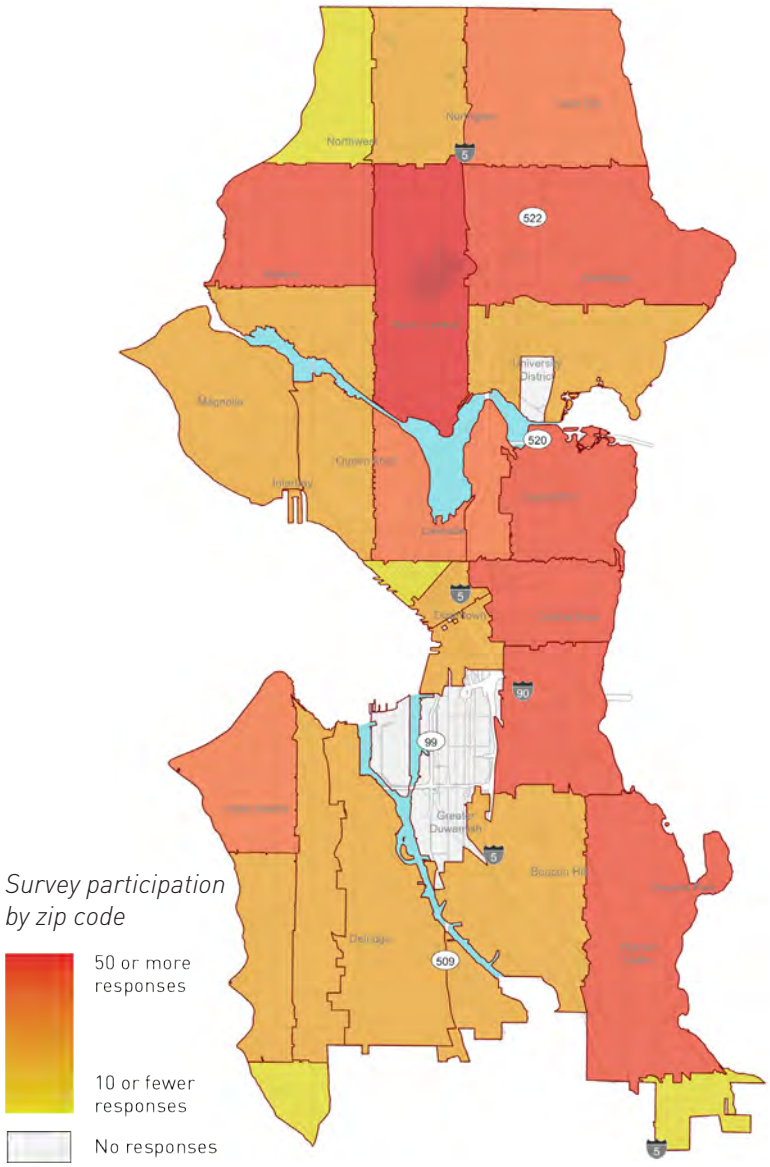
709
Total responses

Participation by race or ethnicity

Race or Ethnicity	Share of Participation	Share of Population
American Indian or Alaska Native	1.8%	2.4%
Asian	11.8%	21.1%
Black or African American	4.4%	8.9%
Hispanic, Latina/Latino/Latinx ethnicity	5.1%	8.2%
Native Hawaiian, Pacific Islander	1.0%	0.8%
White (of European ancestry)	78.5%	71.0%***
Middle Eastern, Arab, N. African White	1.6%	
Other	6.6%	7.3%

**People could select multiple answers; percentages may not add up to 100%*
***U.S. Census, 2020*
****The U.S. Census does not distinguish between White (of European ancestry) and Middle Eastern, Arab, or North African White*

From Survey 1, we learned people's greatest transportation challenges and how they would most like to engage with the STP.



Survey participation by zip code

KEY TAKEAWAYS

Based on input we received from this survey, we tailored our engagement approach and learned more about what people feel are the most common transportation challenges. See below for key takeaways from the survey:

- Many of the general comments were related to **access**, listing challenges like disability access, disconnected bike lanes, and transit frequency and access
- Many general comments also mentioned **safety**, such as a mixture of traffic and unclean conditions that made people feel unsafe
- Out of social media options, **Twitter** is a more popular choice for engagement than Facebook, Instagram, or LinkedIn

65%
Selected **time/reliability** as the biggest challenge they face while getting around Seattle

60%
Selected **safety** as the biggest challenge they face while getting around Seattle

73%
Preferred **email or online websites** to learn more about the STP engagement opportunities

87%
Preferred online surveys for giving feedback to the process

Amplifying Community Voices

- Black/African Americans and Native Hawaiians/Pacific Islanders said **cost was a challenge** at a higher percentage than citywide *(16% and 17% respectively compared to 8% citywide)*.
- Asian and Middle Eastern people noted **access to transportation as a challenge** at a higher percentage than citywide *(40% and 34% respectively compared to 22% citywide).*
- Asians were the **most likely to say safety** was a challenge *(77% compared to 65% citywide).*
- In Delridge, people were **less likely to choose safety** as their top challenge, highlighting time/reliability instead *(Just 51% compared to 60% citywide).*

SURVEY 2
SEATTLE TRANSPORTATION PLAN VISION

Launched | *May 31, 2022* — Ended | *August 31, 2022*

PURPOSE AND PARTICIPATION

2,295
Total responses

The second survey helped us create a shared vision, goals, and objectives for the STP by asking about people's transportation needs, experiences, and priorities. The survey was widely advertised via our awareness-building tools, including:

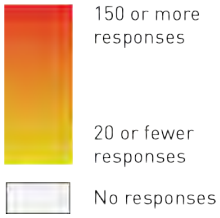
- QR codes at in-person events
- Paper surveys passed out at events
- Surveys were available in 16 languages for the online version of the survey (non-English paper surveys were available upon request).

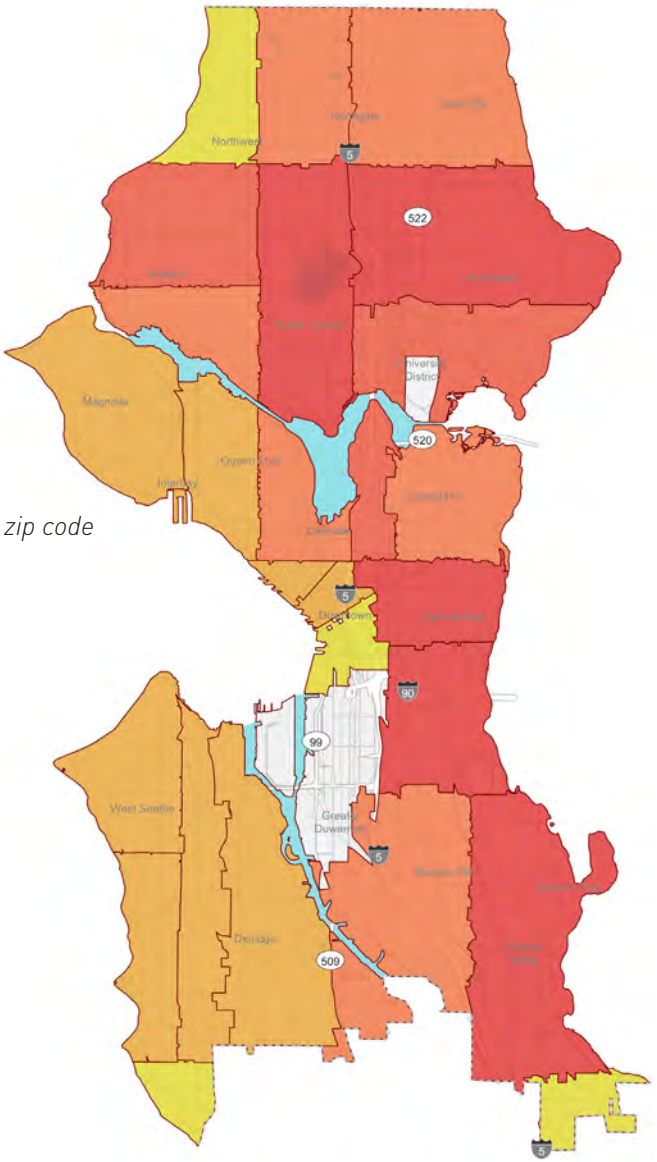
Participation by race or ethnicity

Race or Ethnicity	Share of Participation	Share of Population
American Indian or Alaska Native	4.1%	2.4%
Asian	11.7%	21.1%
Black or African American	3.7%	8.9%
Hispanic, Latina/Latino/Latinx ethnicity	6.3%	8.2%
Native Hawaiian, Pacific Islander	0.9%	0.8%
White (of European ancestry)	78.3%	71.0%***
Middle Eastern, Arab, N. African White	1.7%	
Other	3.2%	7.3%

**People could select multiple answers; percentages may not add up to 100%*
***U.S. Census, 2020*
****The U.S. Census does not distinguish between White (of European ancestry) and Middle Eastern, Arab, or North African White*

Survey participation by zip code





From Survey 2, we learned what people's ideal vision for the future of transportation in Seattle would look like.

> *Seattle needs a whole new approach to transportation. One that centers the movement of people and goods, not cars and trucks. People of all ages and abilities need to be able to move around the city safely without the need [of a car]... We have no hope of meeting our climate goals or making our city safer if we don't make these big changes"*
>
> Survey 2 Comment

KEY TAKEAWAYS

The results from this survey directly informed the STP's vision, goals, and objectives. During Phase 2, we will bring the vision, goals, and objectives to the community to see if we got it right. See below for key takeaways from Survey 2:

- We should create a **people-oriented transportation system** with reduced emphasis on automobiles
- Seattle **should be an easier place to live without a personal vehicle**, whether by choice or by necessity
- Seattle should **make targeted investments in underserved areas** to provide better transportation and avoid displacement of lower-income and marginalized communities
- Seattle's streets need to encourage people driving to travel slower and more safely, and **promote safety** for people walking, biking, and rolling
- **Maintenance is key**—sidewalks should be well-maintained and wide enough to use comfortably

Amplifying Community Voices

- In general, people of color **prioritized affordability, safety, accessibility, and travel delay** at higher percentages than citywide.
- Black and Indigenous people were more likely to say that it is a priority for our transportation system to **support a strong economy** *(80%+ compared to 70% citywide).*
- Asian and Latino communities emphasized **prioritizing safety** for all people, especially people walking rolling *(92%+ compared to 84% citywide).*
- In South Park and Greater Duwamish, people were much more likely to say that it is a priority to **make transportation affordable** for all *(94% compared to 75% citywide).*

91%
Support moving as many people as possible in the least amount of space using buses, walking, biking, carpools, and more*

83%
Support reallocating street space to make more room for public spaces like outdoor dining, street markets, plazas, and more*

93%
Support putting more money toward transit to make it more convenient and reliable*

91%
Support putting money towards sidewalks, bike lanes, etc., to help people walk, roll, and bike more*

80%
Support a system that avoids displacing underserved or lower-income people*

97%
Would prioritize creating a transportation system that is safe and comfortable for everyone*

97%
Would prioritize a well-maintained transportation system*

We heard that people support goals that invest in underserved areas, reallocate space away from cars, improve safety, and increase transportation choice.

**Includes those who ranked the statement as medium or high priority*

ENGAGEMENT HUB

Launched | *May 31, 2022* — Ended | *August 31, 2022*

PURPOSE AND PARTICIPATION

The online engagement hub is the portal to access all digital engagement opportunities for the STP. In addition to activities to provide feedback on the STP process, during Phase 1, the online engagement hub included opportunities to:

- View an events calendar with opportunities to engage with the STP team
- Send an email or voicemail to the STP team
- Leave a general comment about the plan
- Sign up for email updates on the STP
- Request an STP team member to attend an event for another organization

304
General comments captured in the online engagement hub

KEY TAKEAWAYS

The general comments captured on the engagement hub directly influenced the creation of a shared vision for the future of transportation in Seattle. See below for the key takeaways:

- Getting around Seattle **needs to feel safe for everyone**, whether they are walking, rolling, biking, driving, taking transit, scooting, or using any other mode, in every part of the city
- **More transit service is needed** throughout the city, including more frequent and available buses and light rail outside of Downtown Seattle
- While people **generally want to see more bike lanes** on major arterial roads, others have been frustrated by the impact of these projects on car travel
- **Poor road quality** is a problem for both people driving and people biking
- People often choose not to walk, bike, or take transit out of **concern for their personal safety**

> *"STP's online engagement hub is distinctive in the breadth of possibilities it presents for engagement. Residents can complete a survey, use a mapping tool to identify areas of concern or for improvement, request that the engagement team meet with their organization, contact the engagement team using email or voicemail, or leave a general comment."*
>
> The Urbanist

What is the community saying about transportation?

"Please envision a future where any Seattle resident can get by without a car on a level playing field with those who can choose to drive."

"...Many folks in Seattle are [incredibly] frustrated by the continuing emphasis on cars in our rights-of-way. The future of transit is local—as climate change and deepening inequality continue, fewer of us will be taking trips to other cities, and more of us will be riding bikes and scooters around our neighborhoods."

"Please do more for pedestrian safety on streets where density is occurring. A patchwork of sidewalks, with lots of traffic in between, is unsafe."

"Please, just put more thought into the full system of bike trails! Many of the individual sections are really quite nice, but they're always in isolation, with no concern for how to get onto and off them, or how to connect to other trails even just a block or two away."

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

"Strategic consideration: do not attempt to place all ages bike infrastructure on transit arterials; it costs too much and is awkward; instead, place them on parallel streets."

"The condition of roads in Seattle is deplorable. Rough roads full of cracks and divots only push people away from small, efficient vehicles and micromobility into large, gas guzzling vehicles because they're the only kind can handle these terrible roads."

"Safety is another concern. I see plenty of people using drugs or trains to sleep in. Security needs to improve to make stations and bus stops safer."

STP Engagement Hub Comments

SOCIAL PINPOINT MAP

Launched | *May 31, 2022* — Ended | *August 31, 2022*

PURPOSE AND PARTICIPATION

To better understand where transportation challenges and opportunities exist, we created an interactive Social Pinpoint online mapping tool. The tool allowed people to drop pins, trace routes, and draw areas where they want to see improvement.

6,317

Comments placed on the interactive map

2,347
Unique users

4,580
Pins placed

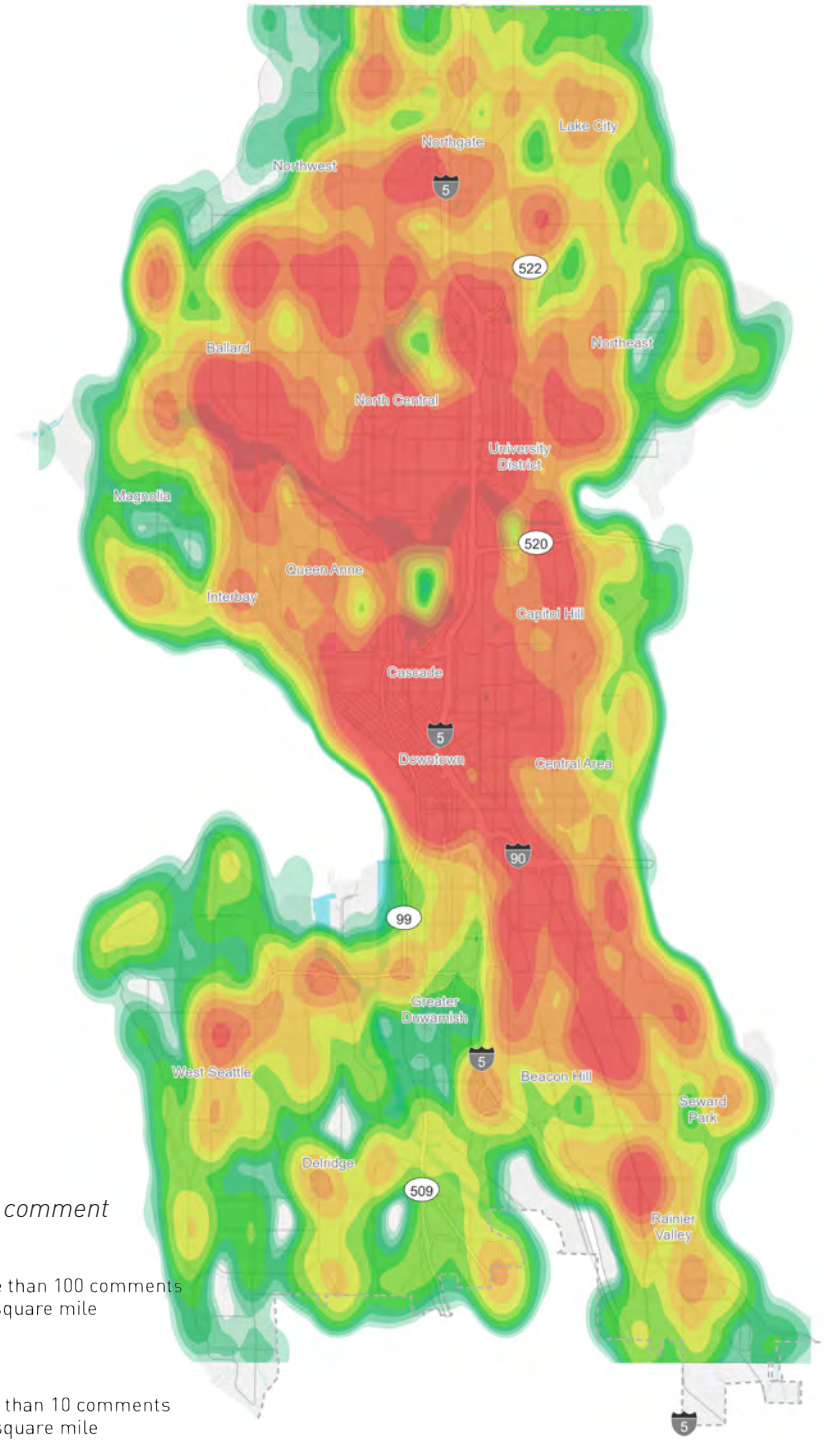
1,252
Routes drawn

485
Areas drawn

Participation by race or ethnicity

Race or Ethnicity	Share of Participation	Share of Population
American Indian or Alaska Native	2.4%	2.4%
Asian	12.9%	21.1%
Black or African American	3.5%	8.9%
Hispanic, Latina/Latino/Latinx ethnicity	5.6%	8.2%
Native Hawaiian, Pacific Islander	1.4%	0.8%
White (of European ancestry)	81.8%	71.0%***
Middle Eastern, Arab, N. African White	2.0%	
Other	4.0%	7.3%

**People could select multiple answers; percentages may not add up to 100%*
***U.S. Census, 2020*
****The U.S. Census does not distinguish between White (of European ancestry) and Middle Eastern, Arab, or North African White*



Heatmap of comment locations

More than 100 comments per square mile

Less than 10 comments per square mile

KEY TAKEAWAYS

Responses on the Social Pinpoint map tell us what actions are most needed to improve our transportation system. During Phase 2, we will bring a draft set of actions back to the community to see if we got it right. See below for key takeaways from the Social Pinpoint Mapping activity:

- Our transportation system is mostly built for personal vehicles instead of people. **Safe, comfortable, and inexpensive transportation options are unevenly distributed in Seattle**
- We need to **make it easier to get places without a car**
- We **need to maintain** our transportation infrastructure more effectively and regularly
- Key streets, bridges, and intersections in Seattle are **unfriendly to people walking, biking, and rolling**

55%
Referenced travel by a particular mode other than cars

29%
Referenced opportunities for improved bicycle infrastructure

27%
Referenced safety concerns and/or challenges with the existing network

31%
Referenced challenges with existing intersection design (safety and accessibility concerns)

Amplifying Community Voices

- Indigenous people (American Indian/Native Alaskan) referenced **transit** at a much higher percentage than citywide comments *(21% compared to 7% citywide).*
- In the Central District, nearly a quarter of comments mentioned **Rainier Avenue** as being unsafe and difficult to cross on foot or bike *(24% of comments in the area).*

Challenges we heard

- Light rail stops in South Seattle are dangerous to access for people walking
- Neighborhoods with wide roads and multiple car lanes, but no bike lanes or sidewalks
- Existing sidewalks/bike lanes not connecting or continuing to where people want to go
- Transit not running enough times or places
- Poor maintenance, worn paint, and rough road surfaces
- Debris in bike lanes
- Uneven and inaccessible sidewalks
- Major corridors, such as freeways and waterways, are barriers to people walking, biking, and rolling
- East-to-west travel is typically the most difficult for all modes of transportation

Needs we heard

- Streets in all areas of Seattle designed to slow cars and protect more vulnerable users
- Bike lanes that are more connected and more protected
- Transit service that connects key neighborhoods and runs often and all day
- Well-maintained roads and bike lanes with clear markings
- Sidewalks kept clear, smooth, and accessible
- Bridges with wider sidewalks and bike lanes
- Intersections where people walking and people biking are visible and protected

From the map, we heard the need for actions that improve safety, transportation choice, equity, and maintenance.

REACHING OUR PRIORITY AUDIENCES

The STP Public Engagement Plan is committed to elevating the voices of people who are traditionally left out of government planning—particularly those who are Black, Indigenous, or part of a community of color; people who are LGBTQIA+; people living in poverty; immigrant communities and people who do not speak English at home; young people; older adults; and people with disabilities. **We believe everyone's voice should be heard so their needs can be met.**

To hear the voices of our neighbors who are members of these communities, we built relationships and tailored our engagement materials. Here is how:

Yard Signs and Flyers

To engage non-English speaking members of the community, team members distributed yard signs, poster, and flyers at or near identified community gathering places, assets, and community-based organizations. By overlaying the Social Pinpoint map with the community asset map, we identified community spaces within neighborhoods that were minimally engaged in the STP process to date. Key areas of focus were the Duwamish Valley, Lake City, Rainier Valley, White Center/Roxhill, and Lower Beacon Hill.

Community Events

Using a similar process as described above for the signs and flyers, we identified key community events in priority neighborhoods to attend. At these events, we met people where they were to share information about the STP and gather feedback via activities or conversation.

Building Relationships

We are working to strengthen relationships with community-based organizations that serve people who are traditionally left out of government planning. We began to build relationships with these organizations as they planned culturally- and community-appropriate engagement, such as listening sessions, attendance at meetings and events, field trips, one-on-one interviews, and distributing tailored STP engagement materials. This relationship-building and outreach will continue in Phase 2.

> *I would love if the goal of the Seattle Transportation Plan were to make alternatives to driving [like] public transit, biking, and walking faster and more convenient...Seriously investing in those alternatives is a win for everyone!"*

STP Engagement Hub Comment

MEASURING PROGRESS TOWARDS EQUITABLE ENGAGEMENT

In both survey 2 and the Social Pinpoint Map, our Asian, Black or African American, and Hispanic, Latina/Latino/Latinx ethnicities were all underrepresented during this phase of engagement. However, participation among these groups increased throughout Phase 1, in part due to our targeted outreach methods.

Survey 2

Participation by race or ethnicity

Race or Ethnicity	Through June	Through July	August (end of Phase 1)	Change from June - August	Share of Population
American Indian or Alaska Native	1.1%	2.8%	4.1%	3.0%	2.4%
Asian	11.2%	11.3%	11.7%	0.5%	21.1%
Black or African American	3.2%	3.5%	3.7%	0.5%	8.9%
Hispanic, Latina/Latino/ Latinx ethnicity	5.2%	5.2%	6.3%	1.1%	8.2%
Native Hawaiian, Pacific Islander	0.5%	0.7%	0.9%	0.4%	0.8%
White (of European ancestry)	82.3%	80.8%	78.3%	-4.0%	71.0%***
Middle Eastern, Arab, N. African White	2.0%	2.0%	1.7%	-0.3%	
Other	3.3%	3.1%	3.2%	-0.1%	7.3%

**People could select multiple answers; percentages may not add up to 100%*
***US Census American Community Survey, 5-Year Estimates, 2020*
****The U.S. Census does not distinguish between White (of European ancestry) and Middle Eastern, Arab, or North African White*

Social Pinpoint Map

Participation by race or ethnicity

Race or Ethnicity	June	July	August (end of Phase 1)	Change from June - August	Share of Population
American Indian or Alaska Native	1.8%	2.4%	2.4%	0.6%	2.4%
Asian	13.7%	12.8%	12.9%	-0.8%	21.1%
Black or African American	3.5%	3.6%	3.5%	0.0%	8.9%
Hispanic, Latina/Latino/ Latinx ethnicity	4.9%	5.3%	5.6%	0.7%	8.2%
Native Hawaiian, Pacific Islander	1.1%	1.4%	1.4%	0.3%	0.8%
White (of European ancestry)	84.2%	84.6%	81.8%	-2.4%	71.0%***
Middle Eastern, Arab, N. African White	2.3%	2.2%	2.0%	-0.3%	
Other	2.5%	3.0%	4.0%	-0.5%	7.3%

**People could select multiple answers; percentages may not add up to 100%*
***US Census American Community Survey, 5-Year Estimates, 2020*
****The U.S. Census does not distinguish between White (of European ancestry) and Middle Eastern, Arab, or North African White*

In the next phase, we will continue targeted outreach to elevate voices of those who have been left out of past planning processes.

ADVANCING EQUITABLE ENGAGEMENT

We want to make sure the Seattle Transportation Plan meets the needs of communities of color and those of all incomes, ages, and abilities. **Therefore, we are working with community-based organizations (CBOs) and Department of Neighborhoods Community Liaisons (CLs) to broaden and deepen our engagement processes. This helps us create a plan that advances our goal of a racially equitable and socially just transportation system.**

COMMUNITY LIAISONS

The **Community Liaison (CL)** program began in 2009 to help the city do a better job engaging with and serving historically underrepresented communities, such as Black and Indigenous people of color (BIPOC) communities, refugee communities, seniors, youth, and people with disabilities. CLs are experts in their communities' needs, concerns, and interests.

COMMUNITY-BASED ORGANIZATIONS

Community-based organizations (CBOs) are trusted community fixtures and leaders who are embedded in the lives of the communities we most hope to engage in the process. They often come from the same ethnic, cultural, or religious backgrounds and/or speak the languages typically spoken in those communities. CBOs work closely with the communities they serve, often providing educational services, gathering spaces, fostering community connections, and advocating on their behalf.

LEANING ON OUR PARTNERS

CBOs and CLs:

- Can engage with their communities and collect qualitative and quantitative data in a culturally appropriate way
- Are already serving these communities and trusted by community members, who may be more willing to engage with CBO and CL staff than with City of Seattle staff

Throughout the STP process, we support CBOs and CLs who already serve communities whose voices we want to elevate in the STP. CBOs and CLs are compensated for their time working with us and they create and implement their own engagement strategies for the STP.

CBOs and CLs help us to elevate the voices of people we have not reached in past planning processes.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COMMUNITY-BASED ORGANIZATIONS

OVERVIEW

The CBO groups that we have partnered with include:

The Khmer Community of Seattle King County (KCSKC), in partnership with Noio Pathways and KIMYUNITY, has two programs working with the STP. One is a program with Khmer elders and the other is programming with youth.

- Their methods of engagement are field-trip based and have each used different forms of transportation to move around the city and experience and comment on the transportation system
- They have also had conversations with two youth cohorts about open space, public space, and cultural space as well as displacement of cultural space

This cohort-based approach to community engagement increases trust, reveals nuances in community members' lived experiences, and over time, has generated deeper conversation that has yielded increasingly specific feedback to share with City departments.

The Asian Pacific American Labor Alliance kicked off their own version of the Seattle Transportation Plan Phase 1 survey, which includes questions on transportation as well as housing and land use (since they are also participating in the Comprehensive Plan engagement). They are asking different union memberships and workers across the city to participate and compensating with gift cards for their time invested.

The Central Area Collaborative tabled at various neighborhood celebrations and events with flyers and giveaways and leveraged partnerships with community organizations in the Central District.

The Duwamish Valley Sustainability Association has been working with their youth leaders to develop a mobile application with the Gehl Institute to catalogue what they love and what could be improved in their communities as well as to provide space for storytelling.

Smash the Box has been popping up at local events in Beacon Hill, have been participating in LGBTQIA+ events, and have been partnering with local businesses. They have also been running innovative social media campaigns with local organizations and working with little libraries around the Beacon Hill neighborhood.

Estelita's Library has been leveraging existing events to ask questions about transportation, gathering data and compensating people for their time.

The Legacy of Equality Leadership and Organizing co-hosted an event with the Asian Pacific American Labor Alliance and has done one-on-one interviews with their community in Spanish, based on our Phase 1 survey.

CBOs are helping to elevate the voices of those traditionally left out of planning processes through culturally- and community-appropriate outreach strategies.

KEY TAKEAWAYS

Through our CBOs, we learned that communities left out of prior planning efforts have often been unsure of how to engage in the STP process—unless individuals or organizations they trust are available to share how the feedback they provide will be incorporated. During Phase 1 engagement, the CBOs used a variety of methods, like holding community conversations, facilitating focus groups, hosting field trips, and developing engaging activities, to reach their communities. Several themes emerged from the CBOs' Phase 1 engagement strategies:

Safety

- Lighting and visibility at bus stops is inadequate, decreasing feelings of safety
- Many sidewalks are in poor condition, posing tripping hazards for seniors, folks with limited mobility, and able-bodied people
- Fare enforcement makes people feel unsafe. Many folks have anxiety seeing fare enforcement, even if they have paid.

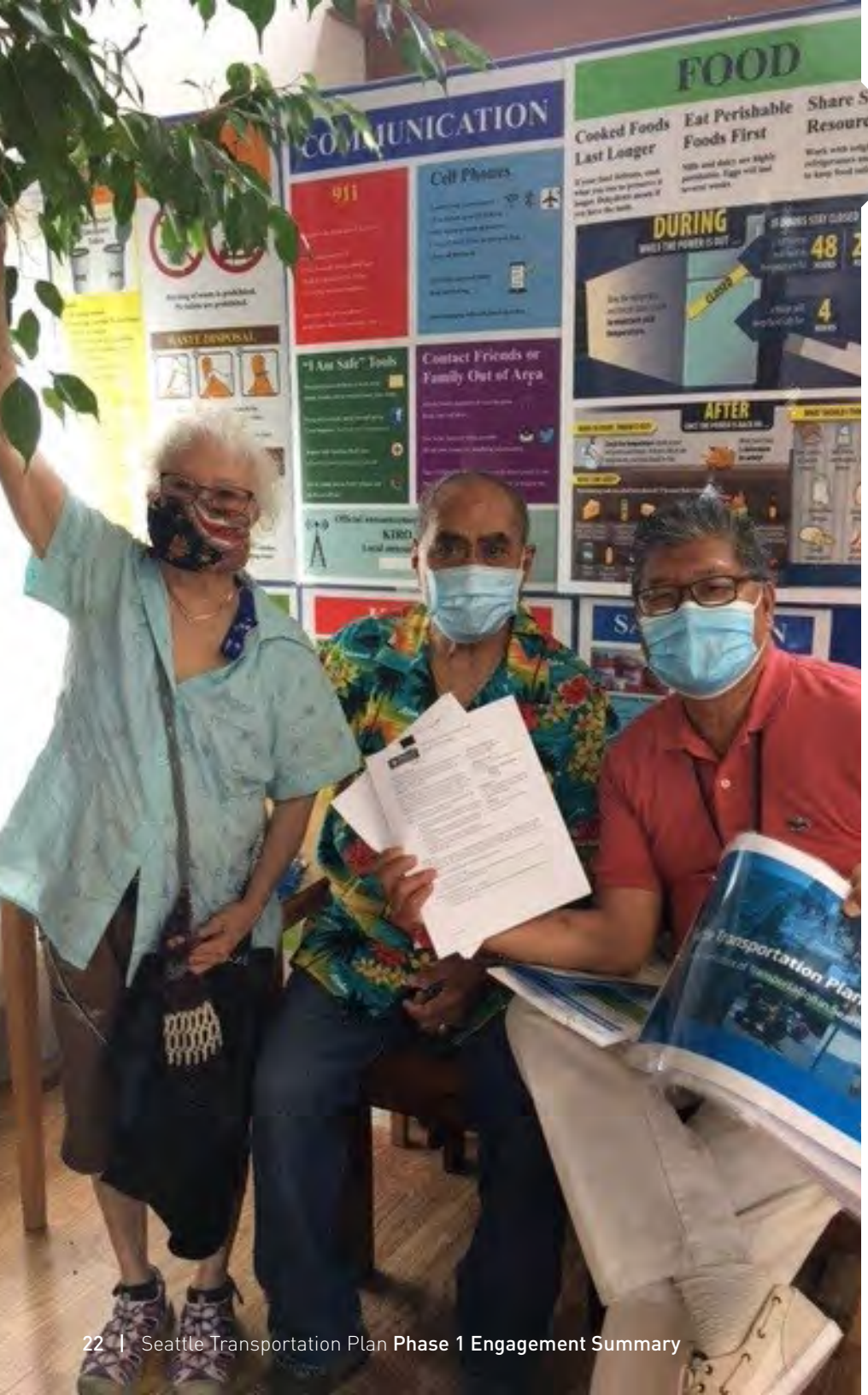
Infrastructure Investment

- Many areas would benefit from more maintenance as potholes create unsafe conditions for people who drive, bike, or walk—especially in neighborhoods that are underserved, including in the Duwamish Valley
- Many people are interested in seeing more bike lanes built in their neighborhoods, especially in neighborhoods that are not as well-connected (like South Park)
- Many feel more traffic calming measures are needed near schools
- Additional park-and-rides are needed to address neighborhood service gaps

Accessibility

- Free public transportation would serve everyone!
- Bus transfers aren't long enough for folks to run errands. People prefer paper transfers because bus drivers usually give 4 hours for elders, while ORCA cards only give 2 hours
- Transit navigators who speak different languages are requested to help riders know what buses to take, when buses are coming, etc.
- Digitized board with bus schedule at transit stops or at businesses near transit stops and stations
- 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.

> *"We will work with our community and labor partners to lift up the voices of workers of color and marginalized communities who have been forced to relocate as the city of Seattle grows. The need for reliable and affordable public transportation is crucial in ensuring our community can access the means to get to their livelihoods at any given hour"*
>
> Eunice How, The Asian Pacific American Labor Alliance



COMMUNITY LIAISONS PROGRAM

OVERVIEW

The City of Seattle's Department of Neighborhoods has a program to hire Community Liaisons (CLs). These individuals are independent contractors who engage with their communities and give the City advice based on their expertise and connections to communities. Our CLs are trusted advisors, and we rely on them to help guide projects including the STP.

The CLs working on the STP represent many communities, including Somali, Filipino, Spanish, Mandarin Chinese, Vietnamese Cham, unhoused communities, and people with disabilities. We have been meeting with the CLs since May 2022 to find out more about their communities' transportation concerns, which has helped us to build the STP goals and vision. **The CLs have represented the STP at many events this summer, helping us communicate with their communities—especially with people whose primary language is not English.**

Many CLs have also been engaging with their communities on the STP in customized, creative ways. These methods have included listening sessions focused on specific transportation topics; one-on-one interviews; giving out flyers and culturally-appropriate swag; and connecting via social media, radio, or video.

The CLs help us to identify the best ways to engage their community members in the STP process.

Equity, safety, accessibility, and better engagement methods were critical themes that came out of the CL engagement.

KEY TAKEAWAYS

The CLs are vital partners in the engagement process, as they connect SDOT directly to communities and broaden our geographic and demographic reach. They have deep contextual knowledge and relationships with their communities and are able to provide opinions, criticisms, and visions from both individuals and entire communities. At the end of Phase 1, we met with them and discussed what they've been hearing and what they need in the next round of engagement. **Safety, accessibility, and equity arose as key themes from communities. Additionally, the CLs provided suggestions for improving future engagement.**

Safety

- Many people feel unsafe at bus and light rail stops, and face crime or bullying as they wait to ride. We need to provide better lighting, surveillance, and cameras. Children and elders are particularly vulnerable to violence when riding transit.

Engagement

- We need to create opportunities to participate for those who do not have the time or resources to access the typical methods. Many people are focused on meeting their basic needs, and they should not be left out of the conversation.
- Many people appreciate that the City is creating this holistic transportation plan and they are glad to be asked for their input. People want to know how the plan is funded, and how their input will help shape the final plan.
- The best way to gather detailed feedback is through one-on-one conversations
- The STP's engagement strategy should not be one-size-fits-all. Many methods of engagement are needed to help everyone participate, including printed materials, in-person conversations, surveys, and online resources.

Accessibility

- Buses need to be more accessible and easier for families to use
- We need more frequent service that runs later into the night
- Buses and trains need to connect to each other, and they should provide better east-west travel to places like West Seattle
- People with additional mobility needs face greater barriers to travel. They often must take more inconvenient routes, and they are limited by steep hills, poor sidewalks, and bus stops without good facilities.
- Driving is often the best or only option for people to get around
- Everyone should be able to get where they need to go, regardless of where they live or how they move

Equity

- Past transportation decisions have hurt many of the communities the CLs represent. In the future, our investments should not cause harm or violence.
- Some transportation investments have driven people out of their homes, particularly elders; Black, Indigenous, and people of color; unhoused people; and people who live in South Seattle. Increasing housing costs also displace vulnerable communities in Seattle.

MEETING PEOPLE WHERE THEY ARE

Participation in community events has been a key way for the STP project team to get out into our neighborhoods to spread the word about the STP and encourage everyone to participate. Meetings between agencies make sure we share a common vision for the plan. **Meetings with people and groups have helped make sure this plan is created for our communities, by our communities.**

COMMUNITY TOUCHPOINTS

4,000+

People engaged at outreach events for the STP

42
Community events

26
Meetings and briefings

Events for BIPOC and Other Underrepresented Communities

We have made a commitment to seek the voices of those who have historically been excluded from planning processes and have been harmed by past decisions. In particular, events targeted those who are Black, Indigenous, or members of a community of color; people who are LGBTQIA+; people living in poverty; immigrant communities and people who do not speak English at home; young people; older adults; and people with disabilities. Events included:

- Indigenous Peoples Festival
- Festival Sundiata Black Arts Fest
- Othello/Rainier Stay Healthy Street Block Party
- Seafair Indian Days Powwow
- Duwamish River Festival
- Latinx Pride
- Othello International Festival
- Little Saigon Festival
- Seattle Parks & Recreation's Big Day of Play
- Girls on the Run Listening Session
- Chinatown/International District Celebration and Resource Fair at Hing Hay Park
- Umojafest
- Rainier Beach Back2School Bash
- High school orientation

Pop-Up Engagement at Festivals, Community Events, Resource Fairs, and Farmer's Markets

We were present to advertise the STP and collect feedback at a total of 42 events, which included 14 festivals, 19 community events, 8 market days, and 1 listening session in Phase 1, some of which included:

- Duwamish River Valley IdeaFest
- West Seattle Summerfest
- Market at Heron's Nest
- Alki Art Fair
- Beacon Arts Street Festival
- South Delridge Farmer's Market
- West Seattle Farmer's Market
- Columbia City Farmer's Market
- Lake City Farmer's Market
- Bike Everywhere Day
- Delridge Bike Rodeo
- Alki Ride
- West Seattle Bike Experience

OTHER MEETINGS AND BRIEFINGS

Meetings with Community Groups

We attended 11 community group meetings to collect input on the plan. These groups requested meetings with SDOT staff via email or the online engagement hub. These groups included:

- North Seattle Industrial Association
- Cascade Bicycle Club
- Seattle Neighborhood Greenways
- West Seattle Bike Connection
- Phinney Ridge Community Council
- SODO Business Improvement Area Transportation Committee
- Transportation Choices Coalition
- Northwest Columbia City Neighbors
- West Seattle Bridge Maritime Townhall
- University District Partnership
- Environment and Climate Caucus of the 46th Legislative District Democrats
- University District Community Council
- Downtown Neighbors

Meetings with City Boards and Committees

We provided 7 briefings to the City's transportation-focused boards and committees, as well as the opportunity to participate in a joint workshop. These included:

- Levy Oversight Committee
- Freight Advisory Board
- Bicycle Advisory Board
- Pedestrian Advisory Board
- Transit Advisory Board
- Planning Commission

Inter-agency Meetings

We have collaborated with other agencies and efforts involved in planning Seattle's transportation future, including:

- King County Metro Transit Advisory Commission
- Washington State Department of Transportation
- School Traffic Safety Committee
- Office of Planning and Community Development (developing the Seattle Comprehensive Plan Update)

Briefings with Seattle's Transportation Equity Workgroup (TEW)

Seattle's Transportation Equity Workgroup (TEW) was established in 2019 to seek input from a broad and diverse set of community members representing Black, Indigenous, and People of Color (BIPOC) and vulnerable communities. Grounded in their communities and experiences, this group defined a set of values and strategies to evaluate future transportation decisions. So far, we have engaged with the TEW three times to collaborate on defining the STP's vision, goals, and objectives, and will continue to do so as the process continues.

Arts-Based Engagement

Infusing art and creativity into STP engagement, we developed a pop-up game—a quick, hands-on, and fun way to engage with people at community events. Each pop-up invited passersby to play a 3–5-minute game and leave their thoughts about the plan on comment cards and neighborhood maps. Materials were provided in multiple languages when necessary.

Each game has 12 game pieces, each representing a different priority included in the STP. The team asked people to move forward the game pieces for the priorities that were the most important to them. People then took the comment cards from the squares their pieces landed on and filled out the cards with details on what transportation improvements they'd like to see and pinned them to maps of the Seattle neighborhoods their comments were about.

The a pop-ups were held at 2 events in Seattle throughout August:

- The Duwamish River Festival, August 6th, 2022 at South Park Plaza
- Big Day of Play, August 20th, 2022 at the Rainier CC Playfields

135

Comments collected at the arts-based engagement pop-ups

KEY TAKEAWAYS

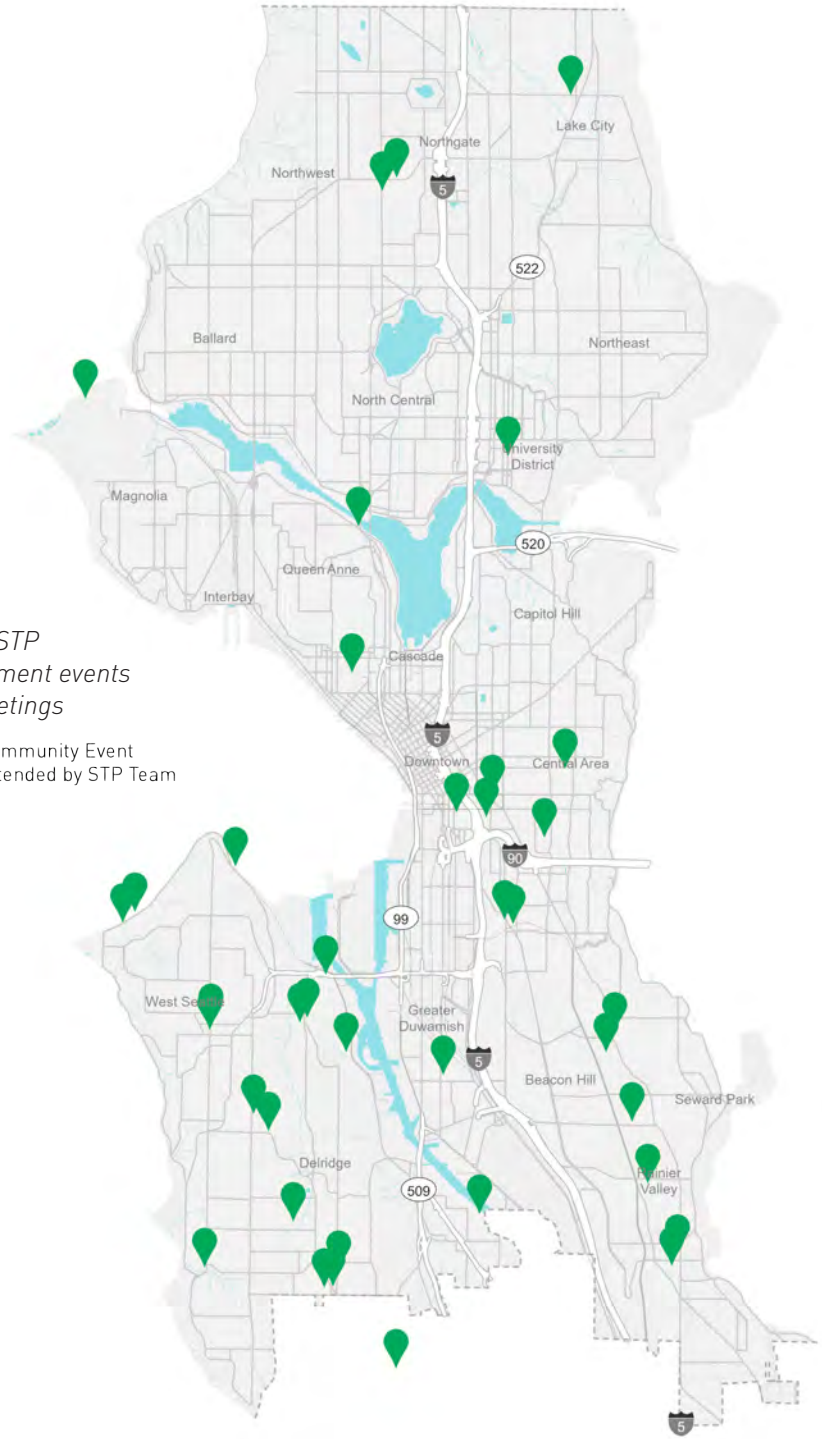
What we heard from people at events and meetings directly informed what actions we need to take to improve our transportation network as well as the STP's vision, goals, and objectives. See below for the key takeaways that emerged through STP engagement at various events and meetings:

- Safety can be improved by creating more separation between traffic and people who are walking, biking, and rolling
- Many areas lack of good transit options, especially in many low-income communities, either due to lack of frequency or a lack of routes
- There is a need for more connected, protected bike lanes and safe walking routes through and between neighborhoods
- There are safety and security concerns with regards to people living unhoused within neighborhoods and at bus stations—we need more and better lighting at transit stations
- There is a need for more parks and open space for active transportation
- There are some concerns that eliminating travel lanes could be detrimental to freight

Amplifying Community Voices

- For many in our non-English communities, it is difficult to get around when wayfinding is only in English—there are fears of getting lost
- We need to better accommodate people with low sight on the transit system, whether through Braille or through audible announcements
- 9th graders at Rainier Beach High School appreciated that transit can make it easier to travel without a parent or car—provided that it's safe and affordable

Our most vulnerable community members are most negatively impacted by a lack of safe and affordable transportation options, particularly when it comes to transit.



Map of STP engagement events and meetings

Community Event
Attended by STP Team

PHASE 2

With Phase 1 complete, we have kicked off Phase 2 engagement. In Phase 2, we are showing how input we gathered in the first phase is guiding the plan's vision, goals, and objectives. **We are also asking people to tell us if the vision, goals, and objectives resonate with them; what future they want for Seattle's transportation system; how they want to get around in the future; and what actions they would like us to take to get there.**

VISION, GOALS, OBJECTIVES

The STP will be guided by our collective vision, goals, and objectives for how we build a transportation system that works better for everyone now and in the future. We used Phase 1 engagement results to create the draft vision, goals, and objectives. As part of Phase 2, we will be asking our community if we got it right.

MENU OF ACTIONS

Based on what we've heard in Phase 1, we identified potential actions we can take to achieve our transportation goals. We're calling these the STP Menu of Actions In Phase 2, we'll ask for feedback on these potential actions as we continue to imagine how we want to move around the city in the future.

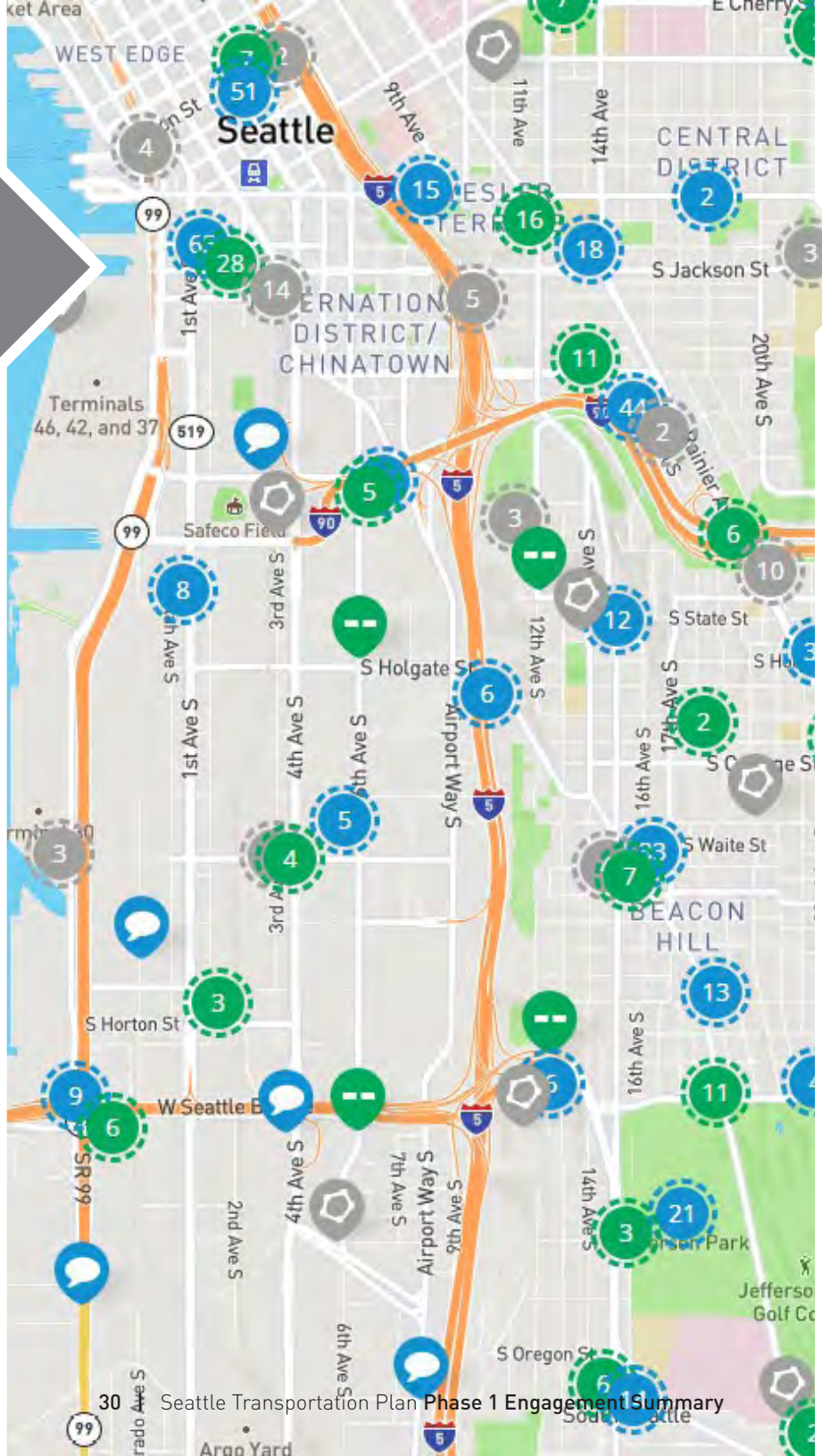
TRANSPORTATION FUTURE

To achieve our vision and meet our transportation goals, we need to build a transportation system that gives everyone safe and efficient options to get around without a car. In Phase 2, we'll ask people to consider three alternative futures that have different levels of change in our system and different levels of pace towards reaching our goals.

In Phase 2, we're going to continue tracking our progress towards equitable engagement, and will keep adjusting our approach to ensure everyone is heard.


Seattle Department of Transportation
Get involved with the One Seattle Comprehensive Plan Update!
SCAN ME
WE WANT TO HEAR FROM YOU!
SAFE ROUTES TO SCHOOL
Seattle Transportation Plan
Maligayang bati
gaan dhufte

ADDITIONAL RESOURCES



Click on the links below for additional resources related to STP engagement and Phase 1 engagement results, and see next page for a summary table of Phase 1 engagement:

Phase 1 Engagement Results

- Survey 1
- Survey 2
- Social Pinpoint Map
- Engagement Hub Comments

Digital Resources

- STP Engagement Hub
- STP Homepage
- Seattle Department of Transportation (SDOT) Homepage

Phase 1 Engagement Summary Table

	What We Learned	How We Reached Priority Audiences	How Feedback Helps Create the STP
Survey 1: Transportation Challenges	• People preferred to engage with the process via a digital or online method of engagement like online surveys or email, in addition to some in-person events and meetings • Travel time reliability and safety are the two most significant challenges to getting around Seattle	• Translated materials and advertisement • Social media	• Tailors STP engagement to the community
Survey 2: STP Vision	• People support goals that invest in underserved areas, reallocate space away from cars, improve safety, and increase transportation choice • Create a people-oriented transportation system and reduce our reliance on automobile travel	• Multicultural media campaign • Print materials with QR code • Translated materials and advertisement • Community events and meetings • Partnership with CBOs and CLs	• Defines the vision, goals, and objectives of the policy framework • Helps us create a menu of actions to improve our transportation system
Engagement Hub	• There's a need to expand our transportation options so that taking the bus, biking, and walking are easier • Safety is currently a major reason why many are avoiding taking the bus, biking, or walking on a more regular basis	• Multicultural media campaign • Print materials with QR code • Translated materials and advertisement • Digital and print media • Multicultural media campaign	• Defines the vision, goals, and objectives of the policy framework • Helps us create a menu of actions to improve our transportation system
Social Pinpoint Map	• Areas that have access to safe and affordable transportation options are inequitably distributed in Seattle—we need to invest in areas that have been traditionally underserved • Maintenance of our existing infrastructure is critical to improving safety and access for all	• Multicultural media campaign • Print materials with QR code • Translated materials and advertisement • Community events and meetings • Partnership with CBOs and CLs	• Informs where improvements to our network will be made • Helps us create a menu of actions to improve our transportation system
Community-Based Organizations	• Our most critical challenges revolved around safety concerns, accessibility to affordable transportation options, and how we choose to invest equitably in our transportation network	• Community events and meetings • Community and business group outreach • Translated materials distribution • Field trips • Arts-based engagement and communication tools • Surveying and one-on-one interviews	• Tailors STP engagement to the community • Informs where improvements to our network will be made • Helps us create a menu of actions to improve our transportation system
Community Liaisons Program	• We need to make intentional efforts to reach those who are not as easily reachable by creating more opportunities and access to STP engagement • Our future investments need to promote equity, safety, and access to opportunity for everyone in Seattle	• Community events and meetings • Translated materials distribution • Community organizations and business outreach	• Tailors STP engagement to the community • Informs where improvements to our network will be made • Helps us create a menu of actions to improve our transportation system
Events and Meetings	• We need a more safer and connected network for bikes and public transit • Our most vulnerable community members are most often negatively impacted by a lack of transportation options	• Community events and meetings • Partnership with CBOs and CLs • Translated materials and advertisement	• Informs where improvements to our network will be made • Helps us create a menu of actions to improve our transportation system


Seattle
Department of
Transportation

Seattle Transportation Plan

A Vision for the Future of Transportation in Seattle

Seattle Department of Transportation




STP PHASE 2 ENGAGEMENT SUMMARY

April 2023

CONTENTS

What is the Seattle Transportation Plan (STP) and the Phase 2 Engagement Summary Report?

The STP is our commitment to building a transportation system that provides everyone in Seattle with access to safe, efficient, and affordable options to reach places and opportunities. We are co-creating this plan with the community—making public engagement an important part of the process. This report summarizes the process and key takeaways from Phase 2 of STP engagement, which ran from September 2022 to February 2023.

STP PHASE 2 ENGAGEMENT

Launched | *September 15, 2022* — Closed | *February 21, 2023*

PURPOSE AND COMMITMENT

The Seattle Transportation Plan (STP) is a vision for the future of transportation in Seattle. Community engagement is a crucial part of the development of the plan. Engagement for the STP is broken into three phases. **Phase 1** focused on your transportation needs and priorities, which helped us develop our shared vision for the future of Seattle's transportation system. **See page 48 for a link to the Phase 1 Engagement Summary.** In **Phase 2**, we asked you to review the draft vision, goals, and objectives, tell us what actions you would like us to take, and give your thoughts on the draft transportation maps. This document summarizes the Phase 2 engagement process and key takeaways that we are using to draft the STP. In **Phase 3**, you'll be able to review the draft plan, tell us what you agree with and what we should improve, and help identify how to select and pay for projects. **Through the Seattle Transportation Plan, we seek to do no further harm, and to acknowledge, understand, and address the harms caused by our past policies, practices, and programs.**

BUILDING AWARENESS

We built awareness about Phase 2 engagement opportunities through social media, blog posts, and media that covered the STP.

CITYWIDE ENGAGEMENT

We used 2 main tools to gather citywide feedback during Phase 2: interactive survey questions on the online engagement hub, and a Social Pinpoint interactive map.

EVENTS AND MEETINGS

To meet our STP engagement goals, we wanted to meet people where they were. By holding events and meetings in many different locations, we were able to hear many voices that help us create the STP.

40,000+

Individual data points collected during Phase 2

3,500+

People engaged at outreach events for the STP during Phase 2

27
Posts distributed via SDOT's Facebook, Twitter, and Instagram*

8
Local news outlets independently covered the STP*

14
SDOT blog posts about the STP*

12
Blogs independently covered the STP*

5,000+
Unique visitors to the online engagement hub*

9,500+
Total visits to the online engagement hub*

3,474
Unique users for the interactive map*

1,961
Comments placed on the interactive map*

2,425
People completed online engagement hub activities*

26
Meetings and briefings*

32
Community events*

7
Open houses*

**During Phase 2*

COMMUNITY-LED ENGAGEMENT

We want to make sure the STP meets the needs of communities of color and those of all incomes, ages, and abilities. **We are working with community-based organizations (CBOs) and the Department of Neighborhoods Community Liaisons (CLs) to broaden and deepen our engagement processes. In Phase 2 of engagement, our work with CBOs and CLs continued to help us create a plan that advances our goal of a racially equitable and socially just transportation system.**

Community-based organizations (CBOs) are trusted community builders and leaders who already serve the communities we most hope to engage in the process.

The **Community Liaison (CL)** program began in 2009 to help the city do a better job engaging with and serving historically underrepresented communities, such as Black, Indigenous, and people of color (BIPOC) communities, refugee communities, seniors, youth, and people with disabilities.

CBOs and CLs help us elevate the voices of communities that we have historically and continue to struggle to reach through citywide engagement.

LOOKING AHEAD

With Phases 1 and 2 complete, we're hard at work incorporating your vision into the draft STP. We will be kicking off Phase 3 of engagement in mid-2023 when the draft plan is complete. Phase 3 of engagement will focus on:

- The draft STP—you can review the plan and tell us if your priorities are reflected in the plan, and if not, what we need to add or change
- Prioritization and funding—you can help us identify how to select and pay for improvements to our transportation system

KEY TAKEAWAYS

Through STP engagement, you have provided a wealth of feedback on the future of transportation in Seattle—and we have listened. Here are some key themes we heard in Phase 2:

1. **People want a transportation system designed around people**
2. **People want quick and transformational change to our transportation system**
3. **The draft STP vision, goals, and objectives resonate with more than 90% of people**
4. **The most popular actions include funding improvements to help people walk, roll, bike, and take transit more safely and easily**
5. **People want to see transportation improvements in places that have existing gaps, especially in our vulnerable neighborhoods**
6. **To achieve our climate goals, people want us to focus on helping people walk, roll, bike, and take transit more, and to plan for new technologies with caution and intention**

SEATTLE TRANSPORTATION PLAN

The Seattle Transportation Plan (STP) is a vision for the future of transportation in Seattle. Community involvement is a crucial part of the development of the plan. The STP will establish goals, strategies, and recommendations for a transportation system that works for our city now and in the future. The plan will shape everything from future transportation funding to projects and programs that enhance the way we enjoy public space and move through the city.

Too often, when government plans are developed, they exclude people—particularly people who are Black, Indigenous, or members of a community of color (BIPOC); people who are LGBTQIA+; people living in poverty; immigrant communities and people who do not speak English at home; young people; older adults; and people with disabilities. This has led to harm to some communities, including negative impacts to health, economic opportunity, and safety. **We believe everyone's voice should be heard to ensure their needs can be met.** We are partnering with community-based organizations, who have existing relationships with the communities they serve, to listen and ensure that the plan reflects the values and needs of everyone. Additionally, we are continuously committed to changing how we engage with the community during the STP process, to ensure that all voices are heard.

The STP is our commitment to building a transportation system that:

1. **Meets everyone's needs**
2. **Connects us all safely, efficiently, and affordably to places and opportunities**
3. **Treats everyone—regardless of race, class, gender, sexuality, nationality, age, or ability—with dignity and equity**

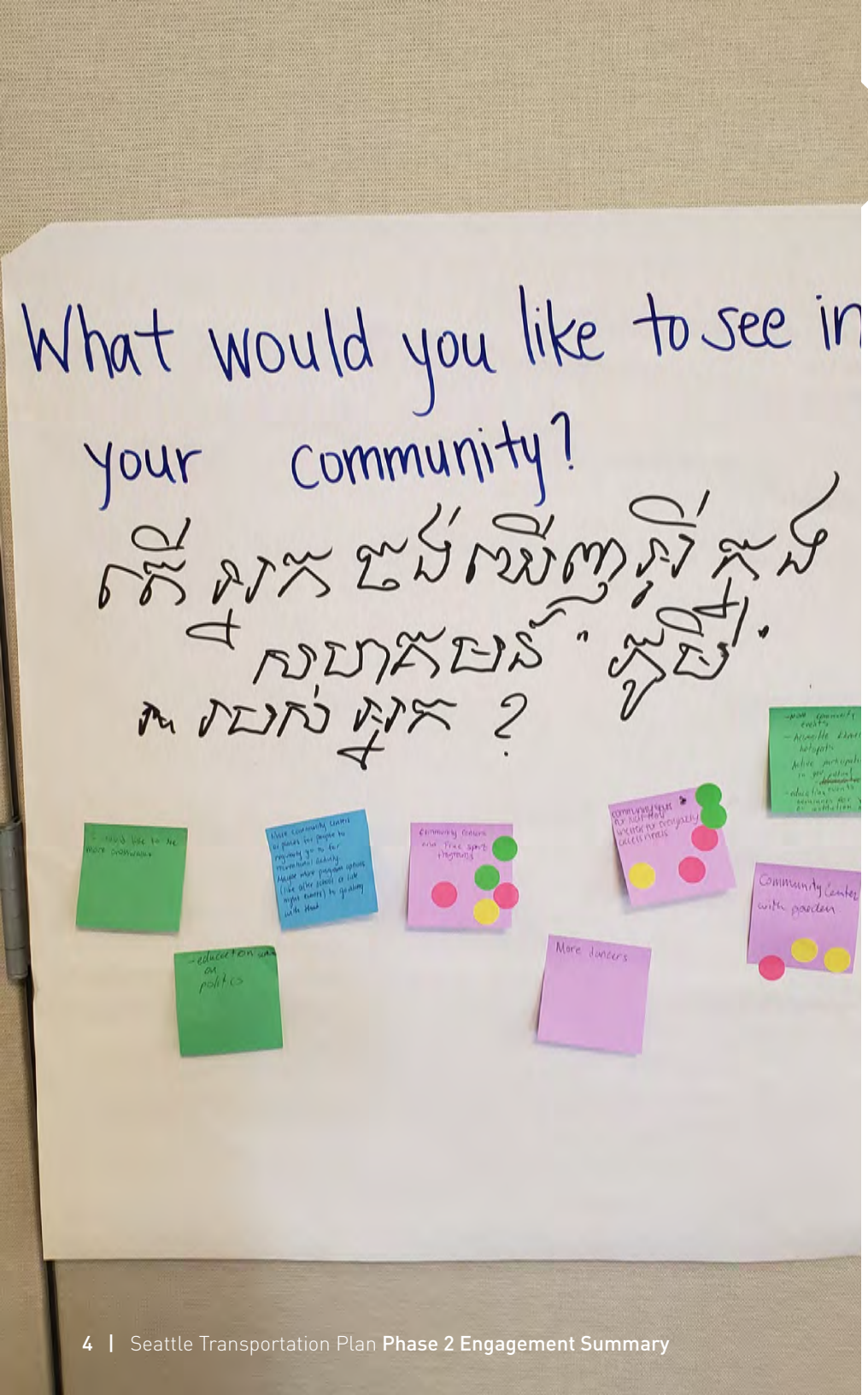
Through the Seattle Transportation Plan, we seek to do no further harm, and to acknowledge, understand, and address the harms caused by our past policies, practices, and programs.

PROCESS

Since the STP launched in May 2022, we've been committed to co-creating the STP with you. Our Public Engagement Plan allowed us to design our engagement approach so that people can participate at any point in the process, know how to provide feedback, and have confidence that their voices will be heard. Our phased engagement approach allows for technical work and the plan itself to be directly influenced by community feedback at every step.

	Phase 1 May-Aug 2022	**Phase 2A** Sep 2022-Feb 2023	**Phase 2B** Dec 2022-Feb 2023	**Phase 3** Mid-2023
We asked you to...	Tell us your transportation challenges	Review draft vision, goals, objectives; transportation futures; menu of actions	Review first draft of network maps	Review the draft Seattle Transportation Plan
We used your input to...	Inform draft vision, goals, and objectives	Refine draft policies	Refine first draft maps	Develop the final recommended Seattle Transportation Plan

We designed our engagement approach so that people can participate at any point in the process, know how to provide feedback, and have confidence their voices will be heard.



PHASE 2 ENGAGEMENT

GOALS

The following goals guided the second phase of STP community engagement:

- Gather feedback on the draft vision statement, goals, and objectives
- Determine how quickly you would like to achieve our goals
- Identify the actions that best help us achieve our goals
- Gather feedback on the draft transportation network maps

The input collected during Phase 2 is being incorporated into all parts of the STP as it's developed. We want to ensure that the process is aligned with the community's priorities, needs, vision, and goals.

> *"What this project helps us realize is that - yes, we can speak our mind and we are entitled to enjoy those kinds of beautiful spaces in our neighborhoods too"*
>
> Resident, Khmer Community of Seattle King County (KCSKC) Celebration Event


Kế Hoạch Vận Chuyển Seattle
CHÚNG TÔI MUỐN NGHE Ý KIẾN ĐÓNG GÓP TỪ QUÝ VỊ!
我們想聽聽您的意見!
PLACE A STICKER ON WHAT YOU WOULD LIKE TO SEE IN SEATTLE'S TRANSPORTATION SYSTEM
Seattle Transportation Plan
Help us imagine the future of transportation in Seattle
WE WANT TO HEAR FROM YOU!

BUILDING AWARENESS

BUILDING AWARENESS OF THE STP

During Phase 2, we built on our efforts in Phase 1 to raise awareness about the STP to ensure that everyone had the opportunity to share feedback.

DIGITAL

Digital tools were used to spread the word about the STP and opportunities to participate in the process. These tools included:

- Social media (Facebook, Twitter, and Instagram)
- Articles and blog posts from SDOT and other sources, such as the West Seattle Blog, Seattle Bike Blog, The Urbanist, Feet First, and Seattle Neighborhood Greenways

27
Posts distributed via SDOT's Facebook, Twitter, and Instagram

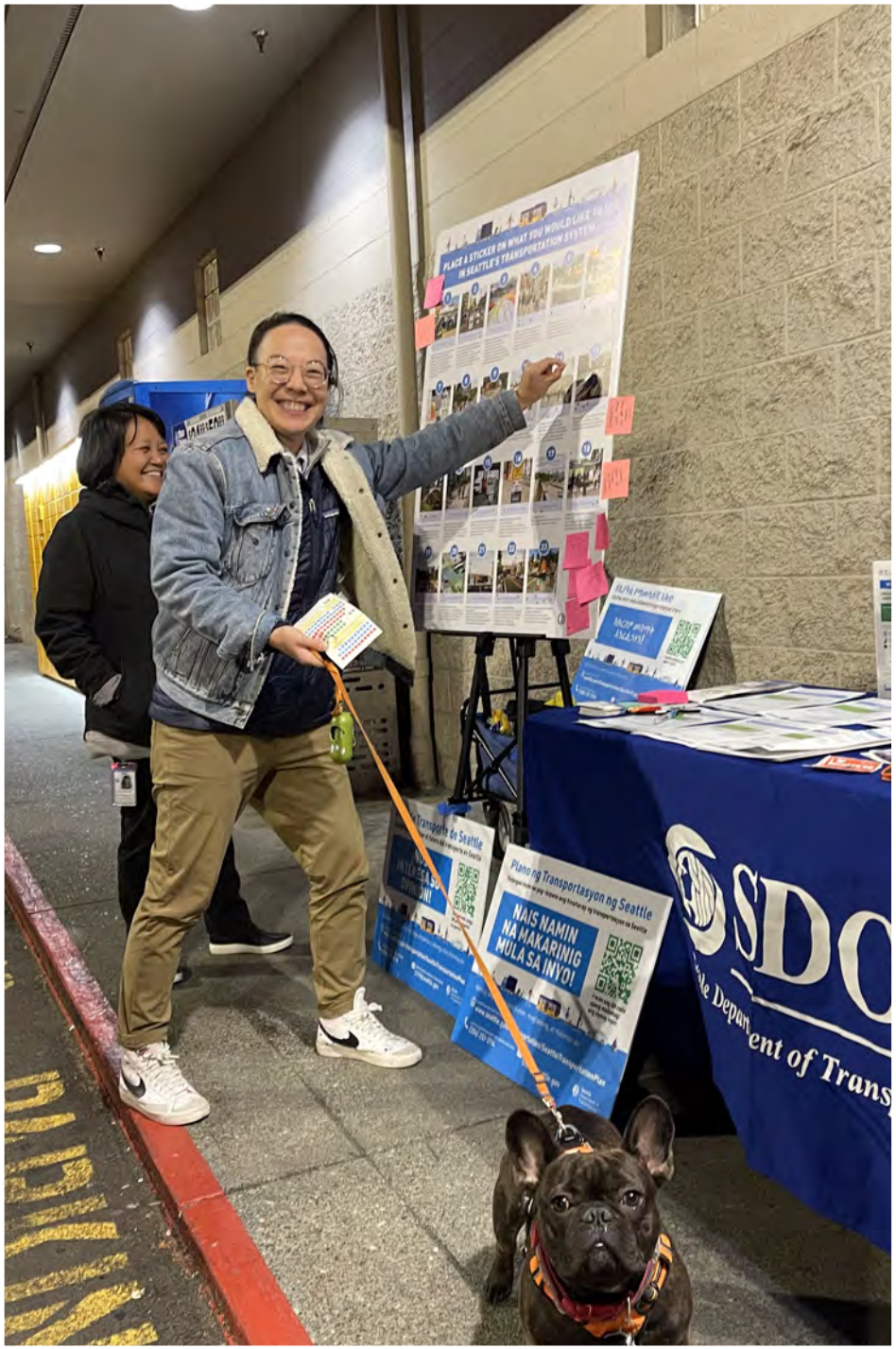
8
Local news outlets independently covered the STP

28
Media articles and outside blog posts about the STP

14
SDOT blog posts about the STP

CONVERSATIONS

Building awareness for the STP also involved conversations held during in-person meetings and events. Read more about these on page 42.


PLACE A STICKER ON WHAT YOU WOULD LIKE TO SEE IN SEATTLE'S TRANSPORTATION SYSTEM
Plano ng Transportasyon ng Seattle
NAIS NAMIN NA MAKARINIG MULA SA INYO!


seattledot
@seattledot
We've started the 2nd phase of engagement for the #SeattleTransportationPlan! You've shared your ideas & vision for the future of transportation in Seattle & we listened. Now we need your help to turn those ideas into actions!
Click here to learn more: bit.ly/3m2p8GI
ALT


Seattle Transportation Plan
WE WANT TO HEAR FROM YOU!

VISION, GOALS, AND OBJECTIVES

Launched | *September 15, 2022* — Closed | *February 21, 2023*

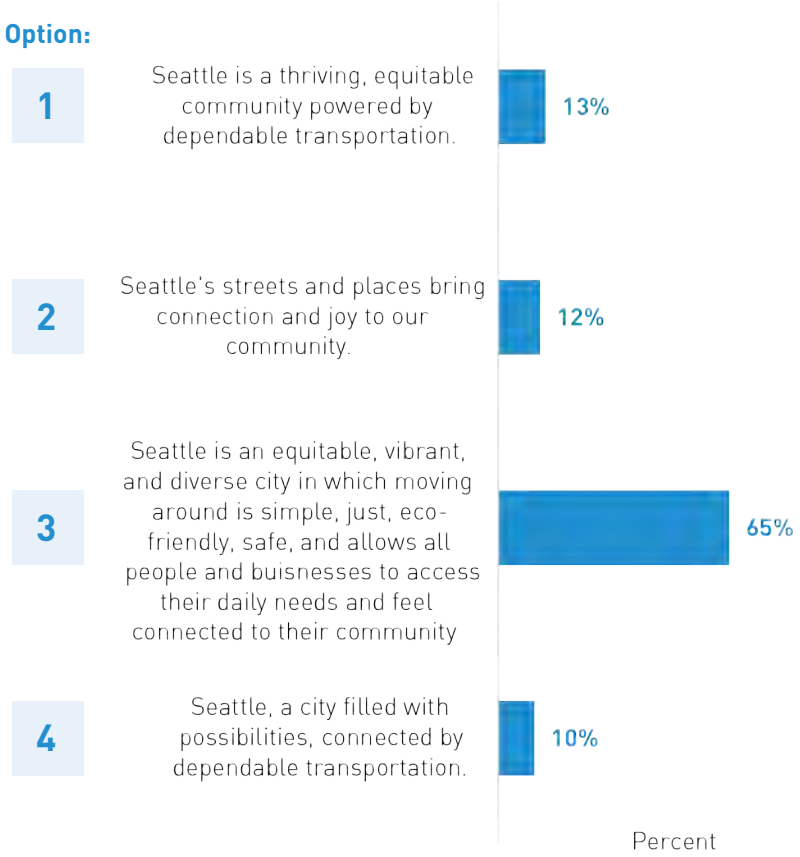
PURPOSE AND PARTICIPATION

The first activity on the Phase 2 online engagement hub gathered feedback on the draft STP vision, goals, and objectives. These were drafted based on the common themes we heard from you in Phase 1.

Draft STP Vision

Which of these statements is your vision for the future of transportation in Seattle?

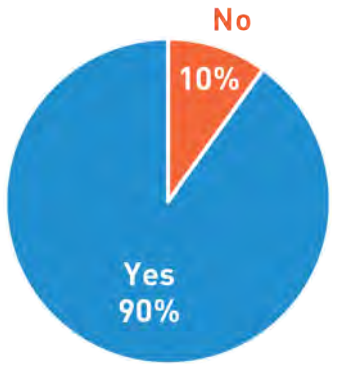
692
Total responses



Draft STP Goals

- **Safety:** Create safe transportation environments and eliminate serious injuries and fatal crashes
- **Equity:** Eliminate transportation-related disparities and associated adverse community and health impacts
- **Climate Action:** Aggressively reduce transportation-related greenhouse gas emissions to avert current and impending health, environmental, and economic consequences of the climate emergency
- **Stewardship:** Allocate public resources responsibly to improve and maintain a reliable transportation system, prioritizing those communities where the city has historically underinvested
- **Mobility:** Provide reliable and affordable travel options that enable people and goods to get where they need to go
- **Livability:** Create inviting streets and people places

Do these goals feel right to you?



661
Total responses

Draft STP Objectives

- Design, operate, and proactively maintain our streets and sidewalks to improve safety.
- Create welcoming and accessible public places within our streets that foster a sense of belonging and celebrate culture and community.
- Meet Seattle's mobility and climate emergency needs by encouraging and providing multiple travel options that are zero-emission, healthy, affordable, high-quality, easy-to-use, and accessible.
- Accelerate reduction in greenhouse-gas emissions by reducing all vehicle trips and vehicle-miles traveled (VMT) and by electrifying trips that require a vehicle.
- Make transit an attractive travel choice for a majority of trips, reliably transporting riders where they need to go. Support the efficient, sustainable movement of goods and services through the design and management of our streets and curbs.
- Increase investments and engagement in historically underinvested and displaced communities to acknowledge and address past harms and mitigate further displacement caused by transportation decision-making processes, designs, and investments.
- Ensure the City's transportation decisions and investments support the City's overall growth strategy.
- Address our complex transportation challenges and inequities with new approaches to maintenance, project prioritization, funding, community engagement, and transparency.

Do these objectives feel right to you?

526
Total responses

KEY TAKEAWAYS

Based on input we received from this survey, we chose our final STP vision and affirmed that the goals and objectives resonate with people. See below for key takeaways from the activity:

- 65% of people chose the third vision option: **"Seattle is an equitable, vibrant, and diverse city in which moving around is simple, just, eco-friendly, safe, and allows people and businesses to access their daily needs and feel connected to their community."**
- Over 90% of people resonate with the draft STP goals and objectives. These guiding statements will shape the final STP.

Amplifying Community Voices

- 70% of people of color preferred the **third vision option**, as opposed to 65% of people citywide.

OUR TRANSPORTATION FUTURE

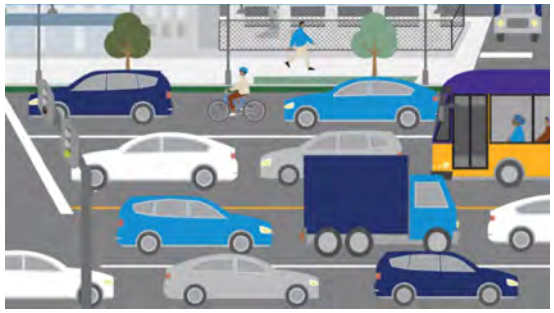
Launched | *September 15, 2022* — Closed | *February 21, 2023*

The second online engagement hub activity asked about how quickly you would like to see Seattle's transportation system change. This activity was also completed in-person at the STP open houses held on January 28 and 31, 2023 (those results are incorporated). Three options were presented along with some related survey questions:

Future A:

Stay the Course

We incrementally change our transportation system. We make progress towards our goals, but many remain out of reach.



Future B:

Moderate Pace

We accelerate changes to our transportation system. Some of our goals may be within reach.

Future C:

Rapid Progress

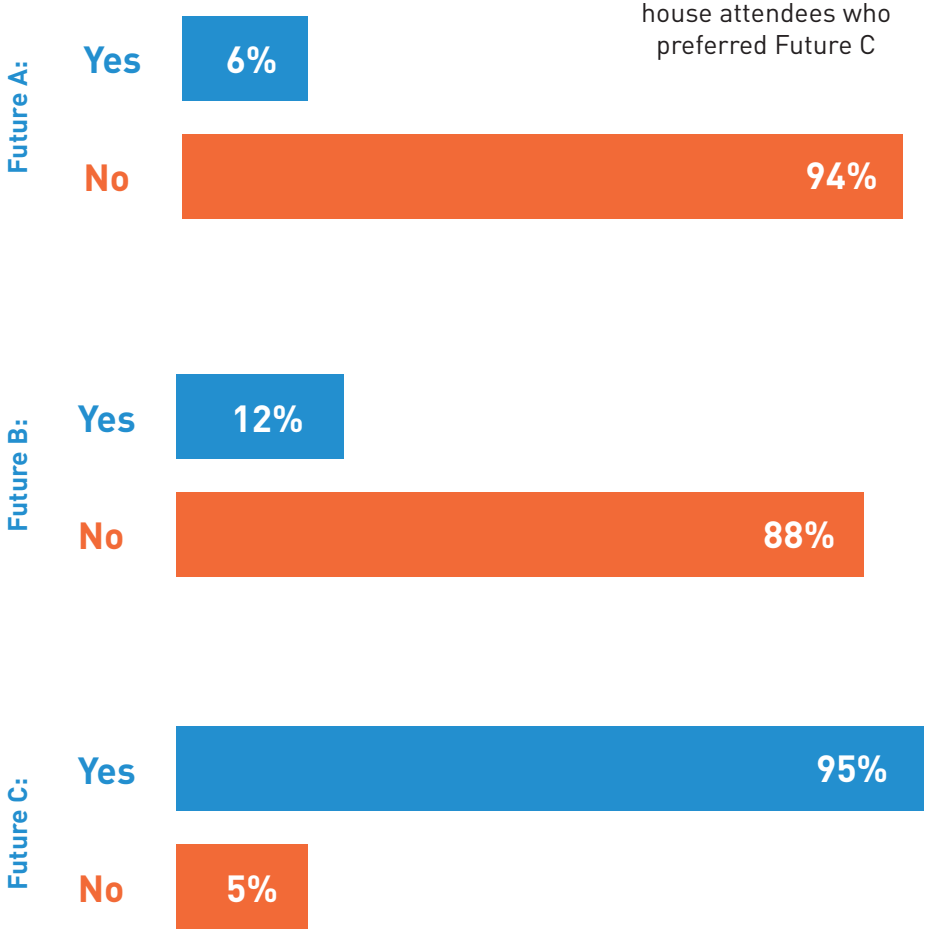
We make transformational changes to our transportation system. We are best positioned to achieve our goals.

Future C: Rapid Progress was nearly 8 times more popular than the other two options.

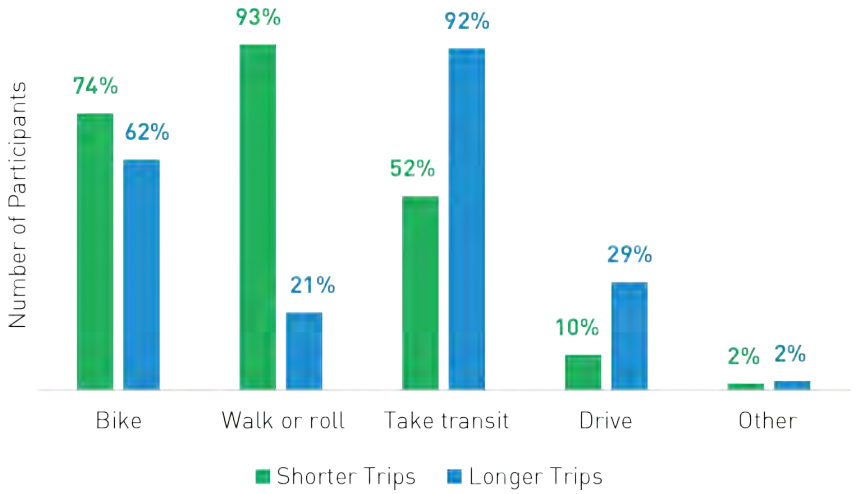
Consider these three "futures of transportation" for Seattle. Is this a future you want to see?

3,219
Total votes

100%
Percent of January open house attendees who preferred Future C



For shorter trips around your neighborhood, how would you like to get around? For longer trips across the city, how would you like to get around? Select all that apply.



KEY TAKEAWAYS

From this activity, we learned that there is an appetite for transformational change in Seattle's transportation system. See below for key takeaways from the activity:

- 95% of people want to see **rapid, transformational change** to achieve our goals
- 93% of people want to have the option to **walk or roll** around their neighborhood in the future
- 92% of people want to have the option to **ride transit** on longer trips across the city in the future
- Only 10% of people want to have the option to **drive** on shorter trips in the future, and only 29% on longer trips

Amplifying Community Voices

- People of color were significantly more likely to say they value the option to drive—18% on shorter trips, and 43% on longer trips *(Compared to 10% on shorter trips and 29% on longer trips citywide)*
- Nearly 50% of comments from people in South and West Seattle expressed that they would like the option to walk and bike in their neighborhoods more in the future, but they are concerned about safety.

How do people imagine transportation in the future?

We also asked 2 open-ended questions about how you would like to get around in the future*. Here are some examples that represent common themes we heard:

Tell us more about how you want to be able to get around your neighborhood in the future.

"I want my neighborhood to be so fun and easy to access by foot and bike that most people never think about driving within the neighborhood."

"I currently bike for most trips and abundant physically protected bike infrastructure would be the greatest improvement for me."

"I would love to be able to walk to everything I need... I'd like to be able to have biking and transit as feasible alternatives."

"I want to be able to walk across Rainier Ave S safely at every single cross street."

"I already live in a neighborhood where I can walk to many things I need. I want more people to have that."

Tell us more about how you want to get around the city in the future.

"I would like bus routes that better connect long distances within the city. Sometimes on a nice day I want to be able to safely bike, too."

"As I age, I will need to rely more on safe, affordable public transit."

"Biking around is the greatest, especially with all those beautiful views. If only I could enjoy them and not having to watch out for cars all the time."

"I already exclusively take transit around the city, but it can at times be unreliable. It would be wonderful to see 15-minute headways max across all bus routes in the city, and... more bus lanes."

"I want [all ages and abilities] bike facilities throughout Seattle...so my kids [age 5 and 7] do not have to get in a vehicle to move to activities, but rather can bike their way around when in high school."

*See page 48 for a link to view all comments from this activity.

MENU OF ACTIONS

Launched | *September 15, 2022* — Closed | *February 21, 2023*

PURPOSE AND PARTICIPATION

The third online engagement hub activity asked people to review a menu of actions that were developed to support the draft STP vision, goals, and objectives. These actions were based on what we heard from you during Phase 1 of engagement.

In the online version of this activity, actions were formatted like posts on social media—people could choose to "like" any action, or write a comment about an action in response to a prompt. People could "like" or comment on as many actions as they wanted.

A version of this activity was also created for in-person events and open houses. A total of 3,584 "likes" were gathered via the in-person activity. These are included in the full results. For details about what people said in the in-person activity, see the Events and Meetings section on page 42.

15,376
Total "likes" on actions

6,203
Total comments on actions

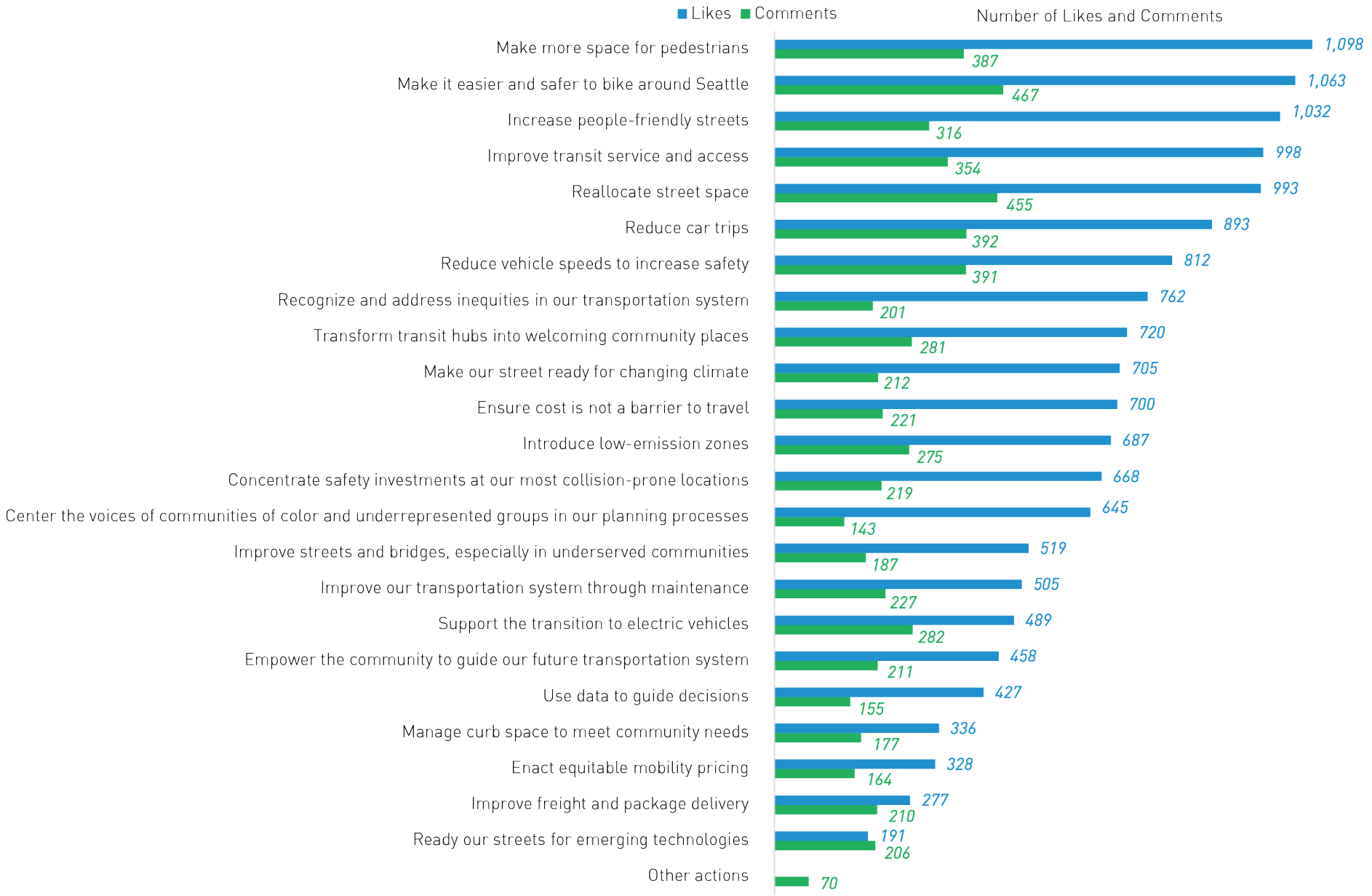
TOP ACTIONS

The five actions with the greatest number of "likes" were:

1. **Make more space for pedestrians**
2. **Make it easier and safer to bike around Seattle**
3. **Increase people-friendly streets**
4. **Improve transit service and access**
5. **Reallocate street space**

FULL RESULTS

The full results of the menu of actions activity are shown below, from most to least likes. These number of likes includes the results of the activity on the online engagement hub, as well as the in-person activity used at many events during Phase 2.



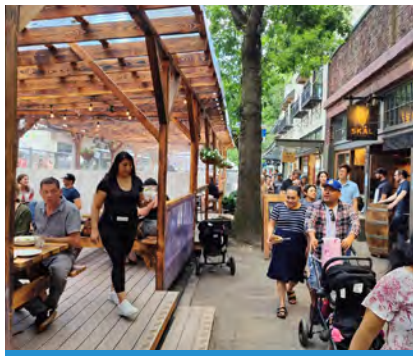
KEY TAKEAWAYS BY ACTION

For each action, we asked an open-ended question—and we heard so many great ideas*. Some of the ideas we heard most frequently are captured in this section.

Make more space for pedestrians

How can we make it easier for you to choose to walk or roll? What we heard most often:

- Small actions are powerful—fill sidewalk gaps, enforce existing rules, and improve intersections to make walking a safer and better option
- Make more neighborhood streets pedestrian-only—and provide more space for people walking on arterials
- Widen and improve sidewalks—they should be comfortable to use for people with wheelchairs or strollers



Make it easier and safer to bike around Seattle

How can we make it easier to bike around Seattle? What we heard:

- Provide clear, well-maintained bikeways that are protected from vehicle traffic by solid barriers—paint and flexible posts aren't enough
- Prioritize filling gaps in the bike network, especially at key intersections and across bridges
- Where possible, prioritize flatter routes that are more accessible to people of all ages and abilities

Increase people-friendly streets

How can we improve our streets and public spaces in urban villages and around transit hubs? What we heard:

- Need more human-scaled streets and intersections with walkable destinations along them
- Ensure that pedestrian- or transit-only spaces are clean and safe

Improve transit service and access

How can we make it easier to access transit? What we heard:

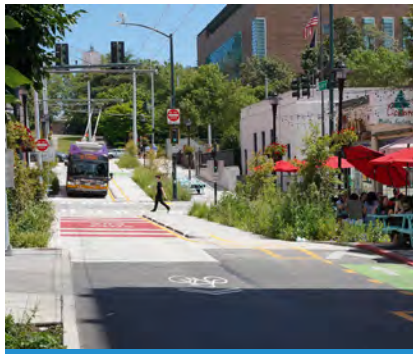
- Provide frequent, convenient, and safely accessible transit service
- Emphasize improving east-west connections
- Ensure transit stops and stations are safe, well-lit, clean, and protected from the elements
- Connect stops and stations with sidewalks, bike paths, and direct transit lines

**See page 48 for a link to view all comments from this activity.*

Reallocate street space

What do you want to see on streets where space for cars is reduced? What we heard:

- Provide more safe, dedicated space for people walking and rolling and for transit
- People would like more street trees, Play Streets, parklets, benches/ seating, outdoor dining, and other places to gather



993 455

Reduce car trips

What would make it possible for you to drive less around Seattle? What we heard:

- Need alternatives to driving that are safe, convenient, and accessible—walking, biking, and transit
- Some popular destinations like parks are hard to access without a car
- Improve transit frequency, speed, service outside commuting hours, direct routes that don't require transfers Downtown
- Prioritize land uses that put essential destinations in walking or biking distance of neighborhoods

893 392

Reduce vehicle speeds to increase safety

What would encourage you to drive slower? What we heard:

- Physical traffic calming measures—speed bumps, raised crosswalks, concrete barriers, narrower lanes—are more effective than a lower speed limit alone
- Neighborhood and streets should encourage very slow and careful driving, while highways and higher-speed streets should include plenty of separation between people and cars
- Enforce existing speed limits

812 391

Recognize and address inequalities in our transportation system

How can we address inequalities in our transportation system? What we heard:

- Focus on high-injury corridors—Aurora Avenue, Rainier Avenue were mentioned often
- Focus on historically underinvested areas—like much of South Seattle
- Focus on gaps in the transportation system—especially east-west transit service
- Prioritizing single-occupancy vehicle traffic is inherently inequitable because many people cannot afford cars

762 201

Transform transit hubs into welcoming community places

What can we do to make transit hubs more welcoming? What we heard:

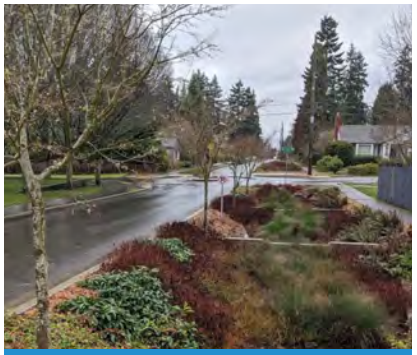
- Provide amenities—bathrooms, food vendors, secure bike parking, things to do around stations
- Make them easy to access—reduce car traffic, improve crossings and signal timing, improve connections between light rail and bus
- Make them clean and safe—add lighting, clean up trash

720 281

Make our streets ready for changing climate

How can our streets and public spaces help manage the effects of climate change? What we heard:

- Add green spaces—bioswales, green stormwater management, street trees
- Choose species creatively—emphasize native species, plants that can tolerate intense heat and heavy rains
- Prepare for floods—design streets to drain better in the event of heavy rain



705 212

Ensure cost is not a barrier to travel

What would make traveling in Seattle more affordable to you? What we heard:

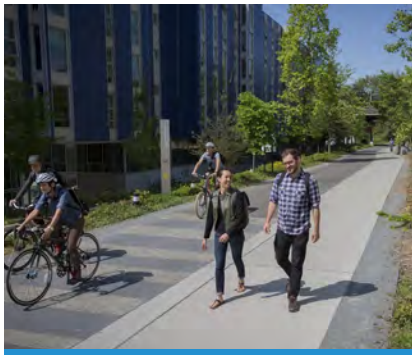
- Rethink fares—consider charging more for vehicles to recoup the cost of reducing or eliminating transit fares
- Time is money—improving transit frequency and service would save people time
- Make personal vehicles unnecessary—car ownership is expensive, so if other options were better, more people could live without a car

700 221

Introduce low-emission zones

How would limiting car traffic in certain areas of Seattle make it easier for you to walk, bike, or roll? What we heard:

- Safety—areas with less vehicle traffic are significantly safer for people walking, biking and rolling
- Accessibility—provide restricted parking for people with disabilities to access these spaces

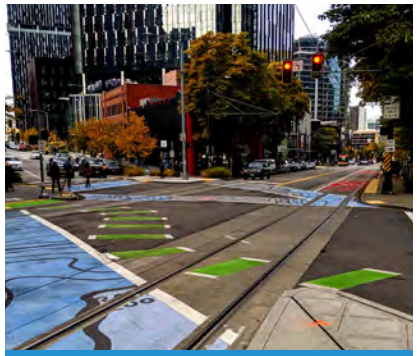


687 275

Concentrate safety investments at our most collision-prone locations

Where and how would improving safety and reducing speeds make it easier for you to get around? What we heard:

- Address the most dangerous places first—prioritize improving the places where people walking, biking, and rolling have been hurt or killed
- Focus on the big picture—consider how to improve entire corridors over time instead of isolated projects



668 219

Center the voices of communities of color and underrepresented groups in our planning process

How can we better hear from historically underrepresented groups and incorporate their voices? What we heard:

- Meet people where they are, on their schedule—people in historically underrepresented groups typically have a higher barrier to entry
- Work with community leaders—engage community groups and pay representatives

645 143

Improve streets and bridges, especially in underserved communities

How should we prioritize maintaining and improving our existing streets and bridges? What we heard:

- Prioritize streets and bridges of citywide importance—such as the West Seattle Bridge and other key connections
- Prioritize underserved neighborhoods—many streets and bridges in these places need attention

519 187

Improve our transportation system through maintenance

What safety and mobility features should we consider adding when we fix our streets? What we heard:

- Use maintenance as an opportunity—add raised crosswalks, lighting, bike lanes, and narrower vehicle lanes
- Think beyond vehicle lanes—make sure sidewalks and trails are well-maintained too

505 227

Support the transition to electric vehicles

What can the city do to support the transition to electric vehicles? What we heard:

- Incentivize charging infrastructure—encourage charging stations in existing parking spaces, with new development, and for renters
- Think beyond personal vehicles—invest in e-bikes, electric transit, electric commercial/freight vehicle adoption too

489 282

Empower the community to guide our future transportation system

What would it take to get you more involved in transportation decisions? What we heard:

- Earn people's trust—follow through with practical solutions quickly
- People want clear information and quick, easy ways to get involved—like the online engagement hub
- Typical methods of engagement give people with more resources/privilege more influence than vulnerable or underserved communities

458 211

Use data to guide decisions

What information would help us make decisions about how we get around Seattle? What we heard:

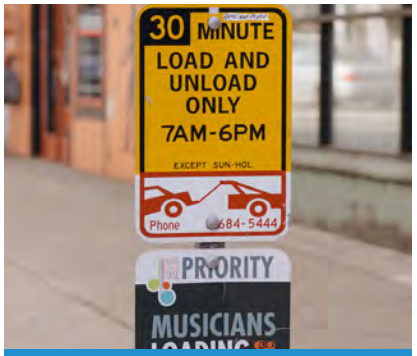
- Gather more data on people walking, biking, and rolling—where are the places where people use these modes, and where do they face challenges?
- Consider growth—we need data that allows us to look forward and prepare for our city to grow
- Advanced travel patterns data—where can we reduce personal car access and improve transit service?

427 155

Manage curb space to meet community needs

How should curb space be used in commercial areas? What we heard:

- Use the curb as living space—create parklets, bus or bike lanes, outdoor dining and wide sidewalks
- Make it dynamic—convert parking to pick-up and drop-off, allow parking pricing to change based on demand
- Eliminate conflicts—provide delivery vehicle loading/unloading areas that do not interfere with bike lanes, sidewalks, or crossings



336 275

Enact equitable mobility pricing

What could we do to improve our transportation system with the money generated by an equitable mobility pricing problem? What we heard:

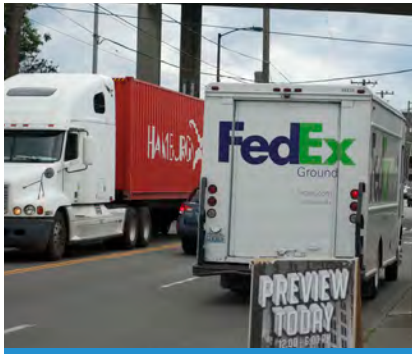
- Spend it to make other modes better—improve transit service and make it safer to bike, walk, and roll
- Charge fairly—charge heavier/larger vehicles more and ensure the cost doesn't disproportionately fall on low-income people

328 164

Improve freight and package delivery

How can we improve how goods are moved and delivered in Seattle? What we heard:

- Rethink last-mile delivery—encourage smaller vehicles and cargo bikes
- Consider creative solutions—centralized delivery drop-off, encouraging delivery at off-peak times, and transit-/freight-only lanes

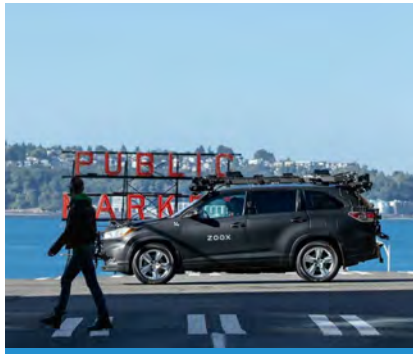


277 210

Ready our streets for emerging technologies

How can we prepare our streets for emerging technologies, such as self-driving cars or shared bikes and scooters? What we heard:

- Improve shared bikes and scooters—consider greater City management, provide dedicated parking spots, improve safety by generally improving the bike network
- Be careful with self-driving cars—these should be limited and highly regulated



191 206

Other actions 70

Are there other actions you would like to see in the Seattle Transportation Plan? What we heard:

- Redesign traffic flow, signals, and crossings to prioritize walking, rolling, and biking
- Improve coordination with WSDOT and other agencies to make state-owned streets in Seattle safer
- Show people what types of street and intersection treatments are possible
- Focus more specifically on designing safe systems rather than relying on enforcement

SOCIAL PINPOINT MAP

Launched | *December 21, 2022* — Closed | *February 21, 2023*

PURPOSE AND PARTICIPATION

Our city is growing in population, but our street space is not. We need to be smart about how that limited space keeps us moving, keeps us safe, and makes the experience of using all our systems reliable.

Before we began to develop the STP, we had 4 transportation network maps (pedestrian, bicycle, transit, and freight). For the STP, we are updating those maps and making new maps that respond to today's challenges.

Our fourth Phase 2 online activity was an interactive mapping tool that asked for feedback on the first draft of these network maps. The tool allowed people to drop pins of 2-4 types for each of the 5 draft maps:

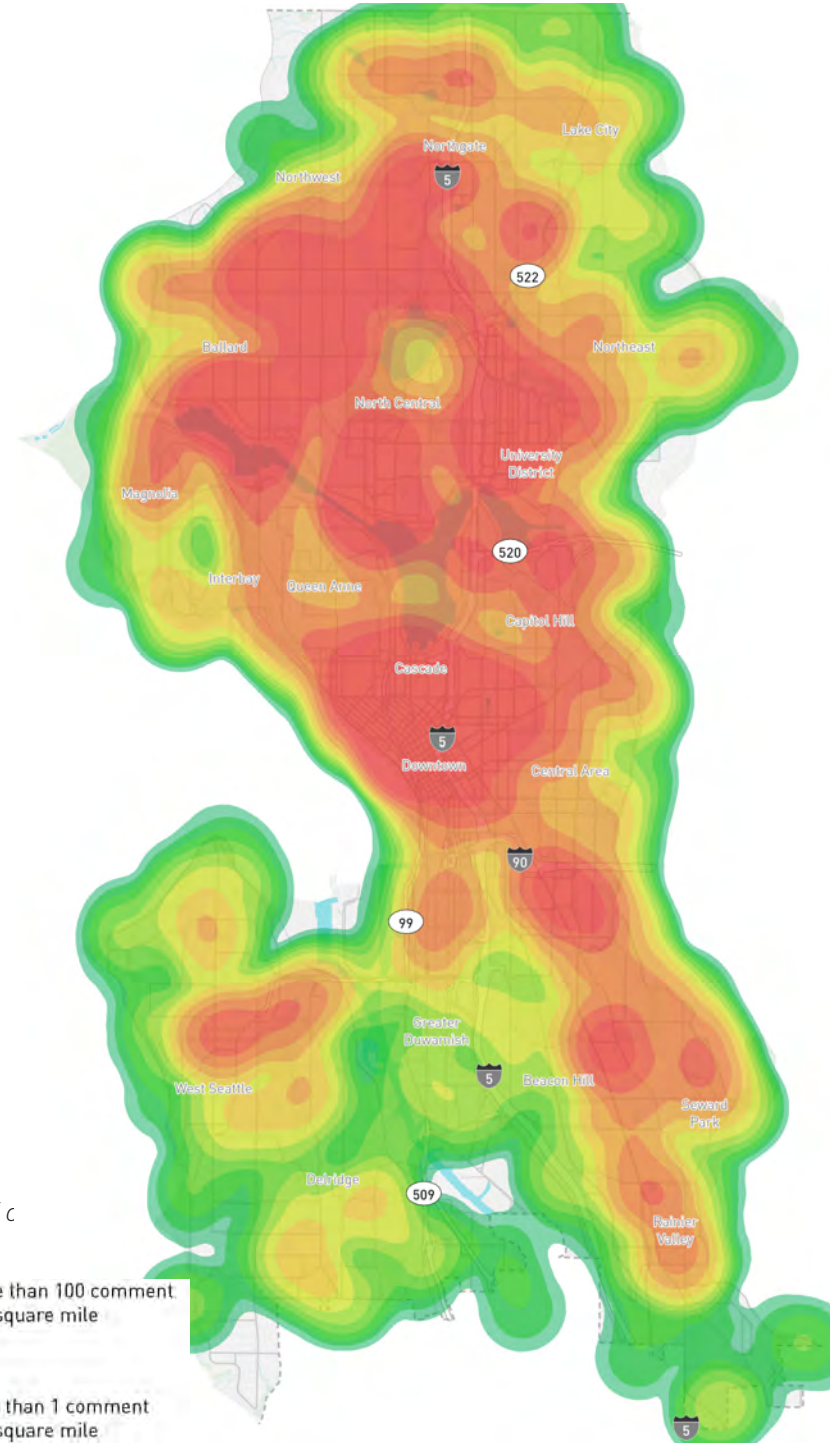
- Pedestrian Priority Investment Network
- People Streets and Public Spaces Map
- Bicycle and E-Mobility Map
- Transit Map
- Freight Map

1,961

Comments placed on the interactive map*

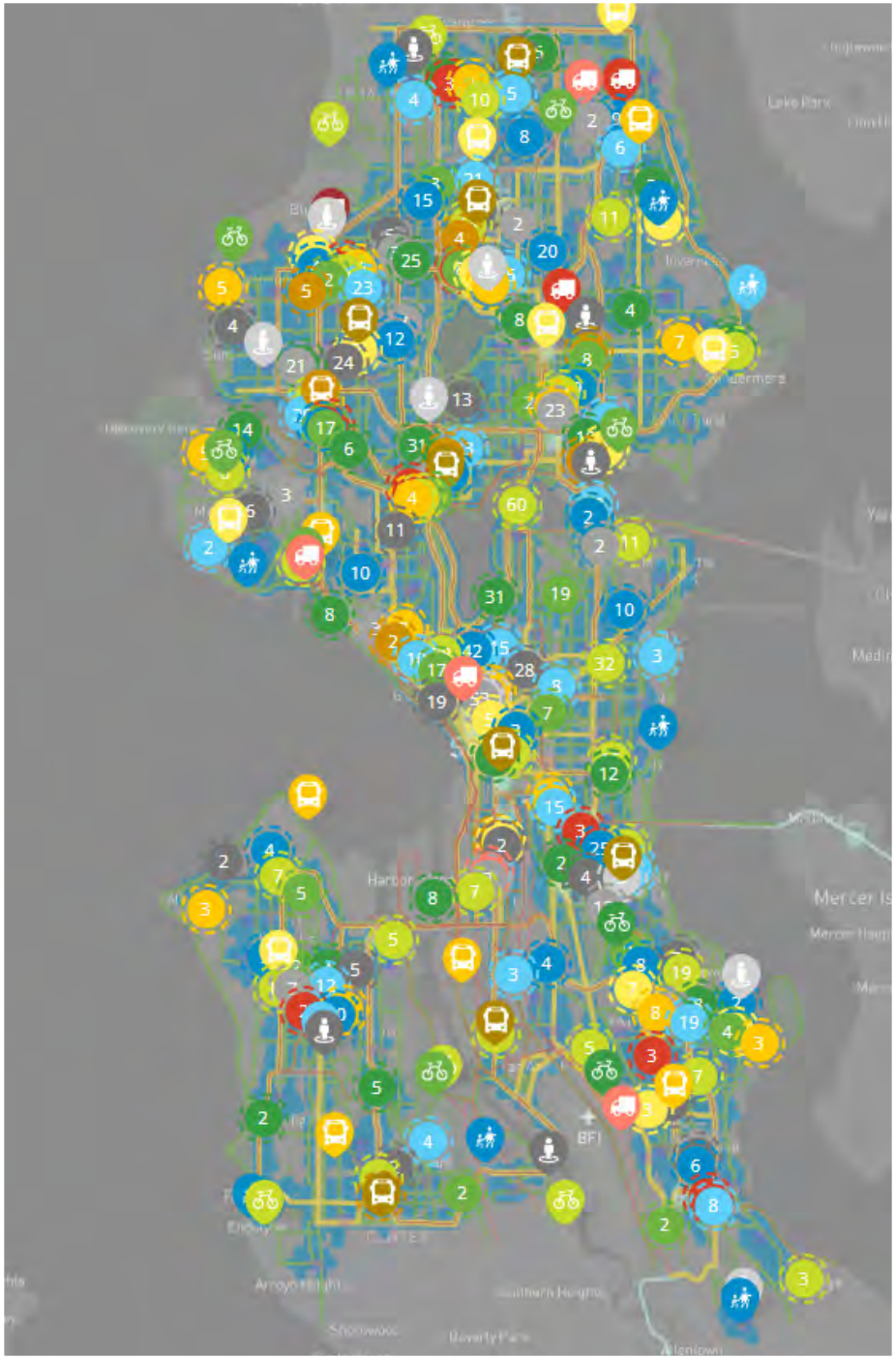
969
Unique users

386
Demographic survey responses



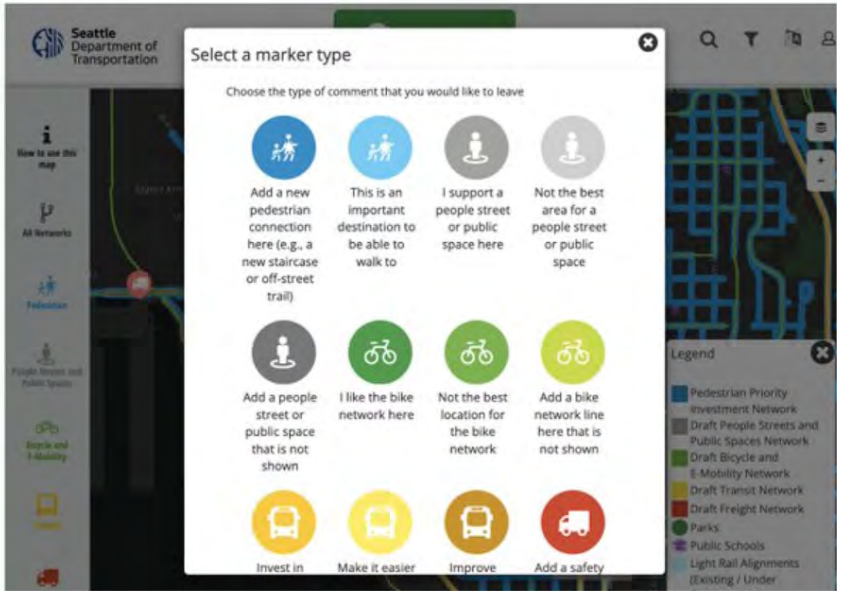
Heatmap of c locations

*See page 48 for a link to view full results from the interactive map.



There are two ways to comment on the draft maps:

1. Provide a general comment through the comment box below the interactive map.
2. In the interactive map below, explore the map layers in the other tabs to the left, and then drop some map pins to provide feedback.



It's really too bad that we seem to have lost so many east/west connections via bus. I don't know how people are expected to get to light rail without better bus service. More frequent service at the very least.

Invest in better transit service here | a month ago

This should really be a three way stop. This intersection is heavily used by pedestrians, cars and cyclists. It would be easier/safer for cars & cyclists heading west to make a left hand turn and for pedestrians if this was an actual stop.

This is an important destination to be able to walk to | a month ago

It's really too bad that this part of the bike network isn't fully protected. I have never been on this bike lane without seeing some vehicle parked here. There is always plenty of parking on the east side of the street but drivers are too lazy I guess. Better curb management overall.

- Add a new pedestrian connection here (e.g., a new staircase street trail)
- This is an important destination to be able to walk to
- I support a people street or public space here
- Not the best area for a people street or public space
- Add a people street or public space that is not shown
- I like the bike network here
- Not the best location for the bike network
- Add a bike network line here that is not shown
- Invest in better transit service here
- Make it easier to access a transit stop here
- Improve transit stop amenities and waiting experience he
- I support having a mobility hub here
- Add a safety improvement on the freight route here
- Have freight and transit share a dedicated lane here
- Address a freight pinch point here

PEDESTRIAN INVESTMENT NETWORK

The online interactive map showed the Pedestrian Investment Network from the 2017 Pedestrian Master Plan, which includes streets that serve as key pedestrian routes to public schools and frequent transit stops. People could place a pin on the map showing where they would like a new pedestrian connection or to identify an important destination to walk to.

526

Total comments on the Pedestrian Investment Network

260

Comments suggesting a new pedestrian connection

266

Comments identifying an important destination to walk to

Many of you suggested new connections...

- In neighborhoods currently lacking sidewalks
- At busy intersections where many cars don't see or stop for people walking and rolling
- Near freeway interchanges and bridge access points

Frequently mentioned destinations included...

- Schools, parks, and popular neighborhood businesses
- Existing and future light rail stations

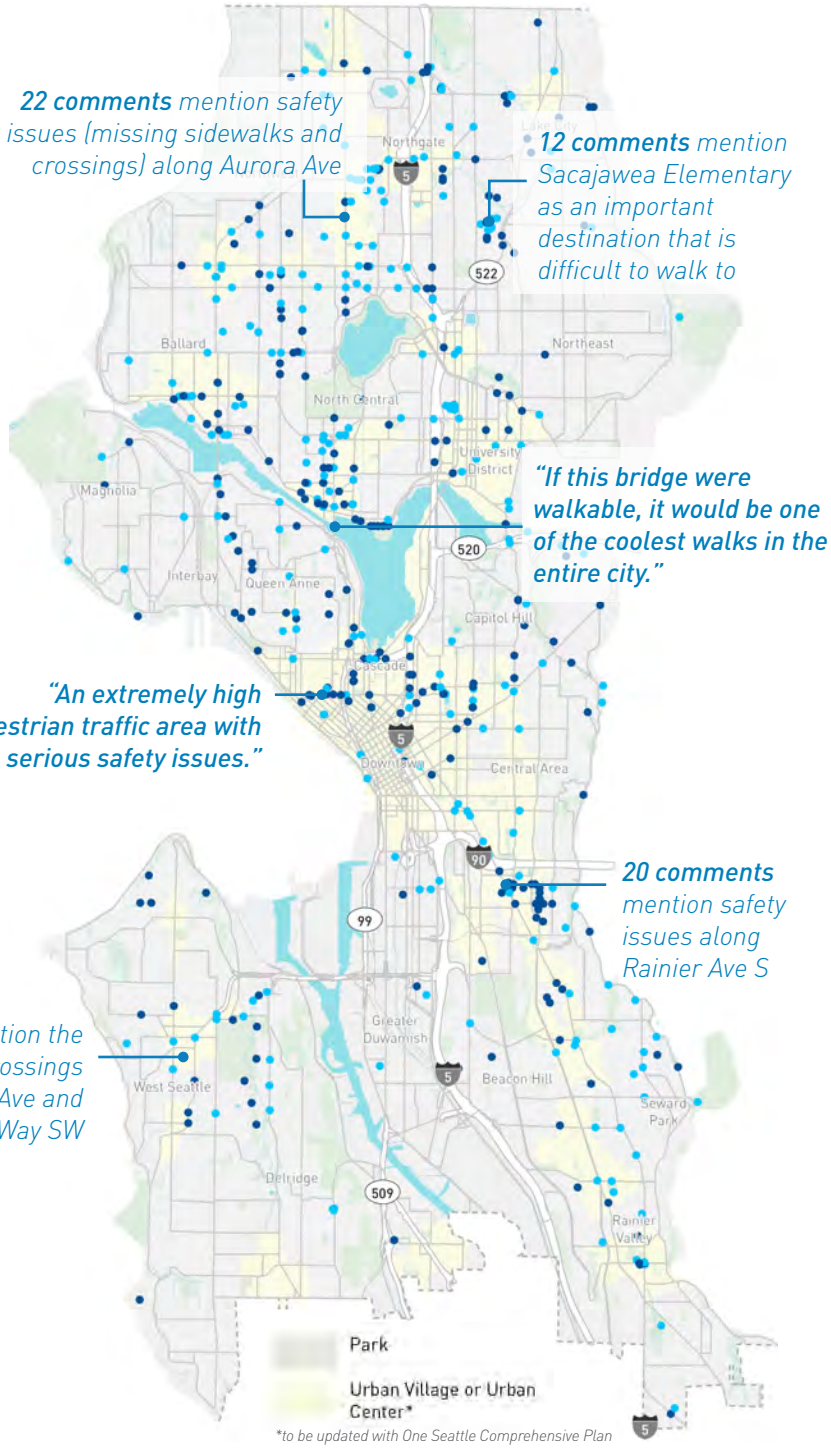
Many of you also suggested eliminating "no right on red" or retiming signals to prioritize people walking and rolling over vehicle traffic.

25%
of comments mention **crossings**

16%
of comments mention **sidewalks**

7%
of comments mention **bridges**

What words did we hear from you?

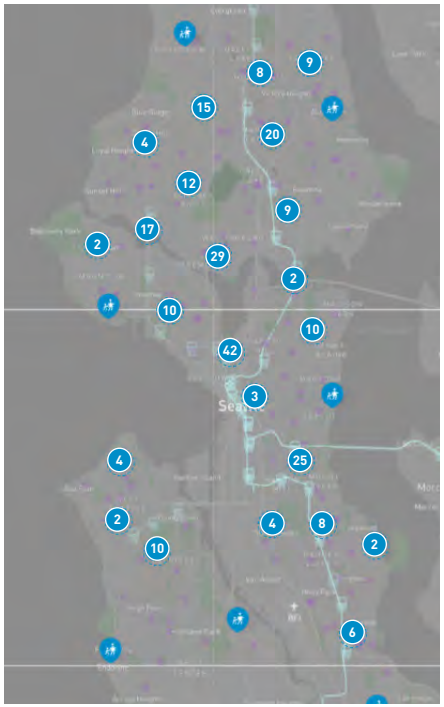


260

Add a new pedestrian connection here (e.g., a new staircase or off-street trail)

Heatmap of comments

Concentrations of comments

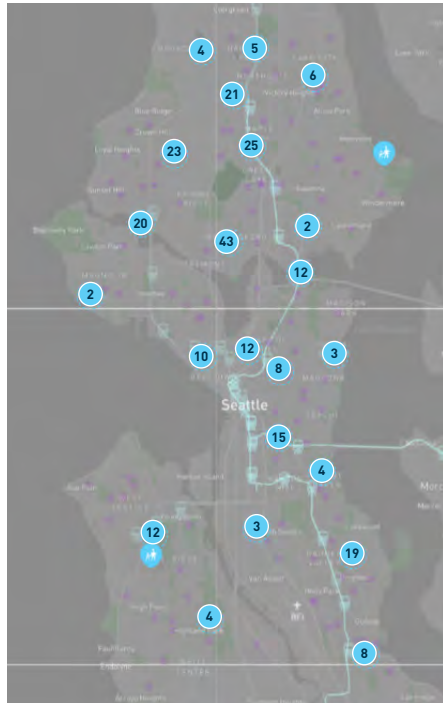


266

This is an important destination to be able to walk to

Heatmap of comments

Concentrations of comments



These graphics are screen captures from the Social Pinpoint map results.
See page 48 for a link to view full results.

PEOPLE STREETS AND PUBLIC SPACES MAP

The online interactive map showed the draft people streets and public spaces map, which is composed of streets and spaces transformed into vibrant places for people to walk, roll, gather, and play. People could place a pin on the map showing where they would like a new people street or public space or mark areas that are not the best place for a people street or public space.

327

Total comments on the draft people streets and public spaces map

161
Comments supporting a people street or public space

12
Comments suggesting a location is not the best for a people street or public space

154
Comments suggesting adding a people street or public space not shown in the draft

You told us that you support people streets and public spaces...

- In places where communities already gather
- Around every major transit station
- Near local businesses, shops, and restaurants
- Near schools, parks, and other places for youth to gather
- Where new development such as light rail stations present the opportunity to reinvent a place
- Where temporary public spaces had been successful but were removed

15% of comments mention **parks**

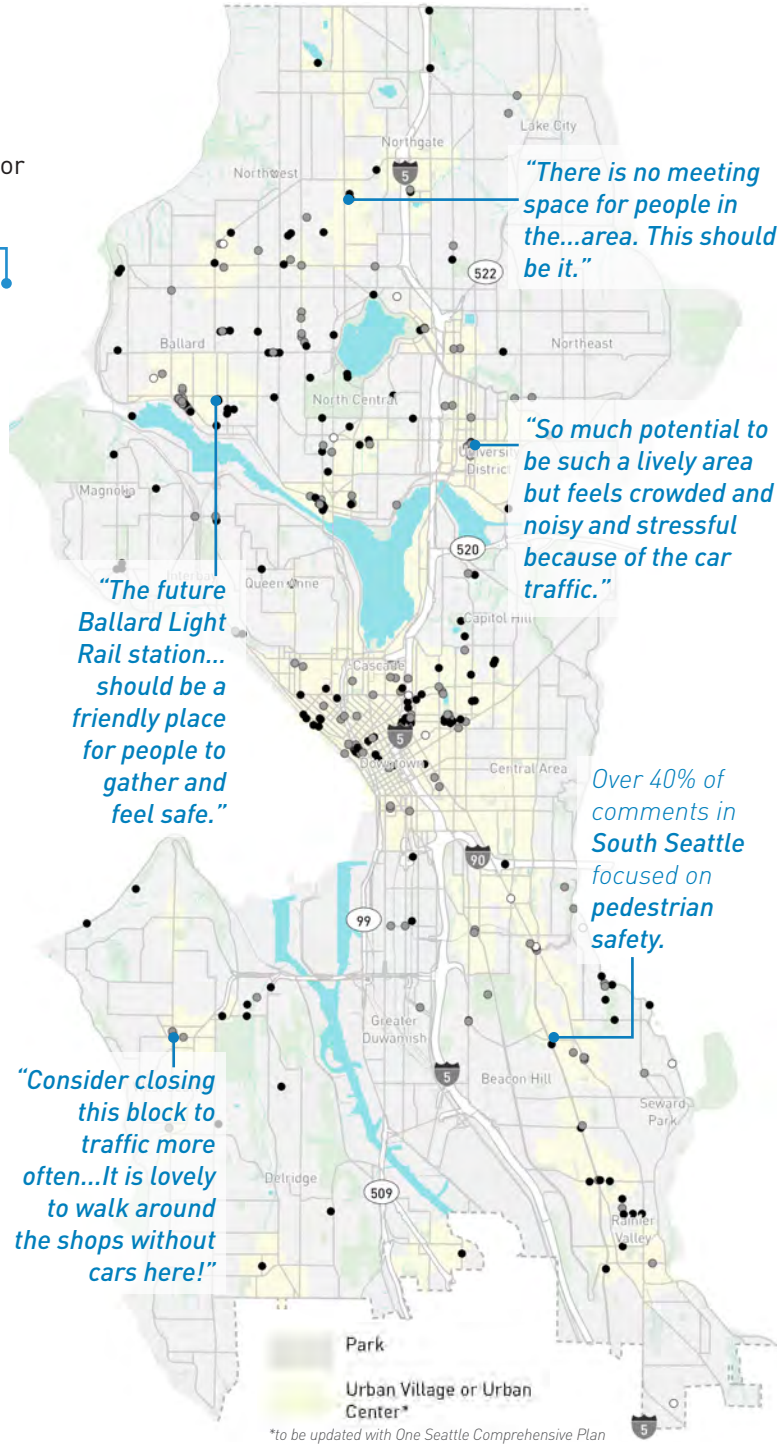
14% of comments mention **safety**

13% of comments mention **transit**

12% of comments mention **businesses**

Most people were in favor of the draft people streets and public spaces, but some cautioned that we must consider delivery vehicles to ensure businesses can still thrive.

- About 6.5% of comments specifically mentioned bollards to keep cars out of people spaces, a third of which emphasized they can be retractable or removable to allow deliveries and emergency vehicles.



What words did we hear from you?

161

I support a people street or public space here

Heatmap of comments

Concentrations of comments

These graphics are screen captures from the Social Pinpoint map results.
See page 48 for a link to view full results.

12

Not the best area for a people street or public space

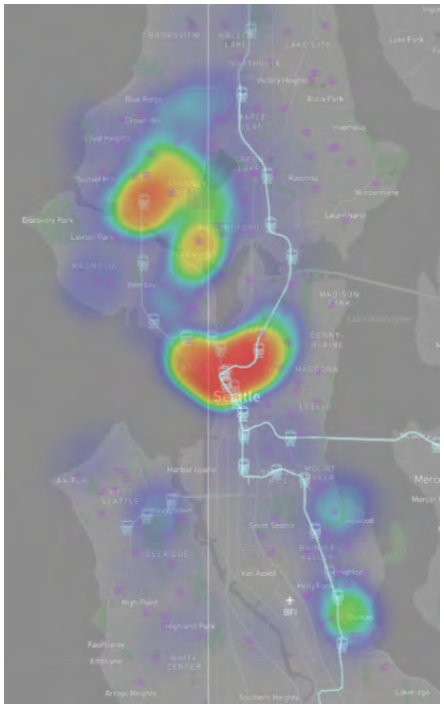
Heatmap of comments

Concentrations of comments

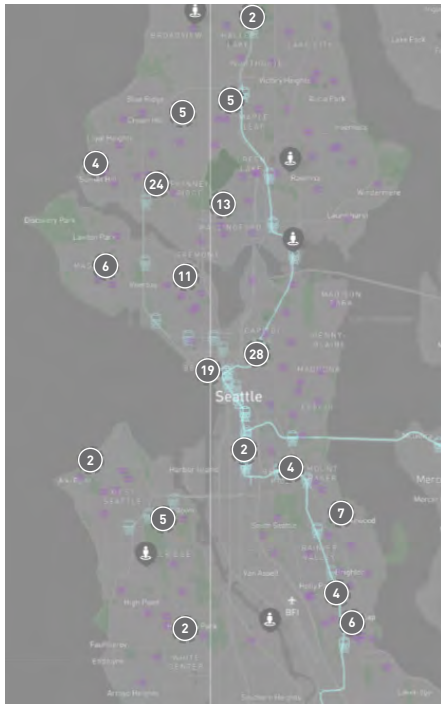
154

Add a people street or public space that is not shown

Heatmap of comments



Concentrations of comments



These graphics are screen captures from the Social Pinpoint map results.
See page 48 for a link to view full results.

BICYCLE AND E-MOBILITY MAP

The online interactive map showed the draft bicycle and e-mobility map, which is composed of current and future all ages and abilities bikeways for varying trip lengths and purposes. People could place a pin on the map showing routes along the bike network they liked, routes they thought were not in the best location, or proposing adding a bike network line not shown.

877

Total comments on the draft bicycle and e-mobility map

229
Comments liking the bike network

537
Comments suggesting adding a bike network line not shown

111
Comments suggesting a route is not the best location for the bike network

You told us that you liked the draft bike network...

- Where it fills gaps in existing long-distance connections such as trails
- Where it connects to high-frequency transit stations
- Where it could replace an unprotected facility with a protected one
- In places with lots of businesses and other destinations to bike to

26% of comments specify the need for **protected facilities**

You told us that some locations weren't the best for the bike network, such as...

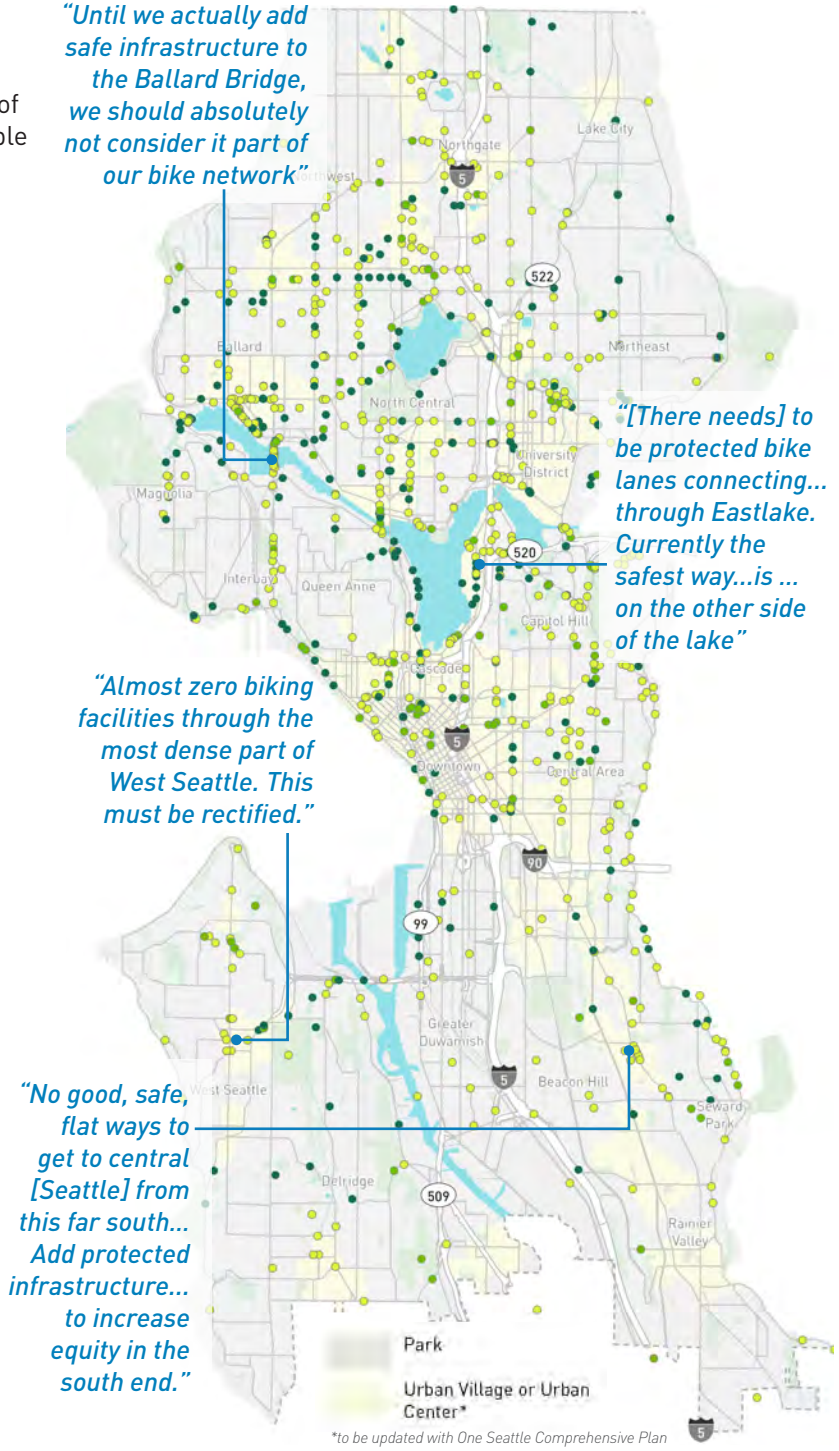
- Along major high-traffic roads, unless adequately protected by more than flexible plastic or paint – protected facilities along these arterials are key
- Locations that are extremely steep – find workarounds in the network that are easier for people biking

11% of comments mentioned **crossings**

25% of comments emphasized **safety**

You were interested in adding bike network connections...

- In more east-west locations throughout the city
- At dangerous, high-traffic intersections – we should add more lighting, bike-controlled signals, and protection for people biking



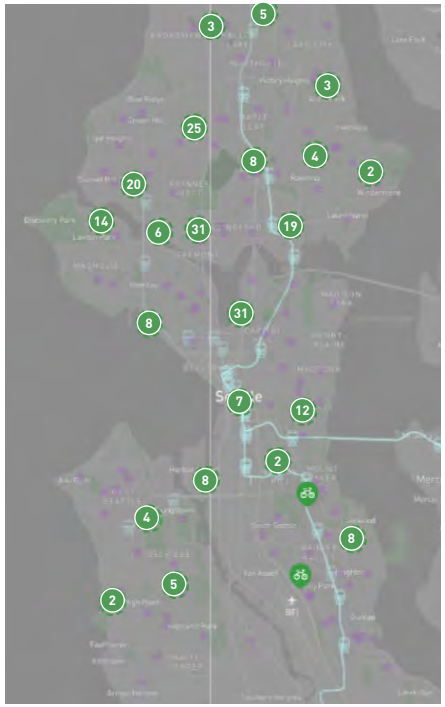
What words did we hear from you?

229

I like the bike network here

Heatmap of comments

Concentrations of comments

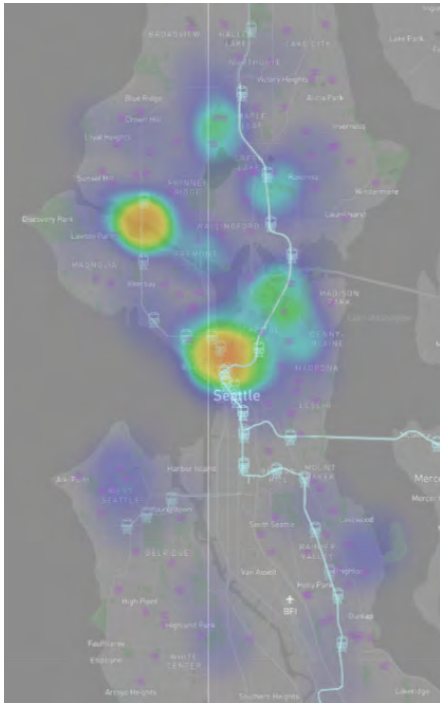


These graphics are screen captures from the Social Pinpoint map results.
See page 48 for a link to view full results.

111

Not the best location for the bike network

Heatmap of comments



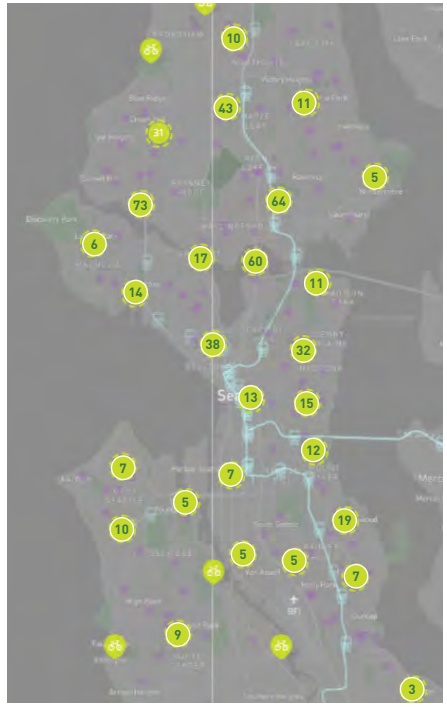
Concentrations of comments

537

Add a bike network line here that is not shown

Heatmap of comments

Concentrations of comments



These graphics are screen captures from the Social Pinpoint map results.
See page 48 for a link to view full results.

TRANSIT MAP

The online interactive map showed the draft transit map, which is composed of corridors prioritized for transit investment and mobility hub locations. People could place a pin on the map showing places that need more investment in better transit service, where transit stops are hard to access, where stop amenities should be added to improve the waiting experience, and where mobility hubs should be located.

206

Total comments on the draft transit map

124
Comments asking for investment in better service

40
Comments about making it easier to get to a transit stop

34
Comments about stop amenities and improving waiting experience

8
Comments supporting a mobility hub in a specific location

You told us that we should invest in better transit service:

- Near major destinations like parks and schools
- By increasing frequency to 15 minutes or better along as many routes as possible
- By making routes faster through signal priority and dedicated lanes
- Along east-west corridors in the city

You told us that we should make it easier to access transit stops by:

- Ensuring that nearby intersections are built and signalized to protect people walking and rolling
- Focusing our investments in the pedestrian network near transit stops and stations

You told us that to improve transit stop amenities and the waiting experience, we should add more lighting and shelters to make stops feel welcoming and safe.

We heard that you support mobility hubs at light rail stations and other places where large numbers of people live, work, and play.

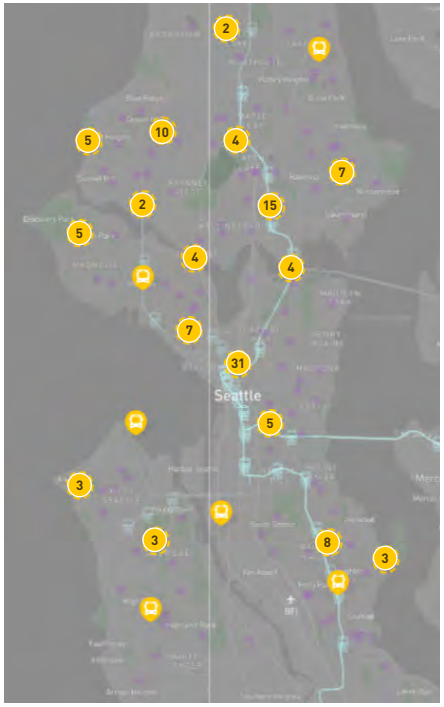
What words did we hear from you?

124

Invest in better transit service here

Heatmap of comments

Concentrations of comments

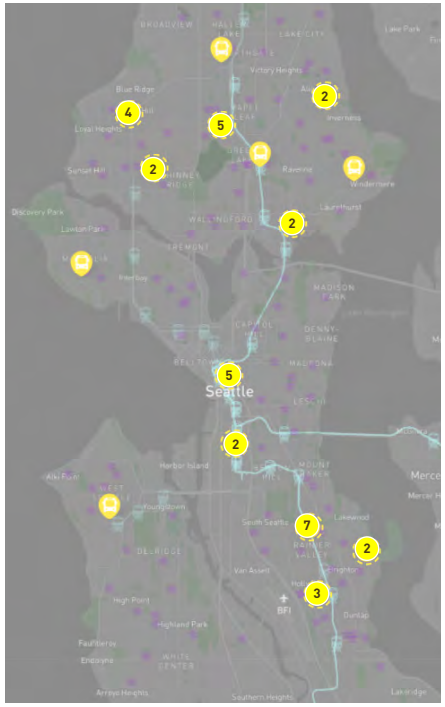


40

Make it easier to access a transit stop here

Heatmap of comments

Concentrations of comments

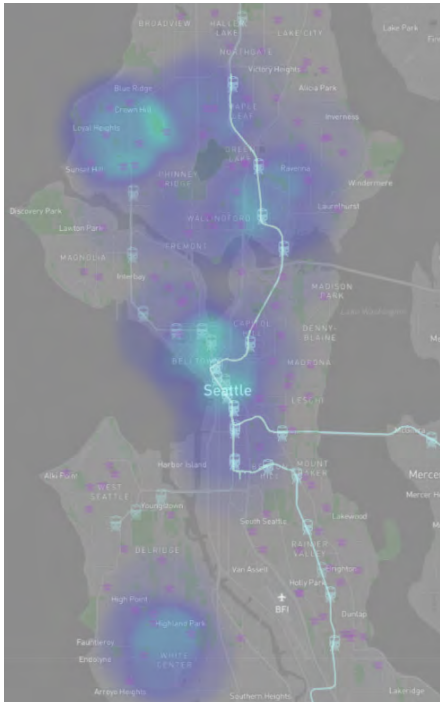


These graphics are screen captures from the Social Pinpoint map results. See page 48 for a link to view full results .

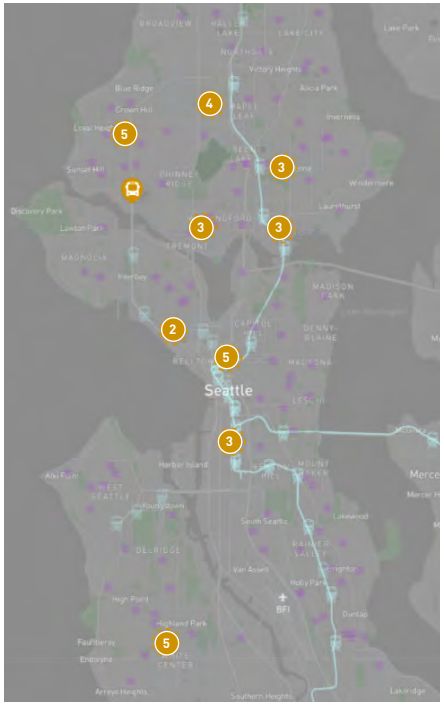
34

Improve transit stop amenities and waiting experience here

Heatmap of comments



Concentrations of comments

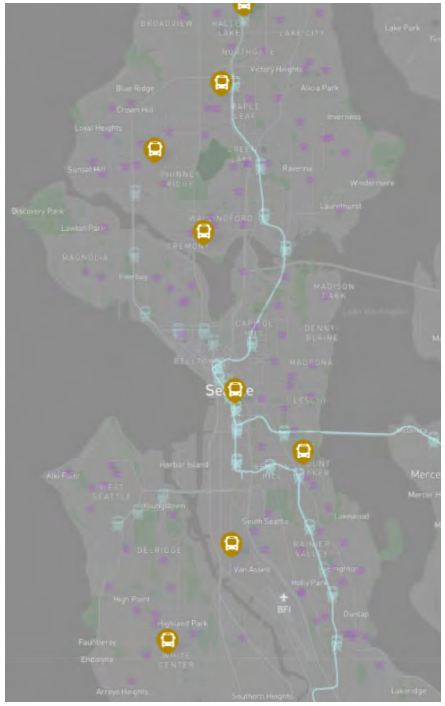


8

I support having a mobility hub here

Heatmap of comments

Concentrations of comments



These graphics are screen captures from the Social Pinpoint map results.
See page 48 for a link to view full results.

FREIGHT MAP

The online interactive map showed the draft freight map, which is composed of major and minor freight routes for moving goods around Seattle. People could place a pin on the map showing places along the freight network that need safety improvements, places to add a dedicated lane for freight and transit, and places where pinch points need to be resolved.

44

Total comments on the draft freight map

30
Comments about safety improvements along freight routes

1
Comment suggesting a shared freight and transit dedicated lane

13
Comments about addressing a freight pinchpoint

You told us that safety improvements to the freight route should be considered...

- Where vehicles travel too fast near where people walk and roll
- Where road design looks more like a freeway than a city street

You told us freight pinch points should be addressed...

- Where freight vehicles struggle to merge or access key connections/bridges such as the West Seattle Bridge

What words did we hear from you?

70%
of freight **pinch point** comments were in SoDo and Greater Duwamish

23%
of **safety** comments were along Rainier Avenue or MLK Jr Way in South Seattle

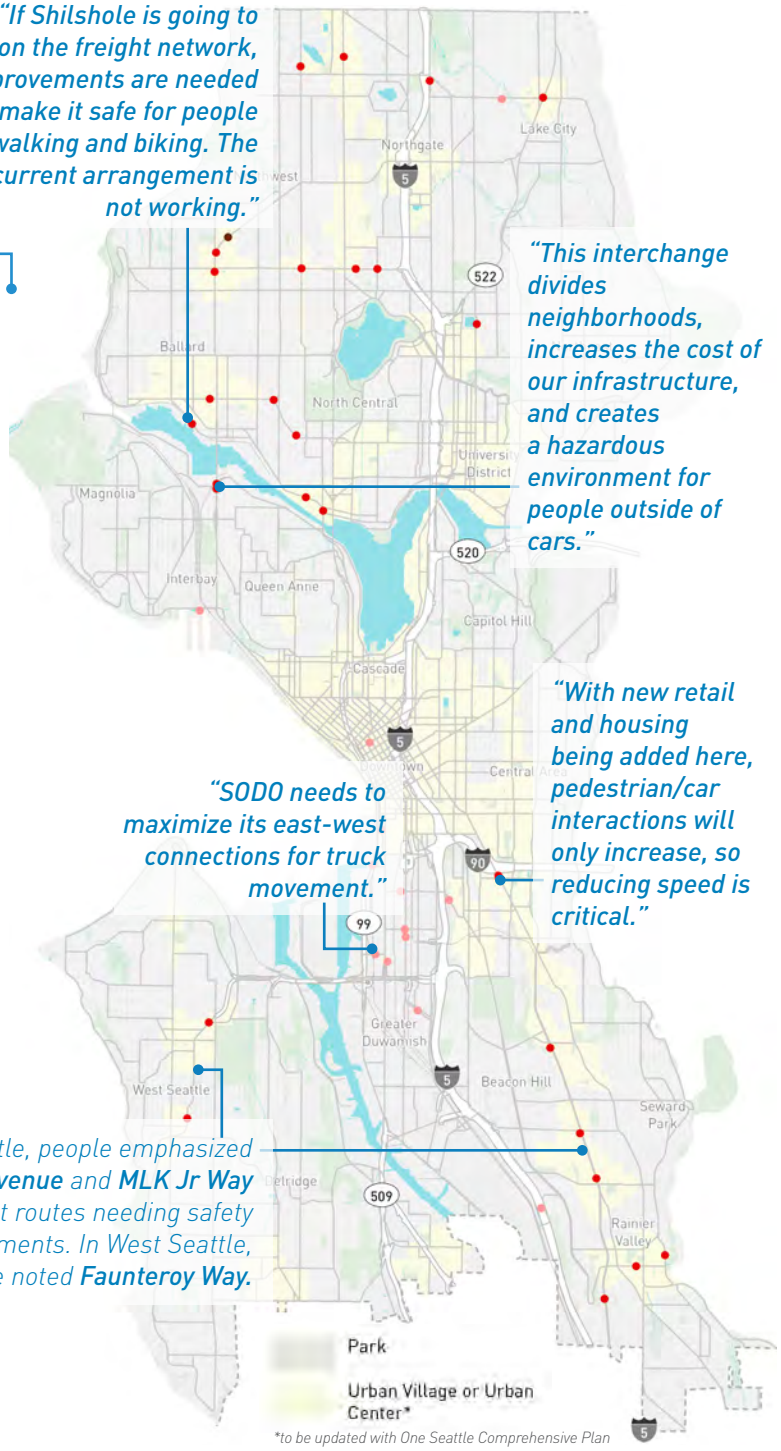
"If Shilshole is going to be on the freight network, improvements are needed to make it safe for people walking and biking. The current arrangement is not working."

"This interchange divides neighborhoods, increases the cost of our infrastructure, and creates a hazardous environment for people outside of cars."

"SODO needs to maximize its east-west connections for truck movement."

"With new retail and housing being added here, pedestrian/car interactions will only increase, so reducing speed is critical."

*In South Seattle, people emphasized **Rainier Avenue** and **MLK Jr Way** as freight routes needing safety improvements. In West Seattle, people noted **Faunteroy Way.***

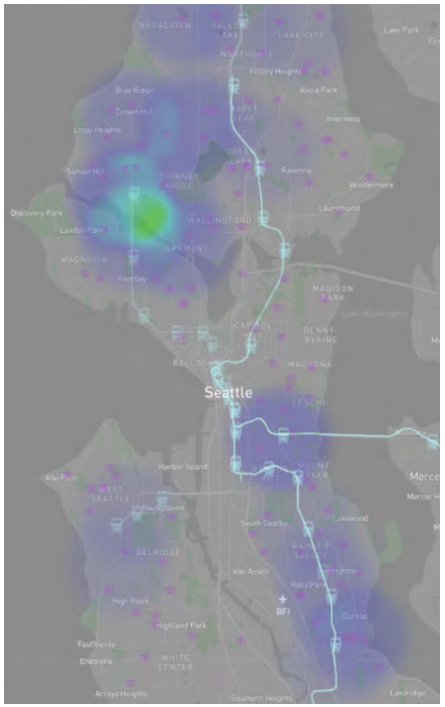


*to be updated with One Seattle Comprehensive Plan

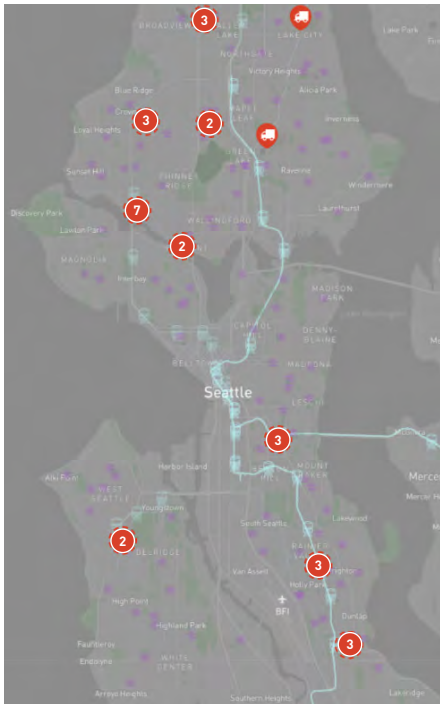
30

Add a safety improvement on the freight route here

Heatmap of comments



Concentrations of comments



These graphics are screen captures from the Social Pinpoint map results.
See page 48 for a link to view full results.

1

Have freight and transit share a dedicated lane here

Heatmap of comments

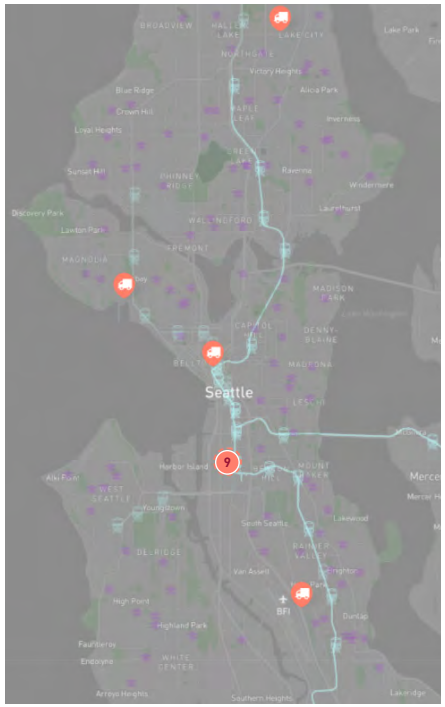
Concentrations of comments

13

Address a freight pinch point here

Heatmap of comments

Concentrations of comments



These graphics are screen captures from the Social Pinpoint map results.
See page 48 for a link to view full results.

REACHING OUR PRIORITY AUDIENCES

The STP Public Engagement Plan is committed to elevating the voices of people who are traditionally left out of government planning—particularly those who are Black, Indigenous, or part of a community of color; people who are LGBTQIA+; people living in poverty; immigrant communities and people who do not speak English at home; young people; older adults; and people with disabilities. **We believe everyone's voice should be heard so their needs can be met.**

During Phase 2, we continued our efforts to engage with those who are typically underrepresented. This required thinking beyond online engagement opportunities to meet people where they are. **We made deliberate steps to prioritize in-person engagement in areas to best reach people who are less represented in online engagement, including**:

Community Events and Pop-Up Engagement

We identified key community events in priority neighborhoods to attend, and held pop-ups at grocery stores. Priority neighborhoods for in-person events in Phase 2 included Lake City, Rainier Valley, West Seattle, Delridge, White Center/Roxhill, Lower Beacon Hill, Columbia City, Chinatown/International District, and South Park. At these events, we met people where they were to share information about the STP and gather feedback via activities or conversation.

Building Relationships

We continued in Phase 2 to strengthen relationships with community-based organizations that serve people who are traditionally left out of government planning. We continued to build relationships with these organizations as they planned culturally- and community-appropriate engagement, such as listening sessions, attendance at meetings and events, open houses, one-on-one interviews, and pop-ups at grocery stores. This relationship-building and outreach will continue in Phase 3.

> *In order to meet the climate and livability goals of our city, we must deliver a bold plan for a transportation system oriented around walking, biking, and transit!"*
>
> STP Engagement Hub Comment

MEASURING PROGRESS TOWARDS EQUITABLE ENGAGEMENT

In both our online engagement hub activities and the Social Pinpoint Map, communities of color were underrepresented during this phase of online engagement. However, participation among most of these groups increased throughout Phase 2, in part due to our targeted outreach methods.

Online Engagement Hub Activities

Participation by race or ethnicity

Race or Ethnicity	Through October	Through January	February (end of Phase 2)	Change from November - February	Share of Population
American Indian or Alaska Native	1.7%	2.0%	1.4%	-0.3%	2.4%
Asian	11.0%	11.9%	9.8%	-1.2%	21.1%
Black or African American	3.4%	4.5%	4.2%	0.8%	8.9%
Hispanic, Latina/Latino/ Latinx ethnicity	3.4%	4.0%	3.9%	0.5%	8.2%
Native Hawaiian, Pacific Islander	0.8%	0.5%	1.1%	0.3%	0.8%
White (of European ancestry)	83.9%	83.1%	85.6%	1.7%	71.0%***
Middle Eastern, Arab, N. African White	0.8%	1.0%	0.7%	-0.1%	
Other	1.7%	1.5%	1.8%	0.1%	7.3%

**People could select multiple answers; percentages may not add up to 100%*
***US Census American Community Survey, 5-Year Estimates, 2020*
****The U.S. Census does not distinguish between White (of European ancestry) and Middle Eastern, Arab, or North African White*

Social Pinpoint Map

Participation by race or ethnicity

Race or Ethnicity	Through January	February (end of Phase 2)	Change from January - February	Share of Population
American Indian or Alaska Native	0.8%	1.7%	0.9%	2.4%
Asian	10.0%	13.1%	3.1%	21.1%
Black or African American	5.0%	3.8%	-1.2%	8.9%
Hispanic, Latina/Latino/Latinx ethnicity	5.0%	6.6%	1.6%	8.2%
Native Hawaiian, Pacific Islander	0.0%	1.0%	1.0%	0.8%
White (of European ancestry)	81.7%	79.9%	-1.8%	71.0%***
Middle Eastern, Arab, N. African White	0.0%	1.7%	1.7%	
Other	0.0%	2.8%	2.8%	7.3%

**People could select multiple answers; percentages may not add up to 100%*
***US Census American Community Survey, 5-Year Estimates, 2020*
****The U.S. Census does not distinguish between White (of European ancestry) and Middle Eastern, Arab, or North African White*

Our in-person engagement strategy aimed to elevate communities who have been left out of previous planning efforts, and who have higher barriers to engage online.

Photo Credit: Smash the Box

ADVANCING EQUITABLE ENGAGEMENT

We want to make sure the Seattle Transportation Plan meets the needs of communities of color and those of all incomes, ages, and abilities. **Therefore, in Phase 2 we continued our work with community-based organizations (CBOs) to broaden and deepen our engagement processes. Their input will help us create a plan that advances our goal of a racially equitable and socially just transportation system.** Many of the CBOs are creating their own reports that we look forward to sharing during the next phase of engagement. Some initial takeaways are included in this report.

COMMUNITY-BASED ORGANIZATIONS

Community-based organizations (CBOs) are trusted community fixtures and leaders who are embedded in the lives of the communities we most hope to engage in the process. They often come from the same ethnic, cultural, or religious backgrounds and/or speak the languages typically spoken in those communities. CBOs work closely with the communities they serve, often providing educational services, gathering spaces, fostering community connections, and advocating on their behalf.

CBOs help us to elevate the voices of people we have not reached in past planning processes.

COMMUNITY-BASED ORGANIZATIONS

ASIAN PACIFIC AMERICAN LABOR ALLIANCE

Activities

- Met in January to discuss what had been heard so far in Phase 2
- Held an online survey and partnered with multiple community and labor organizations
- Held 1-on-1 interviews with union sisters and folks within their networks
- To meet their values and goals, APALA formed questions to guide their work: *Who is mostly impacted by gentrification in Seattle? To what extent do racial and economic disparities affect BIPOC communities in housing and transportation? How do the impacted communities envision Seattle in 20 years?*
- Created a policy report to give the City

Recommendations

- Increase public transportation accessibility, including bus frequency, in areas with limited service that prioritize BIPOC residents
- Increase specific routes that connect underserved neighborhoods to key transit hubs
- Provide additional service hours for those who commute late at night or early in the morning, affordability of public transportation
- Create affordable parking solutions for people who currently need to drive to work in Seattle
- Improve road infrastructure for drivers and pedestrians
- Increase safety for public transportation both on transit and at bus stops

DUWAMISH VALLEY SUSTAINABILITY ASSOCIATION

Activities

- Held workshops with South Park residents in October, and workshop with Georgetown residents in November
- Used the Gehl Eye Level City app for workshop participants to generate ideas and track walking routes
- Used storytelling and spatial mapping to develop a collective vision for South Park
- Created a walk around South Park for City staff to reflect on transportation and land use challenges
- Held a policy workshop with youth ambassadors and City staff to strategize where policy can be the most impactful

Recommendations

- Prioritize maintenance and explore complementary safety through sustainable measures
- Pursue locally serving transportation options to compliment mobility gaps within South Park, the Duwamish Valley, and the Greater Seattle Area
- Establish policy to improve public transportation infrastructure and increase connectivity to key locations
- Increase safety measures for pedestrian and bicycle/scooter mobility through South Park
- Collaborate with mobility apps (Lyft, GIG, etc.) to create affordable options for South Park
- Improve safety across mobility options by adding pedestrian lighting, benches, bus shelters, protected walkways, and real time information for transit
- Create buffers between industrial and residential areas of South Park and provide alternative freight routes outside of residential streets

ESTELITA'S LIBRARY

Activities

- Created an impact report based on activities they conducted over the summer—which contain transportation-related takeaways.

Recommendations

- Create cheaper and safer ways to get around Seattle
- Build more pocket park spaces like Common Acre
- Protect youth participants, their suggestions, as well as others who are often left out of traditional planning processes

KHMER COMMUNITY OF SEATTLE KING COUNTY (KCSKC) IN PARTNERSHIP WITH NOIO PATHWAYS AND KIMYUNITY

Activities

- October 2022 celebration event and information gathering with youth and elders
- February 2023 report back event at TAF Bethaday Community Learning Space which provided updates on community feedback, what we heard, music, dancing, and dinner

Recommendations

- Need to make more transportation information in different languages
- Make transfer times longer to help with transit affordability
- Improve transit availability for suburbs and edges of Seattle
- Add more transit access to parks and green spaces
- Make ORCA cards more affordable and/or discounted

LEGACY OF EQUALITY LEADERSHIP AND ORGANIZING

Activities

- Applied a survey in South Seattle with mainly people of color (The majority of the surveys were in Spanish)
- Had 1-on-1 conversations with community members to learn and understand problems

SMASH THE BOX

Activities

- Represented the STP at a variety of different pop-ups, festivals, events and more

CENTRAL AREA COLLABORATIVE

Activities

- Flyering and tabling at events and third spaces in the Central District

> *Expand discounted bus pass access to marginalized communities"*
>
> Seattle Trans Pride 2022

> *Mas carriles solo para bicicletos o patines" (More lanes only for biking and skating)*
>
> Legacy of Equality Leadership and Organizing Survey Response


A PLACE TO BECOME.
A PLACE TO BELONG
How would you feel safer walking, biking, busing, lightrail'n in Seattle's streets and in public spaces?
HAND SANITIZER
HOLLISTER
LISTER


KHMER COMMUNITY

MEETING PEOPLE WHERE THEY ARE

In Phase 2, participation in community events continued to be a key way for the STP project team to gather information about the community's vision and preferred transportation actions. Meetings between agencies helped make sure we share a common vision for the plan. **Meetings with people and groups have helped make sure this plan continues to be created for our communities, by our communities.**

COMMUNITY TOUCHPOINTS

3,500+

People engaged at Phase 2 outreach events

32 Community events

26 Meetings and briefings

7 Open houses

Events with BIPOC and Other Underrepresented Communities

We remain committed to seeking the voices of those who have historically been excluded from planning processes and have been harmed by past decisions. In particular, Phase 2 events targeted those who are Black, Indigenous, or members of a community of color; people who are LGBTQIA+; people living in poverty; immigrant communities and people who do not speak English at home; young people; older adults; and people with disabilities. Events, listening sessions, and connections included:

- Trans Pride Seattle
- Rainier Beach High School Orientation
- Eckstein Middle School 6th Graders*
- Vietnamese Autumn Lantern Festival
- Franklin High School*
- West Seattle High School Earth Club*
- Sound Steps
- Lambert House
- Yesler Community Council*
- Mercer International Middle School*
- YMCA Earth Service Corps Youth Environmental Leaders Summit*
- Lighthouse for the Blind*
- DeafBlind Service Center*
- Vietnamese Senior Association*
- BIPOC Bike Advocates*
- Duwamish Valley Sustainability Association*
- Khmer Community of Seattle King County
- Advocates Workshop*

**Listening Session*

Pop-Up Engagement at Festivals, Farmer's Markets, and Grocery Stores

We continued to represent the STP and collect feedback from communities at festivals and markets in Phase 2. We also visited grocery stores in priority neighborhoods that we hadn't heard from as much. These events included:

- Lake City Farmer's Market
- Beacon Arts Street Festival
- Lake City Grocery Outlet Pop-Up
- Rainier Valley Safeway Pop-up
- Rainier Beach Boo Bash
- Columbia City Farmer's Market
- Roxhill QFC Pop-Up
- Beacon Hill Red Apple Pop-Up
- Uwajimaya Pop-Up

Amplifying Community Voices

We visited 5 grocery stores in neighborhoods with many BIPOC, lower-income, or non-English-speaking residents. **At 4 out of the 5 stores, improving transit was the action that received the most votes**.

MEETINGS AND BRIEFINGS

Meetings with Community and Advocacy Groups

We attended several community group meetings in Phase 2 to collect input on the plan. These groups requested meetings with SDOT staff via email or the online engagement hub. These groups included:

- National Federation for the Blind
- Feet First
- Mercer Stakeholders Group
- Seattle Educators Association
- Seattle New Liberals
- Northern Rainier Valley Neighbors
- SoDo Stadium Stakeholders
- Association for the Advancement of Cost Engineers
- North Seattle Industrial Association
- Lid I-5

Meetings with City Boards and Committees

We provided 11 briefings to the City's transportation-focused boards and committees, including the opportunity to participate in two joint workshops. These boards and committees included:

- Bicycle Advisory Board
- Pedestrian Advisory Board
- School Traffic Safety Committee
- Transit Advisory Board
- Freight Advisory Board
- Planning Commission

Inter-agency Meetings

We continued our collaboration with other agencies and efforts involved in planning Seattle's transportation future, including the Office of Planning and Community Development (developing the Seattle Comprehensive Plan Update).

OPEN HOUSES

We collected feedback during Phase 2 at 7 open houses, including 2 STP-specific open houses and 5 open houses hosted for the Seattle Comprehensive Plan Update.

- Office of Planning and Community Development Comprehensive Plan Open Houses (5)
- Seattle Transportation Plan Open Houses (2)

Briefings with Seattle's Transportation Equity Workgroup (TEW)

Seattle's Transportation Equity Workgroup (TEW) was established in 2019 to seek input from a broad and diverse set of community members representing Black, Indigenous, and People of Color (BIPOC) and vulnerable communities. Grounded in their communities and experiences, this group defined a set of values and strategies to evaluate future transportation decisions. In Phase 2, we engaged with the TEW four times to collaborate on defining the STP's vision, goals, and objectives, and will continue to do so as the process continues.

Amplifying Community Voices

We spoke with elders in our communities to ask what actions are most important to them. Some things we learned:

- Members of the Khmer community said that their elders face difficult **language barriers** to getting around Seattle
- People who are part of Sound Steps, a walking program for older adults, said that they value making more space for pedestrians, and that **well-maintained sidewalks** are important for preventing falls
- Members of the Vietnamese Seniors Association told us that they would like **more frequent transit** and more places to sit and wait

During a listening session with BIPOC bicycle advocates, we heard:

- We must invest in South Seattle to rebuild trust with communities, and ensure that these investments enhance the lives of Black and Brown people and **do not lead to displacement**
- We need **safer street design** and traffic calming in underserved neighborhoods
- Especially in areas with lower rates of vehicle ownership, we need to emphasize truly protected bike facilities (more than paint or bollards)
- We need to create a **complete and connected bike network**
- Safety needs to be evaluated often as neighborhoods grow

KEY TAKEAWAYS

What we heard from people at events and meetings in Phase 2 directly informed our refinement of the actions and network maps to be included in the STP. These were some of the key takeaways that emerged through talking with people at events during this phase:

- **People want to feel safe and welcomed as they move around the city.** This includes better lighting and transit stop amenities, more protected facilities for people biking and walking, and clean, well-maintained public spaces.
- **Transportation must be affordable and accessible.** Many people, especially those with lower incomes, rely on transit for their daily needs. Many people suggested increasing access to reduced-fare programs.
- **All transportation networks should be integrated seamlessly with the light rail system.** First- and last-mile connections to light rail are critical, and people want easy connections from bus to light rail.
- **Expanding and maintaining our sidewalk network is key.** Many people said their neighborhoods lack sidewalks, and the ones that exist are narrow or worn. We also need more places for people to safely cross major thoroughfares like I-5, Rainier Ave, and Aurora Ave.

Amplifying Community Voices

We heard from our **LGBTQIA+ communities** at Trans Pride Seattle and the Lambert House that **transit access** is critical, and that they are often **verbally harassed** when waiting for and riding transit. They suggested:

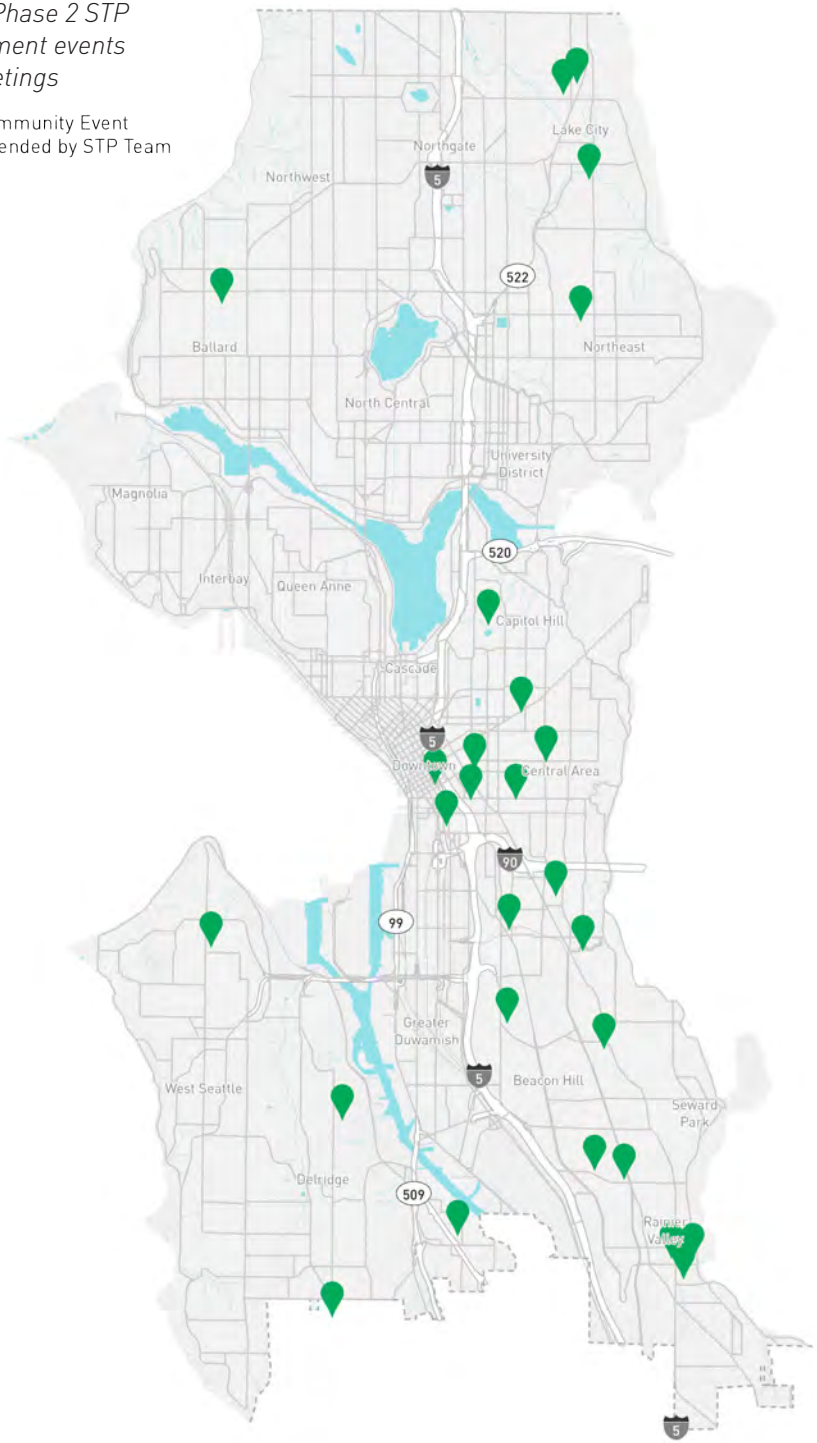
- More lighting at bus stops
- More barriers between cars and people walking or biking
- More places to sit and rest while waiting for transit
- Expanding discounted fares to help more people access transit

We spoke with **students** at five schools during Phase 2. Themes we heard from young people included:

- Young people rely on transit, walking, and biking to get around. Many told us that expansion of light rail and making more space for people walking on our streets would help them get to where they need to go.
- Students in the West Seattle High School Earth Club recommended making **electric vehicles** less expensive and promoting low-emission delivery vehicles

Map of Phase 2 STP engagement events and meetings

Community Event
Attended by STP Team



LOOKING AHEAD

PHASE 3

With Phase 2 complete, we'll be kicking off Phase 3 engagement in mid-2023. Here's what we'll be looking to get your input on in Phase 3:

DRAFT STP DOCUMENT

To continue our commitment of co-creating the plan with you, we'll take what we've heard from you in Phases 1 and 2 and use it to develop the draft STP. In Phase 3, we'll bring that draft back to you and ask if it reflects your priorities and if there are things you would like us to add or change.

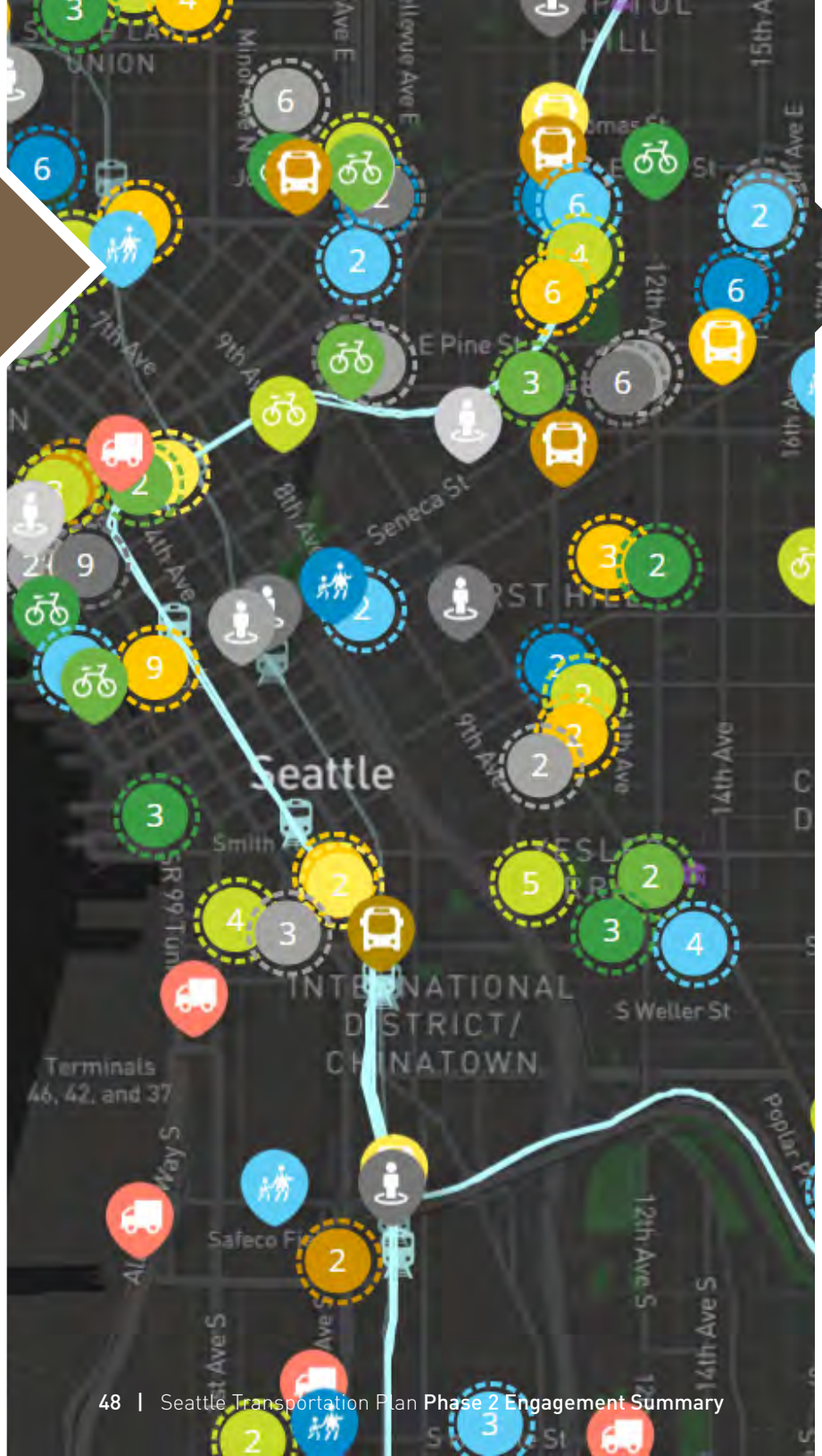
PRIORITIZATION AND FUNDING

We've heard from you that you want to see quick and transformational change to transportation in Seattle. In Phase 3, we want you to help identify how we need to select and pay for the improvements that create that change. We'll also ask for your help deciding what we do first.

In Phase 3, you can review the draft plan and tell us if your priorities are reflected, and what we need to add or change.


Seattle Transportation Plan
We want to hear from you!
How can Seattle's transportation system better meet your needs?
Scan this QR code to share your input!
SDOT
Seattle Department of Transportation
Regino
FARM
SUN GLASSES
$15 ORCA CARD
BIKE LIGHT
HELMET
STICKER

ADDITIONAL RESOURCES



Click on the links below for additional resources related to STP engagement and Phase 2 engagement results, and see next page for a summary table of Phase 2 engagement:

Phase 2 Engagement Results

- Vision, Goals, and Objectives
- Our Transportation Future
- Menu of Actions
- Social Pinpoint Map
- General Comments

Digital Resources

- Phase 1 Engagement Summary
- STP Engagement Hub
- STP Homepage
- Seattle Department of Transportation (SDOT) Homepage

Phase 2 Engagement Summary Table

Activity	What We Learned	How We Reached Priority Audiences	How Feedback Helps Create the STP
Vision, Goals, and Objectives	• Most of you (over 90%) resonate with the draft STP vision, goals, and objectives, and want to see a commitment to actionable steps and measurable outcomes to support them	• Multicultural media campaign • Translated materials and advertisement • Print materials with QR code	• Confirms the draft STP vision statement, goals, and objectives
Our Transportation Future	• You want to see rapid and transformational change in our transportation system	• Multicultural media campaign • Translated materials and advertisement • Print materials with QR code • Community events and meetings	• Confirms that we need new investment in transportation • This tells us that we need a prioritization and funding plan to achieve this change—in Phase 3, you'll help us define that even further
Menu of Actions	• You think that making more space for pedestrians, making it safer and easier to bike, increasing people-friendly streets, improving transit service, and reallocating street space away from cars are the actions that most help us achieve our goals	• Multicultural media campaign • Translated materials and advertisement • Print materials with QR code • Community events and meetings • Partnership with CBOs	• Defines the actions we need to take to achieve our confirmed goals and objectives
Social Pinpoint Map	• You want to see sidewalk gaps filled to connect neighborhoods and destinations • You want more spaces to gather in our public right-of-way • You want to use bike improvements to connect to transit and activity centers • You want to see better transit access for parks, schools, and major destinations • You want to see freight safety improvements in places that have the most bicycle and pedestrian conflict	• Multicultural media campaign • Translated materials and advertisement • Print materials with QR code	• Helps determine where improvements will be made to our pedestrian, bike, transit, and freight networks
Community-Based Organizations	• Our BIPOC and low-income communities are most in need of improvements to our transit network • Safety and affordability are often the top issues for our most vulnerable communities • You need our transportation system to be accessible for those that don't speak English	• Community events and meetings • Community and business group outreach • Translated materials distribution • Surveying and one-on-one interviews • Partnership with CBOs	• Tailors STP engagement to the community • Defines the actions we need to take to achieve our confirmed goals and objectives • Confirms where improvements to our pedestrian, bike, transit, and freight networks will be made
Events and Meetings	• You want to see more transportation investment throughout South Seattle • Underserved neighborhoods need safer street design, especially protected bicycle facilities • Underserved neighborhoods need improved transit service	• Community events and meetings • Partnership with CBOs • Translated materials and advertisement • Print materials with QR code	• Tailors STP engagement to the community • Defines the actions we need to take to achieve our confirmed goals and objectives • Helps determine where improvements will be made to our pedestrian, bike, transit, and freight networks


Seattle
Department of
Transportation