

## INTRODUCTION

The Transportation Element provides a framework that guides transportation investments over the next 20 years to support the City of Shoreline 2024 Comprehensive Plan and comply with the Washington State Growth Management Act. This Transportation Element identifies a roadmap for creating a welcoming and functional system for all users, including people walking, biking, using shared-use mobility devices, riding transit, as well as driving, in accordance with the Shoreline transportation vision and goals, which were developed with the community and endorsed by Shoreline City Council in May 2021.

### Transportation Vision:

*Shoreline has a well-developed multimodal transportation system that offers safe and easy travel options that are accessible for everyone, builds climate resiliency, and promotes livability. This system has been developed over time, informed by a robust, inclusive dialogue with the community.*

- **Goal 1: Safety**  
Make Shoreline's transportation system safe and comfortable for all users, regardless of mode or ability.
- **Goal 2: Equity**  
Ensure all people, especially those whose needs have been systemically neglected<sup>1</sup>, are well served by making transportation investments through an anti-racist and inclusive process which results in equitable outcomes.
- **Goal 3: Multimodality**  
Expand and strengthen the multimodal network, specifically walking, bicycling, and transit, to increase the number of safe, convenient, reliable, and accessible travel options.
- **Goal 4: Connectivity**  
Complete a network of multimodal transportation connections to and from key destinations such as parks, schools, community services, commercial centers, places of employment, and transit.
- **Goal 5: Climate Resiliency**  
Increase climate resiliency by promoting sustainability, reducing pollution, promoting healthy habitats, and supporting clean air and water.
- **Goal 6: Community Vibrancy**  
Foster livability by evoking a sense of identity through arts/culture, attracting and sustaining desired economic activity, and accommodating the movement of people and goods.

Several national, state, and regional agencies influence transportation mobility options in Shoreline, including the United States Department of Transportation, Washington State Department of Transportation, Puget Sound Regional Council, King County Metro, Sound Transit, and Community Transit.

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<sup>1</sup> People who have been systemically neglected in the transportation and planning process are those who have not historically been served or have been typically underrepresented like Black, Indigenous People of Color (BIPOC), youth, older adults, people with disabilities, people with low incomes, and people with limited English language skills.

## Shoreline Transportation Element

One purpose of the Transportation Element is to guide how the City focuses strategic efforts in local investments to create a connected, multimodal transportation system that utilizes regional transportation facilities and services.

The Transportation Element is designed to provide insight into the City's intentions and commitments, so that public agencies and individual households can make decisions, coordinate development, and participate in achieving a shared vision. It also provides the foundation for development regulations contained in the Shoreline Development Code and Engineering Development Manual.

In addition to the regulatory guiding framework of the Transportation Element, the City is also adopting a Transportation Master Plan (TMP) in 2023. While separate from this Transportation Element, the TMP shares the same vision, goals, and guidance but provides more detailed implementation actions to provide a cohesive long-range blueprint for travel and mobility in Shoreline.

## OUTREACH PROCESS

This Transportation Element is the product of a robust public outreach process that has benefited from thousands of voices, spanning the full spectrum of Shoreline's diverse communities. The outreach process is summarized below:

- **Goals for Mobility (Outreach Series 1):** In early 2021, community members were asked what transportation issues are most important to them. Community members participated via online survey, two virtual open houses, and through numerous smaller, community meetings. This outreach led to the development of the transportation vision and six goals, which guided the identification and prioritization of capital projects and programs.
- **Planning a System for All (Outreach Series 2):** In mid-2021, the City gathered feedback from community members on modal networks in an effort to accommodate all modes of travel. Like Phase 1, this phase included an online survey, virtual open house, and small group meetings. Community members provided specific input on challenging locations for walking, biking, taking transit, and driving. Community members also provided feedback on key destinations they wanted to reach via transit or by shared use mobility devices.
- **How to Prioritize the System (Outreach Series 3):** In early 2022, the City returned to the community with draft modal plans (i.e., draft plans to accommodate people walking, biking, riding transit, using shared-use mobility hubs, and driving) and project prioritization criteria, which were informed by input received in Phases 1 and 2. The community was able to provide input about whether each draft modal plan invested too much, too little, or was about right. Community members were also able to weigh in on the prioritization criteria, in terms of which criteria are most important to consider in evaluating and ultimately prioritizing projects. This outreach phase included physical popup displays at key community gathering spaces and online informational videos and survey.
- **Recommended TE Update (Public Hearing):** In the fall of-2022, the draft TE update will have a Public Hearing for public comment and the Planning Commission's recommendation to proceed with Council adoption by the end of 2022. This draft TE update will contain the City's transportation vision, goals, and modal plans. It will also include the project prioritization process and a financially constrained list of draft priority projects.

In incorporating public input at critical milestones throughout its development, this Transportation Element intends to be a community-driven document that supports the City vision for a complete and inclusive transportation system that provides reliable, safe, equitable, and sustainable travel choices.

## POLICIES

The following policies serve as the foundation of Shoreline's Transportation Element, providing guidance on actions the City can take to advance the Transportation Vision and Goals.

### Climate Resiliency

T1. Work to reduce vehicle miles traveled (VMT) and transportation-related greenhouse gas emissions in line with the level needed to meet emission reduction goals in the Climate Action Plan.

T2. Reduce the impact of the City's transportation system on the environment through expanded zero-emission vehicle use and active transportation options and identify opportunities to increase electric vehicle charging infrastructure when planning and designing transportation projects and facilities, on City rights-of-way or adjacent property(s), or through other transportation policies and programs.

T3. Emphasize transportation investments that provide and encourage alternatives to single occupancy vehicle travel and increase travel options, especially to and within King County [candidate] Countywide Centers<sup>2</sup> and along corridors connecting centers.

T4. Continue to implement the City's Commute Trip Reduction Plan as well as evaluate, implement, and advocate for other parking management and transportation demand management strategies that support the goal of reducing VMT.

T5. Plan, design, and construct transportation projects and facilities to avoid or minimize negative environmental impacts and to increase climate resiliency to the maximum extent feasible.

T6. Use Low Impact Development (LID) techniques, except when determined to be infeasible. Explore opportunities to expand the use of natural stormwater treatment in the right-of-way through partnerships with public and private property owners. Leverage green stormwater infrastructure (GSI) to expand and connect pedestrian/bicycle path networks for alternative transportation routes, including connections to the Interurban Trail.

T7. Create a safer and more enjoyable travel experience as well as reduce air pollution and ambient temperatures by increasing tree plantings along public right of way and planting tree species that will be more resilient to climate impacts.

T8. Identify opportunities to increase climate resilience when planning and designing transportation projects and facilities. Include features that improve surface water management, reduce urban heat island

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<sup>2</sup> Countywide growth centers serve important roles as places for equitably concentrating jobs, housing, shopping, and recreational opportunities. These are often smaller downtowns, high-capacity transit station areas, or neighborhood centers that are linked by transit, provide a mix of housing and services, and serve as focal points for local and county investment. On December 1, 2021, the Growth Management Planning Council (GMPC) approved the City of Shoreline's 148th St. Station Area, 185th St. Station Area, Shoreline Place, and Shoreline Town Center as candidate Countywide Centers. Jurisdictions with candidate Countywide Centers are expected to fully plan for their centers as a part of the 2024 comprehensive plan periodic update or in parallel local planning efforts.

## Shoreline Transportation Element

effects, and equitably increase services to the extent possible - especially in areas with identified climate impacts.

T9. Build and grow partnerships - with other public and private organizations and agencies - that support mode shift and a sustainable, resilient transportation system.

T10. Develop a resilient, multimodal transportation system that protects against major disruptions and climate change by developing recovery strategies and by coordinating disaster response plans.

T11. Modify design standards for the transportation system as needed to ensure that future land use development and transportation improvements increase city-wide resilience to climate change.

T12. Coordinate land use and transportation plans and programs with other public and private stakeholders to encourage parking management, vehicle technology innovation, shifts toward electric and other cleaner, more energy-efficient vehicles and fuels, integration of smart vehicle technology with intelligent transportation systems, and greater use of mobility options that promote climate resiliency and/or reduce VMT.

### Community Vibrancy

T13. Evaluate and implement innovative and robust economic development, land use and transportation plans, policies and projects that promote climate resiliency and community vibrancy.

T14. Explore strategies to effectively manage curbside space for a variety of uses such as ride-share, buses, pedestrians, freight delivery, commerce, and other needs.

T15. Plan and implement the transportation system improvements utilizing urban street design principles in recognition of the link between mobility with urban design, safety, economic development, equity, and community health.

T16. Actively engage the public, especially historically underserved populations, during all phases of the development/update/improvement of a transportation service or facility to identify and reduce negative community impacts.

T17. Implement a strategy for regional coordination that includes the following activities:

- Identify important transportation improvements in Shoreline that involve partners and form strategic alliances with potential partners, such as adjacent jurisdictions, like-minded agencies, and community groups.
- Create seamless pedestrian, bicycle, and transit connections across city borders.
- Participate in federal, state, regional, and county planning, budget, and appropriations processes that will affect the City's strategic interests.
- Develop partnerships with the local business community and other local groups/stakeholders to advocate at the federal, state, and regional level for common interests.

### Equity

T18. Provide accessible and affordable transportation for all, especially historically underserved populations, to enable equitable distribution of transportation resources, benefits, costs, programs and services.

## Shoreline Transportation Element

T19. Develop new data collection focused on capturing individual and household travel cost, travel time, trips not taken, access to different travel options, and access to key resources across different demographic groups to better inform more equitable decision making.

T20. As feasible, partner with community organizations and/or community members to develop and tailor language access strategies that work for a particular limited/non-English speaking community.

T21. Explore the feasibility of parking management programs, shared parking strategies, and/or subsidized ORCA cards programming as new low-income housing units are being developed; addressing the transportation needs as development occurs, not after units are built.

T22. Explore how to prioritize investments in underserved communities experiencing significant levels of traffic-related air pollution.

### Safety

T23. In conjunction with the Washington State Target Zero Plan, prioritize transportation planning, design, improvement, and operational efforts with the goal of achieving zero serious or fatal injury collisions.

T24. Adopt a Target Zero policy specific to the City of Shoreline and consistent with regional programs including the Washington State Target Zero Plan.

T25. Prioritize pedestrian, bicyclist, and other vulnerable user safety over vehicle capacity improvements.

T26. Use engineering, enforcement, and educational tools to improve safety for all transportation users.

T27. Use data-driven and evidence-based approaches to guide transportation safety investments.

T28. Routinely update City engineering design standards and design roadways consistent with injury minimization and speed management techniques.

T29. Utilize the Street Light Master Plan to guide ongoing public and private street lighting investments.

### Pedestrian System

T30. Implement the Pedestrian Plan through a combination of public and private investments by using the Sidewalk Prioritization Plan and ADA Transition Plan as guides.

T31. When identifying transportation improvements, prioritize construction of sidewalks, walkways, pedestrian crossings, and trails, including increasing the number of pedestrian-oriented connections and safe crossings that reduce barriers and make walking trips more direct.

T32. Utilize existing undeveloped right-of-way to create pedestrian paths and connections where feasible.

T33. Design and construct roadway improvements to be accessible by all, minimize pedestrian crossing distances, create convenient and safe crossing opportunities, reduce pedestrian exposure to vehicle traffic, and lower vehicle speeds.

T34. Continue an engagement program to inform people about options for walking in the City and educate residents about pedestrian safety and health benefits of walking. This program should include coordination or partnering with outside agencies.

## Bicycle System

T35. Implement the Bicycle Plan. Develop a program to construct and maintain a connected bicycle network that is safe and comfortable for people of all ages and abilities, connects to essential destinations, provides access to transit, and is easily accessible.

T36. Design and construct all roadway improvements to be consistent with the future bike network vision and, when deemed safe and feasible, use short-term improvements, such as signage and markings, to identify routes when large capital improvements identified in the Bicycle Plan will not be constructed for several years.

T37. Along trails and other low stress (LTS 1 and 2) bicycle facilities, encourage development that is supportive of bicycling and oriented toward the bikeways.

T38. Develop guidelines for the creation of bicycle and scooter parking facilities.

T39. Develop a public outreach program to inform people about bicycle safety, health benefits of bicycling, and options for bicycling in the City. This program should include coordination or partnering with outside agencies.

T40. Establish an ongoing funded capital program to construct the Bicycle Plan and support pursuit and implementation of grant opportunities.

## Transit System

T41. Make transit a more convenient, appealing, and viable option for all trips where community members desire to use it and create safe, easily accessible first and last mile connections to transit through implementation of the Transit Plan.

T42. Monitor the level and quality of transit service in the City, and advocate for more frequent service and associated capital improvements to increase transit reliability as appropriate.

T43. Work with transportation providers to develop a safe, reliable, and effective multi-modal transportation system to address overall mobility and accessibility. Maximize the people-carrying capacity of the surface transportation system.

T44. Support and encourage the development of additional high-capacity transit service in Shoreline.

T45. Continue to install and support the installation of transit-supportive infrastructure.

T46. Work with Metro Transit, Sound Transit, and Community Transit to start planned transit service as early and effectively as possible in order to develop bus service plans that connect people to light rail stations, high-capacity transit corridors, shared-use mobility hubs, Park & Ride lots, King County [candidate] Countywide Centers (148<sup>th</sup> St. Station, Shoreline Place, Town Center, 185<sup>th</sup> St. Station), and any future key destinations if identified.

T47. Promote livable neighborhoods near high-capacity transit through land use patterns, transit service, and transportation access.

T48. Encourage development that is supportive of transit, and advocate for expansion and addition of new frequent bus routes in areas with transit-supportive densities and uses.

## Shoreline Transportation Element

T49. Support transit planning efforts based on criteria guided by the City's preferred land use, population and employment distribution, and opportunities for redevelopment. Preserve right-of-way for future high-capacity transit service.

T50. Partner to ensure provisions of first/last mile services, such as microtransit, flex-services, and other mobility options that connect people between transit and destinations.

### Roadway System

T51. Design City transportation facilities with a primary purpose of moving people and goods via multiple modes (component of Complete Streets<sup>3</sup>), including automobiles, freight trucks, transit, bicycles, and walking, with vehicle parking identified as a secondary use, and utilizing natural stormwater management techniques and landscaping (component of Green Streets) where appropriate.

T52. In accordance with Complete Streets Ordinance No. 755, new or rebuilt streets shall accommodate, as much as practical, right-of-way use by all users.

T53. Direct delivery service and trucks and other freight transportation to appropriate streets so that they can move through Shoreline safely and reliably.

T54. Routinely update development standards to mitigate the impact of growth on the City's transportation infrastructure; encourage and incentivize Transportation Demand Management (TDM) strategies.

T55. Improve the street grid network to maximize multi-modal connectivity throughout the City.

T56. Develop a regular maintenance program and schedule for all components of the transportation infrastructure. Maintenance schedules should be based on safety/imminent danger and preservation of transportation resources.

T57. Ensure that maintenance and operation of the existing and proposed transportation network is included in transportation planning and design.

T58. Use roadway maintenance and preservation work, including paving and restriping, to install short-term and planned long-term improvements.

### Concurrency and Level of Service

#### Vehicle LOS Policy

T59. Adopt Level of Service E (LOS E) at intersecting arterials within King County [candidate] Countywide Centers and Highways of Statewide Significance and Regionally Significant State Highways (I-5, Aurora Avenue N, and Ballinger Way). For all other intersecting arterials, adopt LOS D. For evaluating planning level concurrency and reviewing traffic impacts of redevelopment, intersections that operate worse than the identified standard will not meet the City's established concurrency threshold. The level of service shall be calculated with the delay method described in the most recent edition of the Transportation Research Board's Highway Capacity Manual. Adopt a supplemental LOS for Principal and Minor Arterials that limits the volume to capacity (V/C) ratio to 1.1 or lower within King County [candidate] Countywide Centers, and

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<sup>3</sup> A "complete street" is one that is designed, operated, and maintained to enable safe and convenient access and travel for all users including pedestrian, bicyclists, transit users, and people of all ages and abilities, as well as freight and motor vehicles while protecting and preserving the community's environment and character.

## Shoreline Transportation Element

0.9 or lower for all other Principal and Minor Arterials in the City's jurisdiction. The V/C measurement applies to a segment of roadway between arterial intersections.

These LOS standards apply throughout the City unless an alternative LOS standard is identified in the Transportation Element for intersections or road segments, where an alternate LOS has been adopted in a subarea plan, or for Principal or Minor Arterial segments where:

- Widening the roadway cross-section is not feasible, due to significant topographic constraints; or
- The improved roadway configuration balances increased congestion with safety, climate resiliency, and active transportation mobility benefits.

Arterial segments meeting at least one of these criteria as identified in June 2022 are:

- Meridian Avenue N from N 155<sup>th</sup> Street to N 175<sup>th</sup> Street
- Meridian Avenue N from N 175<sup>th</sup> Street to N 185<sup>th</sup> Street

### **Pedestrian LOS Policy:**

T60.1. Except where determined impractical by the City Engineer, construct sidewalks per the LOS standards outlined in Table 1.

Table 1. Pedestrian LOS Standards for Principal, Minor, and Collector Arterials

Component	Single-Family Residential Land Use*	Other Land Uses
Minimum Sidewalk Width	6 feet	8 feet
Minimum Amenity Zone/Buffer Width (not including frontage zone <sup>4</sup> )	5 feet	5 feet

*\*This standard applies to residential zones R-4 through R-18. Any designation above R-18 will be subject to the wider 8-foot requirement, although deviations from these standards may apply subject to approval by the City Engineer.*

T60.2. Establish a connected and complete pedestrian network by constructing the sidewalks and trails outlined in the Sidewalk Prioritization Plan (SPP).

### **Bicycle LOS Policy:**

T61.1. Establish the Bicycle Plan to connect major destinations, transit stops and stations, and residential, commercial/retail centers, and employment centers.

T61.2. Establish sufficient, safe, and convenient bicycle parking and security to support trips made by bicycle.

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<sup>4</sup> The area adjacent to the property line where transitions between the public sidewalk and the space within buildings occur.



## Shoreline Transportation Element

### **Transit LOS Policy:**

T62.1. Advocate for transit service that is aligned with Shoreline land use and demographics as presented in the Transit Plan.

T62.2. Make bus stop facilities more comfortable and secure to encourage ridership.

T62.3. Prioritize capital improvements along City streets to facilitate transit speed and reliability.

### **Shared-use Mobility Hub Policy:**

T63.1. Provide mobility hubs at locations that support the City's equity, climate resiliency, transportation, and land use goals.

T63.2. Prepare for shared-use mobility service in Shoreline, including providing guidance for how and where that service is provided.

### **Concurrency Policy**

T64. Adopt a transportation concurrency program that advances construction of multimodal transportation facilities in Shoreline.

T65. Coordinate with the County and neighboring jurisdictions to implement concurrency strategies and provide for mitigation of shared traffic impacts through street improvements, signal improvements, intelligent transportation systems improvements, transit system improvements, or transportation demand management strategies.

### **Transportation Improvements**

T66. Complete the multimodal transportation network by implementing prioritized projects using the following criteria:

- Safety
- Equity
- Multimodality
- Connectivity
- Climate Resiliency
- Community Vibrancy

T67. Consider and coordinate the construction of new capital projects with upgrades or projects needed by utility providers operating in the City.

T68. Pursue corridor studies on key corridors to determine improvements that address safety, capacity, mobility, climate resiliency and support adjacent land uses.

T69. Implement projects that address improvements noted in planning studies or reports (such as the Transportation Improvement Plan or Annual Traffic Report) including the corridors of 145th Street, 175th Street, 185th Street, Meridian Avenue, Trail Along the Rail, and sidewalk/bicycle networks.

### **Funding**

T70. Aggressively seek grant opportunities to secure regional and federal funding to help implement high-priority projects in the Shoreline TMP.

## Shoreline Transportation Element

T71. Support efforts at the local, regional, state, and federal level to increase funding for the transportation system.

T72. Ensure City staff have the resources to identify and secure funding sources for transportation projects, including shared use mobility, bicycle and pedestrian projects.

T73. Update the citywide Transportation Impact Fee (TIF) program to fund multi-modal growth-related transportation improvements, and when necessary, use the State Environmental Policy Act to provide traffic mitigation for localized development project impacts.

T74. Adequately fund maintenance, preservation, and safety for the City's multimodal transportation system, especially those facilities used by the most vulnerable users, including those walking and rolling.

## Transportation Context

The Transportation Element is being created as part of the City of Shoreline Comprehensive Plan update process. As required under the Washington State Growth Management Act, the Transportation Element is the compliance document that will be adopted into the Shoreline Comprehensive Plan, the centerpiece of local planning. As part of developing the Transportation Element, the City reviewed existing and future conditions for transportation in Shoreline. By having insight into how Shoreline will grow in the future, the City can plan for how the transportation system will need to evolve to accommodate the interests and needs of all current and future transportation users.

Part of that evolution will be a multimodal transportation system that accommodates all users, including people walking, bicycling, riding transit, using shared mobility devices, and driving. To help achieve this, the City has developed goals, policies, and implementation strategies that identify how to improve and expand the Shoreline transportation system with the following products:

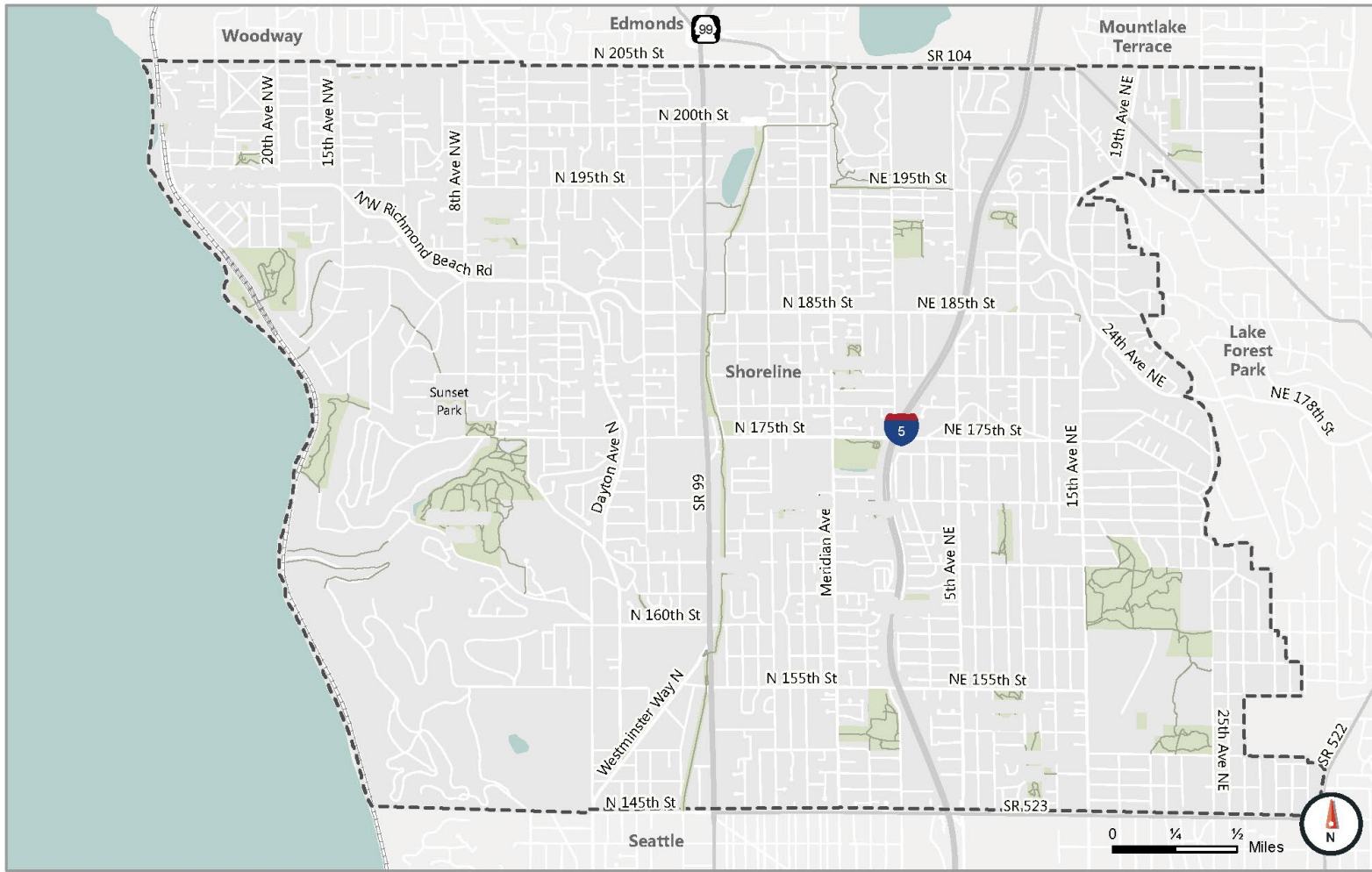
- Modal networks that show complete systems for mobility throughout the City.
- Projects needed to accommodate growth over the next twenty years.
- A funding strategy to pay for the identified improvements.
- Ongoing implementation and monitoring to ensure that adequate transportation facilities will be in place as growth occurs.

## Shoreline Profile

Shoreline became a city in 1995. As shown in **Figure 1**, Shoreline is bordered on the west by Puget Sound, on the north by the communities of Woodway, Edmonds, and Mountlake Terrace, on the east by Lake Forest Park, and to the south by the City of Seattle. Shoreline covers approximately 11.74 square miles and has a population of more than 56,000 residents. The City is currently primarily residential with more than 70 percent of the households being single-family residences but is continuing to grow and redevelop. Shoreline is made up of 14 well-defined neighborhoods, each with its own character. Over the years, the Shoreline community has developed a reputation for strong neighborhoods, excellent schools, and abundant parks. The City of Shoreline offers classic Puget Sound beauty and the convenience of suburban living with the attraction of nearby urban opportunities.

# Shoreline Transportation Element

Figure 1. City of Shoreline



- City Boundary
- Trail
- Park

### Demographics

A Transportation Element needs to serve the entire community, so it is critical to understand who lives in Shoreline and what their needs are. A person's mobility needs and priorities vary greatly depending on their individual circumstance. For instance, a low-income resident may not have the finances for all transportation options; they may not own a car and might rely on public transit, creating different needs than someone who commutes by car. Someone who doesn't speak English may require different accommodations than native English speakers. Someone who uses a wheelchair may require more accessible accommodations than someone who doesn't use mobility devices. As Shoreline's population becomes increasingly diverse, understanding and responding to these distinctions becomes more important as time goes on. The following sections describe the current demographics in Shoreline.

#### *Income and Poverty*

In 2019, the Shoreline median household income was \$86,827, an increase of 31.5% over 2015. However, median incomes differ significantly by race and ethnicity. Households of all races and ethnicities except White/Caucasian make less than the citywide median income. Households that identify as "Asian alone" are close to the median incomes (0.9% less than the citywide median), while American Indian and Alaska Native households have a median household income of 43.7% less than the citywide median.

In 2019, roughly 4,300 people or 7.7% of the Shoreline population were experiencing poverty. This was a significant decline from previous years; however, the COVID-19 pandemic has likely impacted poverty in Shoreline, though this data is not yet available.

#### *Housing*

Renters are much more likely than homeowners to spend more than 30% of their income on housing costs, a metric known as cost burden.

- 26.9% of homeowner households in Shoreline are cost-burdened.
- 52.6% of renter households in Shoreline are cost-burdened.

#### *Race/Ethnicity*

As of 2019, residents who identify as "White alone" comprised 64.1% of Shoreline's population. From 2010 to 2019, the absolute size of all racial/ethnic groups increased, in conjunction with overall population increases.

- Residents who identify as American Indian or Alaska Native alone increased by the largest percentage, with an increase of 113.7%. However, this group comprises only 0.6% of Shoreline's total population.
- Residents who identify as White alone increased by the smallest percentage, with an increase of 1.2%.
- From 2010 to 2019, residents who identify as Hispanic or Latino of any race increased by 56.5%, or an additional 1,624 individuals since 2010. This group represents 8.0% of the Shoreline total 2019 population.

#### *Age*

In 2019, the 35 to 39-year-old segment represented the largest share of the Shoreline population, and the median age was 41.8 years. Residents aged 60 and older made up 25% of Shoreline's population.

## Shoreline Transportation Element

### *Foreign-Born Population*

Approximately 12,100 Shoreline residents have birthplaces outside of the United States. From 2018 to 2019, Shoreline's foreign-born population increased by 8.0%, and by 18.6% over the last five years. Of residents born outside the United States, 52.6% were born in Asia.

### *Language*

According to 2019 demographics, some Shoreline residents speak English less than "very well." These residents are most likely to speak Spanish or Chinese, with an estimated 1,350 speaking Spanish and an estimated 900 speaking Chinese.

### *Land Use*

Shoreline is comprised of distinct areas with varying land uses. Shoreline has 409 acres of parkland, including 41 park areas and facilities. Shoreline is primarily residential in character with over half of its land area developed with single-family residences. Commercial development stretches along Aurora Avenue, with other neighborhood centers located at intersections of primary arterials, such as NE 175th Street at 15th Avenue NE in North City, NW Richmond Beach Road at 8th Avenue NW, and 5th Avenue NE at NE 165th Street in Ridgecrest. The areas on either side of Interstate 5 (I-5) near NE 145th Street and NE 185th Street are designated as station areas, which are planned for mixed-use redevelopment in conjunction with the new light rail stations and transit investments.

### *Future Land Use*

The Shoreline Comprehensive Plan anticipates adding 13,330 additional households and 10,000 new jobs in the City by 2044. This will result in a total of 36,570 households and 30,020 jobs in the City in 2044. To support this Transportation Element update, the City evaluated the transportation needs of these future community members through travel demand forecasting and multimodal analysis. The City envisions most of this growth occurring in the four designated [candidate] Countywide Centers, which are locations with zoned densities that can support high-capacity transit and benefit from robust networks for walking, biking, and accessing shared mobility devices, as envisioned by this Transportation Element.

### *Transportation Network*




The following sections document transportation networks within the City and discuss identified opportunities for improvement. The Shoreline transportation network accommodates various modes for getting around, including walking, bicycling, taking public transit, and driving, among others, and commercial needs such as freight transport.

### *Street Network*

Shoreline's street network is comprised of a variety of roadway types, which balance vehicle capacity with the needs of other uses (people walking, bicycling, and taking transit), and connects all users to local and regional facilities. **Table 2** describes the different types of roadways in Shoreline, also called street classification, and **Figure 2** maps their locations in Shoreline.

Shoreline Transportation Element

Table 2: City of Shoreline Street Classification

Type	Description <sup>1</sup>	Examples	Photo
<b>Principal Arterial</b>	Principal Arterials are roadways that provide a high degree of vehicular mobility with more restricted access and have regional significance as major vehicular and transit travel routes that connect between cities within a metropolitan area. They generally have sidewalks on both sides of the roadway, and some have bicycle facilities. Speed limits on Principal Arterials in Shoreline range from 25-40 mph.	Aurora Avenue N, N/NE 175th Street from Aurora Ave N to 15 <sup>th</sup> Ave NE, and 15th Avenue NE	 <p>Aurora Avenue N</p>
<b>Minor Arterial</b>	Minor Arterials are generally designed to provide a high degree of intra-community connections and are less significant from a perspective of regional mobility, but many also provide transit service. They generally have sidewalks on at least one side of the roadway, and some have bicycle facilities. Speed limits on Minor Arterials in Shoreline are 30-35 mph.	Meridian Avenue N, N/NE 185th Street from Fremont Ave N To 10 <sup>th</sup> Ave NE, and NW Richmond Beach Road from 20 <sup>th</sup> Ave NW to Fremont Ave N	 <p>Meridian Avenue N</p>
<b>Collector Arterial</b>	Collector Arterials assemble traffic from the interior of an area/community and deliver it to the closest Minor or Principal Arterial. Collector Arterials provide for both mobility and access to property and are designed to fulfill both functions. Some Collector Arterials provide transit service, sidewalks, and bicycle facilities, but there are gaps. The speed limit on Collector Arterials in Shoreline is 25-35 mph.	Greenwood Avenue N, Fremont Avenue N from N 165 <sup>th</sup> Street to NW 205 <sup>th</sup> Street, and NW Innis Arden Way	 <p>Greenwood Avenue N</p>



Shoreline Transportation Element

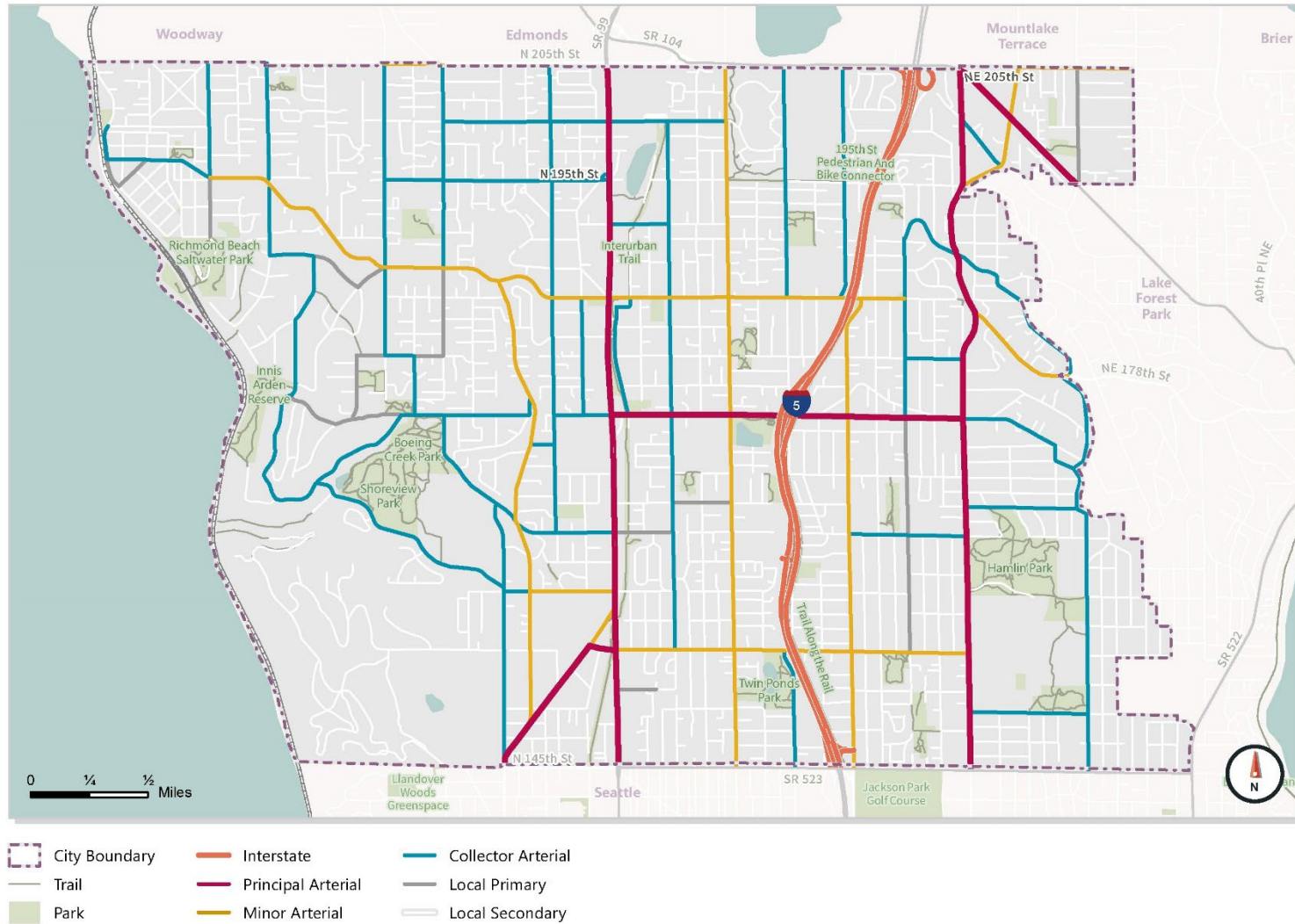
Type	Description <sup>1</sup>	Examples	Photo
<p><b>Local Primary</b></p>	<p>Local Primary roadways connect traffic to Arterials, accommodate short trips to neighborhood destinations and provide local access. They generally do not have transit service, sidewalks, or bicycle facilities. The speed limit on Local roadways in Shoreline is 25 mph.</p>	<p>25th Avenue NE from Ballinger Way NE to NE 205<sup>th</sup> Street, N 167th Street from Ashworth Ave N to Meridian Ave N, and 10<sup>th</sup> Ave NE from NE 155<sup>th</sup> St to NE 175<sup>th</sup> Street.</p>	 <p>10th Avenue NE</p>
<p><b>Local Secondary</b></p>	<p>Local Secondary roadways provide local access. They generally do not have transit service, sidewalks, or bicycle facilities. The speed limit on Local roadways in Shoreline is 25 mph.</p>	<p>Wallingford Avenue N, 11th Avenue NE, 12th Avenue NE, NE 158<sup>th</sup> Street</p>	 <p>NE 158<sup>th</sup> Street</p>

Source: Shoreline TMP, 2011; Google Maps, 2020

<sup>1</sup> Speed limits for specific facilities can be found in the Shoreline Municipal Code 10.20.010

# Shoreline Transportation Element

Figure 2. Existing Street Classification





*Existing Vehicle Congestion*

The operational performance of intersections within Shoreline is measured using a standard methodology known as level of service (LOS). LOS represents the degree of congestion at an intersection based on a calculation of average delay per vehicle at a controlled intersection, such as a traffic signal or stop sign. Individual LOS grades are assigned on a letter scale, A-F, with LOS A representing free-flow conditions with no delay and LOS F representing highly congested conditions with long delays.

**Table 3** shows the definition of each LOS grade from the 6th Edition Highway Capacity Manual (HCM) methodology, which is based on average control delay per vehicle. Signalized intersections have higher delay thresholds compared with two-way and all-way stop-controlled intersections. HCM methodologies prescribe how delay is measured at different types of intersections: for signalized and all-way stop intersections, LOS grades are based on the average delay for all vehicles entering the intersection; for two-way stop-controlled intersections, the delay from the most congested movement is used to calculate LOS. LOS is usually calculated for the busiest hour of the day, or “peak hour”, to represent the worst observed conditions on the roadway.

Table 3: Intersection LOS Criteria Based on Delay

Level of Service	Signalized Intersections (seconds per vehicle)	Stop-Controlled Intersections (seconds per vehicle)
<b>A</b>	<= 10	<= 10
<b>B</b>	> 10 to 20	> 10 to 15
<b>C</b>	> 20 to 35	> 15 to 25
<b>D</b>	> 35 to 55	> 25 to 35
<b>E</b>	> 55 to 80	> 35 to 50
<b>F</b>	> 80	> 50

Source: 6th Edition Highway Capacity Manual

The City’s 2011 TMP identified LOS standards for the City’s roadway network. In general, it required LOS D operations at signalized intersections along arterial streets and at unsignalized intersecting arterials for most streets.

Additionally, the City measures the performance of its roadway system based on the volume to capacity (V/C) ratio of principal and minor arterials. The V/C ratio compares roadway demand (vehicle volumes) with roadway supply (carrying capacity). If a roadway has a V/C of 1.0, the roadway is operating at full capacity. The 2011 TMP set a V/C standard of 0.90 or lower for most principal and minor arterials, but recognized certain streets where these standards may not be achievable due to topographical, land ownership, or other feasibility constraints.

This Transportation Element revises these standards for City-owned roadway facilities, specifically to allow for LOS E operations at intersections and a higher V/C (1.1) within King County [candidate] Countywide Centers. These revisions recognize that the City must balance the needs of vehicles with the needs of other street users, including people walking and bicycling in urban districts, like the four designated centers.

In addition to City facilities, there are also state-owned roadway facilities in Shoreline. The LOS standards for these facilities are assigned by the Washington State Department of Transportation (WSDOT) and are as follows:

## Shoreline Transportation Element

- SR 99 has a LOS standard of D
- SR 523 has a LOS standard of E mitigated<sup>5</sup>
- SR 104 from SR 99 to 15th Ave NE has a LOS standard of D
- SR 104 from 15th Ave NE to the eastern city limits has a LOS standard of E mitigated

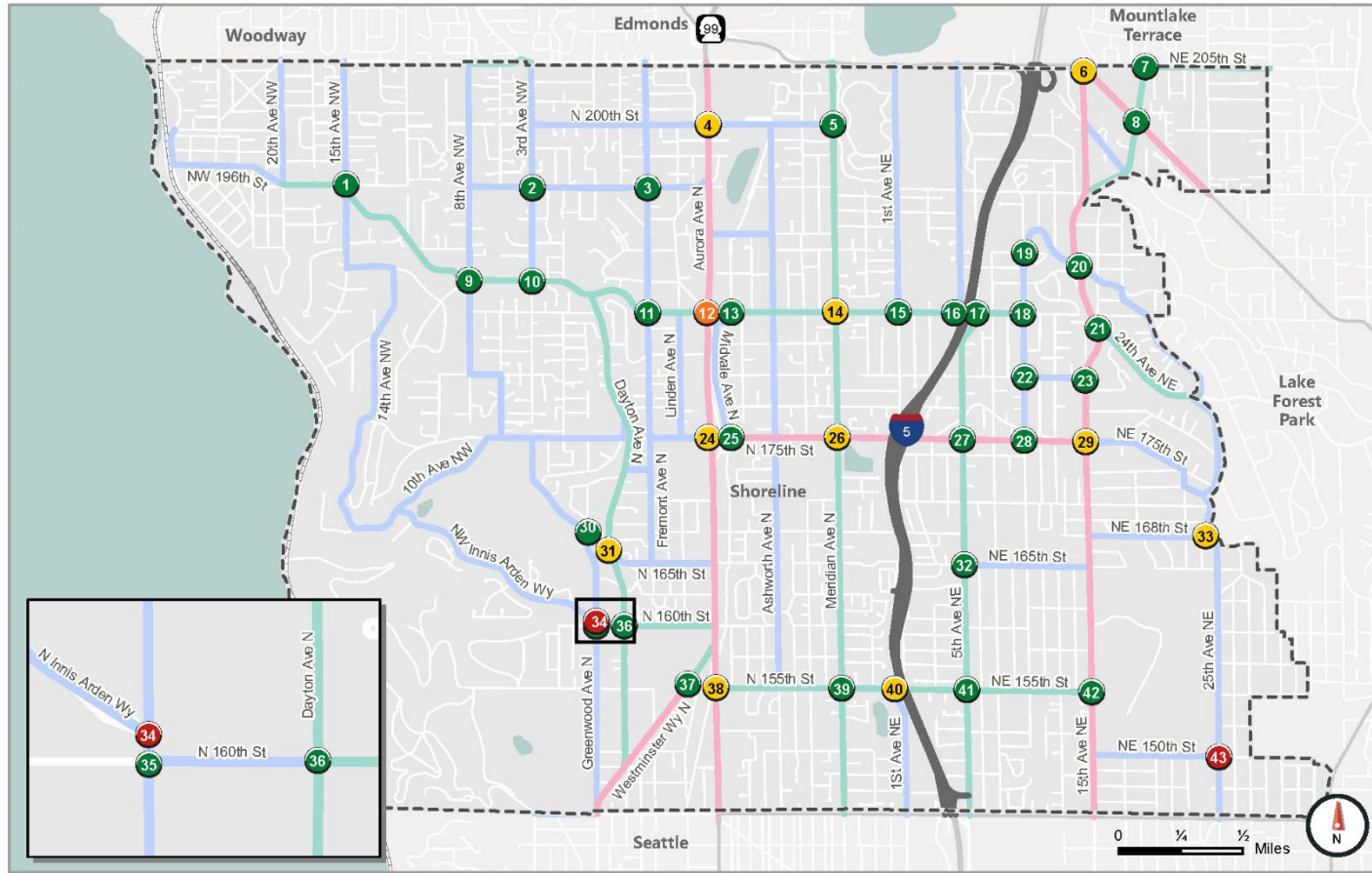
**Figure 3** and **Table 4** show how several intersections in Shoreline are operating today (intersection numbers on map correspond with Map ID# in table).

---

<sup>5</sup> E mitigated means that congestion should be mitigated (such as transit) when p.m. peak hour LOS falls below LOS "E"

# Shoreline Transportation Element

Figure 3: Existing Level of Service in Shoreline



**Level of Service**

- A - C
- D
- E
- F

**Roadway Functional Classification**

- Interstate
- Principal Arterial
- Minor Arterial
- Collector Arterial

Note: Intersection numbers correspond with the Map ID number in Table 4.

Shoreline Transportation Element

Table 4: Existing Level of Service in Shoreline (mapped in the preceding Figure 3)

Map ID	Intersection Location	Delay (seconds)	LOS	Map ID	Intersection Location	Delay (seconds)	LOS
1	15th Ave NW & NW 195th St	19	C	23	15th Ave NE & NE 180th St	8	A
2	3rd Ave NW & NW 195th St	14	B	24	Aurora Ave N & N 175th St	55	D
3	Fremont Ave N & N 195th St	10	B	25	Midvale Ave N & N 175th St	10	B
4	Aurora Ave N & N 200th St	53	D	26	Meridian Ave N & N 175th St	49	D
5	Meridian Ave N & N 200th St	8	A	27	NE 175th St & 5th Ave NE	18	B
6	Ballinger Way NE & NE 205th St & 15th Ave NE	46	D	28	NE 175th St & 10th Ave NE	6	A
7	NE 205th St & 19th Ave NE	31	C	29	15th Ave NE & NE 175th St	38	D
8	Ballinger Way NE & 19th Ave NE	29	C	30	Greenwood Ave N & Carlyle Hall Rd	17	C
9	NW Richmond Beach Rd & 8th Ave NW	26	C	31	Dayton Ave N & Carlyle Hall Rd	26	D
10	3rd Ave NW & NW Richmond Beach Rd	17	B	32	5th Ave NE & NE 165th St	10	A
11	Fremont Ave N & N 185th St	25	C	33	24th Ave NE & NE 168th St	26	D
12	Aurora Ave N & N 185th St	59	E	34	Greenwood Ave N & NW Innis Arden Wy	97	F
13	Midvale Ave N & N 185th St	7	A	35	Greenwood Ave N & N 160th St	18	C
14	Meridian Ave N & N 185th St	40	D	36	Dayton Ave N & N 160th St	15	B
15	1st Ave NE & NE 185th St	15	B	37	Westminster Way N & N 155th St	19	B
16	5th Ave NE & NE 185th St (West Side of I-5)	19	C	38	Aurora Ave N & N 155th St	49	D
17	5th Ave NE & NE 185th St (East Side of I-5)	16	B	39	Meridian Ave N & N 155th St	34	C
18	10th Ave NE & NE 185th St	9	A	40	1st Ave NE & N 155th St	26	D
19	10th Ave NE & NE Perkins Way & NE 190th St	8	A	41	5th Ave NE & NE 155th St	13	B
20	NE Perkins Way & 15th Ave NE	20	B	42	15th Ave NE & NE 155th St	21	C
21	15th Ave NE & 24th Ave NE	7	A	43	25th Ave NE & NE 150th St	96	F
22	10th Ave NE & NE 180th St	10	B				

Source: Fehr & Peers, 2021

## Shoreline Transportation Element

### *Measured Vehicle Speeds*

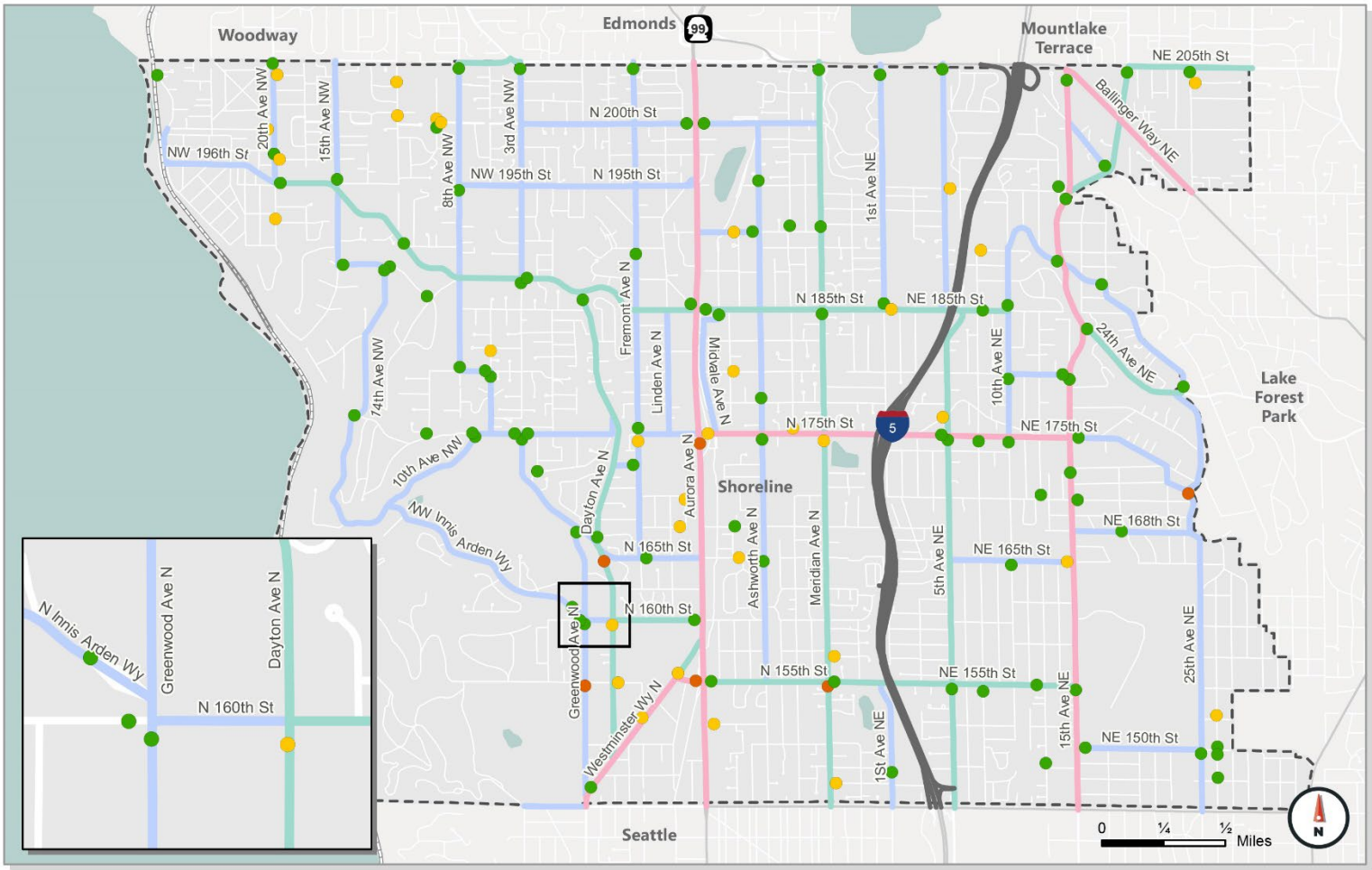
Another way of checking intersection operations with actual travel data is by looking at average vehicle speeds which can be an indicator of congestion. Average vehicle speeds during the PM peak hour were compared to posted speed limits at 134 locations along Shoreline's roadway network. **Figure 4** shows that there is minimal congestion during the PM peak hour in Shoreline for locations with available speed data. None of the locations have PM peak period speeds that are more than 50 percent below the posted speed limit. Only about 30 percent of the analyzed locations have congested speeds that are 15 to 50 percent below the posted speed limit. Therefore, most vehicles are traveling at speeds that are close to the posted speed limits. Note that while this map doesn't report on 145<sup>th</sup> Street and 205<sup>th</sup> Street because they are outside of the City's jurisdiction, the City is monitoring their conditions and helping to plan these corridors with neighboring cities and transportation agencies.

### *Existing Traffic Volumes*

**Figure 5** shows average weekday traffic volumes for roadways in Shoreline as of 2019.

Shoreline Transportation Element

Figure 4. Speed Analysis



**PM Peak Hour Speed Deviation**  
 ● 0-15% below posted speed    ● 15-25% below posted speed    ● 25-50% below posted speed

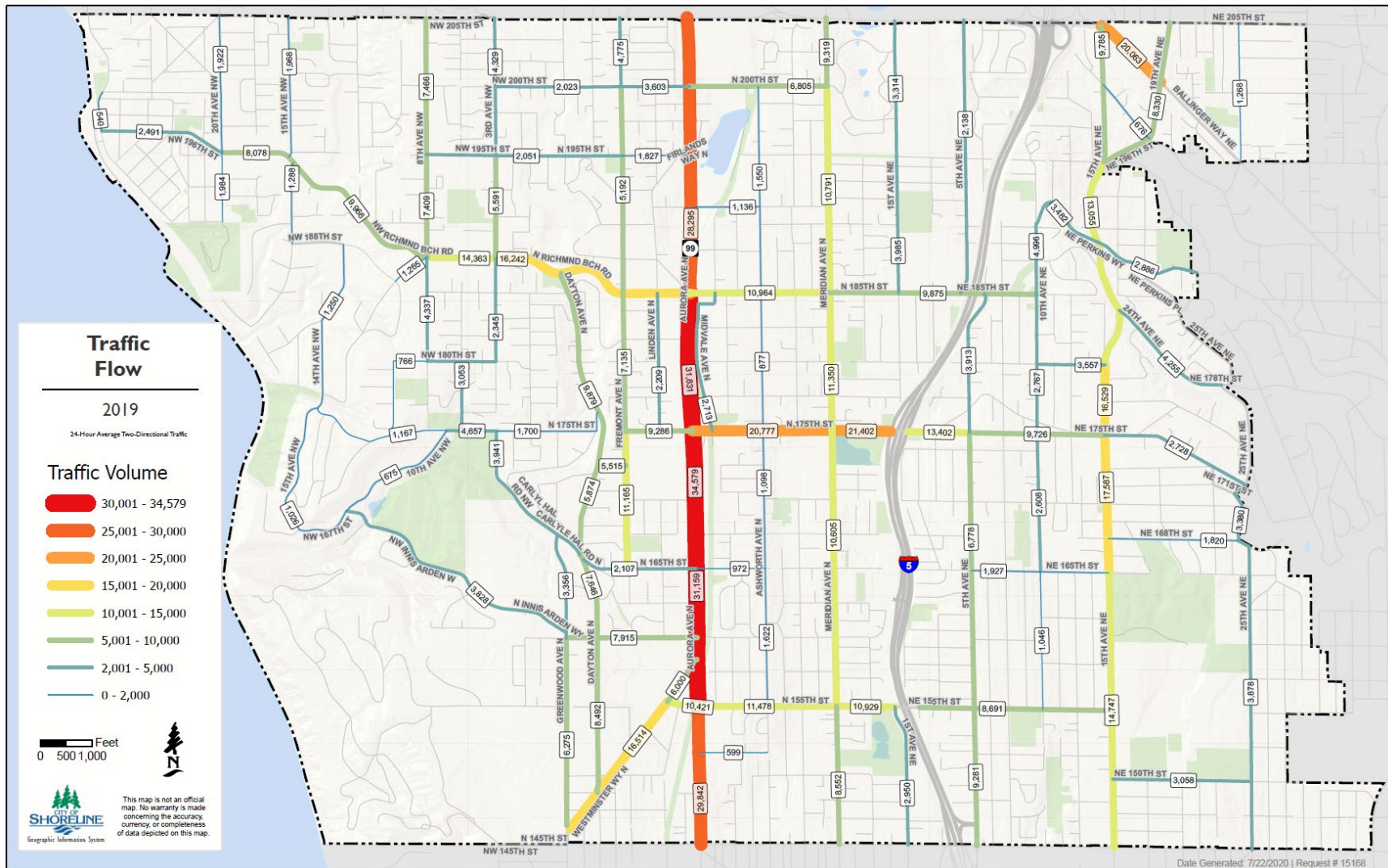
**Roadway Functional Classification**  
 — Interstate    — Minor Arterial  
 — Principal Arterial    — Collector Arterial

**Speed Analysis**



# Shoreline Transportation Element

Figure 5. Average Weekday Traffic Flows in 2019



Source: City of Shoreline, 2019 Annual Traffic Report

### *Future Traffic Growth*

By 2044, the City's Comprehensive Plan anticipates adding 13,330 additional households and 10,000 new jobs. To understand how this growth (and anticipated regional growth outside of the city) will impact Shoreline's transportation system, the City must project growth and its impacts into the future using specialized travel models. For this Transportation Element, the City has projected just over 20 years into the future, developing a travel model with horizon year 2044. This travel model was based on the Puget Sound Regional Council (PRSC) regional model, which considers many data points such as local and regional transportation investments (such as extending light rail to Lynnwood), road usage charges, and demographic shifts in household size, income, and composition to understand how travel patterns might change in the future. This modeling effort provides one of the best means to evaluate anticipated traffic congestion in 2044 both on local streets and on state facilities.

### *Future Vehicle Congestion*

The City must balance the needs of vehicles with the needs of other street users, including people walking and bicycling. This is especially true in urban districts, like the four designated [candidate] Countywide Centers (areas near the 148<sup>th</sup> Street and 185<sup>th</sup> Street light rail stations, Shoreline Place, and "Town Center" along Aurora Avenue) where Shoreline will be concentrating the most growth as these areas will be adjacent to more transportation options. King County's designated Countywide Centers are locations with zoned densities that can support high-capacity transit and shorter trips on foot to nearby supportive land uses and can serve as a focal point for investment. In part due to more transportation options in these areas, this Transportation Element proposes to revise the City of Shoreline LOS policy to allow more automobile delay (LOS E) at intersections within the Countywide Centers and along state routes but maintain the current LOS policy (LOS D) outside of these areas. State routes serve as important regional connections and are more impacted by regional travel patterns outside of the City's control. They also carry the highest volumes of traffic within the City, so these facilities often experience higher levels of delay.

This balanced approach allows the City to incentivize growth in the Countywide Centers where infrastructure is available to support more trips by foot, bike, and transit, while upholding a more stringent intersection delay standard in areas where less supportive multimodal infrastructure exists.

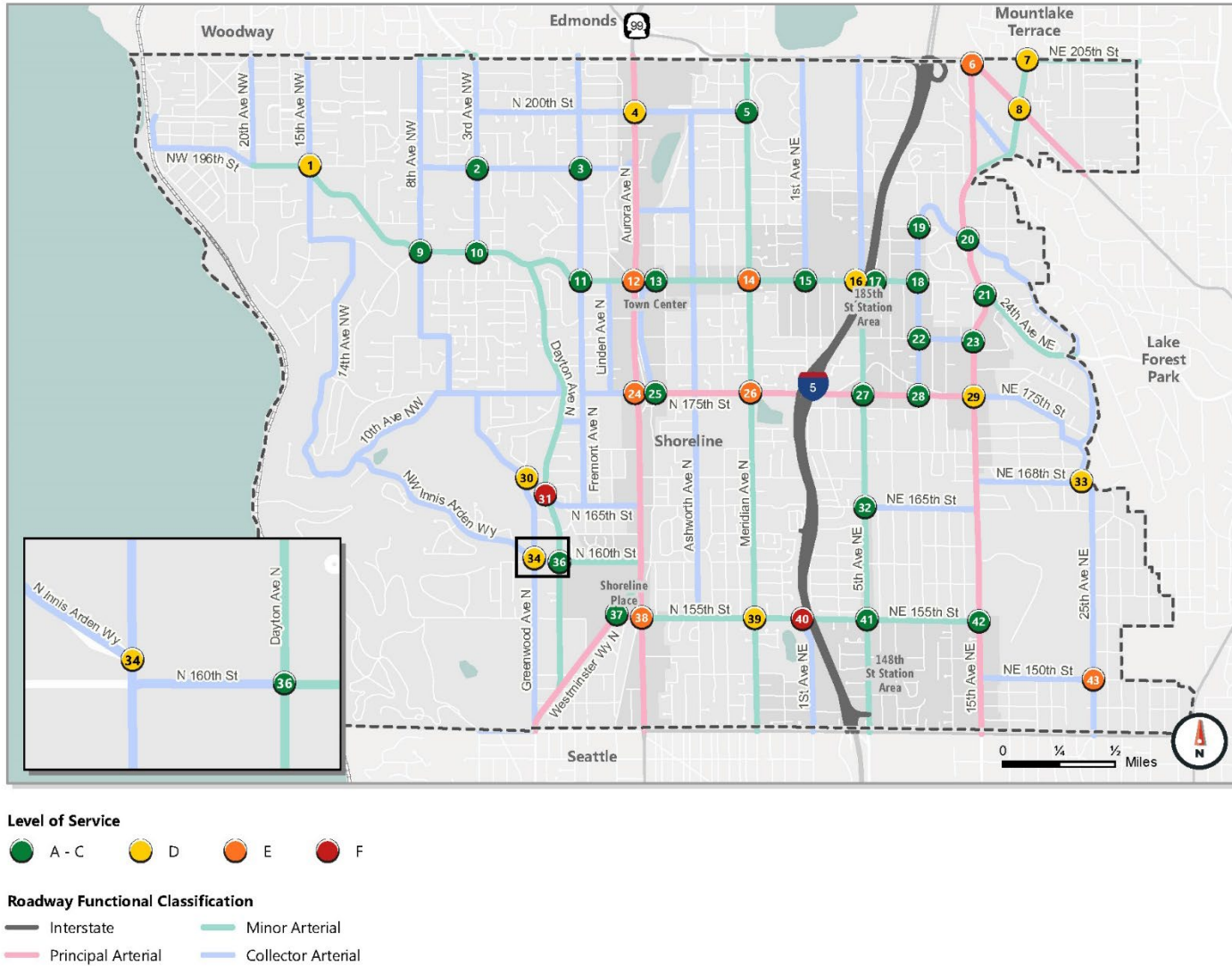
Using the projected traffic growth from the City's travel model, the projected 2044 delay and LOS at key intersections was calculated. The following **Figure 6** and **Table 5** show the expected LOS for intersections in Shoreline in 2044. It is important to note that not all arterial intersections were studied as part of this effort; as growth occurs, localized impacts to intersections are studied on a project-by-project basis for compliance with LOS standards.

In addition to evaluating traffic growth in local facilities, State guidance requires that this Transportation Element consider estimated traffic impacts to state-owned transportation facilities resulting from land use growth anticipated by 2044. **Table 6** summarizes traffic operations projected on state facilities by 2044, based on the modeling assumptions described above. Aurora Ave N is not included in Table 6. The City of Shoreline considers the Aurora Corridor to be mitigated to the extent feasible as it relates to non-transit vehicles. Any future vehicle-oriented improvements to the Aurora Corridor will focus on transit speed and reliability rather than adding general capacity improvements to encourage more trips through the City by single occupant vehicles.



Shoreline Transportation Element

Figure 6. Future Automobile Level of Service in Shoreline by 2044



Note: Intersection numbers correspond with the information in Table 5.

Shoreline Transportation Element

Table 5: Future Level of Service in Shoreline (mapped in Figure 6)

Map ID	Intersection Location	Delay (seconds)	LOS	Map ID	Intersection Location	Delay (seconds)	LOS
1	15th Ave NW & NW 195th St	26	D	23	15th Ave NE & NE 180th St	22	C
2	3rd Ave NW & NW 195th St	17	C	24	Aurora Ave N & N 175th St	72	E
3	Fremont Ave N & N 195th St	12	B	25	Midvale Ave N & N 175th St	12	B
4	Aurora Ave N & N 200th St	54	D	26	Meridian Ave N & N 175th St	73	E
5	Meridian Ave N & N 200th St	9	A	27	NE 175th St & 5th Ave NE	23	C
6	Ballinger Way NE & NE 205th St & 15th Ave NE	62	E	28	NE 175th St & 10th Ave NE	8	A
7	NE 205th St & 19th Ave NE	37	D	29	15th Ave NE & NE 175th St	42	D
8	Ballinger Way NE & 19th Ave NE	43	D	30	Greenwood Ave N & Carlyle Hall Rd	30	D
9	NW Richmond Beach Rd & 8th Ave NW	30	C	31	Dayton Ave N & Carlyle Hall Rd	53	F
10	3rd Ave NW & NW Richmond Beach Rd	26	C	32	5th Ave NE & NE 165th St	13	B
11	Fremont Ave N & N 185th St	32	C	33	24th Ave NE & NE 168th St	26	D
12	Aurora Ave N & N 185th St	79	E	34	Greenwood Ave N & NW Innis Arden Wy <sup>1</sup>	31	D
13	Midvale Ave N & N 185th St	8	A	35	Greenwood Ave N & N 160th St <sup>1</sup>		
14	Meridian Ave N & N 185th St	59	E	36	Dayton Ave N & N 160th St	17	B
15	1st Ave NE & NE 185th St	18	B	37	Westminster Way N & N 155th St	25	C
16	5th Ave NE & NE 185th St (West Side of I-5)	28	D	38	Aurora Ave N & N 155th St	78	E
17	5th Ave NE & NE 185th St (East Side of I-5)	29	C	39	Meridian Ave N & N 155th St	52	D
18	10th Ave NE & NE 185th St	14	B	40	1st Ave NE & N 155th St	55	F
19	10th Ave NE & NE Perkins Way & NE 190th St	9	A	41	5th Ave NE & NE 155th St	19	B
20	NE Perkins Way & 15th Ave NE	27	C	42	15th Ave NE & NE 155th St	25	C
21	15th Ave NE & 24th Ave NE	7	A	43	25th Ave NE & NE 150th St	43	E
22	10th Ave NE & NE 180th St	15	C				

Source: Fehr & Peers, 2021

<sup>1</sup> The intersections of Greenwood Ave N & NW Innis Arden Wy and Greenwood Ave N & N 160th St are planned as a single roundabout intersection in 2044.

Shoreline Transportation Element

Table 6: Future Level of Service on State Facilities not Discussed Above

ID	Facility	From	To	LOS Standard	V/C Ratio (2019)		V/C Ratio (2044)		Notes on Impacts under 2044 Conditions
					NB/EB	SB/WB	NB/EB	SB/WB	
1	Interstate 5	NE 145th St	NE 175th St	LOS D	0.89	0.75	0.90	0.74	SB meets LOS D standard; NB exceeds LOS D standard
2	Interstate 5	NE 175th St	SR 104	LOS D	0.80	0.72	0.81	0.73	Meets LOS D standard along both directions
3	SR 104	west of I-5	-	LOS D	0.50	0.54	0.51	0.57	Meets LOS D standard along both directions
4	SR 104	east of I-5	-	LOS E Mitigated	0.36	0.27	0.36	0.26	Meets LOS E Mitigated standard along both directions
5	N/NE 145 <sup>th</sup> (SR 523)	west of I-5	-	LOS E Mitigated	0.47	0.40	0.41	0.53	Meets LOS E Mitigated standard along both directions
6	NE 145 <sup>th</sup> (SR 523)	east of I-5	-	LOS E Mitigated	0.56	0.54	0.63	0.52	Meets LOS E Mitigated standard along both directions

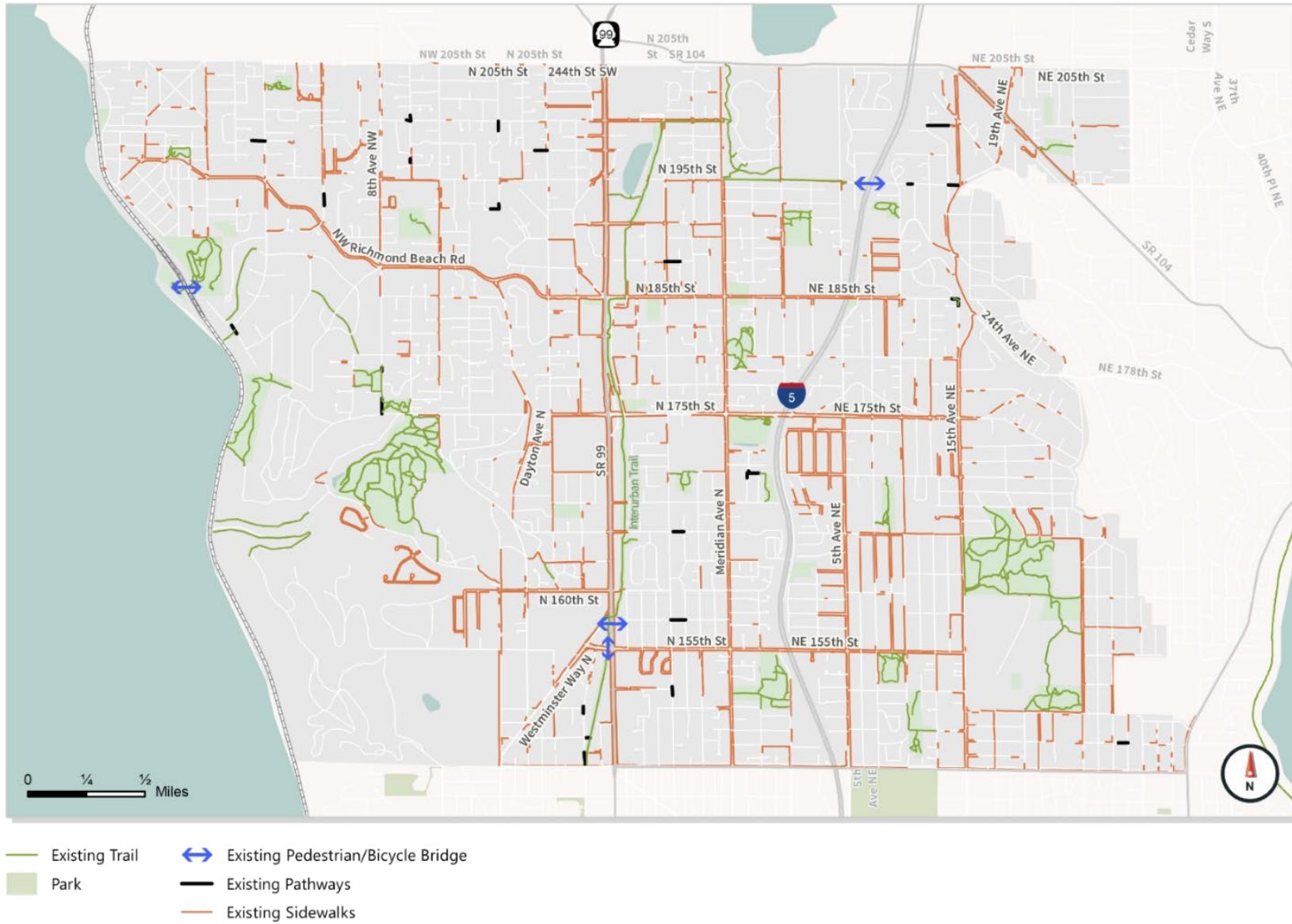
### Walking and Bicycling

Facilities for walking and bicycling are essential components of the City's multimodal transportation system. Safe and convenient pedestrian infrastructure makes it easier and more convenient to take short trips by foot or wheelchair. Pedestrian infrastructure includes a range of treatments spanning from sidewalks and crosswalks, to trails and shared-use paths. Most of the City's principal and minor arterials have sidewalks; some lower classified roadways (including local streets) also have sections of sidewalk. Even where sidewalks are present, they are not always wide enough to accommodate passing another person comfortably or provide a buffer from fast-moving traffic. Many sections have insufficient lighting, and some sections are in substandard condition or not ADA compliant. An inventory of all existing sidewalks and shared-use paths is shown in **Figure 7**.

Bicycling facilitates longer trips than walking with similar benefits to the environment, individuals, and the community. Electric bikes and scooters provide even more mobility options for longer trips and make trips in difficult terrain easier. There is a variety of different bicycling infrastructure types that can appeal to bicyclists and riders of electric bikes and scooters with varying levels of experience and confidence. Bicycle facilities currently found in Shoreline include shared-use paths/trails, bike lanes, sharrows, and signed bicycle routes. While there are bike lanes on some key roadways, such as sections of NE 155<sup>th</sup> Street, NE 185<sup>th</sup> Street, NW Richmond Beach Road, 15<sup>th</sup> Avenue NE, and 5<sup>th</sup> Avenue NE, there are many gaps in the bicycle network and many of the facilities are not comfortable for users of all ages and abilities. Shoreline's existing bicycle network is shown in **Figure 8**.

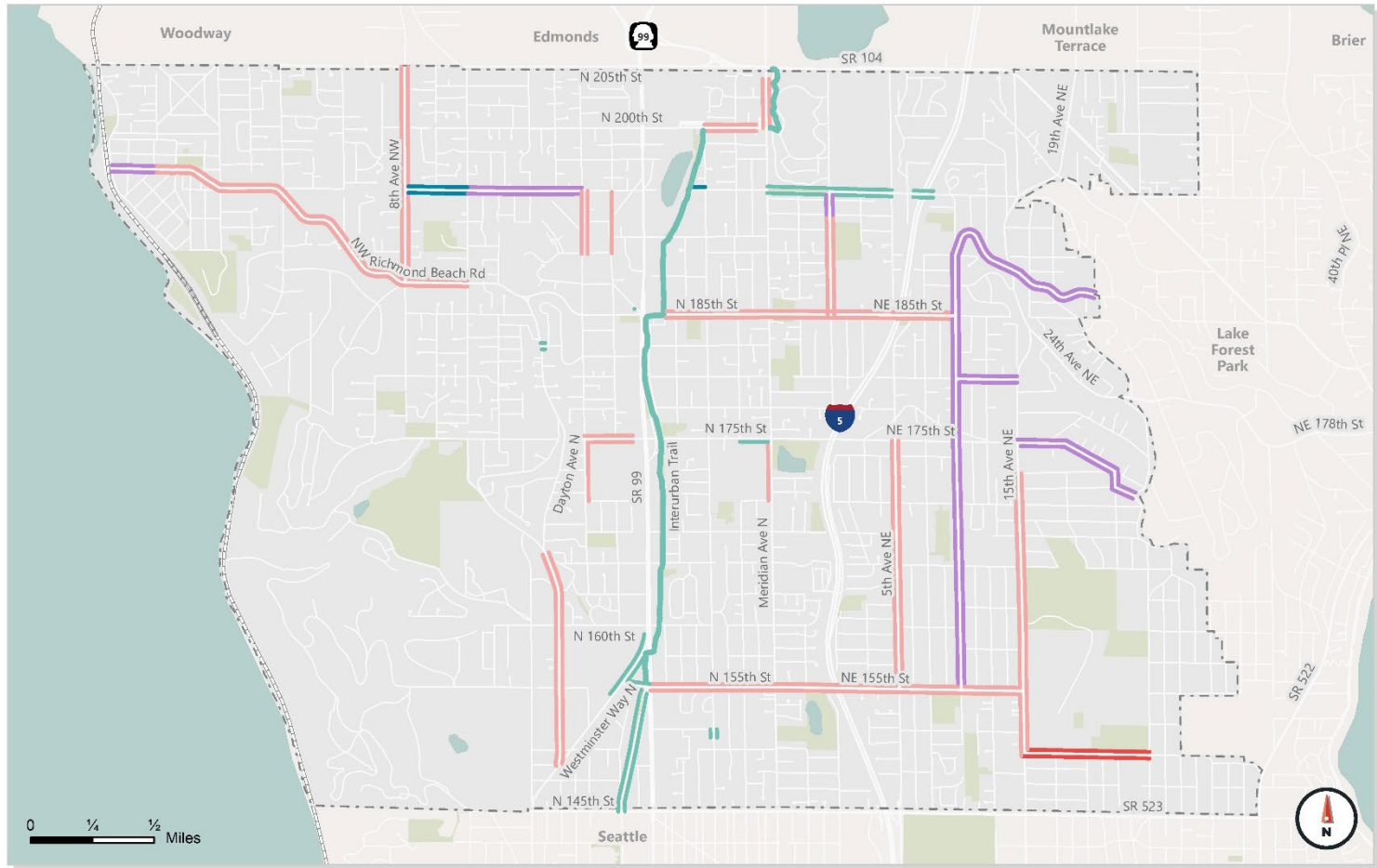
Shoreline Transportation Element

Figure 7. Existing Sidewalks



Shoreline Transportation Element

Figure 8. Existing Bicycle Facilities



**Existing Bike Facilities**

- Bike Facility - Horizontal and Vertical Separation
- Bike Facility - Horizontal Separation
- Bike Facility - No Horizontal or Vertical Separation
- Bike Facility - Vertical Separation
- Shared Lane/Sharrow

- City Boundary
- Park

City of Shoreline  
**Existing Bike Facilities**



## Shoreline Transportation Element

### Transit

To provide convenient and equitable connections to transit for Shoreline residents, employees, and visitors, the City must support access to transit by all modes of travel and ensure that street infrastructure enables transit to operate safely, efficiently, and reliably. While transit has historically been made up of fixed route bus and light rail services, flexible microtransit is another important service that can provide first and last mile connections to fixed route transit and key local destinations.

King County Metro Transit (KC Metro), Community Transit (CT), and Sound Transit (ST) all serve travelers in Shoreline. Additionally, travelers have access to KC Metro paratransit service, Community Van and Ride Share programs, and Transportation Network Companies (TNCs) such as Uber and Lyft. KC Metro connects Shoreline through bus transit service to destinations throughout King County; CT provides service to destinations throughout Snohomish County; and ST offers regional bus service from Shoreline to Seattle, Mountlake Terrace, Lynnwood, and Everett via I-5. **Figure 9** shows KC Metro's service plan (as of March 2022) and **Figure 10** shows CT and ST routes.

The Aurora Village Transit Center is located on the north side of N 200th Street and just east of Aurora Avenue. The facility serves as a multi-modal transfer point which connects CT and KC Metro transit service. The City of Shoreline also has nine Park & Ride facilities, ranging in size from 20 to 393 parking spaces.

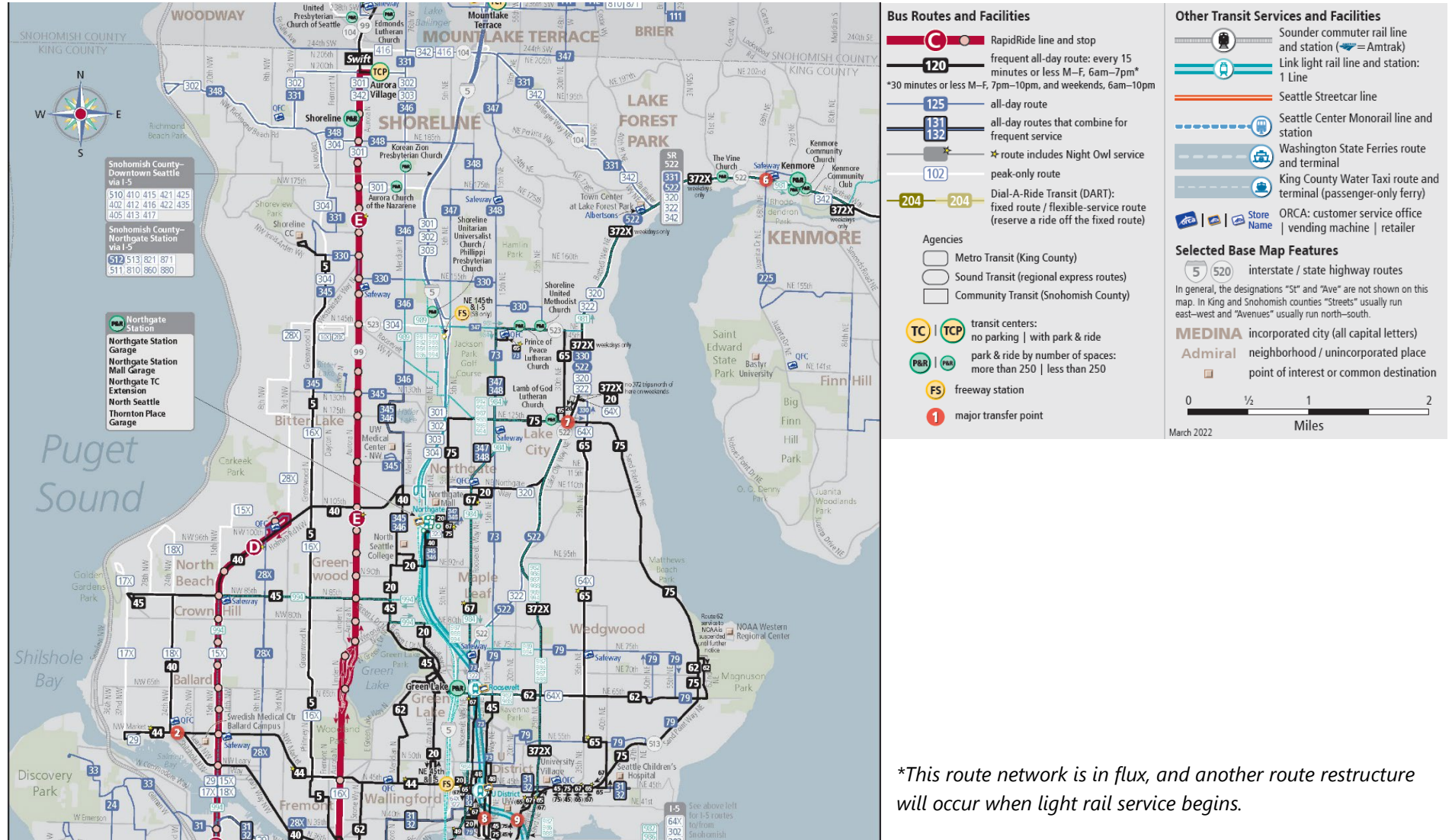
There are various factors that act as deterrents and/or limit the use of transit in Shoreline including:

- Gaps in active transportation infrastructure.
- Lack of safe and comfortable access to transit facilities, such as missing, narrow, or deteriorated pedestrian facilities and lack of lighting; and/or busy intersections or a lack of crosswalks.
- Potential transit riders may find deficiencies in the network or feel uncomfortable or at risk while riding on transit.

KC Metro, CT, and ST are currently implementing long range planning efforts to provide reliable, consolidated services throughout Shoreline and the Puget Sound region. The adoption of Sound Transit plans (ST2, ST3) by regional voters and the development of the KC Metro Connects Plan lay groundwork that establishes a roadmap for fixed-route transit service over the next 25 years. Based on known information in 2022 from transit service providers and their plans, **Figure 11** provides a look at what future transit service in Shoreline will look like, including KC Metro routes, and Sound Transit light rail and bus rapid transit (BRT) service. Additionally, CT is working on extending transit service provided by Swift Blue Line to integrate with the region's long-range plans.

Shoreline Transportation Element

Figure 9. 2021 King County Metro Route Network\*

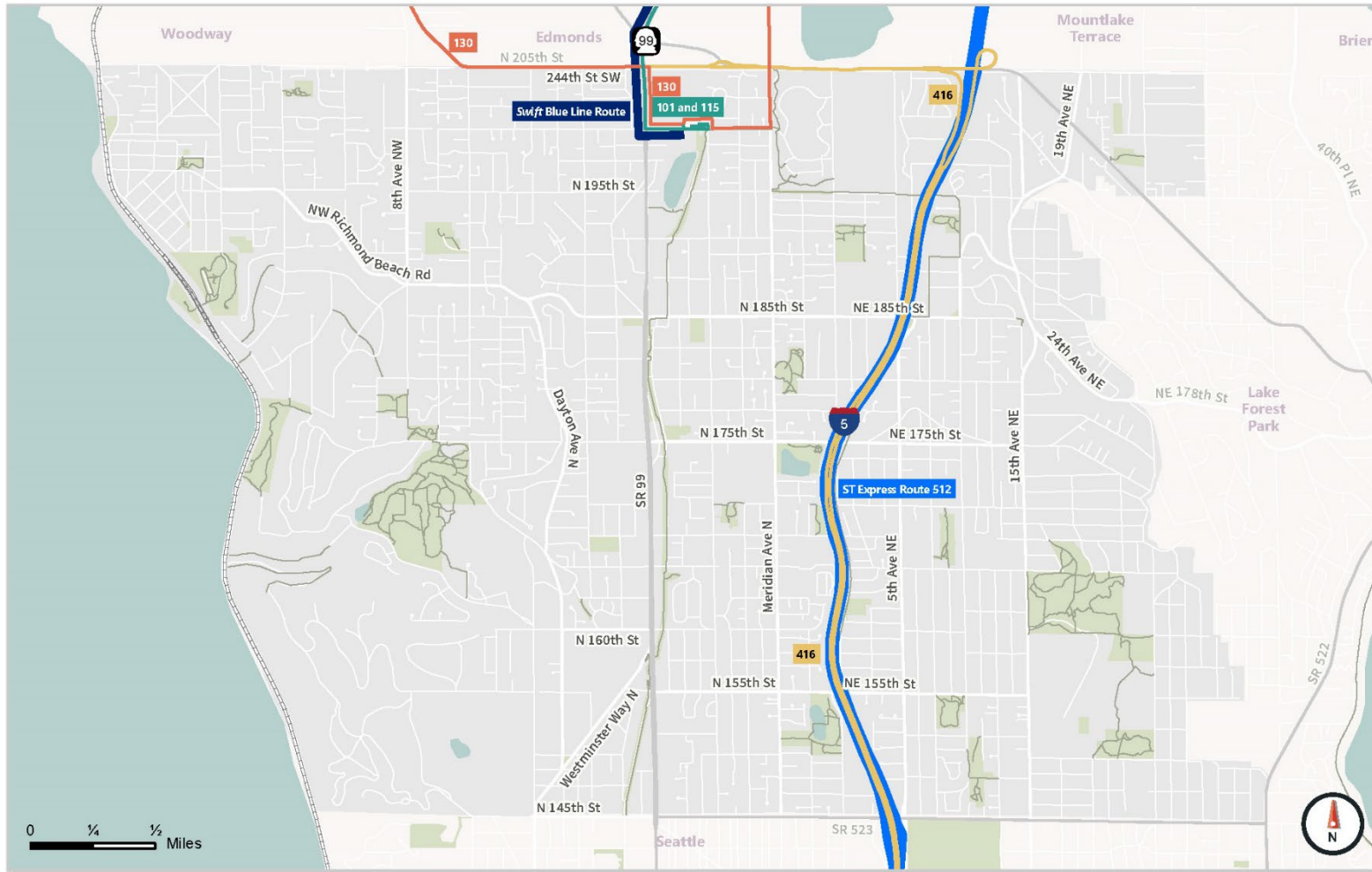








*\*This route network is in flux, and another route restructure will occur when light rail service begins.*



Shoreline Transportation Element

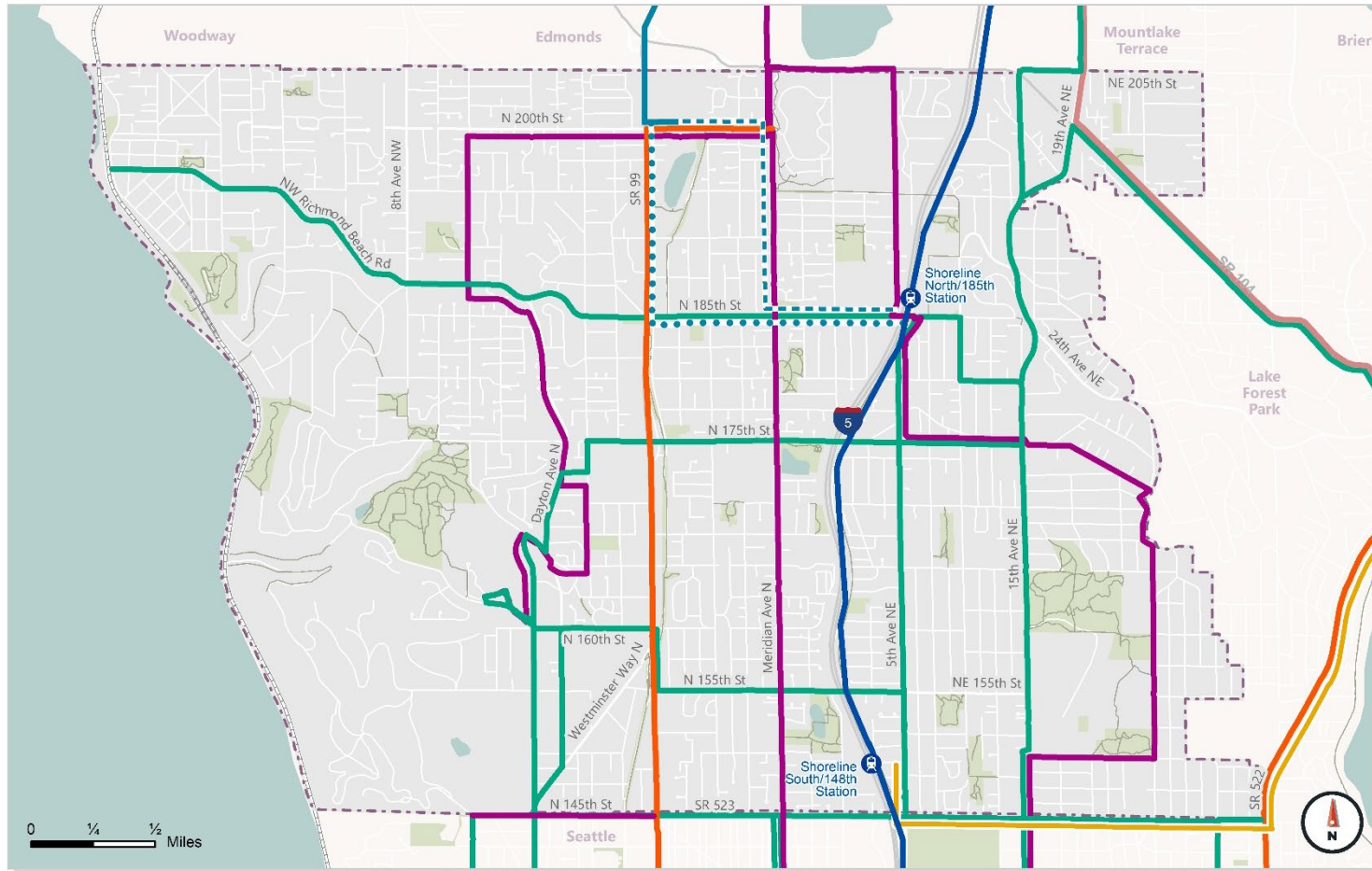
Figure 10. Existing Community Transit and Sound Transit Routes



- |  |   |   |
|--|---|---|
| — Trail  |  ST Express Route 512  | Community Transit Routes  |
|  Park |  Swift Blue Line Route |  101 and 115 |
|  |   |  130         |
|  |   |  416         |

# Shoreline Transportation Element

Figure 11. Future Fixed Route Transit Service



- |               |   |  |
|---------------|---|--|
| City Boundary | Light Rail Station                              | <b>King County Metro Connects 2040</b> |
| Trail         | Light Rail Alignment                            | RapidRide                              |
| Park          | Existing <i>Swift Blue Line</i> Route           | Frequent Bus Service                   |
|               | Interim <i>Swift Blue Line</i> Extension (2024) | Express Bus Service                    |
|               | Long-Term <i>Swift Blue Line</i> Extension      | Local Bus Service                      |
|               | ST 522 BRT                                      |  |

Freight and Truck Mobility

Freight plays a critical role in the economic vitality of Shoreline; businesses and residents rely on freight shipped via trucks. Truck sizes range from single-unit trucks (such as package delivery, moving, and garbage trucks that navigate through neighborhoods), to large semi-truck trailers delivering vehicles and freight to local businesses. Trucks delivering wholesale and retail goods, business supplies, and building materials throughout Shoreline contribute to and are impacted by traffic congestion. The City partners with regional agencies and the State to build and maintain Freight and Goods Transportation System (FGTS) routes. Designated FGTS routes aim to prevent heavy truck traffic on lower volume streets and promote the use of adequately designed roadways. WSDOT classifies roadways using five freight tonnage classifications, which are described in **Table 7**.

Table 7: WSDOT Freight Classification

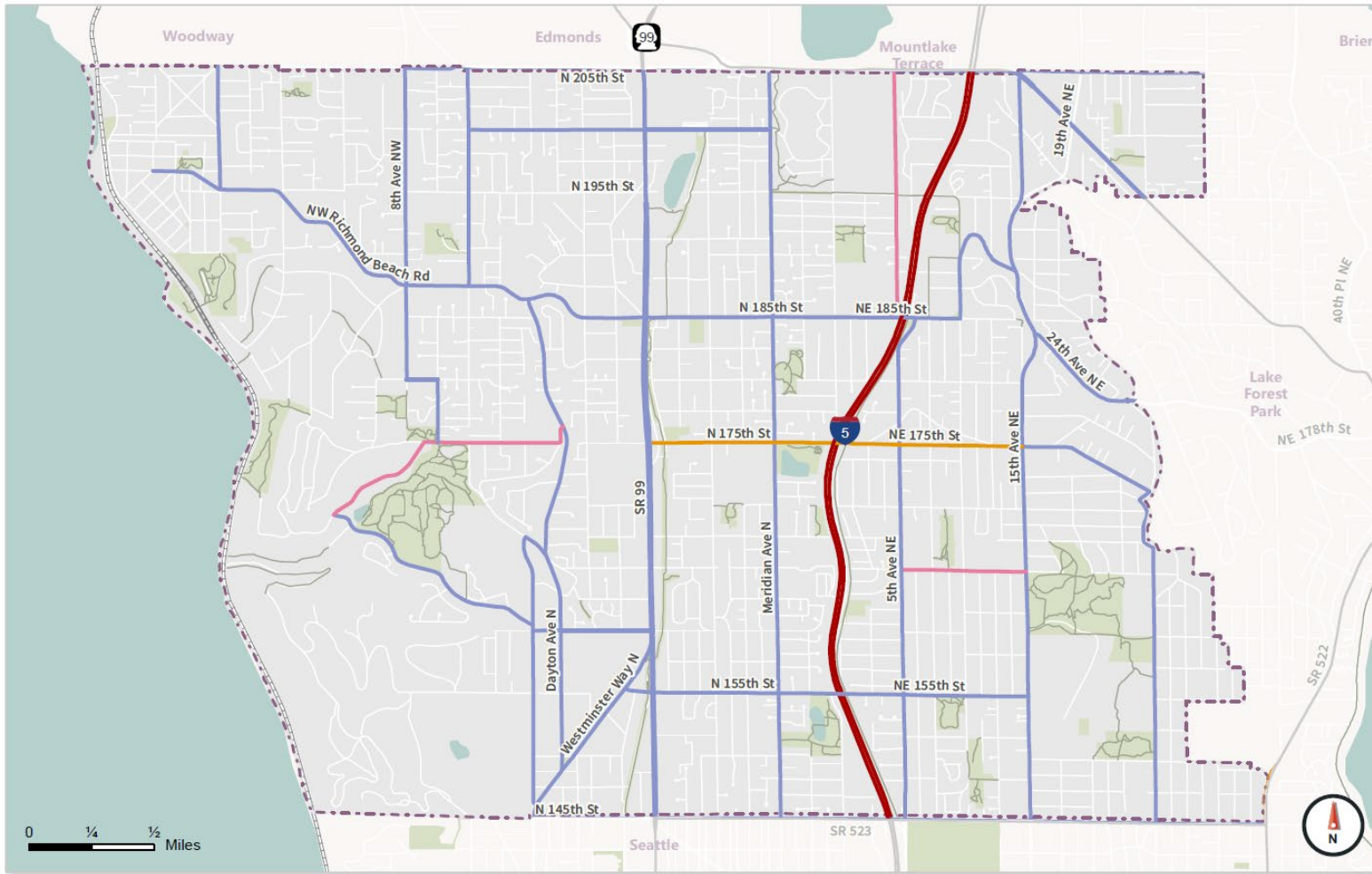
Freight Corridor	Description
<b>T-1</b>	More than 10 million tons of freight per year
<b>T-2</b>	Between 4 million and 10 million tons of freight per year
<b>T-3</b>	Between 300,000 and 4 million tons of freight per year
<b>T-4</b>	Between 100,000 and 300,000 tons of freight per year
<b>T-5</b>	At least 20,000 tons of freight in 60 days and less than 100,000 tons per year


Source: WSDOT Washington State Freight and Goods Transportation System (FGTS) 2019 Update, 2020

As shown in **Figure 12**, I-5, which is part of the national Interstate Highway system, is a T-1 corridor that runs north/south through Shoreline and moves more than 10 million tons of freight per year. The only T-2 corridor within city limits is 175th Street, on both sides of I-5. Several roadways in Shoreline are classified as T-3 corridors, as they facilitate the movement of between 300,000 and 4 million tons of freight per year.

Shoreline Transportation Element

Figure 12. WSDOT Classified Freight Routes



- |   |               |   |     |
|---|---------------|---|-----|
|  | City Boundary |  | T-1 |
|  | Trail         |  | T-2 |
|  | Park          |  | T-3 |
|   |               |  | T-4 |

**Existing Freight Network**



## Shoreline Transportation Element

### Air and Water Facilities

There are no airports located in Shoreline. The closest public airports are Paine Field, located approximately 12 miles north which provides limited passenger flights, and Seattle-Tacoma International Airport located approximately 25 miles south.

Puget Sound makes up Shoreline's western border, so residents do have access to the water for recreation though there is no boat ramp access. There are no ferry terminals in Shoreline, but the Edmonds/Kingston ferry dock is located five miles north of the City.

### Opportunities and Challenges

This Transportation Element provides a framework to guide transportation investments over the next 20 years to support the City's 2024 Comprehensive Plan, comply with the State's Growth Management Act, and to fulfill the City's vision and goals for transportation, which were developed with the community and endorsed by Shoreline's City Council in May 2021. The following discussion notes key opportunities and challenges to implementing this vision, based on Shoreline's transportation system today.

#### **Goal 1: Safety**

*Make Shoreline's transportation system safe and comfortable for all users, regardless of mode or ability.*

The safety of all transportation users is important to the City of Shoreline. A common interest among all transportation modes (users?) is the need to get to one's destination safely. The City's collision data was analyzed to identify collision hotspots and overall collision trends in Shoreline. Between January 2010 and December 2019, there were a total of 4,995 collisions reported in the city. Of note, 263 (5%) of the total collisions involved pedestrians or bicyclists, 1,635 (33%) resulted in injuries, and 10 fatalities were reported. Of the total fatalities, 80 percent were vehicle-vehicle collisions, and 20 percent involved a pedestrian.

In Shoreline, all classified local streets have a speed limit of 25 mph and facilitate less vehicular movement than arterial streets, so there is less opportunity for collisions to occur on local streets and less severe outcomes when they do occur. Although local streets account for about 73% of roadway centerline miles, collision data dating back to 2010 consistently shows that less than 10% of injury collisions occur on local streets.

The City conducts a system-wide traffic safety analysis annually to identify locations where safety improvements should be prioritized. Addressing priority locations by implementing proven safety countermeasures will help Shoreline achieve a safer and more welcoming transportation system.

While safety statistics are an important component of this goal, it is also important to **ensure that people feel safe walking, bicycling, and using transit**, otherwise they will not choose to do so. Community feedback indicates that many people do not feel safe walking, bicycling, or riding transit. Sidewalk gaps, gaps in bicycle facilities, insufficient lighting, and facilities that are not ADA compliant deter people from walking, bicycling, and taking transit in Shoreline.

This Transportation Element identifies new and improved facilities to address gaps in the pedestrian and bicycle network and provide safe and comfortable access to transit facilities. Overall, meaningful improvements in safety for all users of Shoreline's transportation system will require a multi-disciplinary and multi-agency approach that involves implementation of engineering solutions as well as non-physical improvements, such as education, encouragement, and ongoing evaluation.

### **Goal 2: Equity**

*Ensure all people, especially those whose needs have been systemically neglected, are well served by making transportation investments through an anti-racist and inclusive process which results in equitable outcomes.*

People who live and work in Shoreline are diverse, so it is critical that transportation investments **serve the needs of all people** and that decision makers consider diverse perspectives. The 2018 Sidewalk Prioritization Plan included equity as a criterion for prioritizing sidewalk projects with the intent to provide support to populations who have the greatest need, including children, older adults, people with disabilities, lower income communities, and under-served communities. In addition, the City's 2019 ADA Transition Plan responded to community needs by identifying non-compliant mobility barriers and proposing ways to remove barriers and prioritize ADA facility construction.

This Transportation Element seeks to ensure that transportation investments equitably serve all people in Shoreline. Conducting equitable public outreach and evaluating projects through an equity lens was part of this process.

### **Goal 3: Multimodality**

*Expand and strengthen the multimodal network, specifically walking, bicycling, and transit, to increase the number of safe, convenient, reliable, and accessible travel options.*

Having a variety of realistic and reliable transportation modes gives people travel choices, which helps to optimize the people-carrying capacity of our transportation system and reduces reliance on driving. While people have expressed a strong desire to use transit and are excited for upcoming light rail extensions, there are **gaps in transit service** that make transit an inconvenient option for many. Residents have expressed a need for more frequent service, new routes, and new connections from neighborhoods to light rail and bus stops in order for transit to become a truly viable option. Developing a network of **Complete Streets** that accommodate all modes and abilities is also vital to increasing walking, bicycling, and riding transit.

This Transportation Element identifies investments to expand and strengthen the pedestrian, bicycle, and transit networks and provide more seamless connections between various modes to the extent practical, which could include the development of "mobility hubs" – places of connectivity where different modes of transportation come together seamlessly and can be easily accessed.

### **Goal 4: Connectivity**

*Complete a network of multimodal transportation connections to and from key destinations such as parks, schools, community services, commercial centers, places of employment, and transit.*

Having a complete and connected transportation network provides Shoreline residents seamless opportunities to travel to and from various destinations of interest. People are discouraged from walking, bicycling, and using transit if there are gaps in the transportation network. The 2018 Sidewalk Prioritization Plan echoed the importance of connectivity and proximity as criteria used to score sidewalk projects, with emphasis placed on improved pedestrian connections to schools, parks, transit, and activity centers. Public outreach feedback received in support of this Transportation Element highlighted that connectivity is a challenge for many roadway users. There are **gaps in the sidewalk and bicycle networks**, which make it challenging to walk and bicycle to access jobs, services, and other destinations.

## Shoreline Transportation Element

This Transportation Element identifies investments to enhance pedestrian and bicycle connections to and from key destinations by filling gaps in current sidewalk, bicycle, trail, pathway, and transit networks surrounding parks, schools, community services, commercial centers, places of employment, and bus stops and transit stations.

### **Goal 5: Climate Resiliency**

*Increase climate resiliency by promoting sustainability, reducing pollution, promoting healthy habitats, and supporting clean air and water.*

Transportation decisions directly affect the environment. Streets and other transportation facilities comprise the majority of public space in Shoreline. Transportation infrastructure is typically hardscape, which generates runoff and carries contaminants into streams and waterways. Therefore, transportation infrastructure in Shoreline should be designed to promote sustainability, reduce pollution, and support clean air and water. Encouraging multimodal, connected transportation options gets people out of their cars and plays a significant role in advancing the goal of protecting the environment. The “Climate Resiliency” prefix to the criteria of Connectivity and Multimodality, and Built Environment shows how these criteria are interrelated and support Shoreline Climate Action Plan goals. Climate Resiliency-Built Environment metrics assign project points for areas of **surface water vulnerabilities and urban heat islands**. Climate Resiliency-Multimodality and Climate Resiliency-Connectivity metrics assign points for projects that build better pedestrian, bicycle, and transit connections which, in turn, helps reduce transportation-related greenhouse gas emissions by **encouraging taking other travel modes than driving**.

This Transportation Element identifies investments to expand transit use, provide more pedestrian and bicycle transportation options, and improve the operations of the City’s street network to be more efficient, and seeks to incorporate street design elements such as trees, landscaping, planted medians, and permeable paving to reduce the impact of the City’s transportation system on the environment.

### **Goal 6: Vibrant Community**

*Foster livability by evoking a sense of identity through arts/culture, attracting and sustaining desired economic activity, and accommodating the movement of people and goods.*

Shoreline’s livability is highly dependent on its transportation system. Lengthy commutes and traffic congestion inhibit desired economic activity and directly impact quality of life. Shoreline residents want to see design elements that **promote a sense of community** and make people proud to live and work in Shoreline. While the City already incorporates some design elements to achieve this vision, there are opportunities to incorporate additional placemaking elements that enhance Shoreline’s unique character.

This Transportation Element prioritizes opportunities to include spaces for community gathering and play, benches for sitting, lighting for safety, public art for placemaking, and signage for guiding people throughout the City. This goal also seeks to promote a connected transportation system with multimodal options which can attract and sustain desired economic activity and accommodate the movement of both people and goods.

## MODAL NETWORKS

The City of Shoreline recognizes that a complete, safe, and equitable transportation system includes facilities that support all travelers, regardless of which mode they choose: walking, biking, taking transit, using a shared mode, or driving. To do this, the City takes a layered network approach to focus on how Shoreline's transportation network can function as a system to meet the needs of all users. With a layered network approach, the City aims to both build a connected network for each mode of travel and also consider how the modes can safely share the streets. While Shoreline aims to develop "complete streets," which address the needs of all users, providing accommodations that serve all modes well on every street can be an unattainable goal in practice, given constraints such as limited rights-of-way and funding for capital (improvements?).

To practically address this challenge, the City considers adjacent land uses in developing plans for its layered, multimodal transportation network. By considering the function of multiple streets and transportation facilities together, this approach allows for certain transportation facilities (such as streets, trails, and intersections) to emphasize specific modes or user types. These plans will help the City identify future improvement projects to be implemented.

The following sections outline the City of Shoreline's modal networks.

### Pedestrian Plan

The Pedestrian Plan is intended to optimize the comfort of individuals on foot and those using mobility devices, such as wheelchairs. The fundamental expectations for physical space, modal separation, and street crossing amenities are informed by the neighborhood and land use context of a given street; low volume/low speed neighborhood streets may require fewer facilities while pedestrians traveling on a higher speed street may feel safer with more space and separation from vehicles. Therefore, pedestrian facility standards are tailored to different neighborhood/street contexts.

Previously listed **Policy T-60** states to, "Establish a connected and complete pedestrian network by constructing the sidewalks outlined in the Sidewalk Prioritization Plan (SPP)." The Pedestrian Plan includes existing sidewalks and future sidewalks that were identified in the 2018 Sidewalk Prioritization Plan, existing and future pedestrian/bicycle bridges, existing and future trails, and areas with public access known as "unimproved right of way" that could accommodate a future pathway connection to expand the walking network. The Pedestrian Plan shows unimproved ROW broken into two categories:

- Unimproved ROW associated with a future sidewalk project in the Sidewalk Prioritization Plan (in red)
- Unimproved ROW that is not part of the Sidewalk Prioritization Plan (in blue).

The 2018 Sidewalk Prioritization Plan (SPP) was developed as early work for the Transportation Element and TMP updates. The SPP differs from the Pedestrian Plan in that the SPP prioritizes the implementation of roughly 75 miles of new sidewalk projects whereas the Pedestrian Plan is a comprehensive map of the City's existing and future planned sidewalks as well as unimproved right of way, trails, and pedestrian/bicycle bridges.

The SPP lives and is updated outside of the Transportation Element as its level of specificity is too detailed to be included in the Transportation Element, which is a high-level, 20-year guidance document. The City



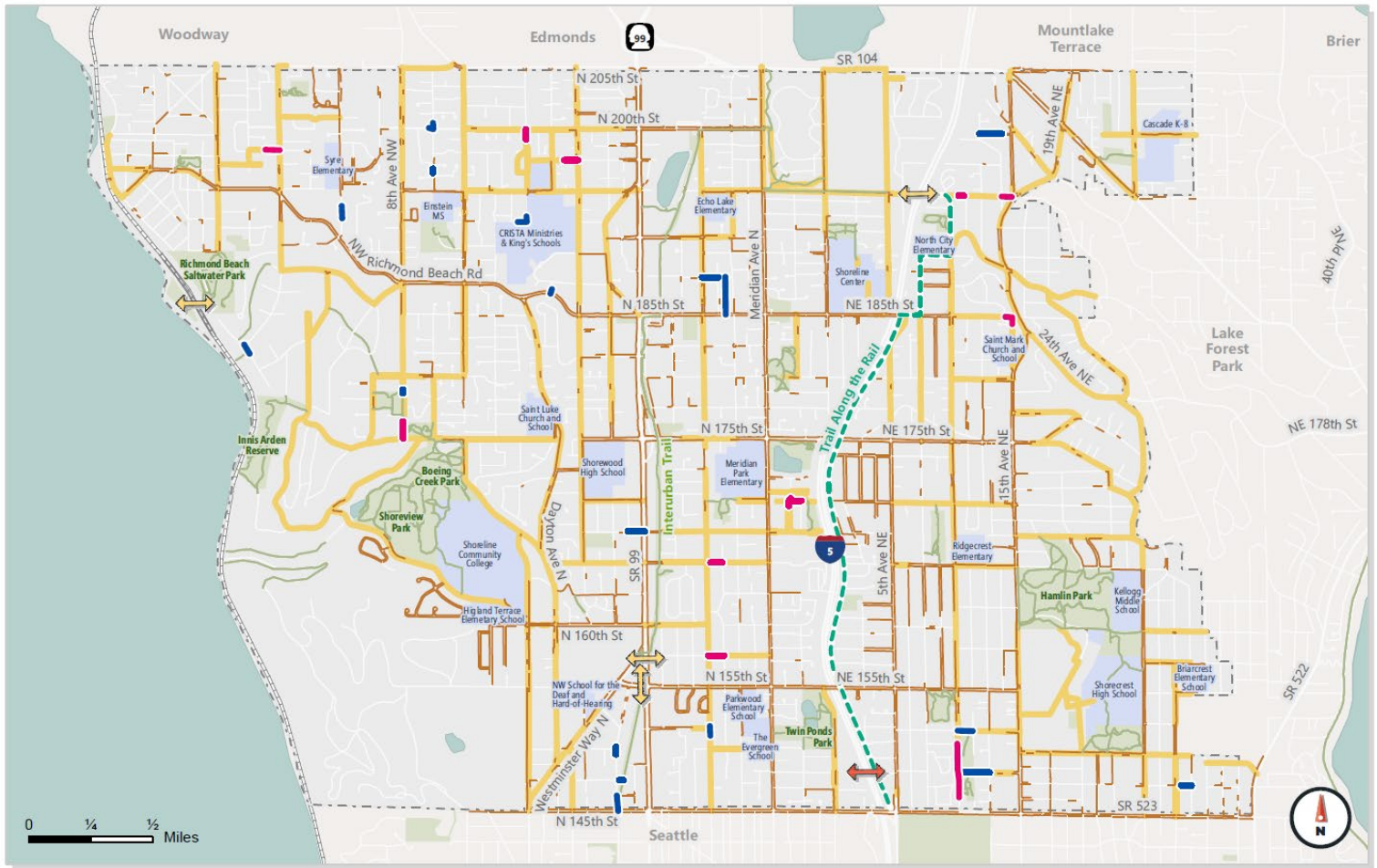
## Shoreline Transportation Element

intends to update the data inputs into the SPP approximately every five years and to revisit the prioritization criteria and metrics every 10 years in coordination with each TE update.

Existing and future planned sidewalk can be viewed in **Figure 13**. The map indicates areas where sidewalk exists but does not specify if the sidewalk meets standards set forth in **Policy T60.1** of this document. Shared-use paths, trails, and facilities such as pedestrian lighting help to enhance the planned network.

Shoreline Transportation Element

Figure 13. Pedestrian Plan



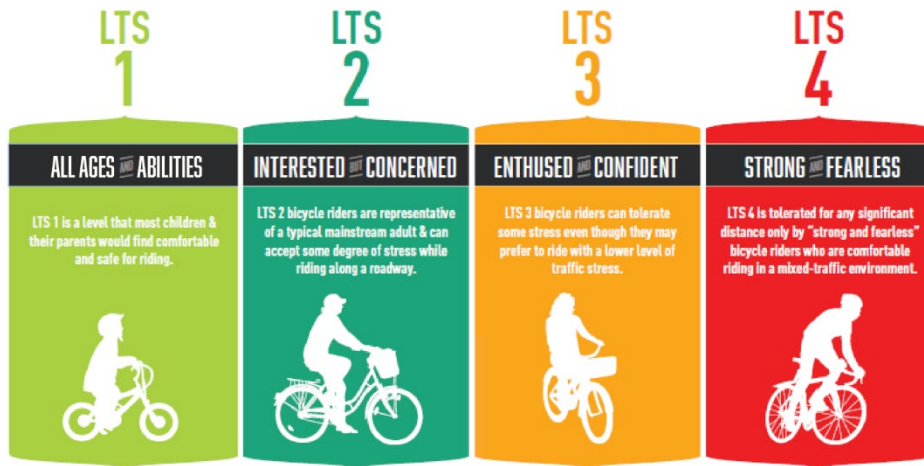
- Planned Sidewalk from Sidewalk Prioritization Plan
- Existing Sidewalk
- Existing Trail
- - - Future Trail
- City Boundary
- ↔ Existing Pedestrian/Bicycle Bridge
- ↔ Future 148th St Pedestrian/Bicycle Bridge
- Unimproved Right-of-Way: Part of a sidewalk project in the Sidewalk Prioritization Plan
- Not part of the Sidewalk Prioritization Plan (conditions vary)

City of Shoreline  
**Pedestrian Plan**

## Bicycle Plan

Level of traffic stress (LTS) is the current industry recognized practice for planning bicycle facilities and was developed by the Mineta Institute and San Jose State University in 2012. This approach provides a framework for designing bicycle facilities that meet the needs of the intended users of the system. The following **Figure 14** describes the four typical categories of bicyclists, each of which requires different levels of accommodation to feel comfortable using the system.

Figure 14. Bicycle Level of Traffic Stress Categories

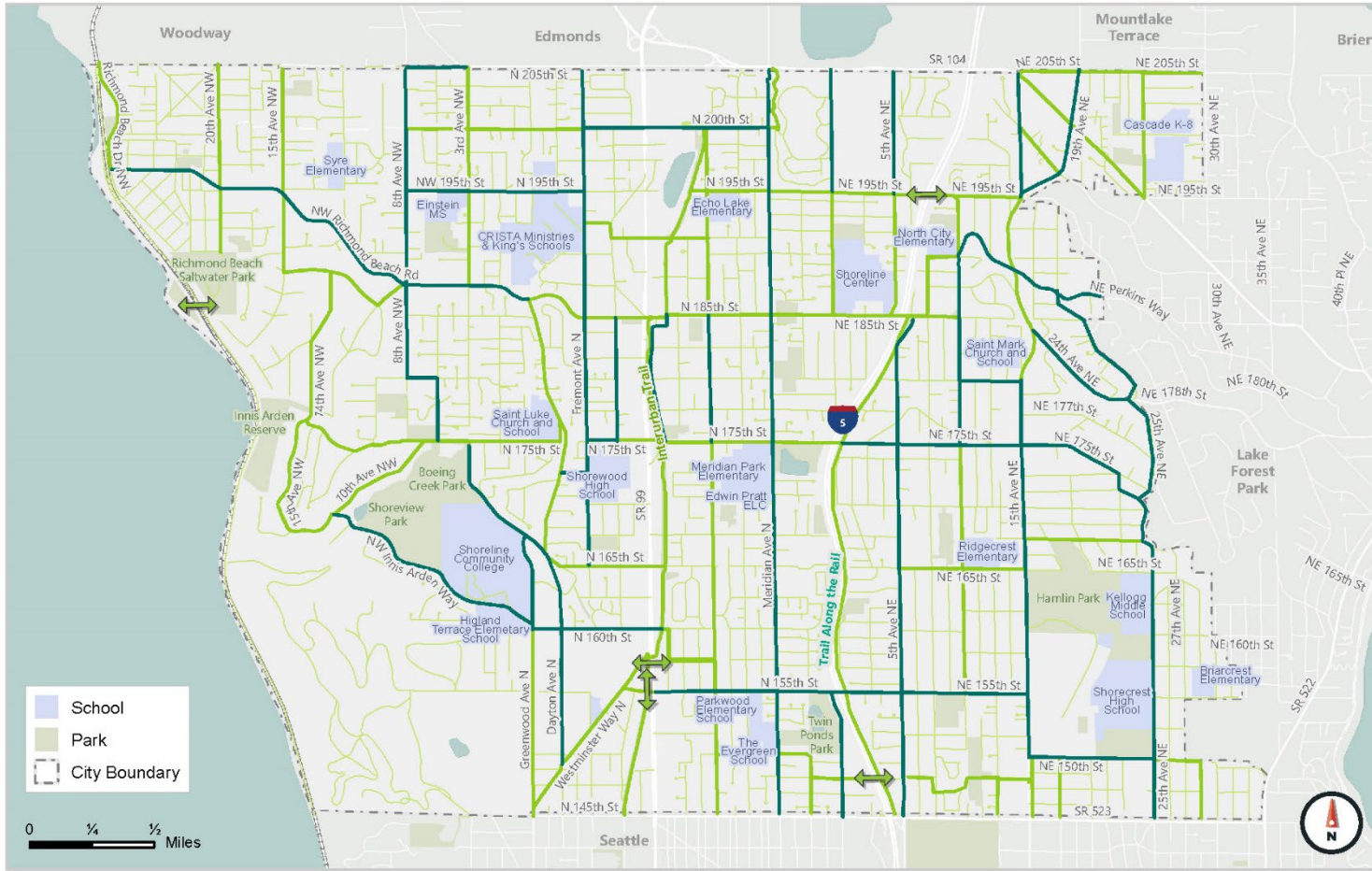


Source: Fehr & Peers, 2022

**Figure 15** identifies the City's vision for a connected network of low-stress (LTS 1 and 2) routes in Shoreline. This network considers variables like grade and freeway crossings, in addition to the typical variables that impact the roadway comfort for bicycling, such as traffic speeds and traffic volumes. These variables help to determine an appropriate type of separation. **Figure 16** defines how LTS is measured on specific streets and can guide the identification of capital treatments to provide the City's desired LTS level on individual streets.

# Shoreline Transportation Element

Figure 15. Bike LTS Vision



Desired Minimum Level of Traffic Stress (LTS)

- 1
- 2

- Local Road (LTS 1)
- Pedestrian/Bicycle Bridge (LTS 1)

City of Shoreline  
**Bicycle Level of Traffic Stress (LTS) Vision**

## Shoreline Transportation Element

Figure 16. LTS designations by posted speed limit, traffic volume, and bicycle infrastructure

Speed Limit (mph)	Traffic Volume	No Marking	Sharrow Lane Marking	Striped Bike Lane	Buffered Bike Lane	Protected Bike Lane	Physically Separated Bike Path
≤25	Local streets	1	1	1	1	1	1
	Up to 7k	3	3	2	2	1	1
	≥7k	3	3	2	2	1	1
30	<15k	4	3	2	2	1	1
	15-25k	4	4	3	3	3	1
	≥25k	4	4	3	3	3	1
35	<25k	4	4	3	3	3	1
	≥25k	4	4	4	3	3	1
40	Any volume	4	4	4	4	3	1

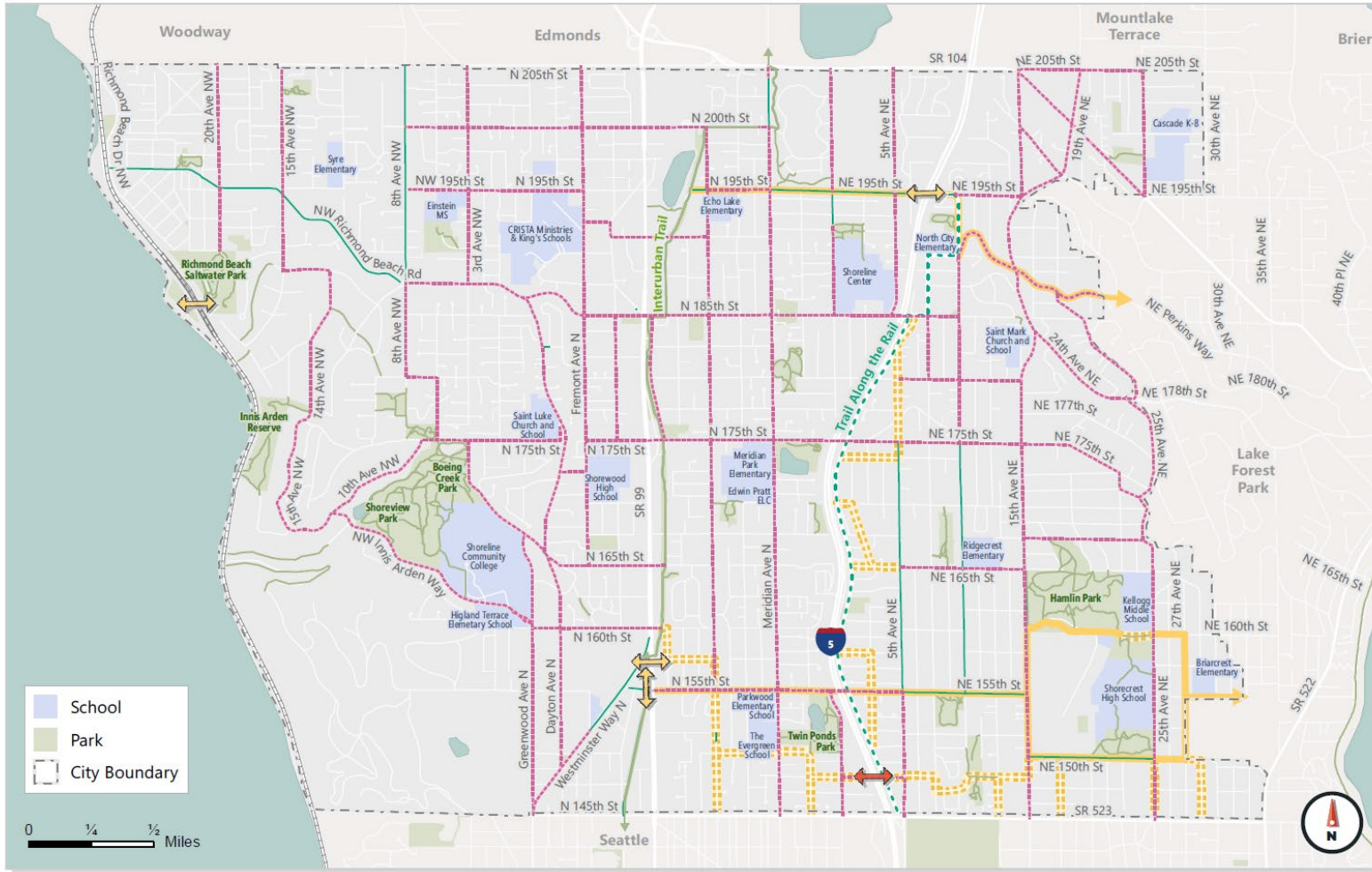
It is important to provide bicycle facilities on a range of street types, including busy arterial streets, not just lower volume neighborhood streets. Bicyclists need to be able to connect to key destinations and commercial corridors which are often located along arterial streets. A successful modal network for bicycles will also consider how facilities are connected. When a bicycle facility along an arterial corridor comes to an intersecting arterial, the corridor LOS and associated intersection treatments should be carried across the arterial. Otherwise, the arterial intersection may become a barrier to bicycle travel.

As noted in **Policy T-61**, the City seeks to establish a low-stress bicycle network that connects major destinations, transit stops and stations, and residential and employment centers. **Figure 17** shows the Bicycle Modal Plan for the City of Shoreline.



Shoreline Transportation Element

Figure 17. Bicycle Plan



- Existing Bicycle Facility
- Existing Trail Connection
- Existing Trail
- ↔ Existing Pedestrian/Bicycle Bridge
- New or Improved Bicycle Facility\*
- Future Trail Connection
- Future Trail
- ↔ Future 148th St Pedestrian/Bicycle Bridge

City of Shoreline  
**Bicycle Plan**

\* Bike facility type to be determined based on Level of Traffic Stress (LTS) Vision.



## Transit Plan

Many Shoreline residents rely on public transit for their commuting needs; some must rely solely on this means of transportation to make local and broader regional connections. Since King County Metro, Community Transit, and Sound Transit operate the transit service in Shoreline, the City's role in transit service is focused on providing access to transit, supporting flexible microtransit options, and hosting transit service on Shoreline streets.

Although transit agencies are responsible for determining route locations, frequency, and bus stop treatments, the City is empowered to advocate for additional transit service (to enhance speed and reliability, and support connectivity and planned growth) and for transit stops and stations along City roadways. The City can also explore and advocate for microtransit services, either run by the transit agencies or other providers, that support first and last mile connections to the fixed route system.

The City actively engages with transit operators in developing priority connections and service standards. This process involves identifying the following:

- Priority connections between key destinations (including neighborhood centers and major regional destinations) based on travel needs and demand, and desired connections between transit services.
- Frequent transit service that could connect Shoreline's growth centers to the region, and neighborhoods to urban centers and the regional transit spine. Each connection is designed to meet a wide variety of user groups and trip purposes, and meet the needs of multiple markets.
- Preferred travel paths that represent a balance between transit travel speed and coverage (access to transit) for Shoreline's growth centers and neighborhoods.
- Appropriate "Service Families" that define the desired level of service in terms of the frequency of service by time of day. These standards are established by identifying potential transit demand based on population and employment density measures (persons and jobs per acre), as well as overall travel demand measures (all-day person trips) along each corridor.

As noted in **Policy T-62**, the City will advocate for transit service that is aligned with Shoreline's land use and demographics, which is outlined in the Transit Modal Plan described in **Table 8** and shown in **Figure 18**.

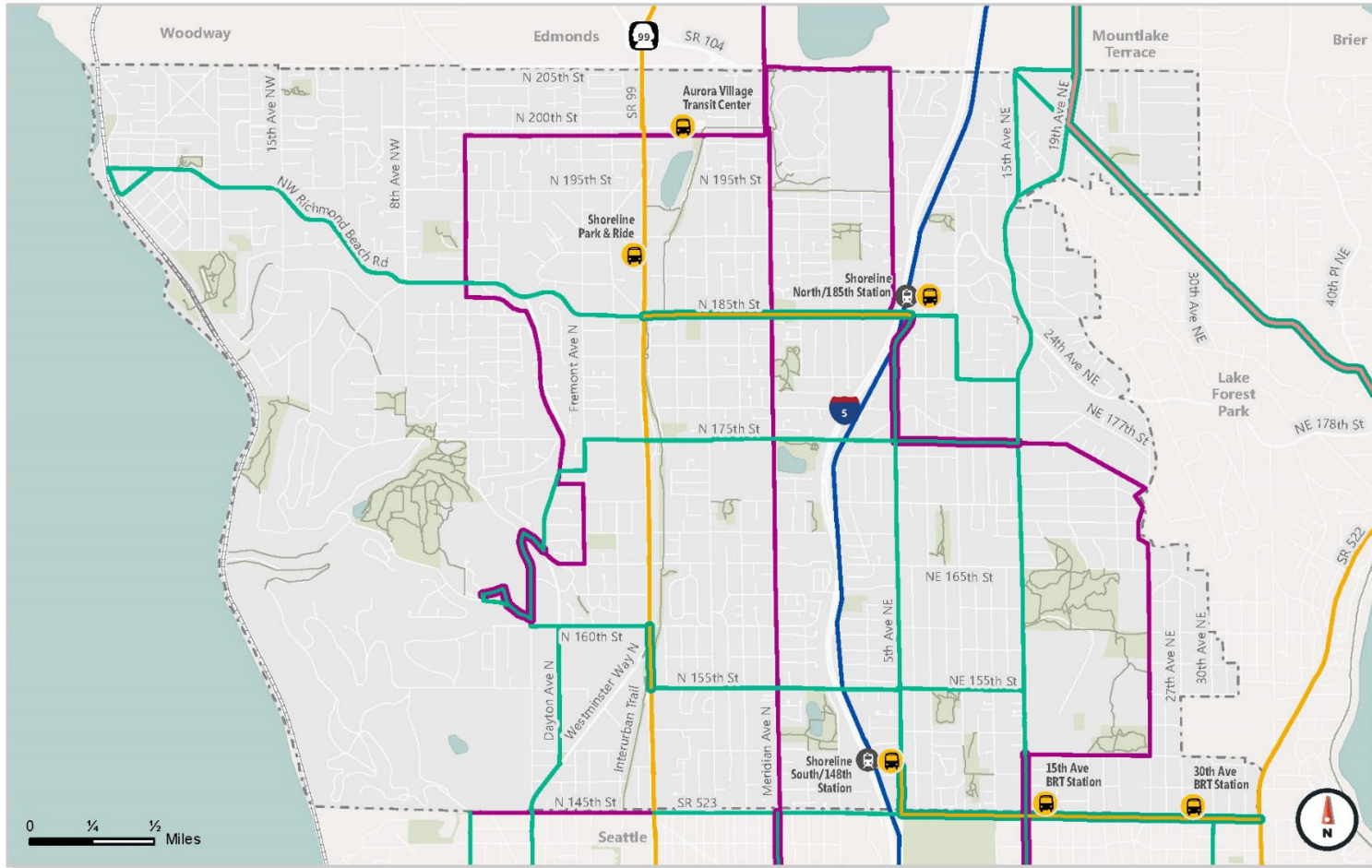
Shoreline Transportation Element

Table 8: Transit Accommodation

Policy	Performance Measure	Potential Projects/Actions
<b>Tier 1: Light Rail, BRT, Frequent, and Express Bus Service</b>		
Support frequent and reliable light rail/bus service.	Strive for target travel speeds along key transit routes.	Speed and reliability treatments, such as transit signal priority and queue jumps. Advocate for increased service/reduced headways.
Strive to maximize rider comfort and security.	Bus stop/sub shelter amenities.	<ul style="list-style-type: none"> <li>Investments in comfort/amenities at major stops and stations; e.g., lighting; seating; comfortable shelters; real time transit information.</li> </ul>
Strive to maximize rider access.	<p>Number of people that can access stops on a low stress network. cur</p> <p>High quality connections to light rail and BRT.</p>	<p>Sidewalks/trails connecting to stops and stations.</p> <p>Enhanced street crossings.</p> <p>Bike parking and amenities.</p> <p>Curb space management considerations.</p> <p>Develop shared-use mobility hubs.</p> <p>Advocate for increased transit service to light rail stations.</p>
<b>Tier 2: Local Bus Service</b>		
Support continuous service.	Strive for continuous service based on hours/day and days/week; minimum headways.	Advocate for continuous service.
Strive to maximize rider comfort and security.	Bus stop/bus shelter amenities.	<ul style="list-style-type: none"> <li>Investments in comfort/amenities at major stops and stations; e.g., lighting; seating; comfortable shelters.</li> </ul>
Strive to maximize rider access.	Number of people that can access stops on a low stress network.	<p>Accessible sidewalks/trails connecting to stops.</p> <p>Enhanced street crossings.</p> <p>Develop shared-use mobility hubs.</p>

# Shoreline Transportation Element

Figure 18. Transit Plan



- City Boundary
- Existing Trail
- Light Rail Station
- BRT Station\*
- Light Rail Service
- "Bus Rapid Transit" Bus Service
- Frequent Bus Service
- Express Bus Service
- Local Bus Service

City of Shoreline  
**Transit Plan**

\*There are additional BRT stops on Aurora Avenue not shown on this map.

### Shared-Use Mobility Hub Plan

The City of Shoreline is interested in creating “mobility hubs” in strategic locations throughout the City to help people make trips without using personal cars. The hubs would provide centralized points throughout Shoreline where people could readily access “shared-use mobility” services, such as scootershare, bikeshare, carshare, rideshare (e.g., Uber and Lyft), carpool, vanpool, and micro/flexible transit forms of public transit such as bus and light rail. Mobility hubs can offer a range of services, such as bike parking and lockers, charging stations for personal and shared e-bikes, public art, Wi-Fi, bus shelters, and more. The City is particularly interested in integrating mobility hubs into mixed-use development surrounding the upcoming light rail stations and frequent bus service/Bus Rapid Transit, and connecting residents to neighborhoods, commercial services, and other key destinations.

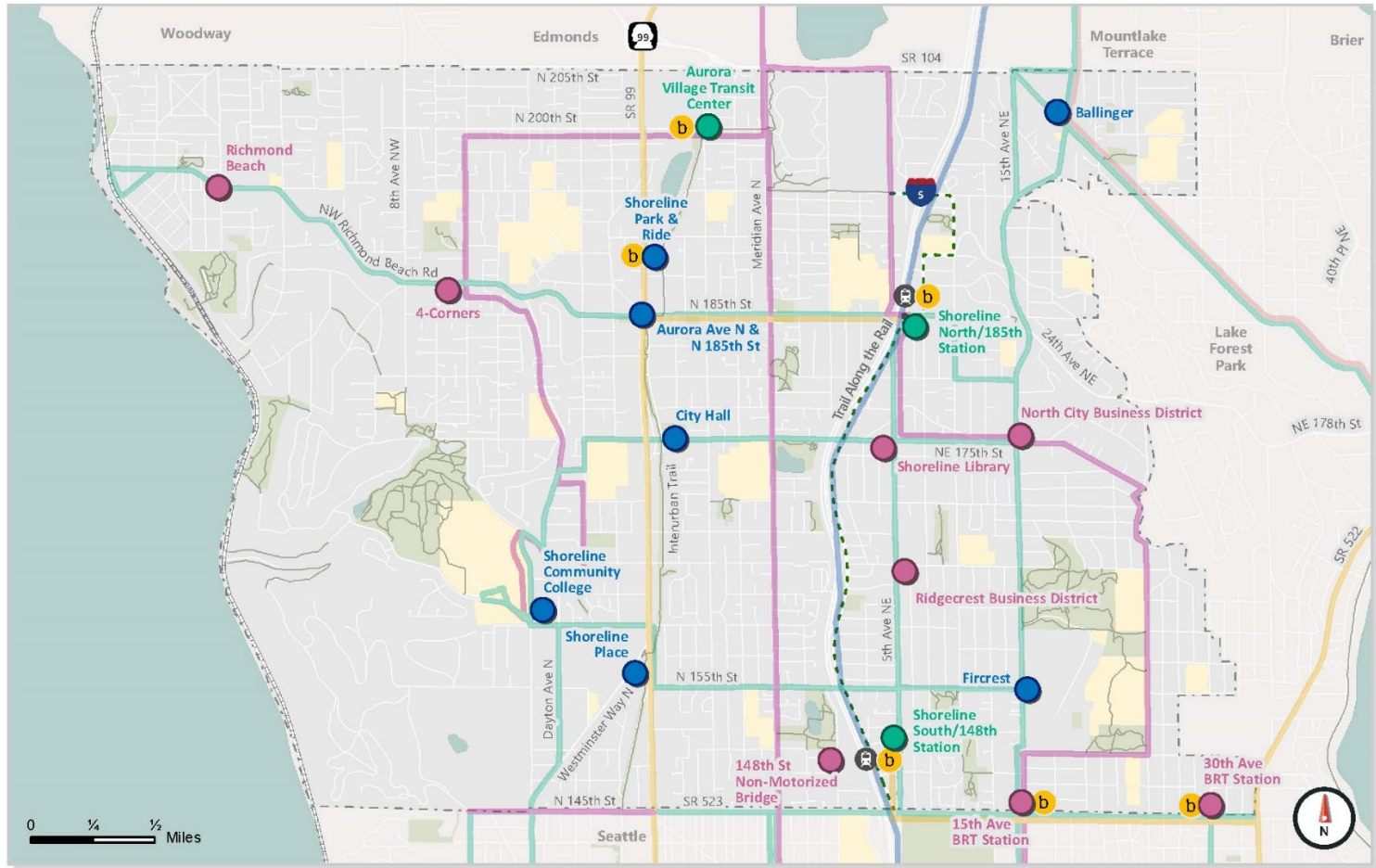
**Policy T-64** states that Shoreline will provide mobility hubs at locations that support the City’s land use vision. Shoreline envisions having three “types” of mobility hubs, each with a range of features and amenities appropriate for the neighborhood and location. These are classified as:

- **Regional hubs** - A robust type of mobility hub co-located with major transit hubs, providing the most features and amenities. They will support the largest number of people from within and outside of Shoreline.
- **Central hubs** - A medium size mobility hub, providing sufficient amenities to support commuting, leisure, and recreation at and around hubs. They will connect people to key locations in Shoreline.
- **Neighborhood hubs** - The smallest type of mobility hub, providing simple and comfortable amenities to accommodate active transportation and transit access for local communities.

**Figure 19** shows the Shared-Use Mobility Hub Plan for the City of Shoreline. **Table 9** lists potential features and amenities by mobility hub type. Each hub would be analyzed and designed with public input to help determine the right amenities to include at each location.

Shoreline Transportation Element

Figure 19. Shared-Use Mobility Hub Plan



**Recommended Shared-Use Mobility Hubs**

- Regional Mobility Hub
- Central Mobility Hub
- Neighborhood Mobility Hub

- City Boundary
- Existing Trail
- Future Trail
- L Light Rail Station
- b BRT Station

- Light Rail Service
- "Bus Rapid Transit" Bus Service
- Frequent Bus Service
- Express Bus Service
- Local Bus Service

City of Shoreline  
**Shared-Use Mobility Hub Plan**

Table 9: Mobility Hub Potential Amenities

Typology	Potential Features and Amenities
<p><b>Regional Hubs</b></p> <p><i>Example: Shoreline South/148th Station</i></p>	<p>Amenities listed for Neighborhood Hubs and Central Hubs, and;</p> <ul style="list-style-type: none"> <li>• Bus layover zones*</li> <li>• Wi-Fi &amp; cell phone charging stations</li> </ul>
<p><b>Central Hubs</b></p> <p><i>Example: Shoreline Place</i></p>	<p>Amenities listed for Neighborhood Hubs, and;</p> <ul style="list-style-type: none"> <li>• Covered bus stops with real-time arrival and departure information*</li> <li>• Bike/scooter parking (lockers for long-term, racks in front of cafes and retail)</li> <li>• Well-marked sidewalks, pedestrian signals</li> <li>• Rideshare pick-up/drop-off zones and kiss-and-ride</li> <li>• EV car charging stations</li> <li>• Greenspace or retail/residential integration</li> <li>• Carshare parking</li> <li>• Drinking fountain</li> <li>• Portland Loo-style bathrooms</li> </ul>
<p><b>Neighborhood Hubs</b></p> <p><i>Example: 4-Corners</i></p>	<ul style="list-style-type: none"> <li>• Covered bus stops*</li> <li>• Seating/lean rail, garbage and recycling cans</li> <li>• Pedestrian-scale lighting</li> <li>• Universal wayfinding signs</li> <li>• Bike/scooter parking (racks with the potential for lockers)</li> <li>• Bike repair station</li> <li>• EV bike charging station</li> <li>• Scootershare and bikeshare pick-up/drop-off zones</li> <li>• Public art</li> <li>• Crosswalk improvements</li> </ul>

\*Agency coordination/partnership opportunity

### Automobile Plan

The Automobile Plan for the City of Shoreline sets the standard for vehicle traffic flow on its main roadways compared to the level of delay acceptable to the City. The operational performance of intersections within Shoreline is measured using a standard methodology known as level of service (LOS). LOS represents the degree of congestion at an intersection based on a calculation of average delay per vehicle at the intersection. These measurements generally represent morning or afternoon “rush hour” delays and are often referred to as a.m. or p.m. “peak” hour. Individual LOS grades are assigned on a letter scale, A-F, with LOS A representing free-flow conditions with no delay and LOS F representing highly congested conditions with long delays. It is not standard practice to strive for LOS A conditions as this may represent an overbuilt roadway with too much investment in vehicle capacity at the expense of other travel modes.

**Table 10** shows the definition of each LOS grade from the 6th Edition Highway Capacity Manual (HCM) methodology, which is based on average control delay per vehicle. Signalized intersections have higher delay thresholds compared with two-way and all-way stop-controlled intersections. Highway Capacity Manual methodologies prescribe how delay is measured at different types of intersections: for signalized and all-way stop intersections, LOS grades are based on the average delay for all vehicles entering the intersection; for two-way stop-controlled intersections, the delay from the most congested movement is used to assess LOS.



Table 10: Intersection LOS Criteria Based on Delay

Level of Service	Signalized Intersections (seconds per vehicle)	Stop-Controlled Intersections (seconds per vehicle)
<b>A</b>	<= 10	<= 10
<b>B</b>	> 10 to 20	> 10 to 15
<b>C</b>	> 20 to 35	> 15 to 25
<b>D</b>	> 35 to 55	> 25 to 35
<b>E</b>	> 55 to 80	> 35 to 50
<b>F</b>	> 80	> 50

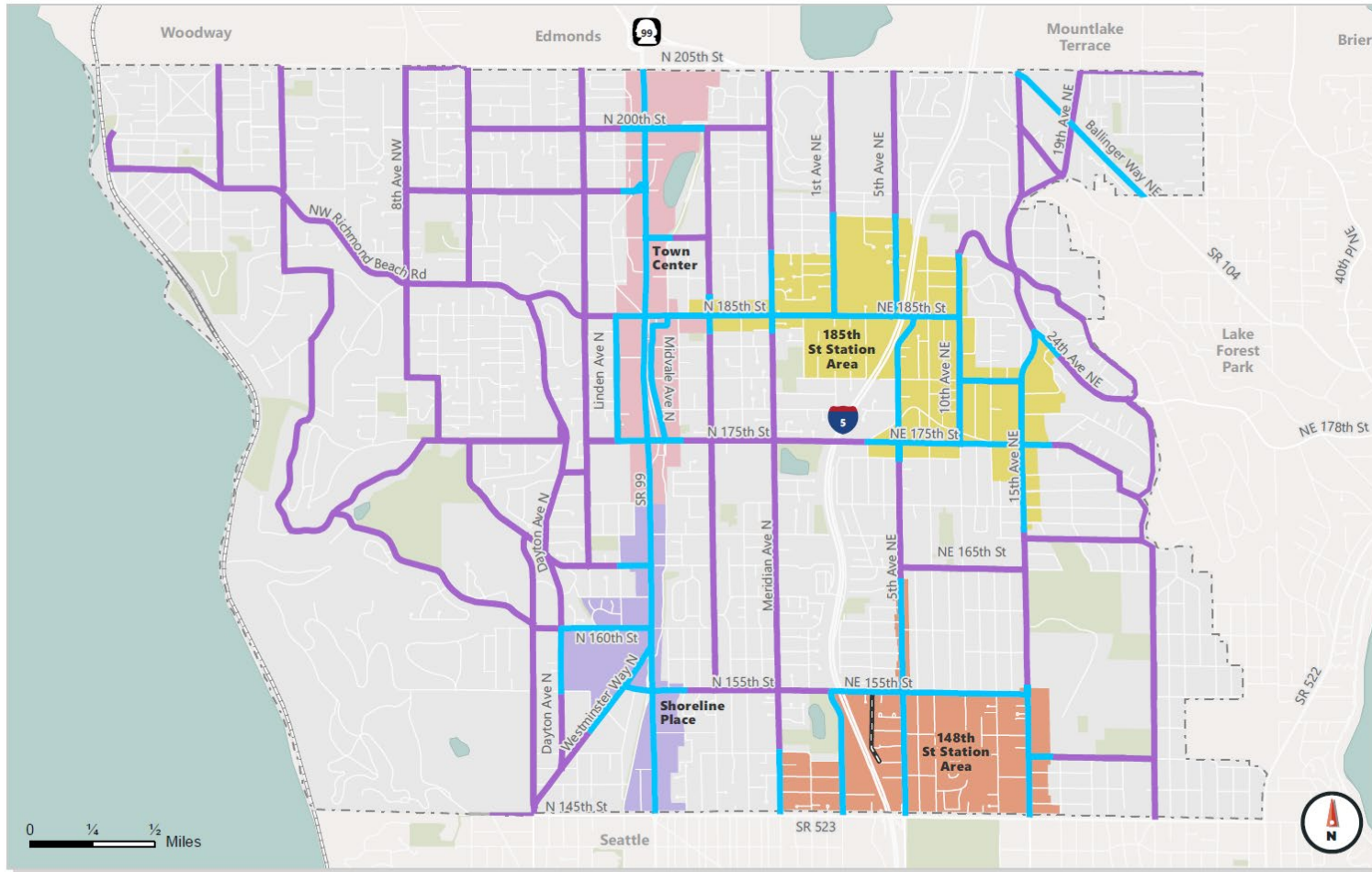
Source: 6th Edition Highway Capacity Manual

As noted in **Policy T-60**, the City of Shoreline Automobile Plan allows more automobile delay (LOS E) along State Routes and at intersections within the four designated King County [candidate] Countywide Centers in areas near the 148<sup>th</sup> Street and 185<sup>th</sup> Street light rail stations, Aurora Square, and “Town Center” along Aurora Avenue where Shoreline will be concentrating the most growth in coming years. Intersections outside of these areas will be held to an LOS D standard (see **Figure 20**).

This balanced approach allows the City to incentivize growth in the Centers where denser land use and multimodal infrastructure is available to support more trips by foot, bike, and transit, while upholding a more stringent intersection delay standard in areas where less supportive multimodal infrastructure exists. As growth occurs and congestion increases in our denser land use areas, the City will continue to monitor traffic safety Citywide through its Annual Traffic Report. Additionally, the City will work proactively with redevelopment projects to identify potential safety impacts of increased traffic and mitigation where appropriate.

Shoreline Transportation Element

Figure 20. Automobile Plan



**King County Candidate Countywide Centers\***

- 148th St Station Area
- 185th St Station Area
- Shoreline Place
- Town Center

City Boundary

**Intersection Level of Service (LOS) Standards**

LOS D or better

LOS E or better\*\*

\*For illustrative purposes only.

\*\*For intersections along State Highways or within King County Candidate Countywide Centers

Future 3rd Ave NE Connector

City of Shoreline

**Automobile Plan**

## PROJECT NEEDS

The previous sections describe the City's vision for accommodating travel for everyone in Shoreline as guided by a framework of multimodal networks and policies to achieve this vision. This section describes the Transportation Element project needs, which if addressed, would provide a safer and more connected multimodal system utilizing a Complete Streets approach to improvements to address identified needs. The following section also describes the City's anticipated financial resources over the next 20 years to implement projects that address these needs.

During the Transportation Element development process, many transportation needs and project ideas to meet those needs were identified across the City. Project ideas came from a variety of sources including community ideas shared during the three outreach series, projects carried forward from past plans, projects identified as needed to provide sufficient capacity to accommodate Shoreline's planned growth, as well as projects that would help construct the modal networks presented in the previous section.

Overall, well over 100 ideas were identified (see **Table 11** that describes these project ideas). These project ideas are high-level, not prioritized or financially constrained, but encompass the complete list of possible project needs identified through this planning process. Project ideas are grouped into the following categories:

### Intersection (I) and Multimodal Corridor (MMC) Project Ideas

These project ideas provide capacity to accommodate anticipated future travel demand and build out pedestrian, bicycle, and transit modal networks to safely accommodate all users on Shoreline streets.

Notably, concepts include future capacity projects that the City has previously committed to:

- N 160<sup>th</sup> St / Greenwood Ave N / N Innis Arden Way – Roundabout to be installed.
- Meridian Ave N from N 155<sup>th</sup> St to N 175<sup>th</sup> St – Restripe with two-way left turn lane in key locations.
- N 185<sup>th</sup> St from 1<sup>st</sup> Ave NE to 5<sup>th</sup> Ave NE (west of I-5) – Sound Transit to rechannelize to three-lane cross section by station opening.
- 8<sup>th</sup> Ave NE and NE 185<sup>th</sup> Street – Sound Transit to install a Roundabout.
- 5<sup>th</sup> Ave NE and NE 185<sup>th</sup> Street – Sound Transit to install a signal.
- 5<sup>th</sup> Ave NE and NE 148<sup>th</sup> Street – Sound Transit to install a signal.
- 5<sup>th</sup> Ave NE and I-5 NB on ramp – Sound Transit to install a signal.

Project ideas also include the following additional capacity projects needed to meet the City's proposed LOS standard by 2044:

- Dayton Ave N & Carlyle Hall Road – Realign intersection geometry and signalize.
- 1st Ave NE & N 155th St – Redesign as urban compact roundabout.
- 25th Ave NE & NE 150th St – Redesign as urban compact roundabout.
- Meridian Ave N & N 175th St – Lane reconfigurations and signal phase changes to improve capacity.
- Meridian Ave N from N 155th St to N 175th St (NB) – Either widen or provide a segment LOS exemption.
- Meridian Ave N from N 175th St to N 185th St (NB) – Either widen or provide a segment LOS exemption.

## Shoreline Transportation Element

The City has already begun design on two major corridors, 175th Street (Stone Ave to I-5) and 145th Street (Aurora Ave/Interurban Trail to I-5). These projects do not appear on the project ideas list, but the City is committed to securing funding to implement their construction.

### Unimproved Right-of-Way (R)

Areas with public access known as “unimproved right of way” that could accommodate a future pathway connection to expand the walking network.

### Trail Along the Rail (TAR)

An approximately 2.5 mile shared-use trail running roughly parallel to the planned Lynnwood Link Light Rail Extension alignment between 145th Street and 195th Street.

### Trail Connection (T)

Future on-street trail connections including the planned 145th Street Off-Corridor Bike Network and planned on-street connections to the Trail Along the Rail. These connections will help bicyclists navigate from trails to their final destinations. While these routes have various bicycle facility types, they tend to be on low-speed, low volume local streets.

### Bridge Project (B)

The only bridge concept is the 148th Street Non-Motorized Bridge, which will provide pedestrian and bicycle access across Interstate 5 to the Shoreline South/148th light rail station. The bridge is currently under design with several funding sources.

### Shared-Use Mobility Hubs (SUM)

Shared-use mobility hubs are places of connectivity where different modes of transportation come together seamlessly at concentrations of employment, housing, shopping, and recreation; and at major transit facilities. Shared-use mobility hubs can include space for bike share, scooter share, car share, as well as curb space for ride hailing services/pickups like Uber and Lyft. They also can provide creature comforts like public bathrooms, information kiosks, outdoor seating, bike parking, public art, and cell-phone recharging stations. There are 18 proposed locations for shared-use mobility hub projects which are categorized into the following three typologies:

- **Regional hubs** are near light rail stations or major bus stations and should have the most features and amenities, as they will support the largest quantity of people from within and outside of Shoreline.
- **Central hubs** connect to key locations in Shoreline and should have sufficient amenities to support commuting, leisure, and recreation at and around hubs.
- **Neighborhood hubs** are the smallest type of mobility hubs and should focus on simple, pedestrian-friendly, and comfortable amenities for local communities.

**Table 11** describes the full list of project ideas in the City. It is important to note that these project ideas are high-level only. Specific details, including specific designs and project termini, are subject to change.

Shoreline Transportation Element

Table 11: Project Ideas List

Street	From	To	Description
<b>Multimodal Corridors</b>			
<b>20th Ave NW</b>	NW 205th St	NW 190th St	20th Ave NW from NW 205th St to NW 190th St improve to bike LTS 1 and fill Sidewalk Gaps
<b>15th Ave NW</b>	N 205th St	NW 188th St	15th Ave NW from N 205th St to NW 188th St improve to bike LTS 1 and fill sidewalk gaps
<b>NW 188th St</b>	15th Ave NW	Springdale Ct NW	NW 188th St from 15th Ave NW to Springdale Ct NW improve to bike LTS 1
<b>14th Ave NW / 15th Ave NW / NW 167th St</b>	NW 188th St	NW Innis Arden Way	14th Ave NW / 15th Ave NW from NW 188th St to NW Innis Arden Way improve to bike LTS 1 and fill sidewalk gaps
<b>10th Ave NW</b>	NW Innis Arden Way	NW 175th Street	10th Ave NW from NW Innis Arden Way to NW 175th Street improve to bike LTS 1 and fill sidewalk gaps
<b>NW/N 175th St/St Luke PI N</b>	10th Ave NW	Dayton Ave N	NW/N 175th St from 10th Ave NW to St Luke PI N/Dayton Ave N improve to bike LTS 1 and fill sidewalk gaps
<b>6th Ave NW</b>	NW 175th St	NW 180th St	6th Ave NW from NW 175th St to NW 180th St improve to bike LTS 2 and fill sidewalk gaps
<b>NW 180th St</b>	8th Ave NW	6th Ave NW	NW 180th St from 8th Ave NW to 6th Ave NW improve to bike LTS 2 and fill sidewalk gaps
<b>8th Ave NW</b>	NW 180th St	NW Richmond Beach Rd	8th Ave NW from NW 180th St to NW Richmond Beach Rd improve to bike LTS 2 and fill sidewalk gaps
<b>NW Innis Arden Way</b>	10th Ave NW	Greenwood Ave N	NW Innis Arden Way from 10th Ave NW to Greenwood Ave N improve to bike LTS 1 and fill sidewalk gaps
<b>Greenwood Ave N</b>	N 145th St	N 160th St	Greenwood Ave N from N 145th St to N 160th St improve to bike LTS 1 and fill sidewalk gaps
<b>Greenwood Ave N</b>	N 160th St	Carlyle Hall Rd N	Greenwood Ave N from N 160th St to Carlyle Hall Rd N improve to bike LTS 2 and fill sidewalk gaps
<b>Westminster Way N</b>	N 145th St	Fremont Ave N	Westminster Way N from N 145th St to Fremont Ave N improve to bike LTS 1 and fill sidewalk gaps and accommodate frequent bus service

Shoreline Transportation Element

<b>Dayton Ave N</b>	Westminster Way N	N 160th St	Dayton Ave N from Westminster Way N to N 160th St improve to bike LTS 2 and fill sidewalk gaps and accommodate frequent bus service
<b>Dayton Ave N</b>	N 160th St	Carlyle Hall Rd N	Dayton Ave N from N 160th St to Carlyle Hall Rd N improve to bike LTS 2 and fill sidewalk gaps
<b>Dayton Ave N</b>	Carlyle Hall Rd N	N 171st St	Dayton Ave N from Carlyle Hall Rd N to N 171st St improve to bike LTS 1 and fill sidewalk gaps and accommodate frequent bus service
<b>Dayton Ave N</b>	N 171st St	N Richmond Beach Rd	Dayton Ave N from N 171st St to N Richmond Beach Rd improve to bike LTS 1 and fill sidewalk gaps and accommodate local bus service
<b>N 160th St</b>	Greenwood Ave N	SR 99	N 160th St from Greenwood Ave N to SR 99 improve to bike LTS 2 and accommodate frequent bus service
<b>N 165th St</b>	Dayton Ave N	SR 99	N 165th St from Dayton Ave N to SR 99 improve to bike LTS 1 and fill sidewalk gaps
<b>Carlyle Hall Rd NW / 3rd Ave NW</b>	Dayton Ave N	NW 175th St	Carlyle Hall Rd NW / 3rd Ave NW from Dayton Ave N to NW 175th St improve to bike LTS 2 and fill sidewalk gaps
<b>N 155th St</b>	SR 99	Meridian Ave N	N 155th St from SR 99 to Meridian Ave N to provide bike LTS 2 and accommodate frequent bus service
<b>N 155th St</b>	Meridian Ave N	5th Ave NE	N 155th St from Meridian Ave N to 5th Ave NE improve to bike LTS 2 and accommodate frequent bus service
<b>Ashworth Ave N</b>	N 145th St	N 155th St	Ashworth Ave N from N 145th St to N 155th St improve to fill sidewalk gaps and build future trail connection
<b>N 150th St</b>	Ashworth Ave N	Meridian Ave N	N 150th St from Ashworth Ave N to Meridian Ave N improve to fill sidewalk gaps and build future trail connection
<b>Ashworth Ave N</b>	155th St	N 157th St	Ashworth Ave N from 155th St to N 157th St improve to bike LTS 1 and fill sidewalk gaps and build future trail connection
<b>Ashworth Ave N</b>	N 157th St	N 175th St	Ashworth Ave N from N 157th St to N 175th St improve to bike LTS 1 and fill sidewalk gaps
<b>Ashworth Ave N</b>	N 175th St	N 185th St	Ashworth Ave N from N 175th St to N 185th St improve to bike LTS 2 and fill sidewalk gaps
<b>Ashworth Ave N</b>	N 185th St	N 200th St	Ashworth Ave N from N 185th St to N 200th St improve to bike LTS 1 and fill sidewalk gaps



Shoreline Transportation Element

<b>Meridian Ave N</b>	N 145th St	N 175th St	Meridian Ave N from N 145th St to N 175th St improve to bike LTS 2 and accommodate local bus service
<b>Meridian Ave N</b>	N 175th St	N 185th St	Meridian Ave N from N 175th St to N 185th St reconfigure the intersection of Meridian Ave N and 175 <sup>th</sup> St and provide bike LTS 2 and accommodate local bus service
<b>Meridian Ave N</b>	N 185th St	N 195th St	Meridian Ave N from N 185th St to N 195th St improve to bike LTS 2 and accommodate local bus service
<b>Meridian Ave N</b>	N 195th St	N 200th St	Meridian Ave N from N 195th St to N 200th St improve to bike LTS 2 and fill sidewalk gaps and accommodate local bus service
<b>Meridian Ave N</b>	N 200th St	N 205th St	Meridian Ave N from N 200th St to N 205th St improve to fill sidewalk gaps and accommodate local bus service
<b>NW Richmond Beach Rd</b>	8th Ave NW	Dayton Ave N	NW Richmond Beach Rd from 8th Ave NW to Dayton Ave N to provide bike LTS 2 and accommodate frequent bus service
<b>N Richmond Beach Rd</b>	Dayton Ave N	Fremont Ave N	N Richmond Beach Rd from Dayton Ave N to Fremont Ave N improve to bike LTS 2 and accommodate frequent bus service
<b>3rd Ave NW</b>	NW Richmond Beach Rd	NW 195th St	3rd Ave NW from NW Richmond Beach Rd to NW 195th St improve to bike LTS 1 and fill sidewalk gaps and accommodate local bus service
<b>3rd Ave NW</b>	NW 195th St	N 205th St	3rd Ave NW from NW 195th St to N 205th St improve to bike LTS 1 and fill sidewalk gaps and accommodate local bus service
<b>NW 200th St</b>	8th Ave NW	3rd Ave NW	NW 200th St from 8th Ave NW to 3rd Ave NW improve to bike LTS 1
<b>NW/N 200th St</b>	3rd Ave NW	Fremont Ave N	NW/N 200th St from 3rd Ave NW to Fremont Ave N improve to bike LTS 2 and fill sidewalk gaps and accommodate local bus service
<b>N 200th St</b>	Fremont Ave N	SR 99	N 200th St from Fremont Ave N to SR 99 improve to bike LTS 2 and fill sidewalk gaps and accommodate local bus service
<b>N 200th St</b>	SR 99	Ashworth Ave N	N 200th St from SR 99 to Ashworth Ave N improve to bike LTS 2 and accommodate local bus service
<b>Fremont Ave N</b>	N 165th St	N 172nd St	Fremont Ave N from N 165th St to N 172nd St improve to bike LTS 2 and fill sidewalk gaps and accommodate local bus service
<b>Fremont Ave N</b>	N 172nd St	N 205th St	Fremont Ave N from N 172nd St to N 205th St improve to bike LTS 2 and fill sidewalk gaps

Shoreline Transportation Element

<b>N 172nd St</b>	Dayton Ave N	Fremont Ave N	N 172nd St from Dayton Ave N to Fremont Ave N improve to LTS 2 and accommodate local bus service
<b>N 193rd St</b>	Fremont Ave N	Firlands Way N	N 193rd St from Fremont Ave N to Firlands Way N improve to bike LTS 1
<b>Firlands Way N</b>	N 193rd St	N 192nd St	Firlands Way N from N 193rd St to N 192nd St improve to bike LTS 1 and fill sidewalk gaps
<b>N 192nd St</b>	Firlands Way N	Ashworth Ave N	N 192nd St from Firlands Way N to Ashworth Ave N improve to bike LTS 1
<b>N 195th St</b>	Ashworth Ave N	Meridian Ave N	N 195th St from Ashworth Ave N to Meridian Ave N improve to bike LTS 1
<b>Linden Ave N</b>	N 185th St	N 175th St	Linden Ave N from N 185th St to N 175th St improve to bike LTS 2 and fill sidewalk gaps
<b>Midvale Ave N</b>	N 185th St	N 175th St	Midvale Ave N from N 185th St to N 175th St improve to bike LTS 2
<b>N 185th St</b>	Fremont Ave N	SR 99	N 185th St from Fremont Ave N to SR 99 improve to bike LTS 1 and accommodate frequent bus service
<b>N 185th St</b>	SR 99	5th Ave NE (west of I-5)	N 185th St from SR 99 to 5th Ave NE improve to bike LTS 1 and accommodate Bus Rapi Transit
<b>N 185th St</b>	5th Ave NE (west of I-5)	10th Ave NE	N 185th St from 5th Ave NE to 10th Ave NE improve to bike LTS 1 and accommodate frequent bus service
<b>N 175th St</b>	Fremont Ave N	Stone Ave N	N 175th St from Fremont Ave N to Stone Ave N improve to bike LTS 1 and fill sidewalk gaps and accommodate frequent bus service
<b>N 175th St</b>	Stone Ave N	Meridian Ave N	N 175th St from Stone Ave N to Meridian Ave N improve to bike LTS 1 and fill sidewalk gaps and accommodate frequent bus service
<b>N 175th St</b>	Meridian Ave N	I-5	N 175th St from Meridian Ave N to I-5 improve to bike LTS 1 and accommodate frequent bus service
<b>N 175th St</b>	I-5	15th Ave NE	N 175th St from I-5 to 15th Ave NE improve to bike LTS 2 and accommodate frequent bus service, address safety concerns.
<b>N 175th St / 22nd Ave NE / NE 171st St</b>	15th Ave NE	25th Ave NE	N 175th St / 22nd Ave NE / NE 171st St from 15th Ave NE to 25th Ave NE improve to bike LTS 2 and fill sidewalk gaps and accommodate local bus service

Shoreline Transportation Element

<b>1st Ave NE</b>	NE 195th St	NE 205th St	1st Ave NE from NE 195th St to NE 205th St improve to bike LTS 2 and fill sidewalk gaps
<b>1st Ave NE</b>	N/NE 185th St	N/NE 193rd St	1st Ave NE from N/NE 185th St to N/NE 193rd St improve to bike LTS 2
<b>5th Ave NE</b>	NE 185th St	NE 205th St	5th Ave NE from NE 185th St to NE 205th St improve to bike LTS 2 and fill sidewalk gaps and accommodate local bus service
<b>10th Ave NE</b>	NE 175th St	NE 180th St	10th Ave NE from NE 175th St to NE 180th St improve to bike LTS 2 and fill sidewalk gaps
<b>10th Ave NE</b>	NE 180th St	N 185th St	10th Ave NE from NE 180th St to N 185th St improve to bike LTS 2 and fill sidewalk gaps and accommodate frequent bus service
<b>10th Ave NE</b>	N 185th St	NE 190th St	10th Ave NE from N 185th St to NE 190th St improve to bike LTS 2 and fill sidewalk gaps
<b>8th Ave NE</b>	NE 180th St	N 185th St	8th Ave NE from NE 180th St to N 185th St improve to bike LTS 1 and fill sidewalk gaps
<b>NE 180th St</b>	5th Ave NE	10th Ave NE	NE 180th St from 5th Ave NE to 10th Ave NE improve to bike LTS 1
<b>NE 180th St</b>	10th Ave NE	15th Ave NE	NE 180th St from 10th Ave NE to 15th Ave NE improve to fill sidewalk gaps and accommodate frequent bus service
<b>NE 205th St</b>	15th Ave NE	19th Ave NE	NE 205th St from 15th Ave NE to 19th Ave NE improve to bike LTS 1 and accommodate frequent bus service
<b>NE 205th St</b>	19th Ave NE	25th Ave NE	NE 205th St from 19th Ave NE to 25th Ave NE improve to bike LTS 1
<b>15th Ave NE</b>	NE 205th St	NE 196th St	15th Ave NE from NE 205th St to NE 196th St improve to bike LTS 2 and accommodate frequent bus service
<b>Forest Park Dr NE</b>	15th Ave NE	NE 196th St	Forest Park Dr NE from 15th Ave NE to NE 196th St improve to bike LTS 1 and fill sidewalk gaps
<b>Ballinger Way NE</b>	15th Ave NE	19th Ave NE	Ballinger Way NE from 15th Ave NE to 19th Ave NE improve to bike LTS 1 and accommodate frequent bus service
<b>Ballinger Way NE</b>	19th Ave NE	25th Ave NE	Ballinger Way NE from 19th Ave NE to 25th Ave NE improve to bike LTS 1 and fill sidewalk gaps and accommodate frequent bus service
<b>19th Ave NE / NE 196th St</b>	NE 205th St	NE 195th St	19th Ave NE / NE 196th St from NE 205th St to NE 195th St improve to bike LTS 2 and fill sidewalk gaps and accommodate frequent bus service

Shoreline Transportation Element

<b>25th Ave NE</b>	NE 205th St	NE 195th St	25th Ave NE from NE 205th St to NE 195th St improve to bike LTS 1 and fill sidewalk gaps
<b>15th Ave NE</b>	NE 195th St	24th Ave NE	15th Ave NE from NE 195th St to 24th Ave NE improve to bike LTS 1 and fill sidewalk gaps and accommodate frequent bus service
<b>24th Ave NE</b>	15th Ave NE	25th Ave NE	24th Ave NE from 15th Ave NE to 25th Ave NE improve to bike LTS 2 and fill sidewalk gaps
<b>25th Ave NE</b>	NE 178th St	NE Perkins Way	25th Ave NE from NE 178th St to NE Perkins Way improve to bike LTS 2 and fill sidewalk gaps
<b>25th Ave NE</b>	NE 178th St	NE 171st St	25th Ave NE from NE 178th St to NE 171st St improve to bike LTS 2 and fill sidewalk gaps
<b>25th Ave NE</b>	NE 171st St	NE 150th St	25th Ave NE from NE 171st St to NE 150th St improve to bike LTS 2 and fill sidewalk gaps and accommodate local bus service
<b>25th Ave NE</b>	NE 150th St	NE 145th St	25th Ave NE from NE 150th St to NE 145th St improve to bike LTS 2 and build future trail connection
<b>15th Ave NE</b>	24th Ave NE	NE 180th St	15th Ave NE from 24th Ave NE to NE 180th St improve to bike LTS 1 and fill sidewalk gaps and accommodate frequent bus service
<b>15th Ave NE</b>	NE 180th St	Hamlin Park Rd	15th Ave NE from NE 180th St to Hamlin Park Rd improve to bike LTS 2 and accommodate frequent bus service
<b>NE 168th St</b>	15th Ave NE	25th Ave NE	NE 168th St from 15th Ave NE to 25th Ave NE improve to bike LTS 1 and fill sidewalk gaps
<b>NE 165th St</b>	5th Ave NE	15th Ave NE	NE 165th St from 5th Ave NE to 15th Ave NE improve to bike LTS 1 and fill sidewalk gaps
<b>15th Ave NE</b>	Hamlin Park Rd	NE 155th St	15th Ave NE from Hamlin Park Rd to NE 155th St improve to fill sidewalk gaps and accommodate frequent bus service
<b>15th Ave NE</b>	NE 155th St	NE 150th St	15th Ave NE from NE 155th St to NE 150th St to fill sidewalk gaps and accommodate frequent bus service
<b>15th Ave NE</b>	NE 150th St	N 145th St	15th Ave NE from NE 150th St to N 145th St to provide bike LTS 1 and accommodate frequent bus service
<b>NE 150th St</b>	15th Ave NE	25th Ave NE	NE 150th St from 15th Ave NE to 25th Ave NE improve to fill sidewalk gaps and accommodate local bus service
<b>NE 150th St</b>	25th Ave NE	28th Ave NE	NE 150th St from 25th Ave NE to 28th Ave NE improve to fill sidewalk gaps and build future trail connection
<b>28th Ave NE</b>	NE 150th St	NE 145th St	28th Ave NE from NE 150th St to NE 145th St to build future trail connection

Shoreline Transportation Element

<b>17th Ave NE</b>	NE 150th St	NE 145th St	17th Ave NE from NE 150th St to NE 145th St to build future trail connection
<b>5th Ave NE</b>	NE 155th St	NE 145th St	5th Ave NE from NE 155th St to NE 145th St improve to bike LTS 2 and accommodate frequent bus service
<b>1st Ave NE</b>	N 155th St	N 145th St	1st Ave NE from N 155th St to N 145th St improve to bike LTS 2 and fill sidewalk gaps
<b>Triangle formed by Richmond Beach Dr NW / NW 195th Pl / NW 196th St</b>			Triangle formed by Richmond Beach Dr NW / NW 195th Pl /NW 196th St improve to fill sidewalk gaps and accommodate frequent bus service
<b>NW 196th St</b>	23rd Ave NW	20th Ave NW	NW 196th St from 23rd Ave NW to 20th Ave NW improve to fill sidewalk gaps and accommodate frequent bus service
<b>NE 174th St</b>	1st Ave NE	5th Ave NE	NE 174th St from 1st Ave NE to 5th Ave NE to build future trail connection
<b>Unimproved Right-of-Way</b>			
<b>N 148th St</b>	Linden Ave N	Interurban Trail	Unopened Right of Way
<b>3<sup>rd</sup> Ave NE Connector</b>	NE 149 <sup>th</sup> St	NE 151 <sup>st</sup> St	Unopened Right of Way
<b>Linden Ave N</b>	N 150th St	150 feet south of N 150th St	Unopened Right of Way
<b>Linden Ave N</b>	Southern termini of Linden Ave N (between N 148th St and N 145th St)	N 145th St	Unopened Right of Way
<b>Ashworth Ave N</b>	N 152nd St	Ashworth Ave N (northern termini south of N 152nd St)	Unopened Right of Way
<b>N 157th St</b>	Ashworth Ave N	Densmore Ave N	Unopened Right of Way
<b>N 165th St</b>	Ashworth Ave N	Densmore Ave N	Unopened Right of Way
<b>Corliss Ave N connection</b>	Corliss Ave N (northern termini south of N 171st St)	Corliss Ave N (southern termini south of N 171st St)	Unopened Right of Way

Shoreline Transportation Element

<b>Corliss PI N connection</b>	Corliss PI N	Corliss Ave N (southern termini south of N 171st St)	Unopened Right of Way
<b>NE 147th St</b>	27th Ave NE	28th Ave NE	Unopened Right of Way
<b>Near 15th PI NE</b>	NE 185th St	NE 184th PI	Unopened Right of Way
<b>NE 195th St</b>	10th Ave NE	11th Ave NE	Unopened Right of Way
<b>Near NE 195th St</b>	14th Ave NE	15th Ave NE	Unopened Right of Way
<b>Near NE 200th Ct</b>	12th Ave NE	15th Ave NE	Unopened Right of Way
<b>N 188th St</b>	Ashworth Ave N	Densmore Ave N	Unopened Right of Way
<b>Near N 193rd St</b>	Palatine Ave N	Greenwood Ave N	Unopened Right of Way
<b>N 198th St</b>	Near Dayton Ave N	Fremont Ave N	Unopened Right of Way
<b>Greenwood PI N</b>	Near NW 200th St	Greenwood PI N (northern termini south of NW 200th St)	Unopened Right of Way
<b>5th Ave NW</b>	NW 197th St	NW 196th PI	Unopened Right of Way
<b>Near intersection of NW 200th St and 5th Ave NW</b>	NW 200th St	5th Ave NW	Unopened Right of Way
<b>12th Ave NW</b>	Southern termini of 12th Ave NW south of NW 196th St	Northern termini of 12th Ave NW north of NW Richmond Beach Rd	Unopened Right of Way
<b>NW 198th St</b>	15th Ave NE	Eastern termini of NW 198th St west of 15th Ave NE	Unopened Right of Way
<b>17th Ave NW</b>	17th PI NW/16th Ave NW	17th Ave NW	Unopened Right of Way
<b>8th Ave NW</b>	Near Sunset Park		Unopened Right of Way
<b>8th Ave NW</b>	NW 177th PI	NW 175th St	Unopened Right of Way
<b>Daytona PI N</b>	N 188th St	N Richmond Beach Rd	Unopened Right of Way
<b>Near 148th St</b>	through Paramount Open Space		Unopened Right of Way
<b>N 167th St</b>	Whitman Ave N	Aurora Ave N	Unopened Right of Way
<b>NE 152nd St</b>	10th Ave NE	11th Ave NE	Unopened Right of Way



Shoreline Transportation Element

<b>West side of Paramount Open Space</b>			Unopened Right of Way
<b>Trail Connections</b>			
<b>near 148th St</b>	I-5	15th Ave NE	Eastside Off-Corridor Bike Network
<b>5th Ave NE/ NE 174th St</b>	NE 185th St	NE 174th St/1st Ave NE	Eastside Off-Corridor Bike Network
<b>NE 150th St</b>	15th Ave NE	17th Ave NE	Eastside Off-Corridor Bike Network
<b>N 150th St/Corliss Ave N</b>	Meridian Ave N	N 145th St	145th Street Off-Corridor Bicycle Network
<b>12th Ave NE</b>	NE 148th St	NE 145th St	Eastside Off-Corridor Bike Network
<b>25th Ave NE</b>	25th Ave NE	NE 150th St	Off-Corridor Trail Network
<b>multiple local streets</b>	Interurban Trail	N 145th St	Off-Corridor Trail Network
<b>near NE 160th St</b>	near Hamlin Park	west of 25th Ave NE	Trail Network
<b>NE 165th St</b>	I-5	5th Ave NE	Off-Corridor Trail Network
<b>3rd Ave NE</b>	NE 170th St	NE 165th St	Off-Corridor Trail Network
<b>NE 158th St / 3rd Ave NE</b>	1st Ave NE	NE 149th St	NE 158th St / 3rd Ave NE from 1st Ave NE to NE 149th St to build on-street future trail connection
<b>Trail Along the Rail</b>			
<b>TAR Segment</b>	NE 195th St	NE 189th St	Trail Along the Rail; Phase 1
<b>TAR Segment</b>	NE 155th St	NE 149th St	Trail Along the Rail; Phase 2
<b>TAR Segment</b>	NE 159th St	N 155th St	Trail Along the Rail; Phase 3
<b>TAR Segment</b>	NE 163rd St	NE 161st St	Trail Along the Rail; Phase 3
<b>TAR Segment</b>	NE 170th St	NE 163rd St	Trail Along the Rail; Phase 3
<b>TAR Segment</b>	N 175th St	NE 174th St	Trail Along the Rail; Phase 3
<b>TAR Segment</b>	NE 180th St	N 175th St	Trail Along the Rail; Phase 4
<b>Shared Use Mobility Hubs</b>			
<b>Ashworth Avenue N &amp; N 200<sup>th</sup> Street</b>	-	-	Aurora Village Transit Center
<b>NE 185<sup>th</sup> Street &amp; 5<sup>th</sup> Avenue NE</b>	-	-	Shoreline North/185th Station

Shoreline Transportation Element

<b>NE 151<sup>st</sup> Street &amp; 5<sup>th</sup> Avenue NE</b>	-	-	Shoreline South/148th Station
<b>Westminster Way N &amp; N 155<sup>th</sup> Street</b>	-	-	Shoreline Place
<b>N 160<sup>th</sup> Street &amp; Dayton Avenue N</b>	-	-	Shoreline Community College
<b>N 185<sup>th</sup> Street &amp; Aurora Avenue N</b>	-	-	Aurora Ave N & N 185th St
<b>Aurora Avenue N &amp; N 192<sup>nd</sup> Street</b>	-	-	Shoreline Park & Ride
<b>NW Richmond Beach Road &amp; 3<sup>rd</sup> Avenue NW</b>	-	-	4-Corners
<b>NE 175<sup>th</sup> Street &amp; 15<sup>th</sup> Avenue NE</b>	-	-	North City Business District
<b>NE 165<sup>th</sup> Street &amp; 5<sup>th</sup> Avenue NE</b>	-	-	Ridgecrest Business District
<b>N 149<sup>th</sup> Street &amp; 1<sup>st</sup> Avenue NE</b>	-	-	148th St Non-Motorized Bridge
<b>15<sup>th</sup> Avenue NE &amp; NE 146<sup>th</sup> Street</b>	-	-	15th Ave BRT Station
<b>NE 155<sup>th</sup> Street &amp; 15<sup>th</sup> Avenue NE</b>	-	-	Fircrest
<b>Ballinger Way NE &amp; 19<sup>th</sup> Avenue NE</b>	-	-	Ballinger
<b>NE 145<sup>th</sup> Street &amp; 30<sup>th</sup> Avenue NE</b>	-	-	30th Ave BRT Station
<b>N 175<sup>th</sup> Street &amp; Midvale Avenue N</b>	-	-	City Hall
<b>NW 195<sup>th</sup> Street &amp; 20<sup>th</sup> Avenue NW</b>	-	-	Richmond Beach
<b>N 175<sup>th</sup> Street &amp; 5<sup>th</sup> Avenue NE</b>	-	-	Shoreline Library

**Bridges**

Shoreline Transportation Element

<b>NE 148<sup>th</sup> Street</b>	-	-	148th St Bridge
<b>Intersections</b>			
<b>Meridian Avenue N &amp; N 175<sup>th</sup> Street</b>	-	-	Meridian Avenue N & N 175th Street
<b>Dayton Avenue N &amp; Carlyle Hall Road</b>	-	-	Dayton Avenue N & Carlyle Hall Road
<b>1st Ave NE &amp; N 155<sup>th</sup> Street</b>	-	-	1st Ave NE & N 155th Street
<b>25th Ave NE &amp; NE 150<sup>th</sup> Street</b>	-	-	25th Ave NE & NE 150th Street
<b>N 160<sup>th</sup> St &amp; Greenwood Ave N &amp; N Innis Arden Way</b>	-	-	N 160th St & Greenwood Ave N & N Innis Arden Way
<b>145th Corridor</b>			
<b>N 145<sup>th</sup> Street</b>	Greenwood Avenue N	Interurban Trail	Greenwood to the Interurban Trail
<b>N 145<sup>th</sup> Street</b>	Interurban Trail	Wallingford Ave N	Interurban Trail to Wallingford Ave N
<b>N 145<sup>th</sup> Street</b>	Wallingford Ave N	Corliss Ave N	Wallingford to Corliss Ave N

## FUNDING AND IMPLEMENTATION

The previous section presents an expansive list of the types of projects that would be needed to complete the City of Shoreline’s overall transportation vision. A key planning requirement of the Growth Management Act is the concept of fiscal restraint in transportation planning. A fiscally-constrained Transportation Element must first allow for operation and maintenance of existing facilities, and then capital improvements. To introduce fiscal constraint into the plan, an inventory of past revenues and costs was undertaken to identify funds that are likely to be available for capital construction and operations.

Revenues that fund transportation operations and capital in Shoreline include those from outside sources and grants, general city funds, real estate excise taxes, vehicle license fees, sales tax, impact fees, and gas tax receipts. Each of these funding sources has different eligibility requirements, in terms of activities they can fund. For example, the City of Shoreline collects vehicle license fees, which are dedicated to the maintenance and rehabilitation of existing streets.

Table 12: Anticipated Funding for Capital Projects

Revenues	2023-2044 Total
Real Estate Excise Tax ( <b>REET 2</b> ) is an optional tax collected on the sale of qualifying real estate sales. REET is dependent on the amount of real estate sales and tends to fluctuate from year to year. REET 2 revenues are restricted to transportation and park needs; the City of Shoreline has a policy to use REET 2 for transportation capital funding.	\$20,800,000*
<b>Grants</b> from federal, state, and local (King County Metro and Sound Transit) agencies are available to help fund transportation projects. Grants are competitive and the City competes with other jurisdictions based on need, service population, project potential, project deliverability, and expected impact/value.	\$40,000,000
Transportation Benefit District Sales Tax ( <b>TBD Sales Tax</b> ) is collected on taxable retail sales within the TBD boundaries. TBD Sales Taxes must be voter approved and reauthorized every 20 years. In 2018, Shoreline voters approved the maximum TBD sales tax rate of 0.2% to be used for sidewalk expansion and repair. Voters will next consider TBD Sales Tax in 2038.	\$71,560,000
<b>Transportation Impact Fees</b> are authorized by the Washington State Growth Management Act. Impact Fees are only levied on new development as a means to pay for the increased demand that development puts on infrastructure. The City of Shoreline has enacted impact fees to pay for development-related transportation capital projects. Impact fees are calculated from the identified capital needs in planning documents such as the Transportation Master Plan or Capital Facilities Plan, and should be updated with those plans to remain current. The City of Shoreline will update its transportation impact fees following adoption of the Transportation Element.	\$36,820,000
<b>Miscellaneous revenue sources</b> come from a variety of non-specified sources and have increased as a transportation capital source in the past two years and thus are assumed to contribute to funding the City’s transportation system over the planning horizon.	\$19,470,000

Shoreline Transportation Element

<b>General Fund Transfers</b> are not a specific revenue source but movement of unrestricted or transportation-eligible monies from the City general fund (for example, property and sales tax). Some grants require matching a portion of the grant amount which is typically done from general funds.	\$12,590,000
<b>Total Capital Revenues</b>	<b>\$201,240,000</b>

\* Note: Half of REET 2 revenues are spent on capital rehabilitation projects like overlays and traffic signal upgrades and this practice is expected to continue.

While \$201 million is a substantial amount of funding for transportation, it is nowhere close to the level of revenue that would be needed to fully fund the project needs presented in the prior section. **Table 13** presents the projects that the City of Shoreline has already committed to funding, as well as projects that would be needed to meet the City’s concurrency requirements through 2044. These projects total \$160 million in capital, leaving approximately \$41 million for a more discretionary list of high priority complete streets projects, trails, and transit-oriented improvements that could help advance the City’s transportation vision.

Table 13: Fiscally Constrained 2023-2044 Project List – Committed and Concurrency Projects

Project	Description	Category	2023-2044 Anticipated City Cost	Sources
New sidewalks program & sidewalk maintenance	Construction of 12-TBD funded sidewalk projects and funding for sidewalk maintenance	Committed	\$71,560,000	TBD Sales Tax
148 <sup>th</sup> Street Non-motorized Bridge	N 148th Street non-motorized bridge crossing (based on Council’s selection of a preferred alignment during the feasibility study phase) of Interstate 5 to the Shoreline South/148th Station.	Committed	\$10,100,000	Federal, King County Trails Levy, Sound Transit, State legislature, and other undefined future funds
1st Ave NE Sidewalks (N 145th to N 155th)	This project will design and construct sidewalks on 1st Ave NE from N 145th to N 155th. This route was identified and prioritized as part of the Sound Transit Multimodal Access Improvements to provide pedestrian and bicycle improvements to	Committed	\$1,300,000	Sound Transit Light rail access mitigation funds

Shoreline Transportation Element

Project	Description	Category	2023-2044 Anticipated City Cost	Sources
	the South Shoreline/N 148th Street Station.			
145 <sup>th</sup> Corridor: Aurora to I-5	This multi-year phased roadway reconstruction project includes design, environmental, right-of-way and construction of improvements to SR523 (N/NE 145th Street) between Interstate 5 (I-5) and Aurora Ave N (SR 99). The project will enhance safety, operations and mobility and address transit demand associated with the South Shoreline/N 148th Street Station and planned growth within the station subarea.	Committed	\$27,000,000	Federal, Connecting Washington, Roads Capital Fund, other undefined future funds
145 <sup>th</sup> and I-5 Interchange	This project constructs two multi-lane roundabouts at the intersection of NE 145th and the I-5 southbound offramp and at the 5th Ave. NE intersection. The roundabouts replace the functions of the existing signalized intersections and the left turn lanes on the overpass bridge deck, allowing re-channelization of the bridge deck to include two travel lanes in each direction, bicycle/pedestrian facilities on the north side of the bridge deck and existing sidewalk on the south side.	Committed	\$0	Federal, Sound Transit, Transportation Improvement Board, and other undefined future funds
175 <sup>th</sup> Corridor: Stone Avenue N to I-5	Planned improvements include reconstruction of the existing street to provide two traffic lanes in each median and turn pockets, bicycle lanes (integrated into the sidewalk), curb, gutter, and sidewalk with planter strip where feasible,	Committed	\$45,500,000	Federal, State, Transportation impact fees, other undefined future funds



Shoreline Transportation Element

Project	Description	Category	2023-2044 Anticipated City Cost	Sources
	illumination, landscaping, retaining walls, and various intersection improvements.			
N 160th St & Greenwood Ave N & N Innis Arden Way	Project will design and construct a roundabout at this intersection as a mitigation requirement for development of the Shoreline Community College. The design will be coordinated with Shoreline Community College, Metro Transit and the Shoreline School District.	Committed	\$0	Shoreline Community College
N 185th St from 1st Ave NE to 5th Ave NE (west of I-5)	Sound Transit to rechannelize to three-lane cross section by station opening.	Committed	\$0	Sound Transit
8th Ave NE and NE 185th Street	Sound Transit to install a Roundabout.	Committed	\$0	Sound Transit
5th Ave NE and NE 185th Street	Sound Transit to install a signal.	Committed	\$0	Sound Transit
5th Ave NE and NE 148th Street	Sound Transit to install a signal.	Committed	\$0	Sound Transit
5th Ave NE and I-5 NB on ramp	Sound Transit to install a signal.	Committed	\$0	Sound Transit
Meridian Ave N & N 175th St	Lane reconfigurations and signal phase changes to improve capacity.	Concurrency	n/a**	Impact fees, undefined local funds
Dayton Ave N & Carlyle Hall Rd	Realign intersection geometry and signalize.	Concurrency	\$1,080,000	Impact fees, undefined local funds
1st Ave NE & N 155th St	Redesign as urban compact roundabout.	Concurrency	\$1,310,000	Impact fees, undefined local funds
25th Ave NE & NE 150th St	Redesign as urban compact roundabout.	Concurrency	\$1,310,000	Impact fees, undefined local funds
<b>Total</b>			<b>\$160,000,000</b>	

\* This project is included in the 175th: I-5 to Stone Way corridor project.

## Shoreline Transportation Element

Based on the potential revenue for transportation projects over the next 20 years and removing any currently committed projects and concurrency projects that must be addressed over this period (shown in the preceding table), the City has approximately \$41 million available to fund additional transportation projects.

As a tool to help guide the consideration of final projects totaling approximately \$41 million to be added to a financially constrained project list, the project ideas created in Table 11 were scored by a set of prioritization metrics and performance measures (see **Table 14**). Various project ideas received higher rankings than others. The following package of projects were found to both advance the City of Shoreline transportation vision and goals, while fitting within the fiscal constraint of this Transportation Element.

The City could fund the top ranked **Shared Use Mobility Hubs** totaling approximately \$5.25 million:

- Aurora Ave N & N 185th St
- Richmond Beach - NW 195th Street & 20th Ave NW
- 15th Ave BRT Station - 15th Ave NE & NE 146th St
- City Hall – N 175th St & Midvale Ave N
- Shoreline North/185th Station
- 4-Corners (NW Richmond Beach Rd and somewhere 8th Ave NW to 3rd Ave NW)

As funding for this type of project is available, the City would need to verify that the above is still an appropriate list and surrounding facilities are in place to support these hubs. A hub that could replace one on this list might include the hub near the Shoreline South/148th Street light rail station since large investments are under way to support all types of users at this station facility.

For approximately \$1 million, the City could also advance the **Eastside Off-Corridor Bike Network** (the portion from 5th Ave NE to 15th Ave NE), which scored highest in trail ideas. A pre-design study would need to be completed first. The entire Eastside Off-Corridor Bike Network will continue east of 15th Ave NE and the entire length should be completed to be consistent and complete.

The City could enhance access to the Shoreline South/148<sup>th</sup> Street light rail station through construction of the **3<sup>rd</sup> Avenue Connector**. This \$4.1 million project would provide a curbside street design that would better connect the Shoreline South/148<sup>th</sup> Street light rail station to the 148<sup>th</sup> Non-motorized Bridge, 155<sup>th</sup> Street, adjacent neighborhoods, and planned Trail Along the Rail. The woonerf would provide a slow, shared space that would facilitate placemaking and comfortable pedestrian/bicycle movements.

Finally, the City could partially fund two high-scoring **Multimodal Corridors** that would advance mobility priorities in this TE and appear to fit within available funds with high-level, estimated total project costs estimated at \$28.6 million:

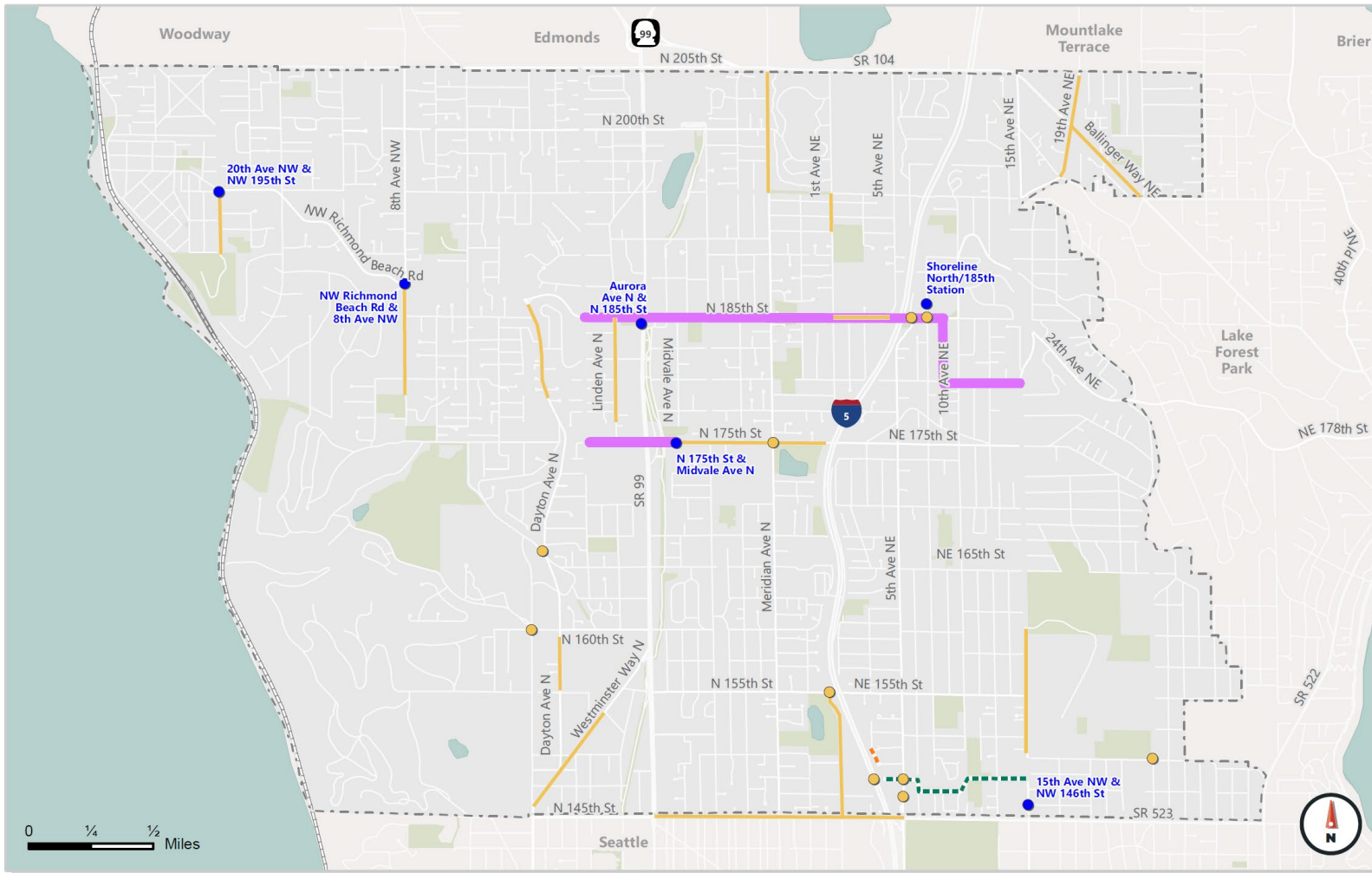
- **N 175th St:** Extend multimodal improvements from Fremont Ave N to Stone Ave; improve to bike LTS 1 and fill sidewalk gaps and accommodate frequent bus service.
- **185th Corridor:** The City developed a 185th Street corridor improvement strategy that includes N/NE 185th St from Fremont Ave N to 10th Ave NE; 10th Ave NE from NE 185th St to NE 180th St; and NE 180th St from 10th Ave NE to 15th Ave NE. Improvements for this corridor include bike improvements to LTS1; pedestrian improvements; and accommodations for frequent bus service.

**Figure 21** displays the City of Shoreline's 20-year fiscally constrained project list, which includes both committed and concurrency projects, as well as the additional projects described above that help advance the City's transportation vision and goals.

It is unknown how much of these costs could be recovered if re-development contributes to some of these improvements over the 20-year period or if the City is very successful in securing competitive grants. However, these provide a framework for how the City could spend available funding to expand mobility over the life of this TE. Depending on final costs of these projects, other pedestrian/bicycle oriented investments, including sidewalks, trails, and new connections could be considered.

Shoreline Transportation Element

Figure 21. Fiscally Constrained 2023-2044 Project List



- Concurrency & Other Committed Project
- Shared Use Mobility Hubs
- Multimodal Corridors
- - - 3rd Avenue Connection
- - - Eastside Off-Corridor Bike Network
- City Boundary

City of Shoreline  
**Fiscally Constrained 20-Year Project List**

## Options to Increase Revenue

Like all Washington State cities, the City of Shoreline has **limited dedicated transportation funding options**, many of which the City is already using. Expected future collections for the identified dedicated transportation funding options are included below; the potential impact on funding shortfalls depends on the City's final capital plan.

**Transportation Benefit District** sales tax and vehicle licensing fees are independent taxing districts created by ordinance. This is a flexible source of funding that can be applied for either capital or programmatic expenditures. The City of Shoreline uses both the sales and use tax and vehicle licensing fees options. While the City is levying the maximum allowable sales and use tax rate, the vehicle licensing fee (VLF) could be increased from the current \$40 up to \$100. The fee could be raised to \$50 without voter approval; any increase above \$50 would require a vote of the people. Since the 2019 increase to \$40, VLF revenues have averaged \$1.5 million. Based on the estimated number of registered vehicles in the City of Shoreline provided by the Washington State Department of Licensing, increasing the **VLF to \$50 would increase annual revenues to approximately \$2 to \$3 million**.<sup>6</sup> With voter approval, the maximum \$100 per vehicle fee from a VLF would raise **\$4 to \$6 million annually**.

**Local Improvement Districts (LIDs)** are special purpose financing mechanisms that can be created by cities to fund capital improvements in specific areas. LIDs generate funds by implementing proportionate special assessments on property owners that benefit from improvements. LID revenues are limited in their use to specific capital projects that benefit owners in the special purpose area for which they were created. Cities are authorized to form LIDs under RCW 35.43 without voter approval; however, LID formation is a complex process and must first be demonstrated to be financially feasible. Additionally, if the City receives protests from "property owners who would pay at least 60% of the total cost of the improvement"<sup>7</sup> the LID would be dissolved.

The City does not currently use LIDs. **The potential amount LIDs could generate is dependent on the planned projects** within the area. To generate LID revenue in the future, the City would have to identify specific projects that fit the general requirements of a LID on a case-by-case basis.

**Commercial Parking Tax** is levied on commercial parking lots, either collected from businesses or from customers at the time of sale. The City of Shoreline currently has no commercial parking lots. Cities are not restricted in the amount that can be levied, but use of revenues is restricted to transportation. As a City with more than 8,000 residents, the City of Shoreline would need to develop and adopt a program connected to the City's other transportation planning efforts and identify the geographic boundaries in which revenues will be collected and expended.<sup>8</sup> This program would only generate revenue once commercial parking is provided in the City.

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<sup>6</sup> The Washington State Department of Licensing estimated 59,805 registered vehicles in the City of Shoreline with an expectation that this estimate is a lower than expected total because of data issues within DOL's database. However, even after accounting for the 1% administration fee for DOL, Shoreline's collected vehicle license fees are only two thirds of what would be expected. This difference could be from individuals not renewing.

<sup>7</sup> Municipal Research Services Center, "[Local Improvement Districts](#)," last modified April 2, 2021.

<sup>8</sup> [RCW 82.80.070](#)(3)(a-d).

## Shoreline Transportation Element

Example jurisdictions with commercial parking taxes include the cities of Mukilteo, SeaTac, Seattle, and Tukwila. SeaTac levies the tax on a per transaction basis whereas the other three levy a percent of sales. Rates range from 8%-25%. The Washington State Department of Revenue (DOR) data suggest that sales for parking lots and related personal service industries run from \$0 to \$200,000<sup>9</sup>. Applying the low and high area example rates suggests that **a commercial parking tax would raise \$0 to \$40,000 annually.**

**Red Light and School Speed Zone Enforcement Cameras** create infractions for failing to stop at red lights or for speeding by photographing cars in individual intersections. The Washington State Supreme Court is responsible for setting traffic infraction penalties 46.63.110(1)), which currently lists a \$48 fine for failure to stop. Jurisdictions can increase the fee, up to \$250 per infraction. Based on infraction rates and the percentage of people that pay their penalties, the City of Shoreline could generate **approximately \$150,000 in annual revenue per camera.** Revenues need to be balanced against the cost of buying, installing, and maintaining the units.

**Business License Fees** are charged to businesses operating within the City's bounds. As a code city, Shoreline's ability to levy business licenses is controlled by RCW 35A.82.020. Currently, the City collects \$40 per year for businesses earning \$2,000 or more in revenues annually. Since 2017, the City also collects business and occupation (B&O) tax for those businesses with gross receipts of \$500,000 or more annually.

The City could move to levying business license fees on a sliding scale dependent on gross receipts or employment (head tax). As business generates economic activity for the City, there is a trade-off between encouraging increased business activity in a city and charging businesses for the ability to conduct business within a jurisdiction's borders; as MRSC suggests, "fees charged should be fair and bear a reasonable relation to the costs." Increased revenues could be earmarked for transportation purposes, although these fees are not restricted in use and could always be reappropriated by Council action or financial policy.

In addition to transportation specific revenue options, the City has other revenue and financing options that can be used for transportation. Some of these options create additional revenues for the City but others are revenue neutral, suggesting a reduction of spending in other places.

**Limited Tax General Obligation (LTGO) Bonds and Unlimited Tax General Obligation (UTGO) Bonds** are financing tools cities can levy. Debt bears additional costs through interest, and any use of bonding capacity for transportation projects reduces the remaining bonding capacity available for other city projects. LTGO bonds will impact the General Fund, while UTGO bonds will have an additional tax burden.

Cities, TBDs, and LIDs may issue general obligation bonds, by special election or council decision, to finance projects of general benefit to the jurisdiction. In addition to the principal and interest costs of issuing debt, there are usually costs associated with issuing bonds, including administrative time, legal and underwriting costs, and insurance costs. The Washington State Constitution limits the

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<sup>9</sup> The Washington State Department of Revenue provides total taxable retail sales by North American Industry Classification System codes. However, data are suppressed when the number of businesses is low enough to provide identifiable data (typically less than 4 businesses). For Parking Lots and Garages (NAICS 812930) the data are suppressed, but by moving up a level of specification to NAICS cluster 8129 and running reports for the other six-digit industry groupings, data suggest that sales run from \$0 to \$200,000.



## Shoreline Transportation Element

amount of debt municipalities can incur to 5.0% of the City's assessed value of taxable properties; the Washington State Legislature has statutorily limited the debt carrying capacity further to 2.5% of the assessed value. Taking on additional bond debt will affect cities' credit rating, so best practices suggest using less than two-thirds of the debt capacity to maintain credit rating.

LTGO bonds can be used for any purpose, but funding for debt service must be made available from existing revenue sources. UTGO bonds can be used only for capital purposes, and replacement of equipment is not permitted.

Redirecting unrestricted funds currently used for other purposes (e.g., using REET 1 – a 0.25% real estate excise tax a city can impose - for transportation purposes) could provide around **\$30 million (2021\$)** from 2023-2044.

In addition to the above funding options, it is important to note that the City of Shoreline is an active regional partner that routinely secures grant funding for projects (approximately \$2 million per year). Regional partnerships and attracting outside funding through federal, state, and regional grants should continue to be a funding source that supports implementation of Shoreline's multimodal transportation system.



### Implementation

The Transportation Element will guide local and regional transportation investments and define the City's future transportation policies, programs, and projects for the next 20 years. The Transportation Element helps the City assess the relative importance of transportation projects and programs; as Shoreline growth takes place and the need for improved and new facilities is warranted, scheduling the planning, engineering, and construction of projects becomes key. The Transportation Element establishes a methodology for prioritizing projects to be included in the future Transportation Improvement Plan (TIP) and Capital Improvement Plan (CIP).

Since the City operates within a finite set of resources, it is important to develop a transparent, equitable, and data-driven process for prioritizing implementation of the transportation projects over the next 20 years. Building on the project evaluation criteria, the City developed the project prioritization metrics and performance measures presented in **Table 14** to understand and communicate the City's progress toward implementing priority projects, as well as overall progress in achieving the City's transportation Vision and Goals.



Following these criteria over time will ensure that Shoreline's transportation system realizes the vision that is outlined in the Transportation Element.

Table 14: Project Prioritization Metrics and Performance Measures



Goal	Project Prioritization Metrics	Performance Measures <i>Reported every two years unless otherwise noted</i>
<p><b>Safety</b></p> 	<p><b>Safety Metrics</b></p>	<p><b>Safety Performance Measures</b></p>
	<p>Location of improvement has a <b>collision history</b> (auto and/or pedestrian/bike):</p>	<p>Report number of <b>injury and fatal collisions</b> citywide through the <b>Annual Traffic Report</b>.</p>
	<p>At least <b>one injury collision</b> within the past</p>	
	<p>At least <b>one pedestrian or bike/auto</b></p>	
	<p><b>Two</b> or more <b>pedestrian or bike/auto</b></p>	
	<p>Location of improvement is along a street with <b>speed limit:</b></p>	
	<p>≤ 25 mph</p>	
	<p>≤ 30 mph</p>	
	<p>≤ 35 mph</p>	
	<p>Location of improvement has a <b>street</b></p>	
	<p>Collector Arterial</p>	
	<p>Minor Arterial</p>	
<p>Principal Arterial</p>		
<p><b>Equity</b></p> 	<p><b>Equity Metrics</b></p> <p><b>Equity Priority Areas based on the aggregated score of the following metrics:</b></p>	<p><b>Equity Performance Measures</b></p>
	<p>Improvement is within an area of concentrated need based on <b>Age:</b></p> <p>Under 18 years 60 years or older<sup>10</sup></p>	<p>Report number of newly constructed or renovated <b>multimodal projects</b> in <b>Equity Priority Areas</b> and number of <b>public engagement activities</b> for each of the projects.</p>
	<p>Improvement is within an area of concentrated need based on <b>income</b></p>	
	<p>Improvement serves a concentrated <b>community of color</b></p>	
<p>Top 20% of population density of households of people of color.</p>		

<sup>10</sup> Eligibility for the Older Americans Act starts at age 60.

<sup>11</sup> Eligibility threshold for King County Housing Authority residents is 80% of median income. U.S. Department of Housing and Urban Development (HUD) defines 50%-80% of median income as “Low Income”.

Goal	Project Prioritization Metrics	Performance Measures <i>Reported every two years unless otherwise noted</i>
	<i>Improvement serves a concentrated community with <b>disabilities</b></i>	
	<i>Improvement serves a concentrated community of <b>limited English speakers</b></i>	
<b>Multimodality</b>  	<b>Climate Resiliency<sup>12</sup> - Multimodality Metrics</b>	<b>CR-Multimodality Performance Measures</b>
	<i>Improvement is located along an <b>existing or proposed transit route</b>.</i>	<i>Report number of newly constructed <b>multimodal projects</b> along an <b>existing or proposed transit route</b>.</i>
	<i>Improvement is located within a <b>¼ mile radius</b> of a <b>bus stop</b>.</i>	<i>Report number of newly constructed <b>multimodal projects</b> within a <b>¼ mile radius</b> of a <b>bus stop</b>.</i>
	<i>Improvement is located within a <b>½ mile radius</b> of an <b>existing or planned BRT stop or light rail station</b>.</i>	<i>Report number of newly constructed <b>multimodal projects</b> within a <b>½ mile radius</b> of an <b>existing or planned BRT stop or light rail station</b>.</i>
	<i>Improvement connects to an existing or proposed location of a <b>shared-use mobility hub</b> or <b>park and ride</b>.</i>	<i>Report number of newly constructed <b>multimodal connections</b> to an existing or proposed location of a <b>shared-use mobility hub</b> or <b>park and ride</b>.</i>
<b>Connectivity</b>  	<b>Climate Resiliency - Connectivity Metrics</b>	<b>Climate Resiliency - Connectivity Performance Measures</b>
	<i>Improvement is located within a <b>¼ mile radius</b> of a <b>school</b>.</i>	<i>Report number of newly constructed <b>pedestrian and/or bicycle projects</b> within a <b>¼ mile radius</b> of a <b>school</b>.</i>
	<i>Improvement is located within a <b>¼ mile radius</b> of a <b>park</b>.</i>	<i>Report number of newly constructed <b>pedestrian and/or bicycle projects</b> within a <b>¼ mile radius</b> of a <b>park</b>.</i>
	<i>Closes gap or extends an <b>existing pedestrian or bicycle facility</b>.</i>	<i>Report number of newly constructed <b>pedestrian and/or bicycle projects</b> that <b>close a gap or extend an existing pedestrian and/or bicycle facility</b>.</i>

<sup>12</sup> Climate Resiliency prefix appears in several categories to show interrelated climate resiliency metrics without double counting points.

Goal	Project Prioritization Metrics	Performance Measures <i>Reported every two years unless otherwise noted</i>
<p><b>Climate Resiliency</b></p> 	<p><b>Climate Resiliency – Built Environment Metrics</b></p>	<p><b>Climate Resiliency – Built Environment Performance Measures</b></p>
	<p>Improvement is within a <b>Surface Water Vulnerabilities</b> area per the City’s Climate Impacts Tool and will include measures to reduce surface water runoff.</p>	<p>Report number of newly constructed <b>multimodal projects</b> in <b>Surface Water Vulnerabilities</b> areas and number of measures used to <b>reduce surface water runoff</b> for each project.</p>
	<p>Improvement is within an <b>Urban Heat Island</b> area per the City’s Climate Impacts Tool and will include measures to mitigate urban heat island effect.</p>	<p>Report number of newly constructed <b>multimodal projects</b> in <b>Urban Heat Island</b> areas and number of measures used to <b>mitigate urban heat island effect</b> for each project.</p>
	<p>Refer to <b>Multimodality</b> and <b>Connectivity</b> for metrics for reducing transportation-related greenhouse gas (GHG) emissions by encouraging taking other travel modes than driving.</p>	<p>Report <b>Shoreline Vehicle Miles Traveled (VMT)</b> per capita and its resulting <b>GHG emissions</b>.</p> <p>Report number of <b>trees removed</b> and <b>trees planted</b> for all newly constructed <b>multimodal projects</b> and its projected net amount of <b>CO2 sequestered</b> over 20 years.</p>
<p><b>Community Vibrancy</b></p> 	<p><b>Community Vibrancy Metrics</b></p>	<p><b>Community Vibrancy Performance Measures</b></p>
	<p>Improvement enhances <b>multimodal access to an activity center</b> (within a ¼ mile radius of a retail/business area or civic/community building).</p>	<p>Report number of newly constructed <b>multimodal projects</b> within a ¼ mile radius of an <b>activity center</b>.</p>
	<p>Improvement provides an <b>alternative to walking or bicycling along a motorized facility</b> e.g., ped/bike bridge, trail/path through park or unopened right of way, etc.</p>	<p>Report number of newly constructed or renovated <b>ped/bike bridges, trails, and paths</b>.</p>
<p>Improvement provides <b>places for public art, culture, and/or community gathering</b> e.g., locations of shared-use mobility hubs, trailheads, gateways, park frontages.</p>	<p>Report number of newly constructed or renovated <b>places for public art, culture, and/or community gathering</b>.</p>	